

Slum Free City Plan of Action (SFCCPoA)-Baruipur Municipality

March, 2014

Baruipur Municipality
South 24 Parganas
West Bengal

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Introductory Note by Chairperson

Baruipur is a small but an important urban centre in the outer fringe of the Kolkata Metropolitan Development Authority. Baruipur possesses great historical importance that was discovered time to time by the researchers. Remnants of the history can still be seen all over the place in a dilapidated condition. It is one of the oldest Municipalities in the district and is 143 years old now.



Baruipur Municipality with the active cooperation of citizen for last so many years has grown up as capable and robust institute for effective service delivery and better governance. During these years the shape and the socio- cultural atmosphere of the Municipality has changed to unimaginable extent. And gradually it too has imbibed the spirit of contemporary civilization of 21st century and got acquainted with the sphere of Modernization, Industrialization and Globalization.

Today Baruipur is in the process of preparing the Slum Free City Plan of Action (SFCPoA). In the last 5 years, with the help of the people, we have tried to address the problems of urban poor & slums keeping the aspirations of people and development objectives and targets in mind. At some point we have been successful in realizing the dreams of the people while in others we were not. Preparation of **Slum Free City Plan of Action** along with, its implementation and monitoring opened a new challenge to us – the challenge of providing all basic services to all poor people and ensuring equitable socio-economic development of the people of Baruipur.

Development is not a one point agenda. With the complex social, political and economic situation it is indeed a daunting task. However we believe that we are progressing in the right direction with the support of Government of West Bengal and Ministry of Housing and Urban Poverty Alleviation, Government of India we will be able to achieve the desired objectives.

It's an honour and privilege to present before the people of Baruipur, the 1st Slum Free City Plan of Action which offers to provide development of all slums and ensure that new slums do not come up and thereby developing Baruipur into a vibrant economy. Learning from the past we look forward towards achieving long term benefits, perspectives and convergences rather than short term goals. The Slum Free City Plan of Action has been prepared and we look forward for a great future.

**Chairman
Baruipur Municipality**

Planning Team

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- II. Shri. Pinaki Sarkar, Executive Officer, Baruipur Municipality
- III. Shri. Maitraya Mutsuddi, Finance Officer, Baruipur Municipality
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- VII. Shri. Shibendu Marik, Accounts & Finance Coordinator
- VIII. Shri. Arunava Guha, I.T Coordinator, Baruipur Municipality

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Abbreviations

BPL:	Below Poverty Line
CBO:	Community Based Organization
CCA:	Constitutional Amendment Act
CDP:	City Development Plan
CIP:	City Investment Plan
DGPS:	Differential Global Positioning System
DPR:	Detailed Project Report
EWS:	Economically Weaker Section
FAR:	Floor Area Ratio
FGD:	Focused Group Discussion
FOP:	Financial Operating System
GDP:	Gross Domestic Product
GIS:	Geographical Information System
GOI:	Government of India
GOWB:	Government of West Bengal
GPS:	Global Positioning System
Ha:	Hectare
HH:	Household
HIG:	High Income Group
IHSDP:	Integrated Housing and Slum Development Program
JNNURM:	Jawaharlal Nehru National Urban Renewal Mission
LIG:	Low Income Group
LPCD:	Litters per capita per day
MIC:	Mayor in Council
MIG:	Middle Income Group
MIS:	Management Information System.
MLD:	Million Litres per Day
MoHUPA:	Ministry of Housing and Urban Poverty Alleviation.
MoUD:	Ministry of Urban Development
NGO:	Non-Government Organization
NSDP:	National Slum Development Program
NSS:	National Sample Survey
OBC:	Other Backward Class
PHED:	Public Health and Engineering Department
PPP:	Public Private Partnership
PSP:	Public Stand Post
PUF:	Private Utilities and Facilities
RAY:	Rajiv Awas Yojana
RCC:	Reinforced Cement Concrete
SC:	Scheduled Caste
Sq km:	Square Kilo Metre
ST:	Scheduled Tribe
STP:	Sewage Treatment Plant
SWM:	Solid Waste Management
TCP:	Town and County Planning
TDP:	Tone per Day
UDPFI:	Urban Development Plans Formulation and Implementation
ULB:	Urban Local Body

Working Definitions

“**Below Poverty Line (BPL)**” is an economic benchmark and poverty threshold used by the Government of India as well as the State Government to indicate economic disadvantage and to identify individuals and households in need of government assistance and aid.

“**Basic Civic Services**” means services of drinking water supply and sanitation, drainage, sewerage, solid waste disposal, roads and street lighting.

“**Building**” – means a structure constructed for whatsoever purpose or of whatsoever materials, and includes the foundation, plinth, wall, floor, roof, chimney, fixed platforms, verandah, balcony, cornice or projection or part of a building or anything affixed thereto or any wall (other than boundary wall of less than three meters in height) enclosing or intended to enclose any land, sign or outdoor display structure, but does not include a tent, samiana or tarapaulin structure,

“**Carpet Area**” – The covered area of the usable rooms/dwelling units at any floor level (excluding the area of the wall)

“**Central Government Land**” means land owned by the Central Government or its undertakings.

“**Congestion factor**” – percentage of households in which at least one couple is not having a separate room to live in. this includes the households in which couples are sharing the room with 10+age member of the household

“**Development / Redevelopment**” - with its grammatical variations and cognate expressions, means the carrying out of any building, engineering or other operations in, on, over or under land or the making of any material change in any building or land and includes layout and sub-division of any land.

“**Disputed Land**” – means land under Legal disputes.

“**Dwelling Unit/Tenement**” – *An Independent housing unit with separate facilities for living, cooking and sanitary requirements*

“**Economically Weaker Section (EWS)**” – means such class of persons as having an annual household income below a level as may be notified by the appropriate Government from time to time for the purpose of providing housing. Currently (2013) it is up to Rs one lakh per annum as notified by Government of India. Currently, GoWB prescribes monthly family income upto Rs 6,000 for EWS category.

“**Floor**” – means the lower surface in a storey on which one normally walks in a building.

“**Floor Area Ratio**” or “**F.A.R**” (being the abbreviation of the whole words “Floor Area Ratio”) means the quotient obtained by dividing the total floor area of all the floors of a building by the area of the plot, the formulae being as follows:

$$\text{F.A.R.} = \frac{\text{Total floor area of all floors}}{\text{Area of the plot}}$$

“**State Government Land**” – means any land owned or acquired by the State Government/State Government Undertaking situated in a district or an urban area as the case may be.

“**Group Housing**” – Housing for more than one dwelling unit, where land is shared jointly (as in the case of co- operative societies or the public agencies, such as local authorities or housing boards, etc.) and the construction is undertaken by one Agency.

“**In-situ Slum Re-development**” – means the process of redeveloping slum areas by providing proper access, construction of new dwelling units, open spaces and basic civic and other infrastructure services to the slum dwellers, on the existing land on which the slum is based.

“**In situ Slum Up-gradation**” – means the process of improving the quality or expanding of dwelling spaces occupied by slum dwellers with provision of basic civic and other infrastructure services and includes landscaping

“**Incremental Housing**” – Incremental Housing means housing designed in such a manner that individual dwelling units can be easily expanded in terms of additional rooms or enlargement of existing rooms by the owners /occupants of such dwelling units without requiring reconstruction of the whole blocks of buildings.

“Katcha Structure”: The structure whose wall and roof, both, are made of non pucca material.

“Land” means land of every description and includes tank, tank-fishery, fishery, homestead, or land used for the purpose of live-stock breeding, poultry farming, dairy or land comprised in tea garden, mill, factory, workshop, orchard, hat, bazar, ferries, tolls or land having any other sairati interests and any land together with all interests, and benefits arising out of land and things attached to the earth or permanently fastened to anything attached to earth.

“Low Income Group (LIG)”– means such class of persons as having an annual household income within a range as may be notified by the appropriate Government from time to time for the purpose of providing housing. Currently (2013) it is between Rs 1,00,001 and Rs 2,00,000. Currently, GoWB prescribes monthly family income from 6,000 to Rs 10,000 for LIG category.

“Obsolescence Factor”- Percentage of households living in the dwelling units having age 40-80 years and are in bad condition and percentage of households living in all structures aged 80+ years, irrespective of condition of structure, taken together is taken as obsolescence factor.

“Planning Area” means any area declared to be a regional planning area, local planning area or a site for a new town under the relevant Act.

“Population Density” – is a measurement of population per unit area. Population density is population of a given area divided by total land area

“Private Land” – means land owned by a private person or entity which is not Central or State Government Land.

“Property Rights”– means the entitlement to a dwelling space i.e. either land or dwelling house as the case may be, to be allotted at an affordable cost as determined by the appropriate authority.

“Public land” – means land owned by State Government, Central Government land, Local bodies or by other public sector undertakings.

“Pucca”- means any structure constructed mainly of brick, stone or concrete or any combination of these materials, or any combination of these materials, or any other material of a durable nature.

“Rental Housing” – means the tenants use and occupy the property for a period of time through an agreement between the landlord and the tenant in which the landlord may/may not receive payment from the tenant for use of the property.

“Residential Density” – The residential density expressed in terms of the number of dwelling units per hectare.

Note- Where such densities are expressed exclusive of community facilities and provision of open spaces and major roads (excluding incidental open spaces); these will be net residential densities. Where these densities are expressed taking into consideration the required open space provision and community facilities and major roads, these would be gross residential densities at neighbourhood level, sector level or town level, as the case may be. The provision of open spaces and community facilities will depend on the size of the residential community.

Incidental open spaces are mainly open spaces required to be left around and in between two buildings to provide lighting and ventilation.

“Security of Tenure” – Secure Tenure is a form of permission, with legal enforceability given to individuals and groups, to effective protection by the State against unlawful evictions.

“Semi-Pucca”: A structure which could not be classified as a pucca or a katcha structure as per definition is semi- pucca. Such structure had either the wall or the roof, but not both, made of pucca material.

“Serviceable Katcha”: A katcha structure other than the unserviceable katcha is serviceable katcha.

“Slum” or “Slum Area”– is a compact settlement of at least 20 households with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions.

“Slum Dweller” – means any person residing within the limits of a slum area.

“Squatter Settlements” – is considered as a residential area in an urban locality inhabited by the poor who have no access to tenured land of their own, and hence "squat" on vacant land, either private or public.

“Tenable Settlements” – means all slums which do not fall within the definition of Untenable Settlements.

“Tenure” – the mode by which land/property is held or owned, or the set of relationships among people concerning land/property or its product.

“Unauthorized Housing” – Means housing units constructed on land to which the occupants have no legal claim, or which they occupy illegally or unplanned settlements and areas where housing is not in compliance with current planning and building regulations (United Nations 1996).

“Unserviceable Katcha”: Unserviceable katcha structure is the structure with thatched walls and thatched roof.

“Untenable settlements” – 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.

SFCPOA –Executive Summary

Introduction

Kolkata Metropolitan Area (KMA) is one of the most populated urban agglomeration in India and has a total population of 14.11 million (2011 Census) distributed over an area of 1851 sq km accounting for 15% of the total State's total population and 49% of the State's urban population.

Baruipur is a sub-divisional town of South 24-Parganas district of West Bengal and is located at the extreme southern side of Kolkata Metropolitan Area (KMA) and is located about 27 Km South of Kolkata and is linked with Kolkata and other parts of South Bengal region by Road and Rail network.

Baruipur is one of the most important upcoming towns in KMA as it is considered to be the southern entry point to the KMA and is overseeing rapid development and influx of persons due to near saturation of KMA area. A number of migrant workers who are coming to KMA in search of a livelihood are making Baruipur as their home due to availability and affordability of space in Baruipur.

Government of West Bengal realising the growing importance of town, increasing pressure on the ULB to provide basic services to all and prevent creation of any further slums has selected Baruipur as one of the first town for preparation of SFCPOA under Rajiv Awas Yojana.

City Profile

The projected population of Baruipur as on 2013 is expected to be about 55, 628 with a decadal growth rate of around 19.2% , which is higher than decadal growth rate of West Bengal (13.8%) and South 24 Parganas (18.2%) during 2001-2011 period. Baruipur municipality is divided into 17 wards and has 64 slums. Total geographical area of the municipality is 5.67 sq. km¹ which is less than 1% of the total geographical area of the South 24 Parganas.

As Kolkata city is located towards the northern part of the municipality, growth of the town is quite noticeable towards the North in particular. On the contrary, growth is relatively lopsided in the southern part of the municipality.

Baruipur Municipality

Baruipur municipality has different departments, each catering to specific municipal services and all the departmental heads report to executive officer of the municipality. Baruipur municipality has adequate community level institutional structure with Urban Poverty Eradication (UPE) cell as a focal point for carrying out all the poverty eradication programmes and schemes. In addition there are two CDS with 17 NHCs and 104 NHGs members.

A number of livelihood development projects have been undertaken in Baruipur municipality leveraging State and Central sponsored schemes like Swarna Jayanti Shahari Rozgar Yojana (SJSRY), Bangla Swanirbhar Karmasansthan Prakalpa (BSKP), and PMRY (Pradhan Mantri Rojgar Yojana) for the purpose of uplifting economically weaker section mostly residing in slum areas of the municipality. In the areas of slum improvement, several initiatives and infrastructural development

¹ As per Census records, DDP and other reports available in public domain, area of the municipality is given as 9.07 Sq. km. However, after having completed GIS slum boundary validation and municipality boundary demarcation, area of the municipality has been estimated at around 5.67 sq. km. Hence, in this report, total area has been considered as 5.67 sq. km which is our estimated, instead of 9.07 sq. km.

projects have been taken up in the last 5 years like KUSP, BSUP, SSHUP. Significant projects among them include:

S.no	Name of the Scheme	Number of Dwelling Units	Key Features
1.	BSUP Phase-I (2008 to 2012)	543	Inclusion of infrastructure facilities like road, drain and pipeline work
2.	BSUP Phase-II (2009-ongoing)	1103	Construction of CC road, shallow drain and water supply distribution line
3.	SSHUP (State Scheme for Housing of Urban Poor)	99	Renovation and repair of 99 houses under State Scheme

Baruipur Municipality is committed towards making Baruipur as slum free city and have accordingly prepared a comprehensive planning document with “Whole City” and “Whole Slum” approach.

Preparatory tasks for preparation of SFCPoA

The SFCPoA for Baruipur has been prepared in two parts Part-I (Curative Strategy) for the development of existing slums and Part-II (Preventive Strategy) for the prevention of future slums.

The process adopted for the preparatory tasks for the curative strategy of SFCPoA can be summarised as follows:

- **Slum Boundary demarcation:** Slum boundary was demarcated with the help of GPS survey and active involvement of slum residents, municipal officers and councillors.
- **Socio-economic survey:** Baruipur municipality had carried out a detailed socio-economic survey in the year 2011 using the NBO format. For the purpose of preparation of SFCPOA, socio-economic findings were validated with the community. Rough maps were prepared for each slum and focussed group discussions were conducted with the slum dwellers to validate the findings. Detailed socio-economic survey was conducted for all the additional households identified during the validation process. In addition, as part of validation exercise signatures were obtained from slum dwellers on rough map.
- **Integration of GIS and MIS data:** Slum socio-economic survey was integrated with slum and city level base maps on GIS platform. All the data from the survey was entered into a MIS format with three digit slum code similar to GIS data. With the help of slum code the data base has been integrated with the slum boundary polygon and finally the MIS data was integrated with GIS data base at slum level.
- **Preparation of GIS base Map:** Geo-referenced city base map was prepared using high resolution images taken from World View Satellite Data II, followed by crosschecking of the base map with the existing GIS data, hard copy map and findings from GPS survey. The base map contained all administrative boundaries and physical features such as municipal

boundary, ward boundary, slum boundary/area, open space/vacant land/Low land, communication network (road, rail etc.), natural drainage (nala/canal/water bodies/river), reservoir, overhead tank, water pipe line, wells and hand pumps as main layer.

Tenability Analysis

Tenability analysis of the slums was carried out on the basis of proposed land use, physical location and proness of slums to flooding

- **Proposed land use:** Baruipur municipality has a Land Use and Development Control Plan (LUDCP) which prescribes the mixed land use characteristics for all the four identified development control zones. Looking into the mixed land use, location of the slums in Baruipur is in conformity with the proposed land use.
- **Physical Location of Slums:** In Baruipur Municipality, all 64 slums are categorised as being located in “Other/non-hazardous zone”. These 64 slums include
 - **Slums close to Transport alignment:** Twenty Two slums are close to district road which does not have very heavy vehicular traffic. Discussions with stakeholders and slum dwellers revealed that as these slums have low density and are on private land, the slum households which are close to the transport alignment can be reconfigured through partial layout
 - **Slums close to Nallah:** Seven slums are located close to nallah. These slums have low density and discussions with stakeholders and slum dwellers revealed that the households close to nallah will be reconfigured through partial layout to shift them away from the nallah.
 - **Slums close to Railway line:** Thirteen (13) slums are located close to railway line. Certain pockets of two of the slums (Sajahan Road-SC 005 and Station Feeder Road-SC 064) are untenable due to their proximity to railway tracks. These pockets shall be earmarked for adjustment to the tenable area within the same slum as densities are very low and the households within these untenable pockets will be absorbed in the remaining slum area.
- **Flooding:** Four slums out of 64 slums are prone to flood for more than 15 days and can be made tenable through sustainable engineering solutions like proper drainage system.

Accordingly, all the 64 slums of the Baruipur were considered to be tenable.

Prioritisation of slums

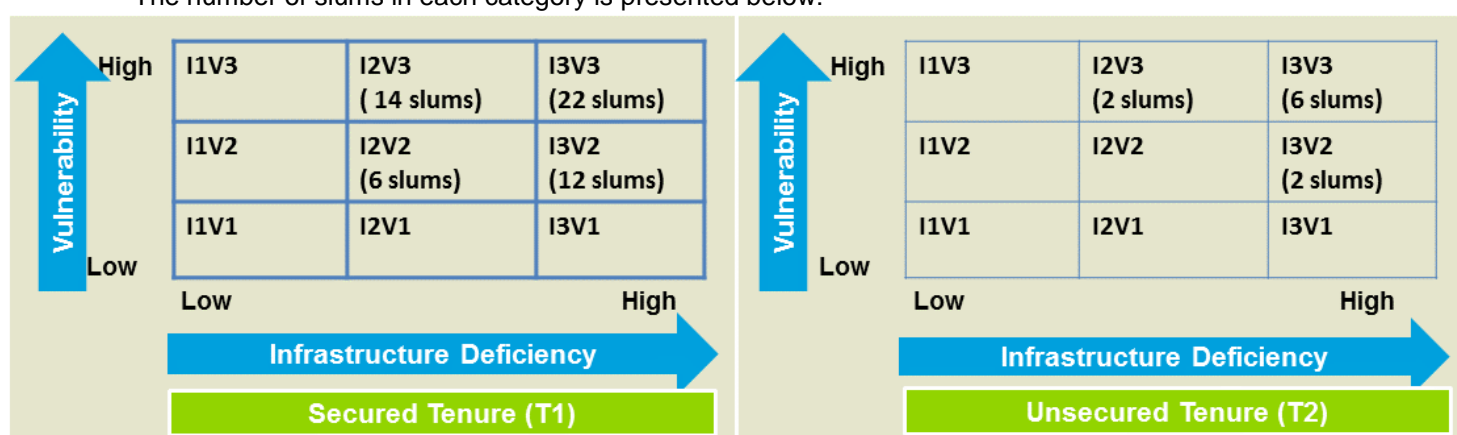
Prioritisation of slums is carried out on the basis of following parameters.

- Infrastructure Deficiency
 - Percentage of Households without Individual tap connection
 - Percentage of Households without access to individual latrine
 - Whether the slum is connected, not connected or partially connected to city wide storm water drainage system
 - Percentage of Households with Non Motorable Katcha and Non Motorable Pucca Roads
- Vulnerability (including housing)

- Percentage of Households with Katcha and Semi Pucca Houses
- Percentage of HH having income of less than Rs.3000/- per month
- Percentage of SC , ST and OBC in slum
- Percentage of Minority Population in a slum
- Securities of Tenure i.e. whether majority of the slum dwellers have secured land tenure or not.

Each of the above indicators was given a score on the basis of the percentage value to arrive at a total score for each of the three parameter. Each of the parameter was then graded to give the slum a status code of 1, 2 or 3 for the Infrastructure deficiency and vulnerability and 1 or 2 for the security of tenure. Based on the status codes the slum was placed on a 3X3X2 matrix.

The number of slums in each category is presented below:-



I3V3 denotes that a particular slums is most vulnerable both in Infrastructure deficiency and vulnerability.

Slum development options for different categories of slums

On the basis of the slum prioritisation exercise, the following slum development strategies were developed:

- **In-situ slum up-gradation:** More emphasis is on housing up gradation and provision of basic services: i.e., water and sanitation, drainage, roads, street lighting, footpaths, and community facilities. This model involves re- adjustment of existing units to ensure optimum use of land and releasing surplus land for common facilities as part of the densification process of the slums.
- **In-situ slum redevelopment:** This involves relocating of few slum dwellers in the same location but in different housing units. It will involve the demolition of slum dwellers homes in untenable pockets.

Taking into consideration the strategies as mentioned above, the following development options have been identified for all the 64 slums.

S. No	Parameters	Development Options	Model Name	Number of slums
1.	Sound and Medium Infrastructure with Good Housing²	In-situ upgradation with provision of deficit infrastructure and housing	ISU-1	20
2.	Sound and Medium Infrastructure with Poor Housing	In-situ upgradation with more focus on Housing	ISU-2	2
3.	Vulnerable Infrastructure with Good Housing	In-situ upgradation with more focus on Infrastructure	ISU-3	34
4.	Vulnerable Infrastructure with Poor Housing	Slum redevelopment with focus on both housing and Infrastructure	IRD-1	8

Assessment of Existing and likely Future Housing Shortage

The housing shortage is assessed by adopting two pronged approach. They are:

- **Curative Strategy:** Housing shortage or deficiency for the existing slums is 3,555 units
- **Preventive Strategy:** Future housing shortage computed on the basis of population projections till year 2025 is estimated to be about 842 units.

The above housing shortage shall be met through Public Private Partnership and actively pursuing with public housing agencies including West Bengal Housing Board (WBHB), Kolkata Metropolitan Development Authority (KMDA) and West Bengal Housing Infrastructure Development Corporation (WBHIDCO).

Future supply options and Policy reforms

With an objective to increase housing supply for EWS/LIG, number of policy reforms / directives has been issued by the Central Government primarily under the flagship JNNURM programme. In addition, RAY has highlighted number of mandatory and optional policy reforms to ensure creation and supply of adequate affordable housing stock. Government of West Bengal and Baruipur Municipality has already made significant progress in achieving reform milestones. Summary of the progress for all the ULB level reforms is provided in the table below:

² Slums in Baruipur have only medium and vulnerable infrastructure with no slum having sound infrastructure.

Reform	Action Taken by West Bengal	Implementation in Baruipur	Status in
Mandatory Reforms			
Commitment and willingness to assign mortgageable, and renewable long-term (15 years) inheritable lease rights to slum dwellers who have been a resident of the slum for more than 5 years.	Government of West Bengal is in a process to formulate a scheme so as to provide long term inheritable lease rights to urban poor.	Baruipur Municipality shall implement the provisions of scheme as soon as it is finalized by the State Government.	
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 the First Party.	Notification already issued in 2011 from the end of Urban Development Department, GoWB to provide mandatory provisions for Economically Weaker Sections and Lower Income Group families of urban poor residing in the planning area covered under the West Bengal Town & Country (Planning & Development) Act, 1979.	Baruipur Municipality is in agreement with the notification and shall earmark DUs/plot size for EWS/LIG category in all future housing projects likely to come up in municipal area.	
A non-lapsable earmarking of 25% of the budget of the Municipality to provide basic services to the urban poor.	Amendment made in West Bengal Municipalities Act, 1993 for creation of non-lapsable Basic Services for Urban Poor Fund with effect from 1 st march, 2012. and has been made mandatory for all ULBs. Detailed procedural guidelines have also been issued.	Baruipur has already earmarked close to 30% of municipal budget in the year 2012-13 on revenue as well as capital accounts for the poor	
Creating and establishing a municipal cadre for social/community development and urban poverty alleviation during the plan period.	The State Government has already notified specific staff norms for each ULB/ The executive office cadre is in place. The Finance officers are also from State Service Cadre.	Baruipur Municipality shall have the requisite municipal cadre as and when the creation of municipal cadre is sanctioned by the GoWB.	
Optional Reforms			

Reform	Action Taken by West Bengal	Implementation in Baruipur	Status in
Amendments of Master Plans to provide for inclusive growth through inclusionary zoning and other measures for inclusive development.	GoWB is planning to include the provisions related to inclusionary zones in the West Bengal Town and Country Planning Act, 1979.	Baruipur Municipality shall implement the provisions as and when the provisions are notified by the State Government	
Simplification of the processes and procedures of sanctioning building and building byelaws concerning development and housing projects to provide single window based quick approvals in order to reduce transactions costs.	Government of West Bengal has already made requisite amendments in the West Bengal Municipal (Building) Rules, 2007 Initiation of the implementation of integrated e-governance system	Baruipur Municipality has adhered to the time bound clearance mechanism Baruipur Municipality is in the process of implementing the integrated e-governance module	

Timeline for Achieving the Reforms

A roadmap for implementing the requisite policy measures to be taken up by the state Government shall be specified in the MoA, an indicative timeline is provided in the table below:

Period	Measures
Year 1 (From the time of Approval of SFCPoA)	<ul style="list-style-type: none"> • Long term inheritable lease rights • Formulation of Affordable Housing Policy • Preparation of a master plan with clearing provisioning of inclusive zoning • Setting up credit guarantee fund and registering all the banks/FIS with the fund • Networking with other banks/FIs for availing housing finance for urban poor • Recruitment of requisite municipal cadres to promote slum development and urban poverty alleviation programmes
Year 2	<ul style="list-style-type: none"> • Implementation of all the acts and policies formulated/enacted in the year 1 at ULB level • Roll out necessary capacity building/training programs to Government and ULB officials for sensitising about policy measures and provision of act formulated in Year 1

Financing and implementation strategy

The investment requirement for curative and preventive strategies is based on the following:

Curative Strategy

- **Cost for Construction and upgradation of existing housing:** Based on the MoHUPA guideline it is assumed that cost of a dwelling unit is Rs. three lakhs for a dwelling unit (DU) admeasuring 25 sq. m and applying this norm, construction and upgradation cost of 3555 houses (2700 semi-pucca and 855 Katcha Houses) has been estimated at Rs. 106.65 crores

- **Cost for Infrastructure development:** The total cost for the Infrastructure development by taking into consideration the current infrastructure in slums and required infrastructure for bringing slums at par with provision of urban services. Total cost for infrastructure (water supply, storm drainage, road, street lights) development has been estimated at Rs. 37.44 crores

Preventiv Strategy

- Cost for a dwelling unit is estimated to be Rs 4 lakhs. The total cost for the creation of 842 affordable housing stock is estimated at Rs 3,368 lakhs
- **Other Costs:** Other costs for the slums are taken as follows:
 - a. Operation and Maintenance cost is assumed to be 4% of the total cost
 - b. Administrative & Operating Expenses (A &OE) including DPR , IEC, capacity Building and PMC cost is assumed to be at 5% of the total cost

Total cost (In Rs. Lakhs) for the curative strategy of 64 slums and future housing stock is provided in the table below:

Strategy	Number of Units	Housing Cost:-(A)	O&M Cost @4% of (A):- (B)	DPR & PMC cost @ 5% of (A):- (C)	Total Housing Cost:- (D)=(A)+(B)+(C)	Physical and Social Infrastructure Cost:- (E)	O&M Cost @4% of (E):- (F)	DPR & PMC Costs @5% of (E):- (G)	Total Physical and Social Infrastructure Cost:- (H)=(E)+(F)+(G)	Total Cost:- (D)+(H)
Curative	3555	10665	427	533	11625	3744	150	187	4081	15706
Preventive	842	2526	101	126	2753	842	34	42	918	3671
Total	4397	13191	528	660	14378	4586	183	229	4998	19377

Sharing pattern for the above costs shall be as follows:

Sharing Pattern				
Component	Ministry of Housing and Urban Poverty Alleviation, Government of India	Government of West Bengal	Baruipur Municipality	Beneficiary
Housing (Curative Strategy –Existing Slums)	75%	20%	N.A	5%
Infrastructure (Curative Strategy –Existing Slums)	75%	20%	5%	N.A
Housing under RAY (Preventive)	Rs 75,000 per DU (in accordance with Affordable Housing in Partnership, Scheme Guidelines)	Concessions in accordance with the Affordable Housing Policy	Concessions in accordance with the Affordable Housing Policy	Sale price to be determined in accordance with AHP scheme guidelines.

The total investment under curative strategy required for housing and infrastructure shall be a total of Rs 15,706 lakhs, comprising of total housing cost of Rs 11,625 lakhs and Rs 4,081 lakhs as infrastructure cost. Ray guidelines prescribe that the infrastructure cost shall be maximum of Rs. one lakh per unit, i.e. a total of Rs 3,555 lakh.

The details are summarized in the table below:

Particulars	Total Base Cost:-(A)	O&M Cost :- (B)=4% of (A)	DPC & PMC Cost:-(C)=5% of (A)	Total Funding Requirement:-(D)=(A)+(B)+(C)
Figures (in Rs Lakh)				
Housing	10665	427	533	11625
Infrastructure Requirement	3744	150	187	4081
Infrastructure funding ceiling from MoHUPA	3555	142	178	3875
Additional Infrastructure to be met through other centrally sponsored schemes/state				206

The fund sharing for the above costs between MoHUPA, State Government, ULB and beneficiary shall be as follows:

Sharing Pattern (Figure in Rs Lakhs)					
	Ministry of Housing and Urban Poverty Alleviation, Government of India	Government of West Bengal	Baruipur Municipality	Beneficiary	Total
Housing	8719	2325		581	11625
Infrastructure	2906	775	194		3875
Additional Infrastructure to be met through other centrally sponsored schemes/state/ULB					206
Total	11625	3100	194	581	15706

Baruipur Municipality shall be able to generate funds through Public Private Partnership through redevelopment of slums wherever the land value is high. In addition, Baruipur Municipality shall also leverage the funds available through MP/MLA funds to contribute towards its own share.

The Ministry of Housing and Urban Poverty Alleviation (MH&UPA), Government of India has designed a Revised Interest Subsidy Scheme - renamed as Rajiv Rinn Yojana (or Rajiv Loan Scheme), as an additional instrument for addressing the housing needs of the EWS/LIG segments in urban areas. The Scheme envisages the provision of a fixed interest subsidy of 5% (500 basis points) on interest charged on the admissible loan amount to EWS and LIG segments to enable them to buy or construct a new house or for carrying out addition (of a room / kitchen / toilet / bathroom) to the existing building. It is expected that slum dwellers in Baruipur Municipality will be covered under this scheme and will be able to avail the benefits under Rajiv Rinn Yojana.

The curative strategy for Baruipur is expected to be spread over eight years from F.Y 2013-14 to F.Y 2020-21. Year Wise costing for housing and infrastructure is provided in the following table:-

Year	No of slums to be covered	Housing Cost (in Rs Lakh)	Infrastructure Cost (in Rs Lakh)	Total Cost (in Rs Lakh)
F.Y 13-14	6	954.84	278.12	1232.96
F.Y 14-15	7	1962	602.06	2564.06
F.Y 15-16	10	1546.71	634.84	2181.55
F.Y 16-17	8	1311.27	542.72	1853.99
F.Y 17-18	10	1906.41	562.27	2468.68
F.Y 18-19	5	1425.72	451.00	1876.72
F.Y 19-20	10	1422.45	508.84	1931.29
F.Y 20-21	8	1095.45	500.87	1596.32
Total	64	11624.85	4080.72	15705.57

Baruiपुर Municipality shall also leverage their prior experience of implementing large scale housing projects under BSUP scheme and shall play an active role in facilitating housing loan for the slum dwellers by organising help desks and entering into an active dialogue with banks to extend the housing loan. Two CDS at Baruiपुर Municipality shall play active role in identifying, motivating and organising beneficiaries to seek loans for building or buying houses. CDS members shall also assist the beneficiaries in understanding the financing options, modalities of obtaining the loan, procedures and paperwork of the bank, obtaining requisite certificates to get the loan and receipt of repayment.

In addition, Baruiपुर Municipality with assistance from the CDS shall

- Assist Financial Institutions/lenders in identifying beneficiaries and undertaking verification procedures
- Forward application of eligible beneficiaries to the financing institutions
- Monitor data at ULB level indicating the number of applications sponsored, applications sanctioned, loan disbursed and application rejected.
- Closely interact with lead district managers of lead banks and State Level Bankers' Committee to resolve any bottlenecks with sanction and disbursement of loans

SFCPOA Main Report

Section I : Background

1.1 SFCPoA Initiation

1.1.1 Rajiv Awas Yojana (RAY)

The Government of India's Rajiv Awas Yojana (RAY) is a reform driven scheme which builds on the foundation laid by JnNURM. The scheme acknowledges the presence of poor in cities, recognizes their contribution as essential to the city's functioning and aims to redress the fundamental reasons for inequity that ties them down to poverty. RAY envisages a "Slum-Free India" with inclusive and equitable cities in which every citizen has access to basic civic and social services and decent shelter.

RAY 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 focusing on:

- bringing all existing slums, notified or non-notified within the formal system and enabling them to avail same level of basic amenities as the rest of the town;
- 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 and employment.

RAY focuses on developing an integrated approach aimed at bringing within the formal system those who are forced to live in extra-formal spaces and in denial of right to services and amenities available to those with legal title to city spaces and at correcting the deficiencies of the formal system of urban development and town planning that have failed to create conditions of inclusiveness and equity. As a result, new urban families, whether by way of migration or natural growth of population, shall have recourse to housing with municipal services and are not forced to create encroachments and slums and live extra-legal lives in conditions of deprivation of rights and amenities.

1.1.2 Slum Free City Plan of Action under RAY

In order to achieve the above objectives, RAY prescribes preparation of a Slum Free City Plan of Action (SFCPoA) for all the cities during preparatory stage. As per RAY guidelines, the Plan of Action (PoA) for 'Slum-free City' would need to be categorised into two Parts

- **Part I- Curative Strategy:** Slum Redevelopment of all existing slums, notified or non-notified, on lands belonging to State/Central Government, Urban Local Bodies, public undertakings of State/Central Government, any other public agency and private land within the selected RAY cities
- **Part-II- Preventive Strategy:** Containment of Future Slums, delineating the development of affordable housing for the urban poor and revision to existing urban policy and programmes for prevention of slums.

Details with regard to each of the above parts are specified in the following table:

Table 1: SFCPoA Part and their Details

Component of the SFCPoA	Details
Part I Curative Strategy:	<ul style="list-style-type: none"> ▪ Preparing an updated list of Slums (notified, non-notified or newly identified) through consultative process ▪ Preparing geo referenced base map for the planning area ▪ Conducting socio-economic surveys ▪ Integration of spatial data and socio-economic data to create GIS enabled slum MIS ▪ Categorisation of slums based on tenability analysis ▪ Prioritisation of slums based on infrastructure deficiency, vulnerability and land tenure ▪ Formulation of slum development plan.
Part-II Preventive Strategy:	<ul style="list-style-type: none"> ▪ Assessment of housing supply trends for the urban poor ▪ Assessment of housing needs and demand - existing and future ▪ Formulation of housing supply strategy and framing policy reforms ▪ Timeline for achieving the reforms

1.1.3 Coverage of RAY in West Bengal

West Bengal has covered 50 cities during the initial stage which is likely to be scaled up subsequently to cover all the cities. Following 50 cities are covered under RAY in First Phase

- Kolkata urban agglomeration – 42 Towns
- Asansol urban agglomeration – 5 Towns
- Siliguri Municipal Corporation
- Jalpaiguri Municipality
- Murshidabad Municipality

Initially, Slum Free City Plan of Action (SFCPoA) for a total of 50 cities across West Bengal shall be prepared at the ULB level and Baruipur (one of the towns of Kolkata Urban Agglomeration area) has been identified as the first among these cities to come up with SFCPoA. Baruipur Municipality and Change Management Unit, Municipal Affairs Department, GoWB in active association with Project Management Unit created for providing technical and management support to GoWB for execution of RAY activities has prepared the SFCPoA for Baruipur city. Other SFCPoAs are also in advance stage of preparation and shall be submitted shortly to Ministry of Housing and Urban Poverty Alleviation (MoHUPA), Government of India (GoI).

1.2 SFCPoA Preparation Methodology

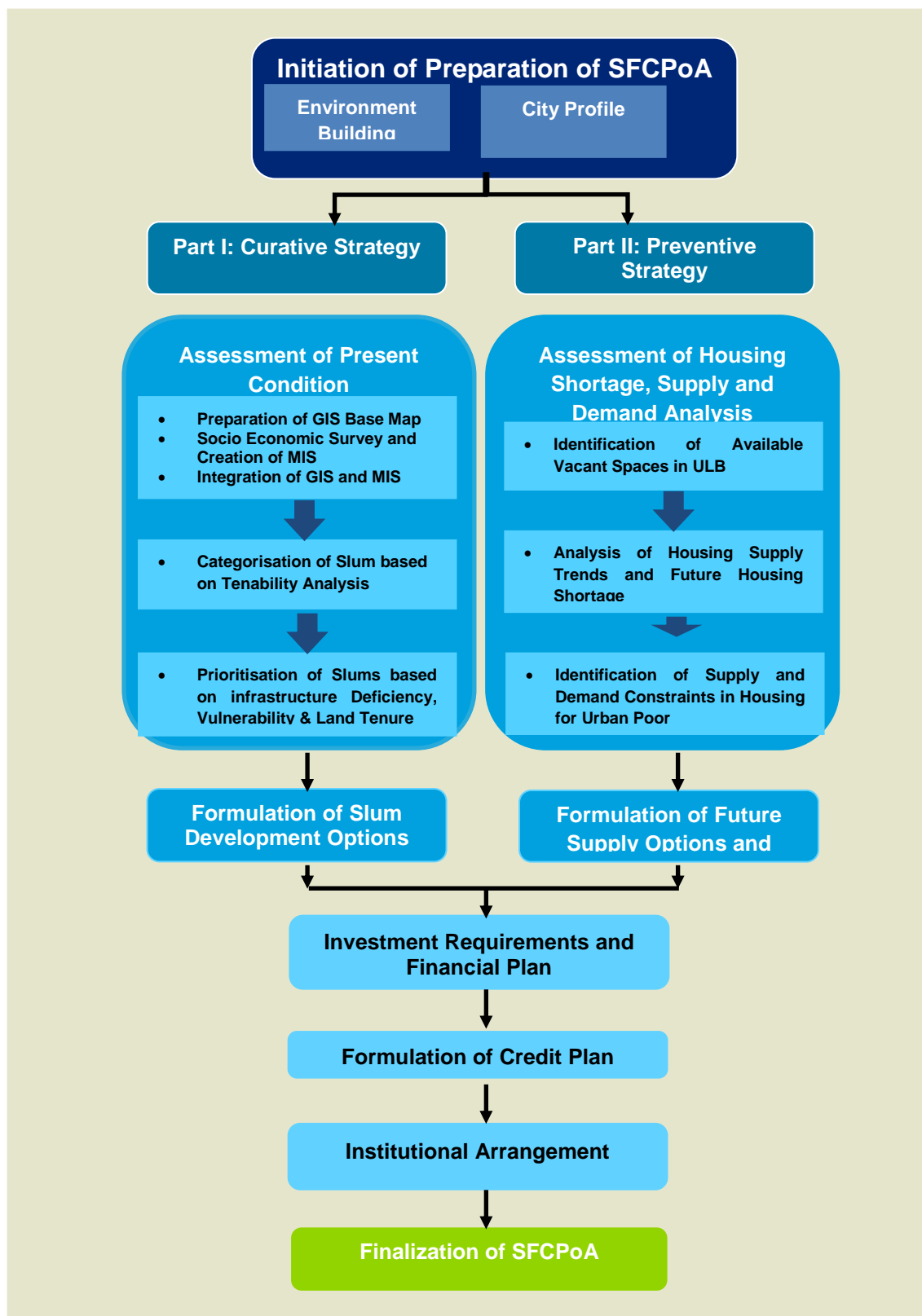
The SFCPoA for Baruipur has been prepared in accordance with the guidelines issued by Ministry of Housing and Urban Poverty Alleviation, Government of India. Overall approach adopted throughout the preparation of this SFCPoA has been based on four key principles,

- well rounded stakeholder consultations,

- continuous community involvement,
- providing innovative solutions and
- coordination & validation.

Methodology adopted for preparation of SFCPoA is demonstrated in the figure below:

Figure 1: Methodology for preparation of Slum Free City Plan of Action



The detailed methodology adopted for above steps has been mentioned in sections below:

A. Initiation of Preparation of SFCPoA

1.2.1 Stakeholders Consultations Workshops

RAY envisages continuous involvement of all stakeholders with specific reference to the community members for the preparation of SFCPoA. With an objective to develop a detailed understanding of the provisions and procedures of RAY as stipulated by Ministry of Housing and Urban Poverty Alleviation (MoHUPA), GoI a number of workshops and capacity building programmes were organised by the Change Management Unit (CMU), GoWB both at the state level as well as ULB level. Details of the workshop and capacity building programmes organised by CMU are provided in the table below (refer Annexure A-1 for photographs taken during workshop):

Table 2: List of Orientation and Capacity Building Workshops

S. No	Dates of the Workshop	Topics Covered	Participants
1.	October 11, 2012	<ul style="list-style-type: none"> Requirements under Rajiv Awas Yojana (Organised by Ministry of Housing and Urban Poverty Alleviation, Government of India) 	<ul style="list-style-type: none"> ULB Chairperson Nodal Officer
2.	February 5-7 & February 13-14, 2013	<ul style="list-style-type: none"> Overview of RAY and Preparation of SFCPoA under RAY MIS requirements under Rajiv Awas Yojana GIS requirements under RAY Community mobilisation requirements under RAY 	<ul style="list-style-type: none"> ULB Chairperson Urban Planners IT Coordinators Town Project Officer Sub-assistant Engineer Executive Officer
3.	April 8, 2013	Detailed RAY Orientation and preparation of SFCPoA under RAY in Baruipur Municipality	<ul style="list-style-type: none"> Board of Councillors ULB Officers

The above workshops helped in developing a detailed understanding of RAY and requirements for preparation of SFCPoA among all the stakeholders.

Once municipality officials and ward councillors of Baruipur Municipality developed an in-depth understanding of RAY and requirements for preparation of SFCPoA, a meeting was held with Chairperson and Board of Councillors of Baruipur Municipality to finalize the stakeholders for preparation of SFCPoA on 16th April, 2013. The various stakeholders identified included

- **Primary Stakeholders:** CDS, Slum dwellers, NGOs, self-help groups, and other community based organisations
- **Secondary Stakeholders:** Elected representatives including Chairperson, Board of Councillors, MLA, Financial Institutions, representatives from key Government Departments

including Municipal Affairs Department, Government of West Bengal, State Urban Development Agency

In addition, it was agreed that the ward councillors and members of the CDS and self-help groups will be closely involved in the process of slum boundary delineation and validation of MIS data including preparation of rough maps and focused group discussions with the members of community.

Accordingly, a stakeholder workshop was organised on April 29, 2013 involving participation of all the stakeholders as mentioned above. Key expectations and concerns of the stakeholders regarding this engagement were also ascertained through an interactive session. The various topics that were discussed during the stakeholder meeting included:-

- Objectives of Rajiv Awas Yojana
- Stages in Rajiv Awas Yojana
- SFCPoA preparation process
- Role of Community and other stakeholders in preparation of SFCPoA
- City Profile of Baruipur and current situation of Slums
- Administrative and implementation Structure

Following figure shows some photographs taken during stakeholder workshop

Figure 2: Stakeholder Workshop at Baruipur

	
<p>Chairperson Baruipur informing participants about the RAY</p>	<p>Board of Councillors during Stakeholder Workshop</p>
	
<p>Community Members during Stakeholder Workshop</p>	<p>Vice-Chairperson responding to queries from Community Members on RAY</p>



GIS Expert detailing the city profile and role of GIS in preparation of SFCPoA



MIS Expert explaining the role of Community in Data Validation

1.2.2 City Profile

Understanding of the features and characteristics of a city is one of the important requirements of preparation of a city specific plan as it helps in identifying the local need, aspiration and resources. Accordingly, a brief profile of Baruipur city encompassing the aspects involving physical characteristics, regional growth patterns, social and demographic characteristics, economic profile and physical infrastructure was analysed.

Though majority of the requisite information for preparation of the profile were collected through secondary sources, this process also involved primary level interaction with municipality officials and other stakeholders including citizens and slum residents. This has helped us in analysing the on-going/upcoming plans and programmes in the areas pertaining to

- urban poverty alleviation,
- provision of basic services to urban poor,
- provision of affordable housing and
- slum development

B. Part I: Curative Strategy (Slum Improvement)

1.2.3 Preparation of GIS Base Map

With an objective to develop further understanding of the present status of slums, geo-referenced city base map was prepared using high resolution images taken from World View Satellite Data II, followed by crosschecking of the base map with the existing GIS data, hard copy map and findings from GPS survey. The base map contained all administrative boundaries and physical features such as municipal boundary, ward boundary, slum boundary/area, open space/vacant land/Low land, communication network (road, rail etc.), natural drainage (nala/canal/water bodies/river), reservoir, overhead tank, water pipe line, wells and hand pumps as main layer. Some more features were incorporated in the main layer viz. hospitals, health centres, community hall, primary school and other educational institutions, sewerage lines, etc.

The various steps involved in the preparation of base map were as follows:

1.2.3.1 Procurement of Satellite Image and Collection of Existing Data

For Baruipur, World View Satellite Data II was procured and all the existing information and maps were analysed to make an assessment of the current status of the slums.

1.2.3.2 Slum Boundary Demarcation and/or validation

Demarcation of slum boundary was one of the most important layers for preparation of base map of Baruipur and involved the following key steps to complete:

- Validation of the existing slum boundary map with the help of GPS survey
- Identification of the slum pockets in satellite image, demarcated with the help of GPS survey
- Delineation of slum boundary on city base map
- After having delineated the slum boundary in GIS interface, a 3 digit slum code³ was given to all the slums
- Vetting of the slum boundary by slum residents, municipal officers and BoC

This process involved an end-to-end coordination with CDS members, ward committed and councillors who were instrumental in sensitising the slum residents about the rationale, process and outcome of the validation task.

In addition, following activities were carried out with an objective to take stock of vacant land available in Baruipur and location of civil infrastructure available in the municipality. Broad overview of process adopted for capturing the two is provided below.

1.2.3.3 Vacant land mapping

As part of this task, the land use map particularly the demarcation of vacant lands was drawn from the satellite images. The land characteristics were interpreted from the image followed by a groundtruthing exercise with the help of municipal officers and community representatives. Land use map was also verified with the information on nature of the ownership of the land, collected at the time of field survey.

1.2.3.4 Creation of other Layers

Various existing layers like road, rail, drinking water distribution pipe line, drain etc. were validated/ updated from the satellite image, new project drawings, and GPS survey, wherever required. The attribute data related to various layers were collected from various sources including valuation board for land value estimation.

1.2.4 Socio- Economic Survey and validation of Data

1.2.4.1 Conduct of Socio-Economic Survey

As per the guidelines circulated by NBO, MoHUPA, GoI socio economic survey as part of Urban Statistics for HR and Assessment (USHA) scheme was initiated in all 64 slums of Baruipur during

³ This 3 digit code is the same as the slum codes already given in the NBO format (Slum Profile Annexure I Part C), so that it is helpful for further integration of socio-economic data and GIS data at slum level. This has become the slum code for all future references to that slum.

2010-11. Requisite information on slums in pre-designed templates, namely, Annexure-I (Basic Information on Slum), Annexure-II (Household Survey) and Annexure-III (Livelihood Survey) was collected under USHA survey.

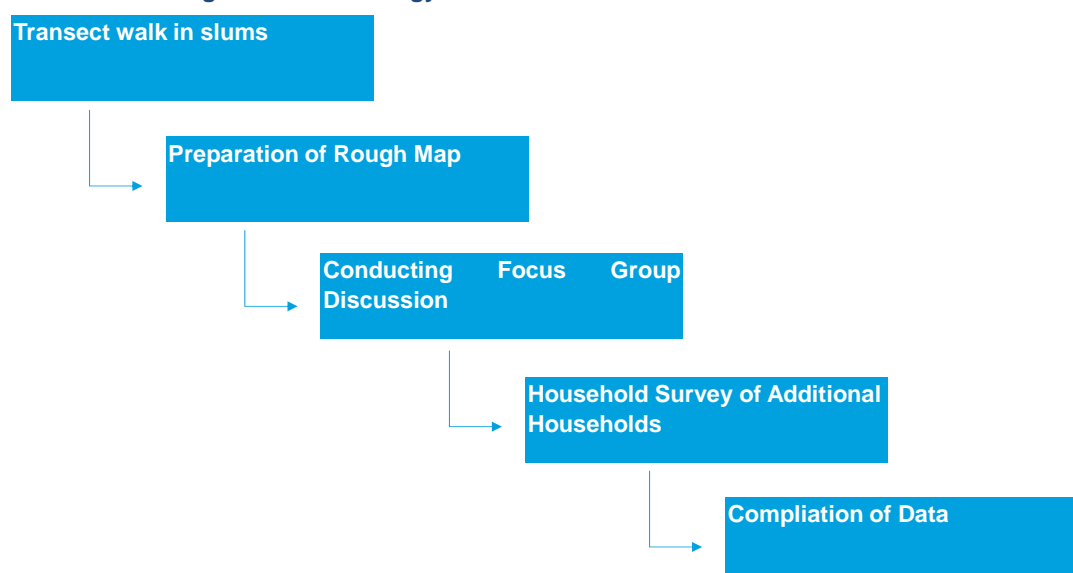
For the purpose of survey process, capacity building trainings were organised by State Urban Development Agency (SUDA) to orient ULB officials on the process and parameters of the survey. Subsequently, ULB officials trained the respective team of enumerators responsible for conducting the survey in slums of Baruipur. A regular monitoring in form of field visit, data crosscheck, feedback reporting etc. was done by the ULB officials throughout the survey process. After having vetted the data by ULB officials, the surveyed slum profile and the household responses were uploaded in the CGG website by SUDA.

1.2.4.2 Data Compilation and Validation

With the objective of formulating an appropriate slum improvement model for slums under curative strategy, availability of recent/updated information base on slums is instrumental. The Socio-Economic data was collected through USHA survey in 2010-11 and hence, required updation/validation as more than two years have passed since collection of data and slum profile including number of households may have gone through a considerable change during this period.

The validation exercise was conducted by an independent agency in all 64 slums of Baruipur. The entire validation process was carried out in close consultation with respective Ward Councillors, CDS members, slum residents and ULB officials. The process adopted for this validation is detailed out in the figure below:

Figure 3: Methodology for validation of socio-economic data


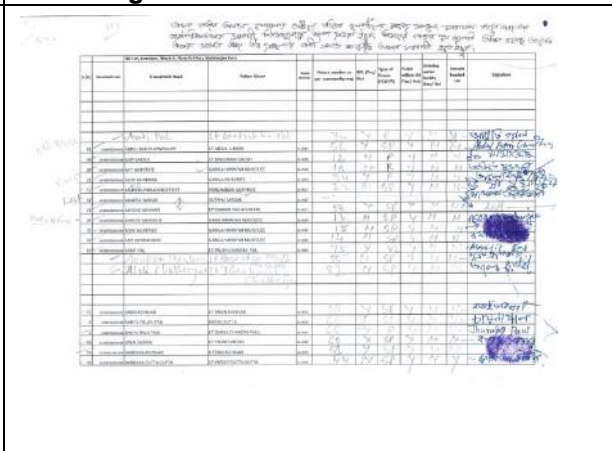


The process adopted for data validation comprised of the following:

- **Transect walk in slums**
 - The objective of transect walk with the community was to ensure that condition of the slum and households are adequately reflected in the Slum MIS. Blank map as collected after validation of slum boundary and alphabetically sorted household list were used as a baseline documents and any changes identified during transect walk were incorporated. In addition, following features were marked in the slum boundary map

- Access road, inner road
 - Housing condition
 - Land use
 - Open/Vacant lands
 - Physical Infrastructure facilities like access to water supply, sanitation etc.
 - Social facilities including anganwadis, primary schools, community centres etc.
- **Preparation of Rough Map**
 - After the transect walk was over, following features were marked on rough map with the help of community
 - Pucca House
 - Katcha House
 - Non-residential facility
 - Vacant Land
 - Play ground
- **Conducting Focussed Group Discussion**
 - After the preparation of rough map, a focused group discussion was conducted in all the 64 slums with the community members to assess the slum infrastructure facilities and identifying the requirements under RAY. A list of all households staying in the slum was appended to the rough map and signatures were obtained from at least 70% of the community members.
- **House-hold survey of additional households**
 - Detailed household survey was conducted for the additional households using NBO formats (Annexure-II and Annexure-III) with the help of the community.
- **Compilation of Data**
 - The data for the additional households and slum profile assessed during preparation of Rough map was compiled together to give a complete picture of the slums in Baruipur. The data was then arranged in master table as well as summary tables on the basis of different slum parameters.

The photographs given below were taken during the validation process at various slums in Baruipur.

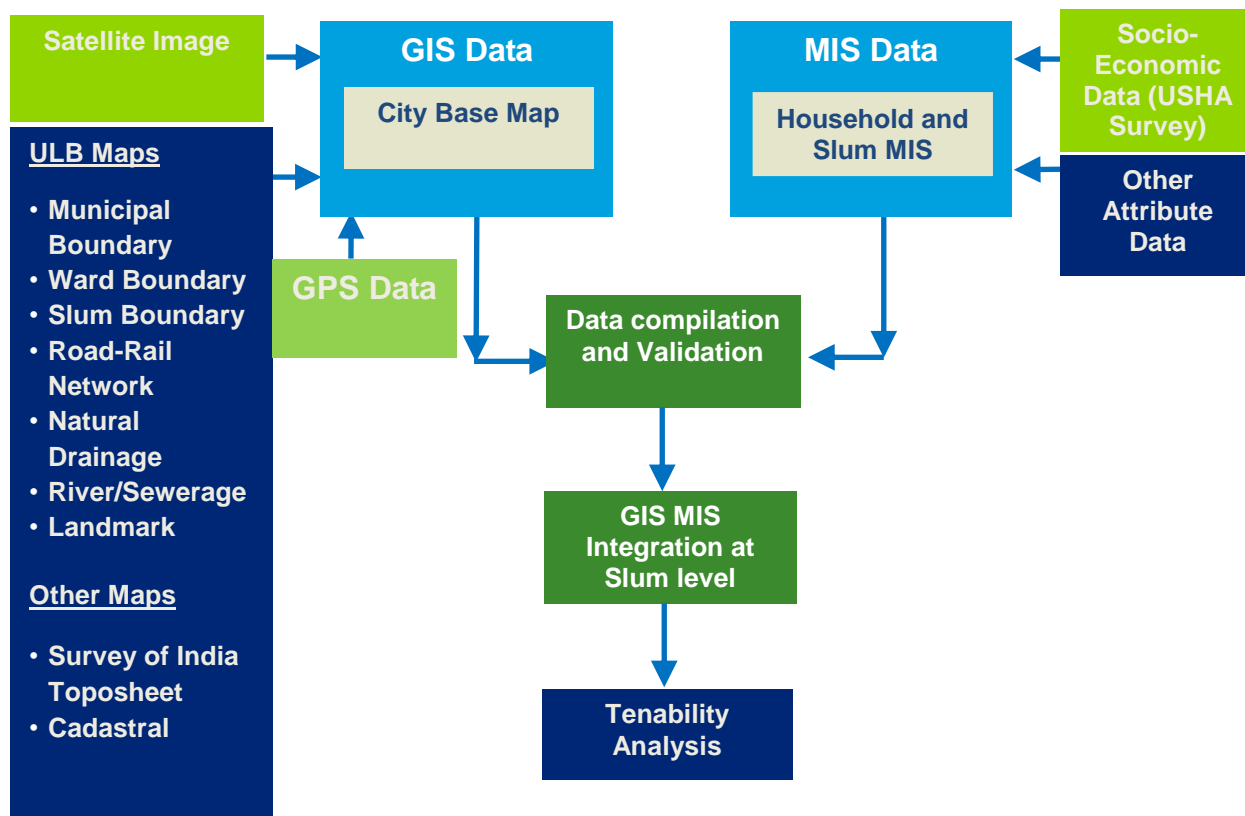
	
<p>Transect Walk in Slums</p>	<p>Focused Group Discussion at Madarat Pailadanga</p>
	
<p>Preparation of Rough Map for Pal Para-Mukherjee Para Slum</p>	<p>Signature of Community Members on Rough Map</p>

1.2.5 Integration of GIS and MIS Data

This step involved the integration of slum socio-economic survey information into slum and city level base maps on GIS platform. All the data from the survey was fed into a customised database and then the data was entered into a MIS format with three digit slum code similar to GIS data. With the help of the slum code the data base has been integrated with the slum boundary polygon and finally the MIS data was integrated with GIS data base at slum level.

A detailed process flow regarding GIS and MIS data is given below:

Figure 4 : GIS and MIS Integration



Quality Assurance / Quality Control process

The quality of validated GIS and MIS data had been checked and cross checked at various levels of the process. Having collected and collated the data, GIS enabled slum MIS was initially presented to the community at public display boards, where even untrained map-readers could find their land parcel and raise queries/clarifications, if there is any discrepancy with the actual fact. This helped us in confirming the accuracy of the information captured through this process. If any change is required to be made, it was done in the consultation with the stakeholders primarily involving CDS and slum residents.

1.2.6 Categorisation of Slum based on Tenability Analysis

The categorization of slums using GIS-enabled Slum MIS helped in formulating separate redevelopment models/mechanisms for different categories of slums. Based on the information generated from GIS-enabled Slum MIS, slums were categorized based on three parameters which are i) physical location of slums, ii) proneness to flooding and iii) land use. Outcome of the categorisation was further validated with the stakeholders.

1.2.7 Prioritization of Slums

Having categorised the slums based on tenability assessment, the slums were prioritised to identify slums for which development models would be formulated. As part of this activity, a transparent and objective framework for slum prioritization using a 3x3x2 matrix was developed. Based on this framework, slums were ranked as sound, medium and vulnerable in terms of their relative position

with respect to i) Infrastructure deficiency ii) Vulnerability. Further, slums were categorised on the basis of security of Tenure.

The poorest and most vulnerable groups with least access to basic services/infrastructure falling into the lowest category were given first preference for upgrading/partial redevelopment.

1.2.8 Formulation of Slum Development Options

Based on above assessment, suitable redevelopment/rehabilitation models for each category of slum were formulated, which were

- **In-Situ Slum Up-gradation:** Extending infrastructure in the slums along with facilitation of housing unit up-gradation, to support incremental housing.
- **In-Situ Slum Redevelopment:** In-situ redevelopment of some slum pockets using partial re-layout, infrastructure provision and housing upgradation/construction.

C. Part II: Preventive Strategy (Slum Prevention)

Slum preventive strategy estimated future housing requirement for urban poor and analysed probable interventions leveraging existing policy reforms for increasing the supply of land and affordable housing, providing innovative incentives/concessions to developers, streamlining approval processes, developing housing finance schemes and developing rental housing options.

1.2.9 Finalisation of SFCPoA

After getting approval of Draft SFCPoA from Board of Councillors, draft report shall be submitted to GoWB for seeking necessary comments and suggestions from relevant Government departments including Revenue Department, Urban Development Department etc. All the findings shall be presented before the nodal departmental officials to seek their suggestions. Finally, draft report shall be finalised by incorporating all feedbacks and suggestions received and will be submitted to GoWB for further process.

Section: 2 Introduction-City Profile

2.1 City Overview

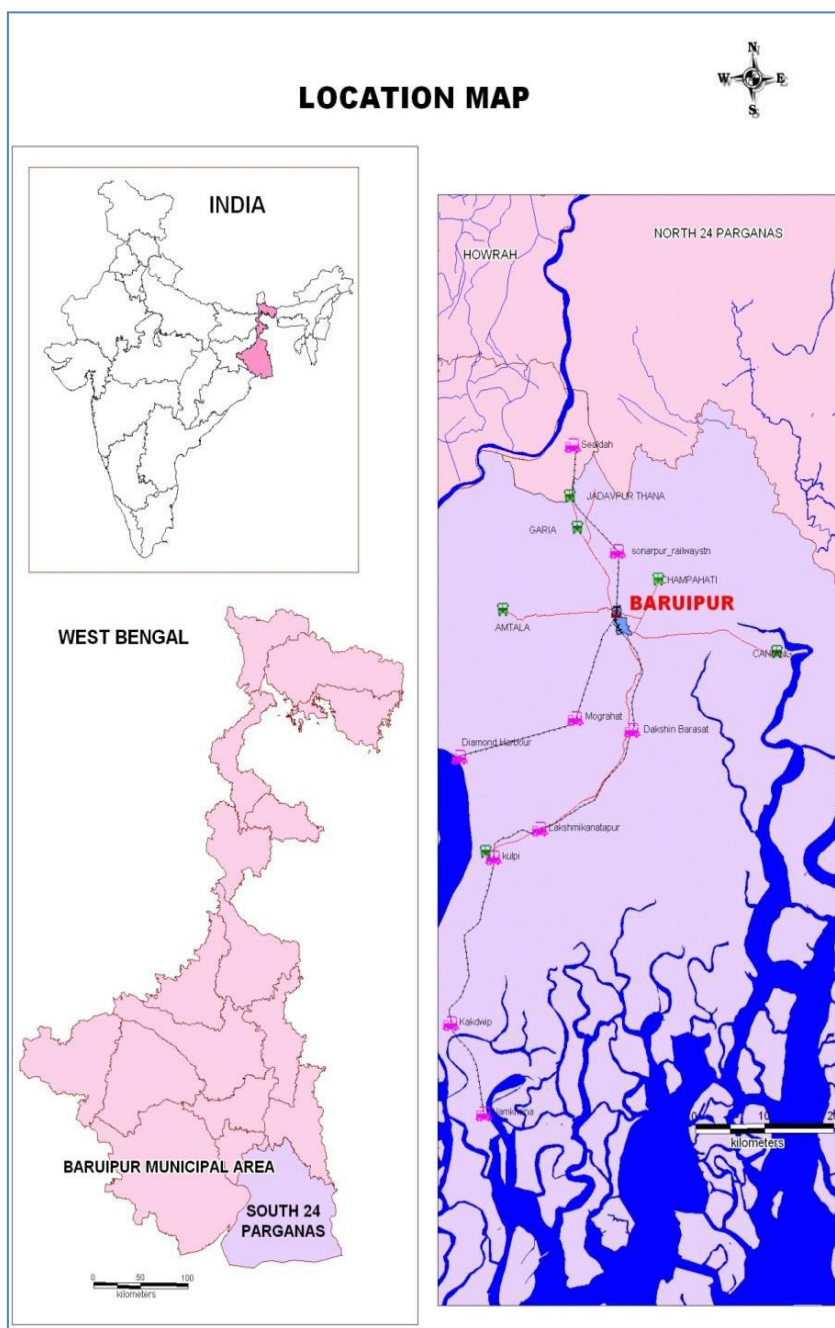
Baruipur is a sub-divisional town of South 24-Parganas district of West Bengal and is one of the oldest settlements in South Bengal zone. Geographically the town is strategically positioned as it is situated on the banks of Tolly's canal/Adi Ganga and is the junction point of Diamond Harbour and Lakshmikantapur-two important settlements which have separated Kolkata and its suburbs from Sunderbans. Currently Baruipur is the head quarter of Baruipur Community Development Block of South 24 Parganas.

Baruipur earlier was part of a sub-division which was created during the British regime for collection of taxes. Subsequently, Baruipur itself became a sub-division in 1858. According to common belief, the name was derived from the word 'Barui' which means betel planter.

Owing to its strategic agro climatic location, Baruipur is home to number of agriculture and horticulture produces. Baruipur is known for production of variety of fruits including Guava, Litchi and Mango.

Moreover, Baruipur has been a prosperous settlement since ages due to industry and commerce. Baruipur is well known place in the areas of surgical tools sector as number of small scale units operate from this area. In terms of its linkage with

big industries, Baruipur area has geographical linkages with two industrial units, namely, i) BESCO-railway wagon factory, and ii) Presswell-catering to the automobile industry. Map above shows location map of the city showing regional setting.

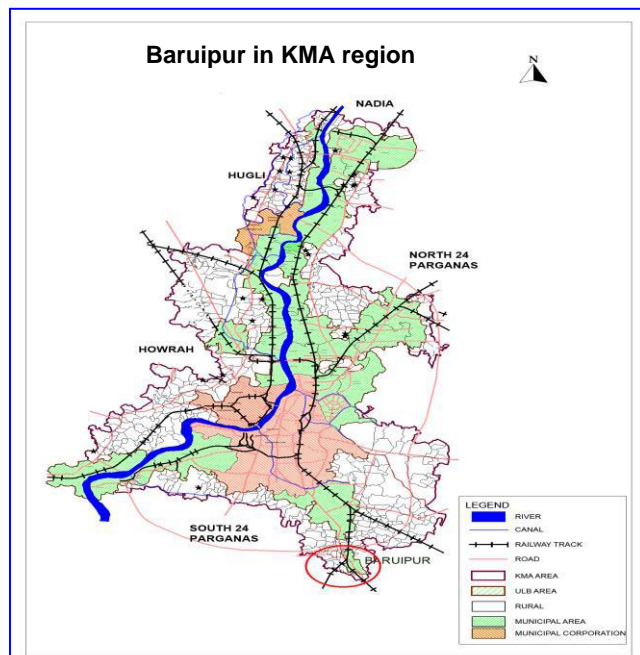


2.1.1 History of Baruipur

Baruipur has been under the administrative jurisdiction of 24 Parganas district from the beginning of the British rule in Bengal. After the fall of Nawab Siraj-ud-Daulah, Mir Jafar, the new Nawab, concluded a treaty with the then English East India Company in 1757, by which the former ceded to the Company the Zamindari rights of 24 mahals. It was recorded that ‘all the land lying to the south of Calcutta up to *Kulpi*, shall be under the Zamindari of the English East India company; and all the officers of this Zamindari shall be under their jurisdiction.’ These 24-mahals or 24 parts were given the name 24 Parganas. Finally, in 1986, the district of 24 Parganas was divided into two separate parts mainly for reducing the administrative burden. South 24 Parganas came to be officially accepted as a separate district in the year 1986 and by then Baruipur Municipality assumed strategic importance in terms of ensuring administrative oversight of the district.

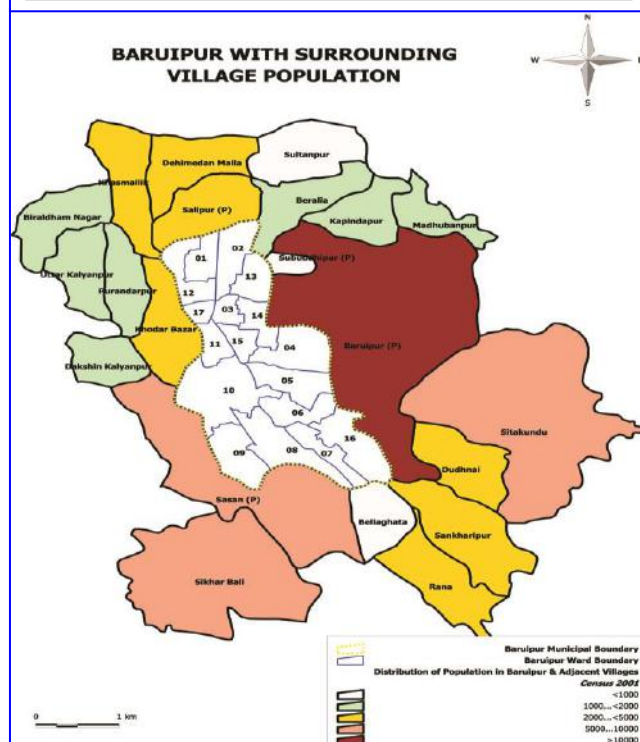
2.1.2 Location of Baruipur

Baruipur Municipality is located at the extreme southern side of Kolkata Metropolitan Area (KMA) with its latitude longitude position being 20° 30’ latitude North and 88° 25’ longitude East. It has an average elevation of 9 metres (29 feet). Geographically, the municipality is encircled by rural areas from all the sides with villages namely Salipur Panchyat situated in the North, Baruipur and Subuddhipur Panchyat in the West, Khodar Bazar village and Sasan Panchyat in the East and Sasan Panchyat & Beliaghata Village in the South. But, in terms of proximity to other major towns, Baruipur is surrounded by places on the north by Sonarpur, south by Jainagar, east by Canning and west by Bishnupur.



2.1.3 Physical Linkages

Baruipur is located 27 Km South of Kolkata and it is linked by two modes of transportation viz. Road and Rail. All the important towns and places of South 24 Parganas district are connected with Kolkata through Baruipur. The regional road pattern of Baruipur fans out in all directions. The Garia – Baruipur Road or Kulpi Road is one of the major roads, which has connected the area with Kolkata and North 24 Parganas through E.M Bye Pass. The Eastern Metropolitan Bypass connects the eastern fringes of Kolkata including Salt lakes



townships and the newly growing Rajarhat Township also. Other major roads like Madarat Road, Dhabdhabi Road, and Canning Road have connected the area with its eastern part and Amtala Road has linked it with the adjacent western part. The road conditions are moderately well. The other major roads linking the area with other region include Kheyadaha road, Narayanpur– Bodra Road, Chakraberia – Baruipur Road etc.

The town is connected with remaining part of the hinterland by railway. The nearest railway station is Baruipur Junction through which this municipality is connected with Kolkata and southern part of South 24 Parganas. The suburban rail services in the area support the major transit movement in the area. It also caters for the daily movement of the majority of vegetables and fruits to Kolkata and other areas.

2.2 Physical Characteristics of the City

2.2.1 Soil and Topography

Baruipur is situated on the Marine-riverine Delta of South Bengal and is around 80 Km North of coast of Bay of Bengal. The general ground structure of Baruipur is by and large composed of thick alluvium soil. Despite the fact that the soil is basically composed of the mixture of fine sand, silt and clay borne by river water, part of the Baruipur west is situated on the natural levee of the AdiGanga, as a result relatively higher lands are present along the riverside.

2.2.2 Climate

Baruipur is located in the hot moist sub-humid agro-ecological sub region. It is equidistant from the tropic of cancer in the north and Bay of Bengal in the south. Strong monsoon winds blowing from the South Bay of Bengal over this area generates ample rainfall. Baruipur experiences extreme heat during summer and moderate cold during winter with maximum temperature in the months of April/May around 40°C and minimum temperature in the months of December/January as around 7°C. Average annual rainfall is 1750 mm and relative humidity ranges between 70%-85%.

Image below shows Baruipur Municipal area in Satellite Image.

Baruipur Municipality on satellite image



2.3 Social and Demographic profile

2.3.1 Population

To start with, demographic overview of the municipality has been presented in the table below.

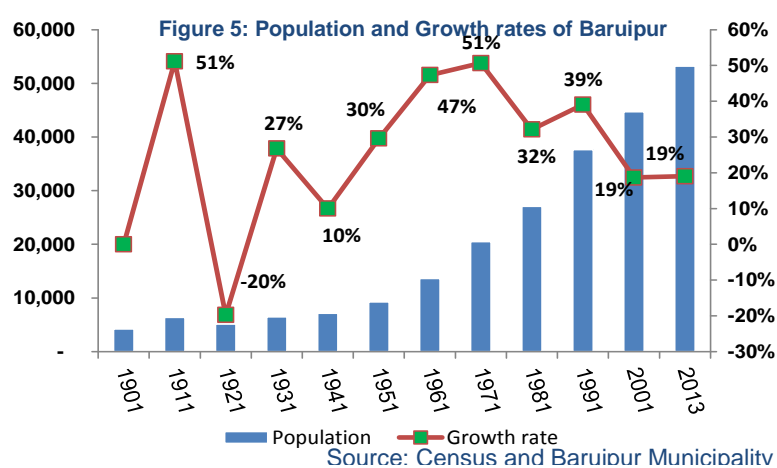
Table 3: Overview of Baruipur Municipality

1.	Population:	2001	2011 (<i>Projected</i>)
		44,913	53,564
2.	Density	2001	2011

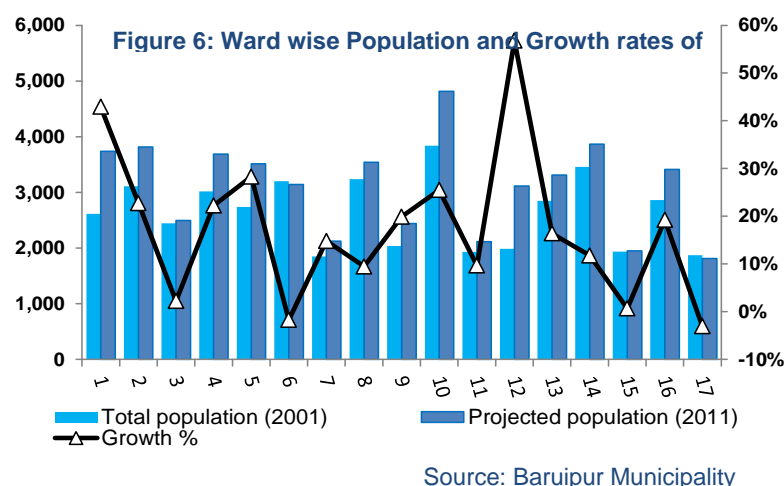
		7930 persons per sq. Km	9381 persons per sq. Km
3.	Decadal growth rate	19.26%	
4.	No of Slums	2001	2013
		38	64
5.	Total Population of Slums	15,891 (2013) ⁴	
6.	No of Households	2001	2011
		9608	13403

Source: Census, DDP and Baruipur Municipality

The projected population of Baruipur as on 2013 is expected to be about 55, 628. Population size of Baruipur is relatively less, as compared to total population of West Bengal and South 24 Parganas district. As per 2011 census, Baruipur population is only 0.06% and 0.7% of its state and district population respectively. This marginal share of population of Baruipur with respect to population size of south 24 Parganas district is attributed to the factors including i) around 75% of the population of South 24



Parganas is rural and ii) out of the rest of 25% population, which is urban, municipalities like Maheshtala and Rajpur Sonarpur are predominant with their aggregate share recording more than 40% of urban population of the district⁵ vis-à-vis Baruipur which accounts for only 3%. However, in terms of population growth rate, Baruipur has recorded around 19.2% growth which is higher than decadal growth rate of West Bengal (13.8%) and South 24 Parganas (18.2%) between 2001-2011 period. Population size and growth pattern of Baruipur for last 100 years has been shown in the figure above. It is observed from the figure 5 that



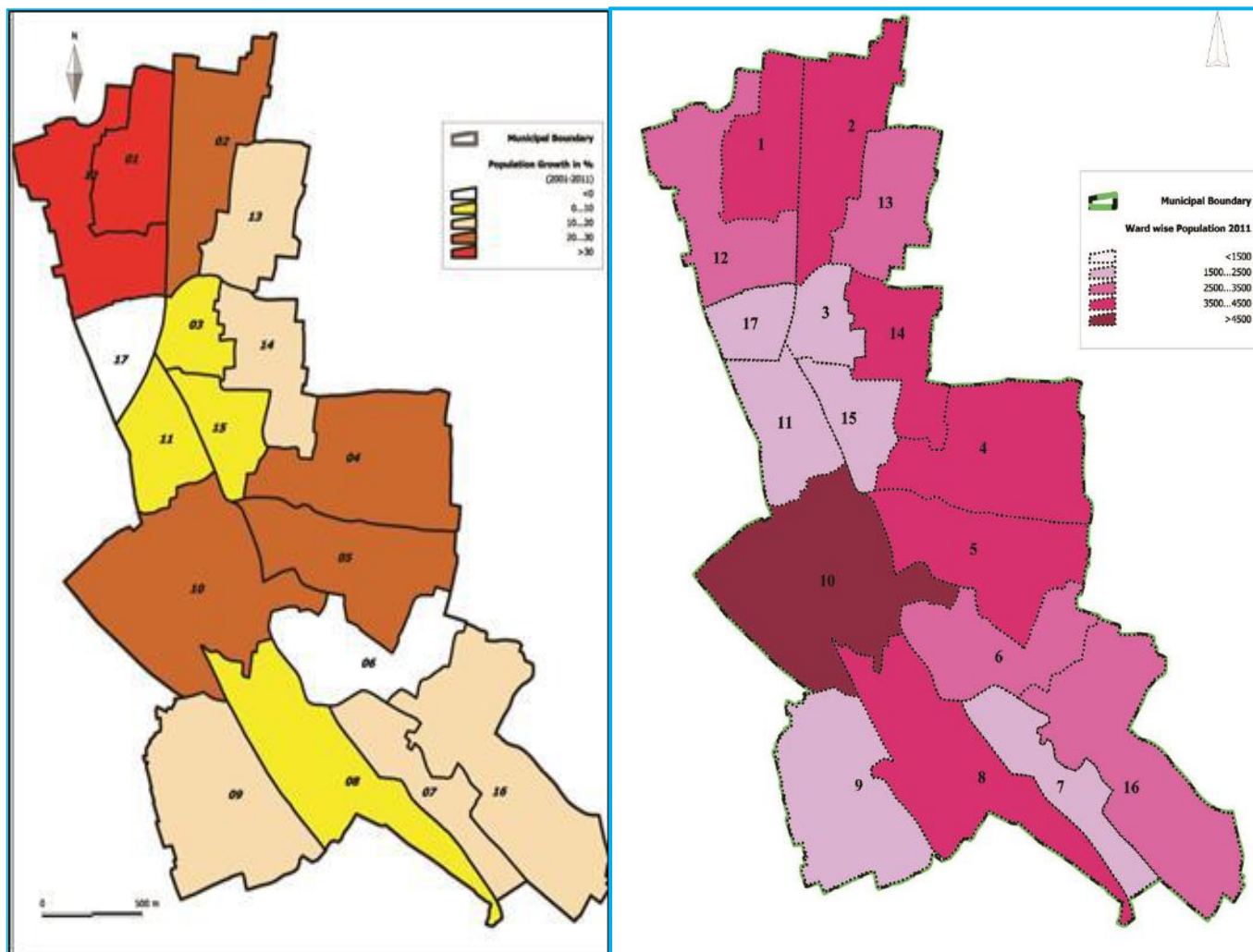
- Between 1951 and 1991, decadal population growth was extremely high, with highest growth rate recorded during 1961-71 and 1971-81 over 50% in each case. This is attributed to inward migration from Bangladesh during that period as South 24 Parganas shares border with Bangladesh.

⁴ Calculated on the basis of recently validated socio-economic data of slums

⁵ Other big municipalities include Budge Budge, Pujali etc.

- Ward wise analysis of population size clearly establishes the growth direction of the municipality explained in the earlier section. Figure 6 shows that northern most part of the municipality covering four wards (1,2,12 and 13) are relatively much more populated (average population size is around 3500) than southern part of the municipality containing five wards (6,7,8,9 and 16) with average population size of around 3000. Ward number 10 is the most populated ward of the municipality which is located in central region of the municipality
- Likewise in terms of population growth rate (2001-2011) calculated, it is observed that northern most wards have registered 35% growth rate vis-à-vis 12% for southern region of the municipality.

Figures below show ward wise population size and growth in Baruipur.



The left hand side map also shows that highest population growth has taken place in two most north western wards (Ward Nos. 1 and 12). Second highest growth is noticed in the central part of Baruipur in Ward nos. 4, 5 and 10 with the growths rates recording 22%, 28% and 25% respectively. Most low level of growth is noticed in the wards (Nos. 17, 3, 15 and 6), most of which are located in central zone, while in some wards (6 and 17), negative growth rate is observed.

2.3.2 Population Density

Owing to rural nature of South 24 Parganas district, total geographical area of the municipality with respect to total geographical area of the South 24 Parganas constitutes less than 1% of the total

geographical area. Population density is 9381 persons/ sq. km as on 2013, which is considered to be on lower side.

2.4 Spatial Growth Patterns

2.4.1 Growth Direction of City

As Baruipur is surrounded by a number of villages with its shape elongated around 4.3 km from north to south, Baruipur's growth pattern is significantly influenced by its location, shape, transport route and surrounding rural population. Kolkata being located towards the northern part of the municipality, growth of the city is quite noticeable towards the North in particular. This has led majority of the wards located in northern part of the municipality to witness growth primarily with respect to real estate. On the contrary, real estate growth is relatively lopsided in the southern part of the municipality. In terms of ward-wise building plans sanctioned by the municipality during 2007-12 period, analysis shows that out of the 17 wards, maximum number of building plans was sanctioned in ward nos. 4 and 10, followed by ward no. 1, 6, 12 and 14 with more than 150 building plans were sanctioned in each ward. On the contrary, wards such as 3, 7, 9, 15, 17 have minimum number of building plans sanctioned in last five years (less than 60 no. during 2007-12).

This has been rightly reflected in table below showing most promising wards in terms of growth as measured by the municipality along with the underlying reason behind the growth in these wards.

Table 4: Growth Patterns in Baruipur Municipality

Area/ Ward	Nature of Growth			Growth Drivers			
	Residential	Commercial	Industry	Pressure from adjacent village	Proximity to Employment	Infrastructure	Vacant Land availability
1	√	√			√	√	√
2	√	√			√	√	√
4	√			√			√
5	√			√			√
6	√	√		√		√	√
10	√	√			√	√	√
12	√	√			√	√	√
16	√			√		√	√

Source: Baruipur Municipality

From the above table, following key points are coming out:

- Ward Nos.1,2 and 16 which are the three northern most wards of the city have experienced significant major growth primarily on account of the proximity to Kolkata and availability of vacant land.

- Four wards (4,5,6 and 10) located in central zone of the city are observed to grow in last few years mainly on account of availability of vacant land and partly for inward migration from adjacent rural areas leading to residential growth.

As opposed to above, growth dynamics of the area in terms of upcoming real estate projects is observed to be much more prominent in the outskirts of the municipality area. Due to abundance of vacant lands available in the adjacent village Moujas of the municipality, number of private developers is planning to set up big residential projects. Significant among them include Vibgyor Group, Sharda Group etc.

2.4.2 Land Use

The total area⁶ of the Baruipur computed on GIS Platform is 567 Ha or 5.67 sq. Km⁷. The different utilities and detailed features of Baruipur Land use were mapped in GIS and were broadly categorized in line with the UDPFI guidelines.

Table below shows Land use distribution of Baruipur.

Table 5: Land Use pattern in Baruipur

Land Categories	Area in Sq. Km	% of the Total area
Residential	3.09	54.4%
Commercial	0.04	0.7%
Institutional	0.06	1.1%
Others	2.48	44%
Total Area	5.674	

The important features of the Baruipur land use that needs to be highlighted include:

- Baruipur is primarily a residential area with limited industrial activities, so industrial area has been clubbed with commercial area
- Baruipur has 25 Educational Institutions and 16 health care institutes. All of these have been categorized under Institutional category.
- Components falling under “Others” category comprise of following further categories which are presented in the table below:

Table 6: Other Land categories

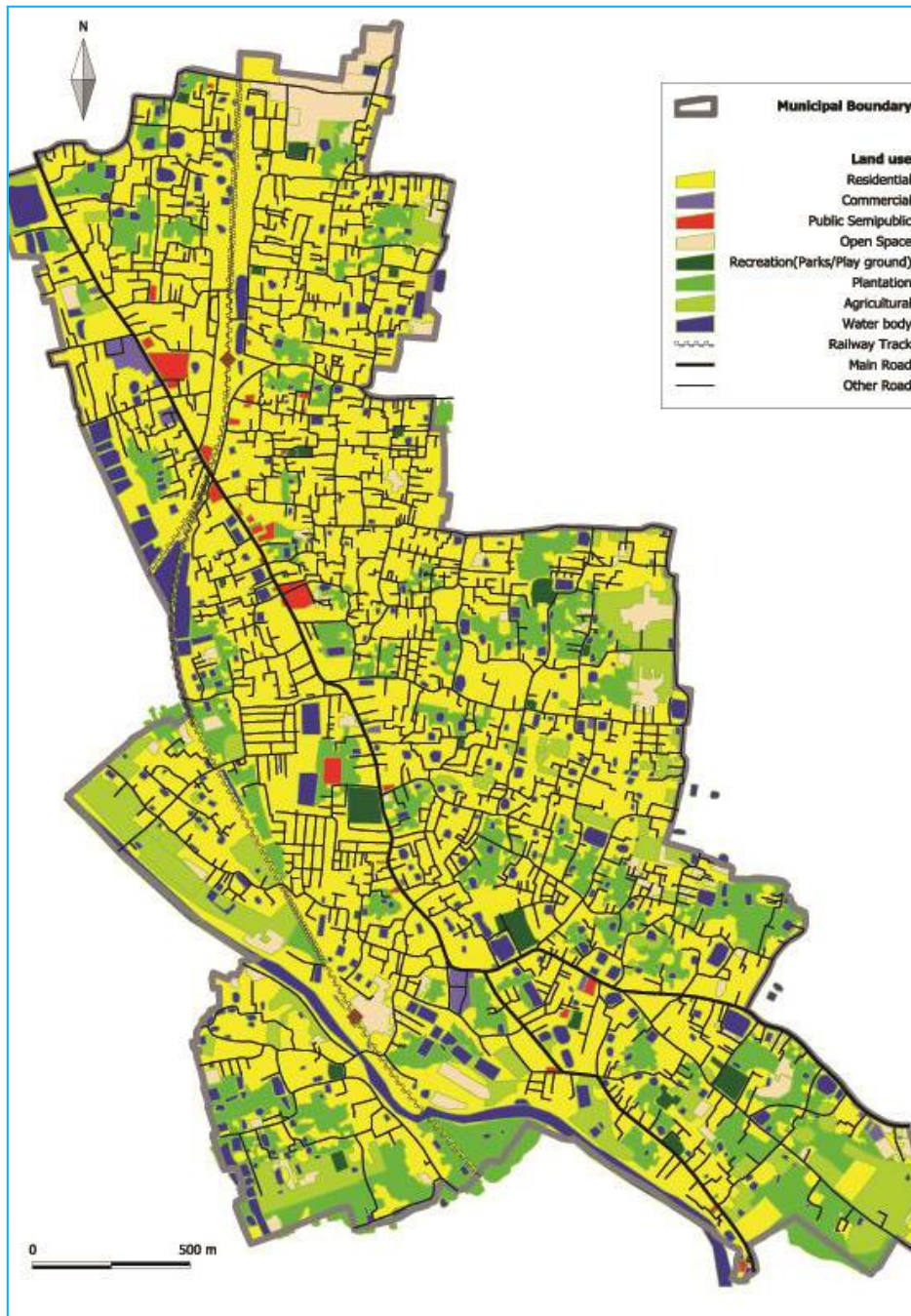
Land Categories	Area in Sq. Km	% of the Total area
Transport area	0.59	10.4%
Recreational	0.07	1.2%
Agriculture	0.38	6.7%
Plantation	0.76	13.5%

⁶ The existing land use /land cover map of Baruipur town was prepared from the WorldView-2 high resolution satellite images. The data was analyzed and used in GIS software. The data interpreted from the satellite images were checked by ground-truthing and field survey.

⁷ As per census, DDP and other reports available in public domain, area of the municipality is given as 9.07 Sq. km. However, after having completed GIS slum boundary validation and municipality boundary demarcation, area of the municipality has been estimated at around 5.67 sq. km. Hence, in this report, total area has been considered as 5.67 sq. km which is our estimated, instead of 9.07 sq. km.

Land Categories	Area in Sq. Km	% of the Total area
Water body	0.46	8.0%
Vacant land	0.22	3.9%
Total Area	2.48	

Land use pattern of Baruipur is broadly influenced by the main Road and rail route and the proximity to Kolkata. As a result the main residential, commercial and public-semi-public areas are concentrated along the transport route but mostly concentrated towards north. The agricultural and plantation areas are mostly concentrated towards the southern fringe areas. Image below shows the land use characteristics of the Baruipur city.



2.5 Economic profile

2.5.1 Economic Profile

Although Baruipur is located close to Kolkata, local economic characteristics of the municipal town reveal that the town is not a major manufacturing or processing hub. Baruipur has presence of few Government offices as part of service sector activities in the town. Due to its rich soil structure supported by comparatively heavy rainfall, the agricultural produce of the land is quite reckonable and has led Baruipur to become a major agricultural trading center.

The municipal area is a transit point for agricultural commodities produced in the nearby rural areas but no organised facilities exist in the municipal area for processing, warehousing, packaging as well as transportation of produces. Few petty business and service related activities exist along with few manufacturing and processing units.

A considerable section of the people are associated with mainly two major sectors, i) garment making industry and ii) manufacturing of surgical instruments. Some of the other industrial units existing in and around the area are Railway wagon factory and Automobile manufacturing unit.

Over the years, Baruipur has witnessed gradual transformation of occupation from primary to tertiary sector leading to reasonably good economic development. The reason behind this shift being a huge quantum of agricultural workers (60%) engaged in gradually shrinking parcel of agricultural land shifting to non-agricultural activities.

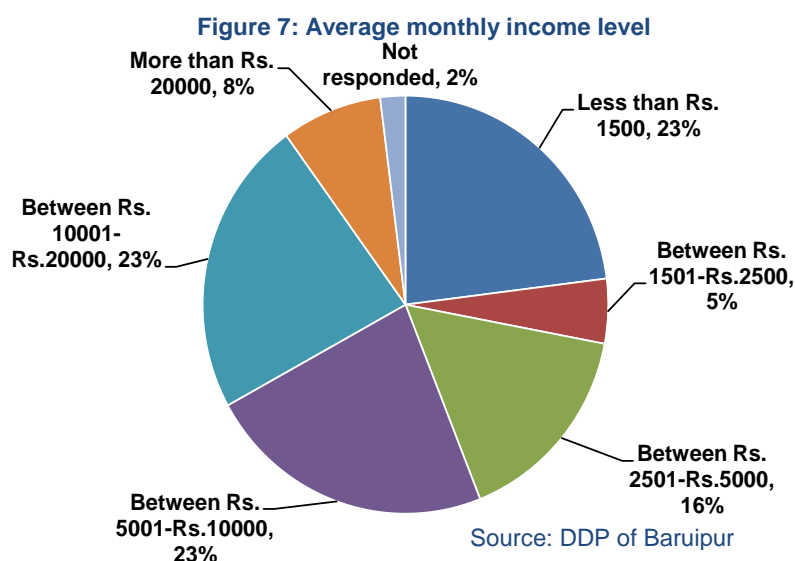
2.5.2 Work Force Participation

From the Census report 2001, it is observed that 32% of total population is working population, majority (92%) of which has been classified as “other workers” implying maximum participation workforce of municipality in unorganized sector.

Though the municipality has a large number of non-workers, around 70% working class population has managed to ensure more than six month’s employment in a year (Census 2001).

2.5.3 Income level

Baruipur municipality has people with varying income level. While 46% of total population is in the income range of above Rs. 5000, 23% population is earning less than Rs.1500 in a month. As per information given by SUDA, around 2,880 households with a total population of around 14,200 were under Below Poverty Line (BPL) in Baruipur during 2009-10. Since the neighboring areas are mainly agricultural in nature, persons



belonging to BPL categories are likely to be agricultural laborers. Hence an overall economic development is essential for the area.

2.5.4 Sex Ratio

The sex ratio of the municipality is 964 females for every 1000 males as per 2001 census data, which is slightly higher than national average which is 947 female for every 1000 male (2001 census).⁸

2.6 Housing profile

Every four in hundred households do not have a shelter to sleep at night in the district of South 24 Parganas and a further 50% of the households live in a house/hut with only one room. In context of Baruipur, 45% of households live in pucca or partially pucca houses⁹. Housing condition in its slums is not in good shape as 80% houses are either Katcha or semi-pucca. Considering the above, municipality has already initiated construction of affordable houses in 40 slums spread over 17 wards on a piecemeal basis leveraging BSUP scheme in a phased manner. In the First phase (2008-2012) total 543 houses were constructed in 29 slums spread over 12 wards. Infrastructure projects like Road, Drain and pipeline work were also targeted in some of the slums. In the 2nd phase (2009-ongoing), 1102 dwelling units have been constructed till 2012 along with CC Road, Shallow drain and water supply distribution line.

2.7 Physical Infrastructure profile

2.7.1 Water Supply

As Baruipur is situated mostly on fallow land in between Adiganga and Keorapukur Khal, part of the town is serviced by piped water supply from Hooghly River through Budge-Budge water treatment plant. Though the water supply network extends over most of the core city and peripheral areas, it does not meet consumer demand as only 27% of the households within municipal limits are covered with piped water supply system. Apart from the surface water, ground water also serves as another source of water supply in the municipality as around 4% percent is served with hand pumps and 1.5% depend on own tube wells and other sources. The features of water supply in Baruipur is presented in the table below

Table 7: Features for Water supply in Baruipur as on 2011

Source	Quantity and type
Surface water	1.12 MLD
Ground water	1 MLD
No. of OHTs	5 Nos.
Distribution Line	75 km
No. of stand posts	529
No. of Hand pumps	204

⁸ 2011 census data for Baruipur is not available in public domain

⁹District Human Development Report South 24 Parganas 2009.

Source	Quantity and type
Total no. of service connections	3616
Domestic connections	3614
Non-domestic	2

Source: Municipality Database

Baruipur Municipality is a water supply deficit municipality with deficit likely to increase up to 7.69 MLD in 2016. Within the areas served with piped water supply, the population does not get water as water supply is intermittent throughout the town and available for only 6 hours a day and water had arsenic contents in some slum pockets.

Keeping in consideration of the above gap, Baruipur Municipality has taken up a water supply project to improve the situation in all 17 wards of the Municipality under JNNURM. Implemented by Kolkata Metropolitan Water Supply and Sanitation authority, the project involves setting up of i) One semi-underground reservoir of 0.25 million gallons capacity, ii) Clear water pumps, iii) Booster Chlorination plant etc.

2.7.2 Drainage and Sanitation

The total drainage network of Baruipur municipality is of 122 Kms. The storm water drains carry sullage and rainwater and ultimately drains into two main drainage channels, namely, i) Adi Ganga located on the western side of the municipality and ii) Kata Khal located on Panchayat area on eastern side, which ultimately falls in Piyali River.

The contour map of Baruipur shows that it is elevated towards the Adi Ganga, as a result of which a large portion of the area could not drain the sullage water and hence, remains flooded during rainy season. Improper drainage system is a burning problem of Baruipur Municipality, which leads to water logging condition in several places every year during monsoons. Some of the key places wherein waterlogging is visible include i) Surya Sen Nagar, Vidyasagar Palli (ward 2), ii) Shahjahan Road (ward 3), iii) Pirpukur, Baganipara (ward 5), iv) Kalikanan (ward 6), v) Golpukur near Bedepukur (ward 10-11) etc.

To address the above issue, DPC with the help of KMDA has taken an initiative to integrate drainage system of Panchayat areas with that of Baruipur municipality. A drainage system in Panchayat areas is planned to be designed and laid which will link it with main outfalls of municipalities.

The sanitation system of the town is poor. The table below presents a service level standard of Baruipur in terms of coverage of the city with respect to sanitation and sewerage.

Table 8: Benchmarks: Sewerage and Sanitation in Baruipur as on 2011

Sewerage & Sanitation Services	Benchmark	National Average	Current Service Level Benchmarks in Baruipur
Toilet Coverage	100%	85.8	75%
Sewerage network coverage	100%	48.5	0%
Waste water collection efficiency	100%	41.9	0%

Sewerage & Sanitation Services	Benchmark	National Average	Current Service Level Benchmarks in Baruipur
Wastewater treatment adequacy	100%	48.8	0%
Quality of wastewater treatment	100%	58.8	0%
Extent of reuse & recycling of treated WW	20%	6.8	0%
Cost recovery - waste water	100%	38.3	0%
Collection efficiency	90%	42.5	0%
Complaints redressal	80%	76.4	0%

Source: MoUD, Gol and Baruipur Municipality

Above table clearly shows though toilet coverage of the town is reasonably good, but lot of interventions are required to improve sanitation and sewerage facilities as there is no household level drainage facility leading to unhygienic environment in slums.

2.7.3 Solid Waste Management

Solid Waste Management in Baruipur Municipality is not as per MSW (Management and handling) rules 2000. Garbage is being collected from door to door by tricycle van from all wards and stored temporarily in the nearby vat points (primary collection center) managed by Municipality. There is also lack of on time collection and disposal to the existing dumping ground at ward no. 8, which causes dumping in drains and spread of foul odour in the primary disposal point.

2.7.4 Road Coverage and Condition

Road network in Baruipur has grown to a total of 123 km. While more than 60% of roads are black topped and concrete, around 16% of the road network is still katcha road and 23% is brick Roads. Most of the existing arterial roads are narrow with two lane carriageways and needs to be widened to cater for the increasing vehicular traffic. Due to lack of proper maintenance, the surface conditions of the roads are not good which in turn reduces the speed of moving traffic.

2.8 Organization and Governance Structure of Baruipur Municipality

As per municipal mandates, councillors share the responsibility as members of the Board of Council (BoC) and BOC holds supreme authority in all the matters related to municipality. The Chairman is the prime sanctioning authority and member of BOC. In absence of Chairman, Vice- Chairman is the decision making authority. Standing committees are formed for delegation of power and focused handling of different departmental functions. Each standing committee has a president who is one of the councillors. Baruipur has different departments, each catering to variety of municipal services and all the departmental heads report to executive officer of the municipality. The organogram depicts the hierarchical structure as shown in figure 9 below:

Figure 8: Organisation Structure of Baruipur Municipality



In order to implement pro-poor programmes, Baruipur Municipality has an Urban Poverty Eradication (UPE) cell functioning, but the cell is weak in terms of performance and hence has been recommended for strengthening by recruitment of adequate staff in DDP. This shall ensure coordination with Community Development Societies (CDS) currently operating in Municipality. In Baruipur, 2 CDS are operational with 17 NHCs and 104 NHGs which is managed by 104 RCVs and primary engagement of CDS is observed in SWM and cooking of mid-day meal only.

2.9 Review of Programmes and Projects related to Slum Housing and urban Poor

Taking cognisance of the economic characteristics of the population, variety of development programmes and projects have been undertaken in Baruipur leveraging state and central sponsored schemes. Government schemes and programmes like Swarna Jayanti Shahari Rozgar Yojana (SJSRY), Bangla Swanirbhar Karmasansthan Prakalpa (BSKP), and PMRY (Pradhan Mantri Rojgar Yojana) for the purpose of uplifting economically weaker section mostly residing in slum areas of the municipality have been implemented by the municipality. Some of the crucial programmes taken up included:

- Strengthening SJSRY activity through formation of TCG (200 Nos.) /UWSP (17 Nos.) group
- Capacity building of CDS for effective use of revolving fund under SJSRY scheme including training on Financial Literacy
- Post production trainings on horticulture produces (processing and preservation techniques) using municipal infrastructure of food processing (@ Rs. 5000/- for 40 persons) etc.

In the areas of slum development, several initiatives and infrastructural development projects have been taken up in the last 5 years like KUSP, BSUP, SSHUP. As part of slum infrastructure

development plan, slum improvement work in Baruipur has already started under the JNNURM programme. While several infrastructure works are already underway and number of projects have been proposed with completion date targeted in 2016-17. Some of the proposed projects include:

- Operations and Maintenance of new & existing infrastructure assets of Slum Area with an estimated project cost of around Rs. 3 crores (Target completion date-2016-17) leveraging Municipal Fund
- Housing and infrastructure development including water supply, drain, road, retaining wall, street light, boundary wall earth filling, sewage, community hall and common area under BSUP-II and III (Duration: 2012-13 to 2013-14).
- Renovation and repairing of houses under State scheme for housing of urban poor (total cost of Rs. 59.4 lakhs received @ 50% of total project cost in 2011 and balance Rs. 29 Lakhs in 2012-13).

The following table gives ward-wise construction of urban poor houses planned during 2007-08 till date under BSUP and HUP.

Table 9: Number of Housing proposals under different projects

Ward No	Housing Under BSUP	Housing under State Government Sponsored Scheme	Total
1	71	6	77
2	99	6	105
3	55	5	60
4	130	5	135
5	167	5	172
6	168	10	178
7	153	6	159
8	164	10	174
9	211	7	218
10	258	6	264
11	54	6	60
12	70	5	75
13	79	4	83
14	87	1	88
15	81	7	88
16	181	5	186
17	19	5	24
Total	2047	99	2146

Source: Baruipur Municipality

Section 3: Slum Improvement

3.1 Assessment of Present Status of Slums

With an objective to formulate appropriate Slum Development Model for each of the slums, availability of latest and reliable baseline data on all the slums is instrumental. This baseline data encompassing indicators including socio-economic, geographical/spatial, physical etc. shall help develop an overall portrait of the slums in Baruipur. This shall help in identifying development need for slums and formulating slum specific development strategies.

3.1.1 Development of Municipal Information Base for All Slums

Development of municipal information base encompasses general overview of slums, socio-economic profile and physical profile of slums in Baruipur. The process of development of municipal information base involved GIS mapping using satellite data, GPS, Total Station Survey, MIS development of non-spatial data collected and integration of GIS--MIS,data to generate action plan for slum free city.

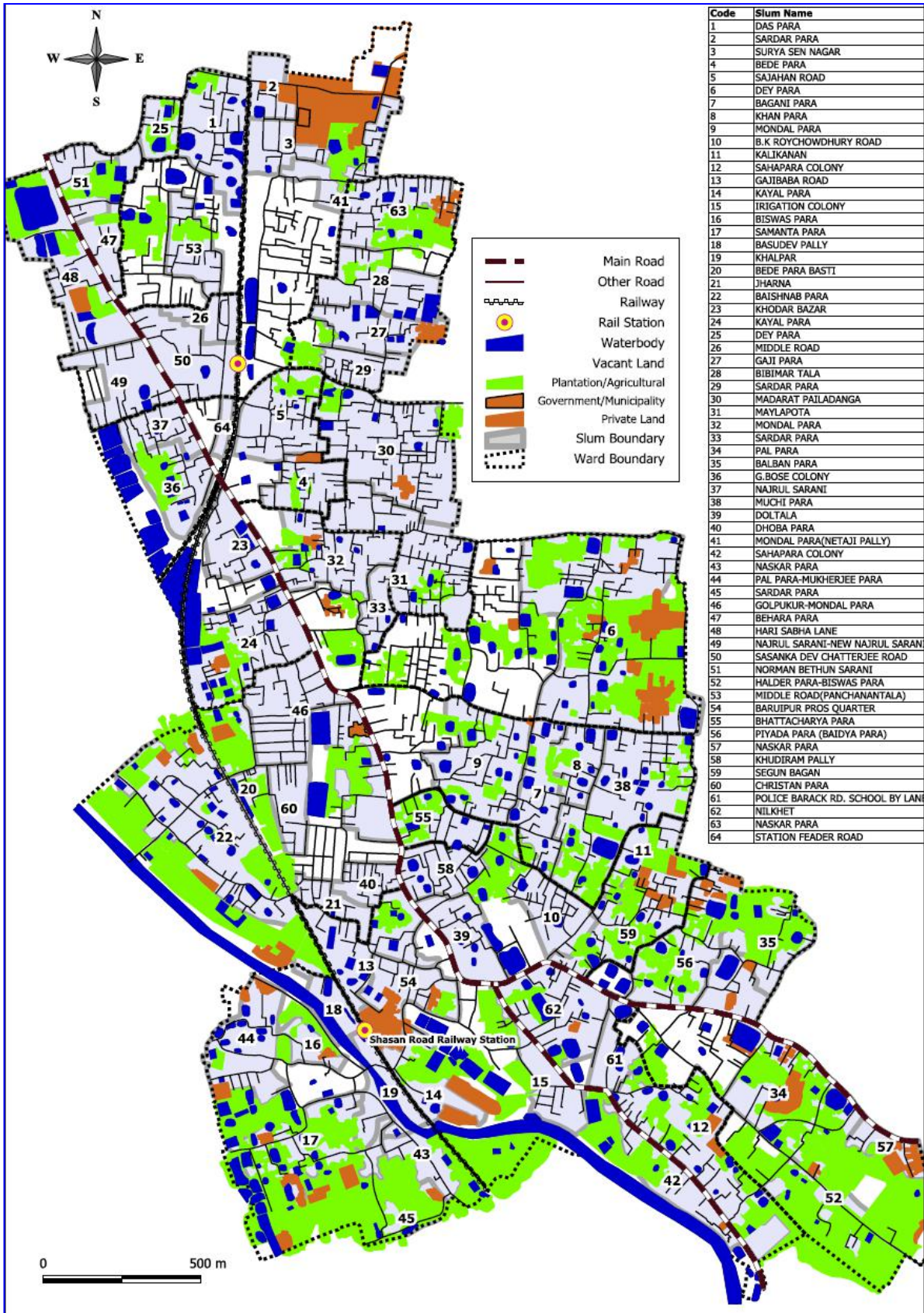
General overview primarily covers general features of slum in terms of location, status, age, location and area of slums, whereas physical location and flood proneness is detailed in tenability analysis. Socio-economic profile of slums covers overview of population and density across slums, income, whereas other details like caste status, minority population, income level have been highlighted in section on prioritization of slums as these have direct implications with the prioritization analysis. Likewise, physical profile of slums in terms of access to water supply, sanitation, drainage, roads etc. has been covered in section on prioritization of slum as they are the prime indicators for prioritisation.

3.1.1.1 Slum Profile

As on September 2013, Baruipur had a total of 64 slums spread across all the 17 wards of the municipality¹⁰. Following maps show the location, status (notified/non-notified) and age of all the 64 slums in Baruipur.

¹⁰ Number and list of slums along with their location ward wise have been approved by all ward councilors and passed as BOC resolution.

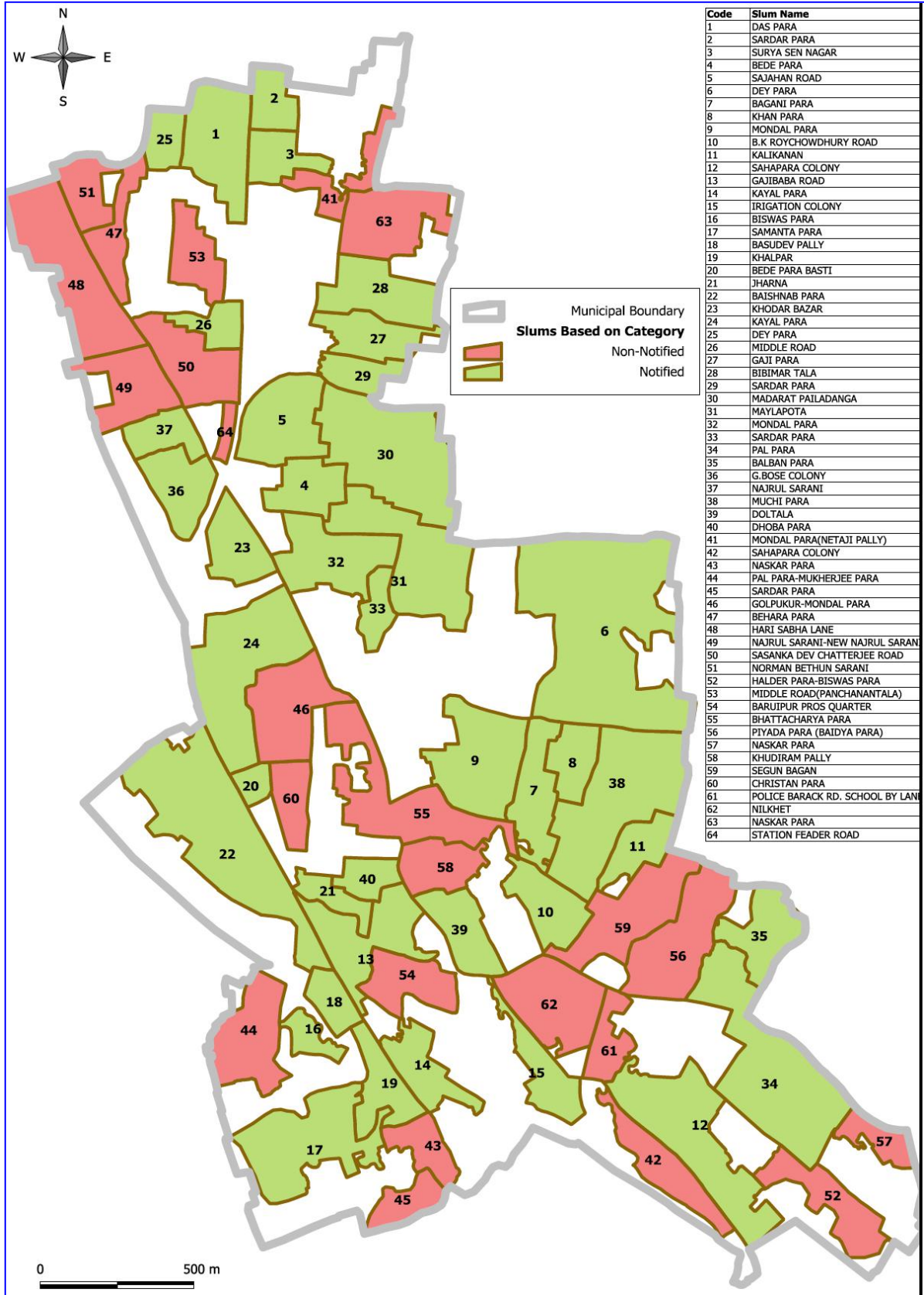
Slum pockets marked on the GIS base map with municipal boundary and ward boundaries



Slum pockets in Baruipur Municipality on Satellite Image



Status (Notified and Non-Notified) of slums in Baruipur



Age of slums in Baruipur

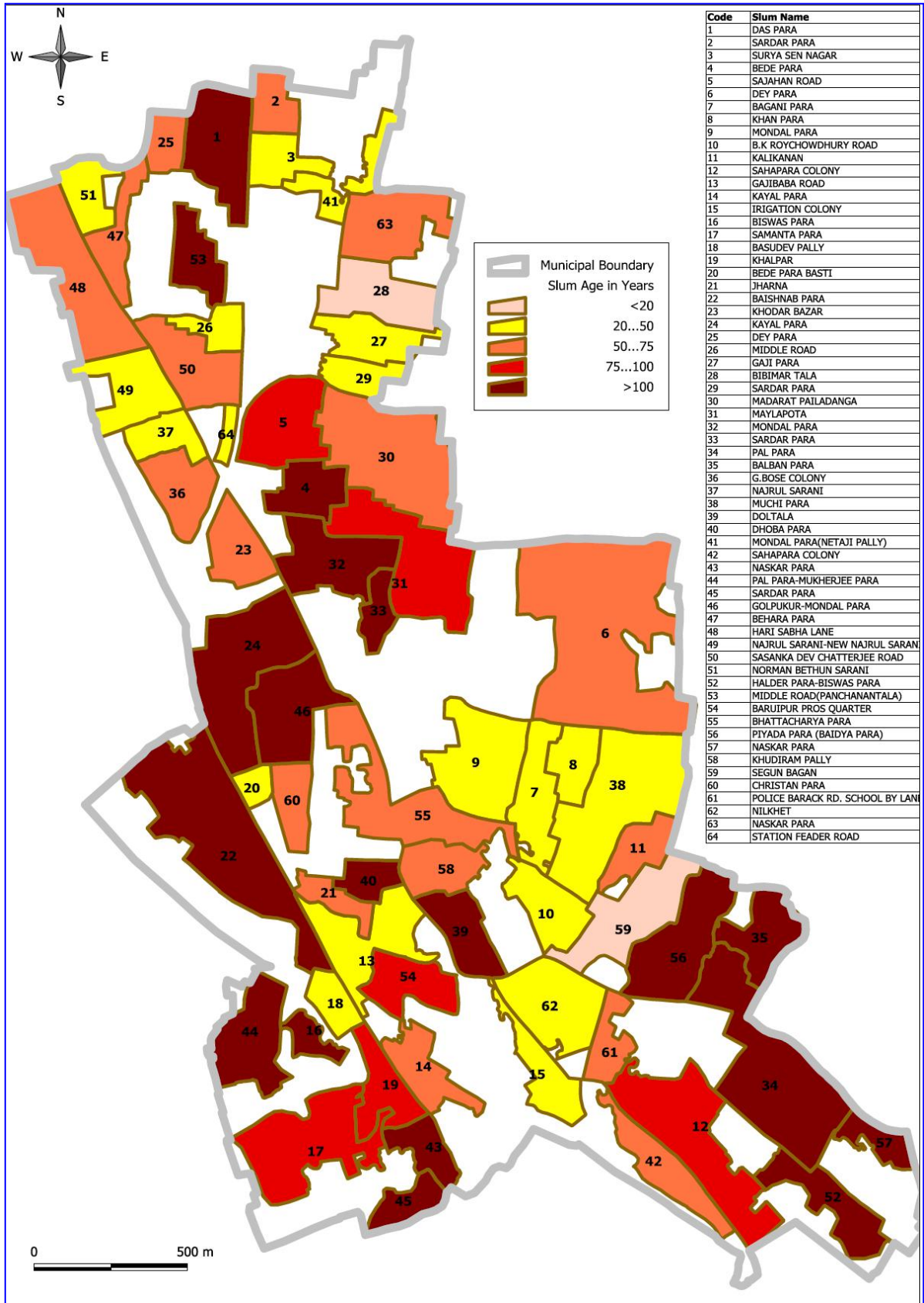


Table below represents ward wise distribution of all the slums along with their ownership status, and age.

Table 10: Ward-wise Notified and Non-notified Slums of Baruipur

Sl. No.	Ward No.	Slum Code	Name of the Slum and location	Slum Status	Ownership of Land	Age of Slum
1.	1	001	Das Para	Notified	Private	100
2.		053	Middle Road (Panchanantala)	Non-Notified	Private	100
3.	2	002	Sardar Para	Notified	Private	60
4.		003	Surya Sen Nagar	Notified	Private	40
5.		041	Mondal Para (Netaji Pally)	Non-Notified	Private	30
6.	3	004	Bede Para	Notified	Private	100
7.		005	Sajahan Road	Notified	Private	90
8.	4	006	Dey Para	Notified	Private	50
9.	5	007	Bagani Para	Notified	Private	30
10.		008	Khan Para	Notified	Private	30
11.		009	Mondal Para	Notified	Private	30
12.		038	Muchi Para	Notified	Private	35
13.		010	BK Roychowdhury Road	Notified	Private	30
14.	6	011	Kalikanan	Notified	Private	60
15.		039	Doltala	Notified	Private	100
16.		058	Khudiram Pally	Non-Notified	Private	60
17.		059	Segun Bagan	Non-Notified	Private	15
18.	7	012	Sahapara Colony	Notified	Private	80
19.		061	Police Barrack School Bye Lane	Non-Notified	Private	50
20.		062	Nilkhet	Non-Notified	Private	45
21.	8	013	Gaji Baba Road	Notified	Private	30
22.		014	Kayal Para	Notified	Private	50
23.		015	Irrigation Colony	Notified	Private	30
24.		042	Sahapara Colony	Non-Notified	Private	50
25.		054	Baruipur Pros Quarter	Non-Notified	Private	80
26.	9	016	Biswas Para	Notified	Private	100
27.		017	Samanta Para	Notified	Private	80

Sl. No.	Ward No.	Slum Code	Name of the Slum and location	Slum Status	Ownership of Land	Age of Slum
28.		018	Basudev Pally	Notified	Private	40
29.		019	Khalpar	Notified	Private	75
30.		043	Naskar Para	Non-Notified	Private	140
31.		044	Pal Para - Mukherjee Para	Non-Notified	Private	100
32.		045	Sardar Para	Non-Notified	Private	150
33.		020	Bede Para Basti	Notified	Private	30
34.		021	Jharna	Notified	Private	50
35.		022	Baishnab Para	Notified	Private	100
36.	10	040	Dhoba Para	Notified	Private	100
37.		046	Golpukur Mondal Para	Non-Notified	Private	100
38.		055	Bhattacharya Para	Non-Notified	Private	50
39.		060	Christian Para	Non-Notified	Private	50
40.	11	023	Khoda Bazar	Notified	Private	50
41.		024	Kayal Para	Notified	Private	100
42.		025	Dey Para	Notified	Private	50
43.		026	Middle Road	Notified	Private	40
44.		047	Behara Para	Non-Notified	Private	50
45.	12	048	Hari Sabha Lane	Non-Notified	Private	50
46.		049	Najrul Sarani (New Najrul Sarani)	Non-Notified	Private	45
47.		050	Sasanka Dev Chatterjee Road	Non-Notified	Private	60
48.		051	Norman Bethun Sarani	Non-Notified	Private	40
49.		027	Gaji Para	Notified	Private	30
50.	13	028	Bibimar Tala	Notified	Private	15
51.		029	Sardar Para	Notified	Private	20
52.		063	Naskar Para	Non-Notified	Private	70
53.	14	030	Madarat Pailadanga	Notified	Private	50
54.		031	Maylapota	Notified	Private	90
55.	15	032	Mondal Para	Notified	Private	200
56.		033	Sardar Para	Notified	Private	100

Sl. No.	Ward No.	Slum Code	Name of the Slum and location	Slum Status	Ownership of Land	Age of Slum
57.		034	Pal Para	Notified	Private	100
58.		035	Balban Para	Notified	Private	100
59.	16	052	Halder Para - Biswas Para	Non-Notified	Private	100
60.		056	Piyada Para (Baidya Para)	Non-Notified	Private	100
61.		057	Naskar Para	Non-Notified	Private	100
62.		036	G. Bose Colony	Notified	Private	62
63.	17	037	Najrul Sarani	Notified	Private	40
64.		064	Station Feeder Road	Non-Notified	Private	30

Source: USHA Survey and MIS data validation report

As can be observed

- Baruipur has uneven distribution of slums in its 17 wards with 6 wards having 5 or more than 5 slums, while, in 6 wards, number of slums is 2 or less than 2.
- Out of total 64 slums, 24 are Non-notified and the remaining 40 are notified slums. Distribution of Slums based on status, population and area is provided in Annexure B-1.
- Out of total 17 wards, except from the 6 wards (3,4, 5,11, 14 and 15) with only notified slums, rest of the wards have a mix of notified and non-notified slums
- Average age of the slums is around 66 years and the age varies from 15 years to maximum of 200 years. Number of slums existing for more than 100 years is 19, of which 10 slums are notified slums and rest are non-notified
- All the slums located in Wards 1,15 and 16 are more than 100 years old, whereas 75% of the slums located in ward No. 5 and 13 are less than 30 years of age.
- None of the slums in Baruipur are located on Government/ULB owned/service land as ownership of land for the entire 64 slums vest with private parties. Distribution of slums based on ownership, population and area has been given in Annexure B-2.

3.1.1.2 Slum status as per Location

Location wise analysis shows that 26 slums are situated in core area¹¹ of the municipality, of which 16 slums are notified slums and 10 slums are non-notified slums. Remaining 38 slums are situated in fringe area¹² of the city out of which 24 slums notified slums and 14 slums are non-notified slums.

Going by location of slums ward-wise, it is observed that all the slums located in 4 wards (3, 11, 15 and 17) are under core area, whereas, slums under another 6 wards (2, 4, 9, 13, 14 and 16) are completely under fringe area. Rest of the 7 wards have slums under both core and fringe area. Status of Slums in Baruipur as per Location has been presented in the table below:

¹¹ **Core Area:** Area having a population (based on the previous census) of at least 50,000 persons in the case of a Census Metropolitan Area (CMA), or at least 10,000 persons in the case of a Census agglomeration CA.

¹² **Fringe Area:** Fringe includes all population centers within a CMA or CA that have less than 10,000 persons and are not contiguous with the core or secondary core.

Table 11: Status of Slums in Baruipur as Per Location

Status of Slums	Core Area				Fringe Area				Slum Population in % terms of total population of slums	Slum HHs in % terms of total number of slum HHs
	No. of Slums	No. of HHs	No. of Persons	Area (Sq. Km)	No. of Slums	No. of HHs	No. of Persons	Area (Sq. Km)		
Notified	16	1060	3908	0.68	24	2158	7686	1.20	35%	34%
Non-Notified	10	476	1630	0.42	14	769	2667	0.51	65%	66%
Total	26	1536	5538	1.10	38	2927	10353	1.70		

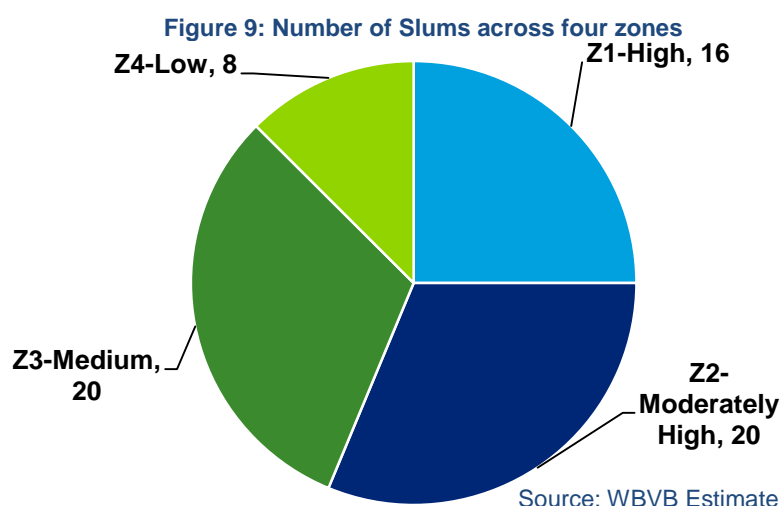
Source: USHA Survey and MIS data validation report

- Total area under slums is 2.81 sq. km which excluding¹³ vacant land, water bodies falling under slums
- Total area under slums in Baruipur constitutes 49% of the total area of the city with maximum concentration of slums in the fringe area of city capturing 30% of total area of Baruipur.
- Around 60% of total notified and non-notified slums are located in the fringe area of the city with total area of the slums coming under that area accounting for around 61% of the total slum area of Baruipur.

Distribution of all the slums against the area categories is given in annexure-B-3.

3.1.1.3 Land Value Analysis

Owing to geographical nature of the municipality as mentioned in the above section, land values in slums are observed to be of varying nature. Based on information on land values at different areas of Baruipur received from West Bengal Valuation Board (WBVB), all the slums¹⁴ have been categorised into four zones in order of increasing market value. The zones are: i) Z1 (High), ii) Z2 (Moderately High), iii) Z3 (medium) and iv) Z4 (Low). (Refer annexure B-4 for land values in four zones)



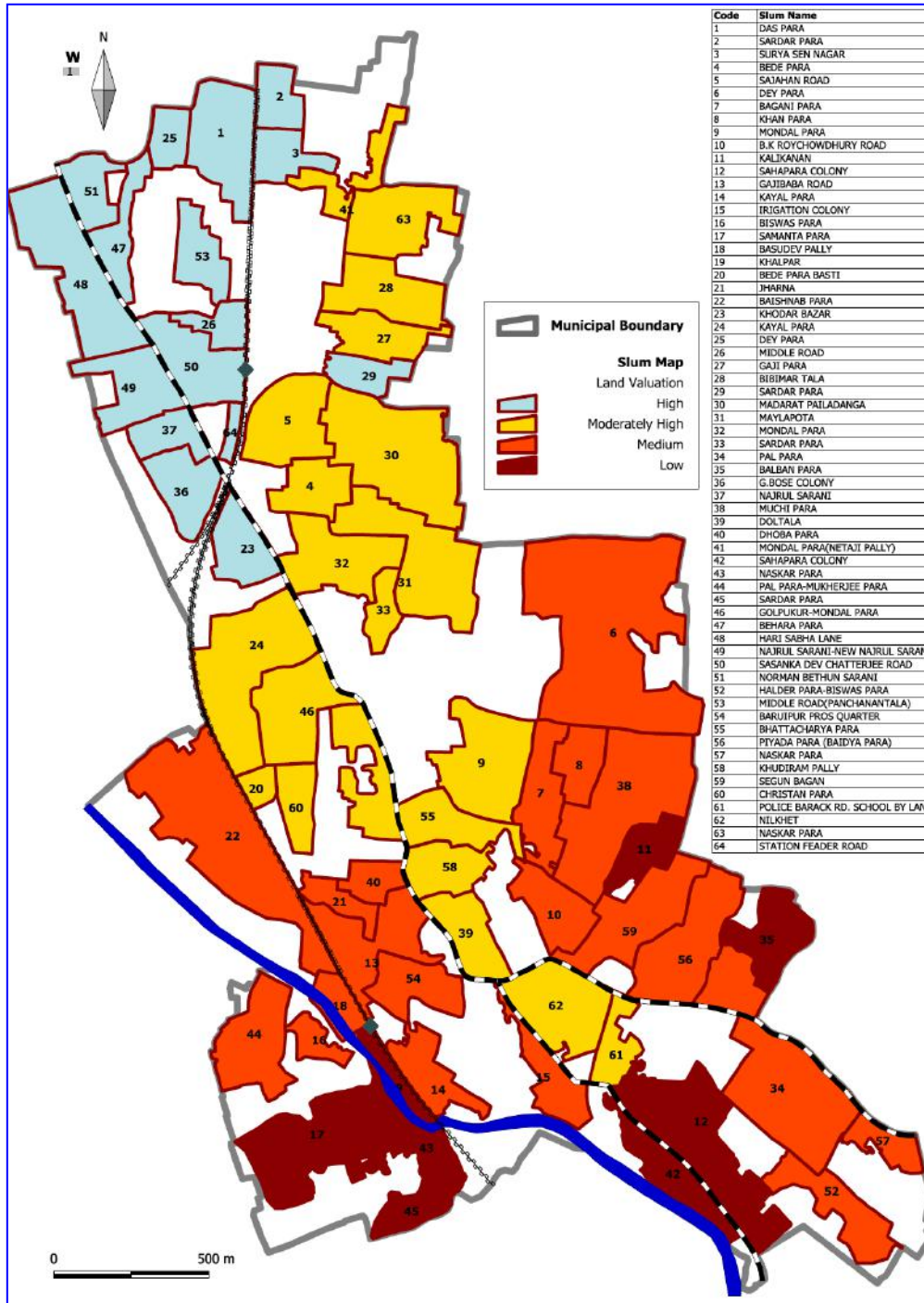
Distribution of slums in the four zones has been presented in the figure 9 and image below. It is observed from the image that

¹³ Slums in Baruipur municipality have significant portion of area covered under Agriculture and Plantation and also more than 400 water bodies including different sizes of ponds are spread across the slums. Total slum area has been arrived by deducting all the above areas as they shall not be utilized during slum improvement.

¹⁴ In Baruipur, most of the slums are located on private land with very small holding size. Accordingly, land value and land ownership are not being considered for identifying the slum redevelopment model.

- Majority of slums located in southern most fringe of the municipality have relatively lower land value zone (Z3 and Z4). This is primarily attributed to the rural characteristics of this part of the municipality with a significant presence of agriculture and plantation area.
- Owing to proximity to Kolkata megacity along with presence of majority of the commercial establishments, northern part of the municipality is relatively more strategic in terms of land value.

Land Value of slums in Baruipur



3.1.2 Social Profile

3.1.2.1 Demography

As on September 2013, the population of Baruipur was 55,628¹⁵ of which number of persons residing in slums are 15,891, which is about 30% of the total population. As per the socio economic survey undertaken as part of preparation of SFCPoA and validated by ULB and community, a total of 4463 households stay in slums. Ward wise slum population and number of households are presented in the table below:

Table 12: Ward wise slum population in Baruipur

Ward No.	No. of Slums in Ward	No. of HHs in slum	Total Population	% of total Population		Male Population	Female Population
				Slum	Baruipur		
1	2	192	690	4%	1%	324	366
2	3	171	642	4%	1%	320	322
3	2	96	407	3%	1%	205	202
4	1	173	588	4%	1%	308	280
5	4	431	1481	9%	3%	753	728
6	5	281	993	6%	2%	496	497
7	3	353	1368	9%	3%	695	673
8	5	492	1719	11%	3%	888	831
9	7	461	1459	9%	3%	730	729
10	7	434	1490	9%	3%	742	748
11	2	102	415	3%	1%	196	219
12	7	180	523	3%	1%	255	268
13	4	230	870	5%	2%	427	443
14	2	165	542	3%	1%	264	278
15	2	139	526	3%	1%	261	265
16	5	450	1772	11%	3%	893	879
17	3	113	406	3%	1%	212	194
Total	64	4463	15891			7969	7922

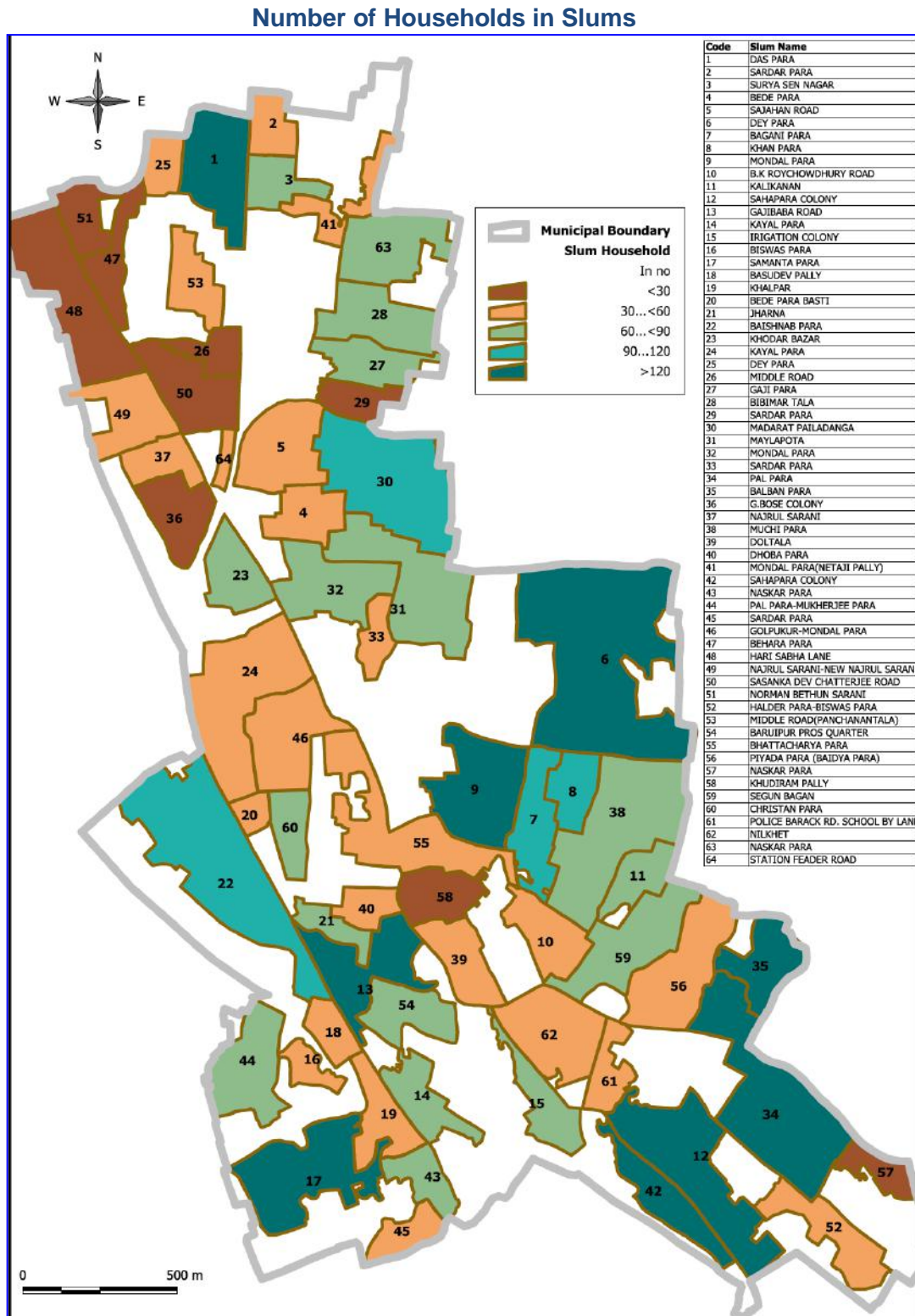
Source: USHA Survey and MIS data validation report

- Maximum concentration of population has been observed in ward no. 8 and 16 (5 slums each) with their share of slum population to total recording around 11% each, followed by four wards

¹⁵ Total population of Baruipur Municipality as per census 2001 was 44,913. As population figures are not available in 2011 census during the preparation of the report, the population for 2013 has been projected on the basis of decadal growth rate.

(5, 7,9 and 10) with their contribution to total slum population being 9% each (see the image below).

- There is no gender imbalance in terms of population of male and female in slums of Baruipur recording almost 1:1 ratio.
- Similarly maximum concentration (10% or more than 10% of the total) of households is observed in five wards (5, 8,9,10 and 16), while, in nine wards, number of households comes around less than 200



3.1.2.2 Population Density

Based on demographic analysis for 64 slums, it is found that 13 slums (20%) have low population density i.e. upto 3000 persons per sq. km and 17 slums (27%) have medium density ranging between 3000- 6000 persons per sq. km, whereas 16 slums (25%) have density ranging between 6000-9000 persons per sq. km. Remaining 18 slums have high density of more than 9000 persons per sq. km. Table below shows ward ward-wise distribution of slums with respect to population density per sq. km.

Table 13: Ward Wise Population density of slums

Ward No.	Notified Slums		Non Notified Slums		Total Slums	
	No. of notified slums	Population Density (per sq. Km) of all notified slums in ward	No. of non-notified slums	Population Density (per sq. km) of all non-notified slums in ward	Number of Slums	Population Density (per sq. km) of all slums in ward
1	1	9400	1	4270	2	13640
2	2	8800	1	6020	3	14800
3	2	4400	-	-	2	4380
4	1	4500	-	-	1	4510
5	4	6300	-	-	4	6300
6	3	5800	2	4910	5	10670
7	1	13200	2	4720	3	17960
8	3	7700	2	9680	5	17410
9	4	7200	3	7570	7	14820
10	4	5500	3	2980	7	8500
11	2	3500	0		2	3460
12	2	4600	5	1500	7	6110
13	3	5100	1	5980	4	11130
14	2	2500	0	-	2	2530
15	2	6400	0	-	2	6400
16	2	14800	3	5840	5	20680
17	2	3700	1	22280	3	26030
	40		24		64	

Source: USHA Survey and MIS data validation report

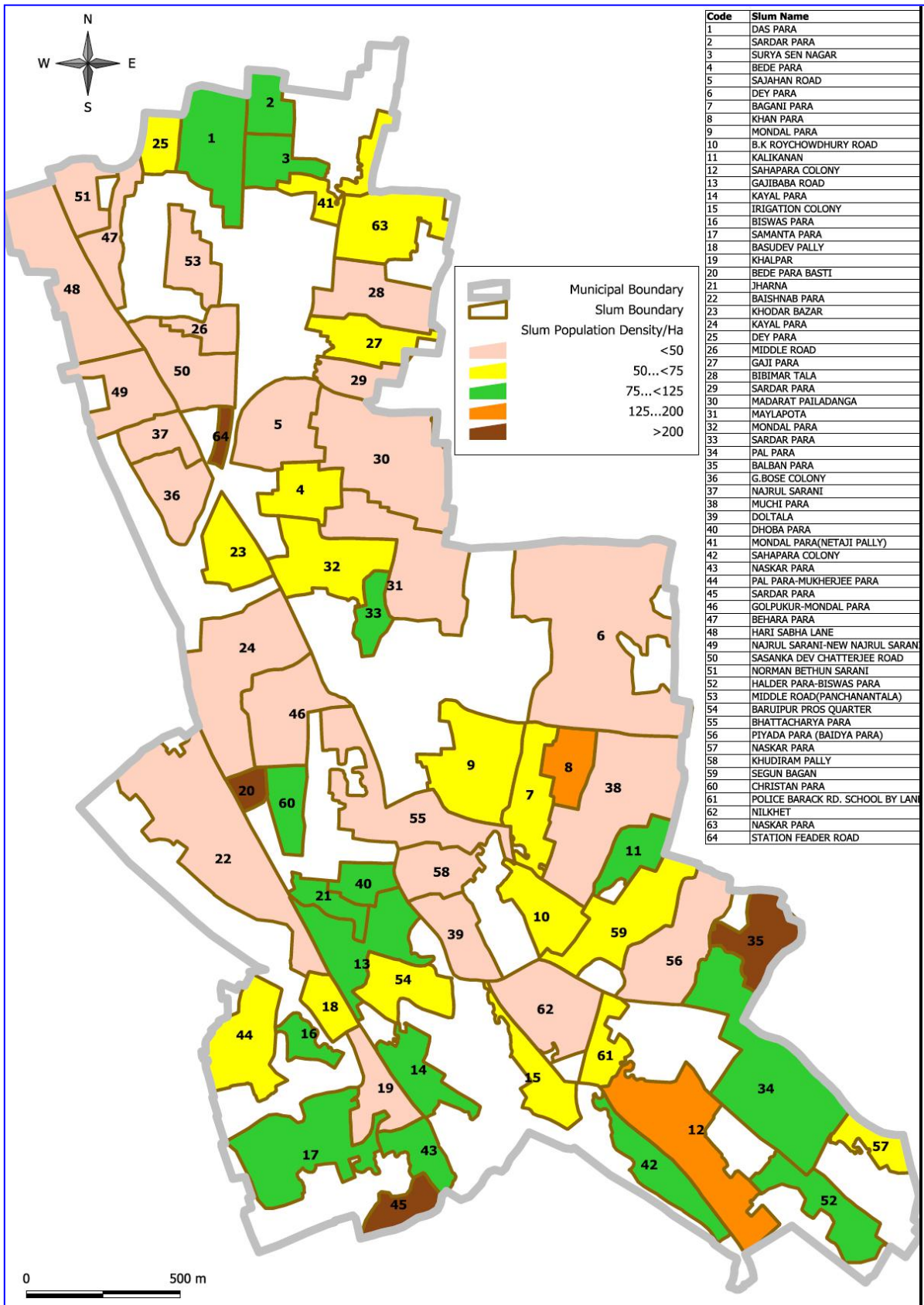
Table above shows ward-wise distribution of slums in terms of population density¹⁶. and it is observed that maximum concentration in terms of population density is visible in slums located in ward nos. 2, 7,8,9,15, 16 and 17. On the contrary, minimum concentration in terms of population density is observed in slums located in ward nos. 3, 4,11,14 etc.

Overall, average population density is relatively higher in notified slums than non-notified slums. Based on analysis with respect to linkage between age and population density in notified and non-notified slums (refer Annexure B-5A and Annexure B-5B), it reveals that

¹⁶ As population density of slums in Baruiapur is very low, the table captures population density per sq. km

- In case of 40 notified slums, 30 slums are more than 30 years old with average population density being around 5400 per sq. km. Of the remaining 10 slums, 8 slums are more than 25 but less than 30 years old with average population density of around 6100 per sq. km.
- Regarding 24 non-notified slums, 21 slums are more than 30 years old with average population density recording around 4300 per sq. km.

Slum Population Density



3.1.3 Access to Other Basic Facilities

Electricity

- 66% households have electricity connectivity in their premises. Of the rest of the households which do not have any electricity connection in their houses, it is observed majority of the houses depend on kerosene (1368 HHs) and Firewood (22 HHs).

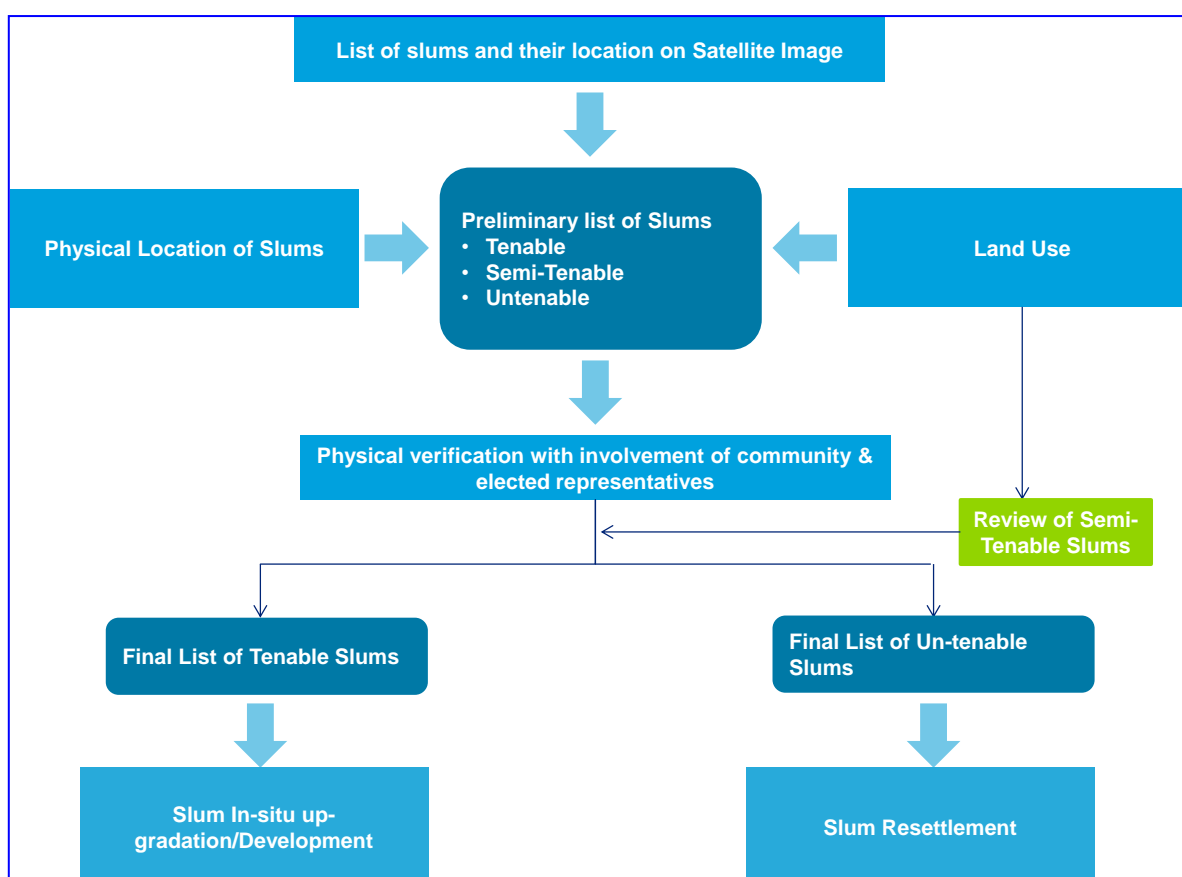
Fuel for Cooking

- In terms of access to fuel for cooking, more than 850 houses have LPG facilities in their houses and 900 households use kerosene for cooking. But, most of the households still depend on charcoal and firewood with their joint share to total number of households around 60% of the total households.

3.2 Tenability Analysis

RAY guideline prescribes the following approach for assessing the tenability of slums.

Figure 10: Approach for Tenability Analysis



The above approach suggests that the tenability of the slums need to be assessed on the basis of i) physical location of slums and ii) land use. Status of slums in Baruipur with respect to the above two categories is detailed below.

3.2.1 Physical Location of Slums

Physical location categories include slums located i) along the major transport alignment or ii) along the major nallah or iii) along the railway line etc. Location of all the slums is presented below:

Table 14: Distribution of Slums with reference to Physical Location

Physical Location of Slums	Notified Slums		Non-Notified Slums		Physical Location wise slum in terms of total Number of Slums	Physical Location wise slum in terms of total HHs
	No. of Slums	No. of HHs	No. of Slums	No. of HHs		
1. Along railway	-	-	-	-	-	-
2. Along major transport alignment	-	-	-	-	-	-
3. Along major Nallah	-	-	-	-	-	-
4. Other / non-hazardous zone	40	3218	24	1245	100%	100%
Total Slums	40	3218	24	1245	100%	100%

Source: USHA Survey and MIS data validation report

Slums in “Other / non- hazardous zone” also include

- Slums close to Transport alignment:** In Baruipur context, the major transport alignment is Kolkata-Kulpi and Kolkata-Canning Road. This road is a district road and does not have very heavy vehicular traffic and vehicles with high speed. Discussions with stakeholders and slum dwellers revealed that as these slums have very low density and are on private land, the slum households which are close to the transport alignment can be reconfigured through partial layout. Accordingly, all the twenty two (22) slums along the transport alignment are considered to be in “Other / non- hazardous zone”.
- Slums close to Nallah¹⁷:** In Baruipur, there are seven (7) slums located close to nallah. These slums have very low density and discussions with stakeholders and slum dwellers revealed that the households close to nallah will be reconfigured through partial layout to shift them away from the nallah. Accordingly, all the 7 slums along the nallah are considered to be in “Other / non- hazardous zone”.
- Slums close to Railway line:** In Baruipur, there are thirteen (13) slums located close to railway line. Certain pockets of two of the slums (Sajahan Road-SC 005 and Station Feeder Road) are untenable due to their proximity to railway track. These pockets shall be earmarked for adjustment to the tenable area within the same slum as densities are very low and the households within these untenable pockets will be absorbed in the remaining slum area.

¹⁷ Out of seven slums along nallah , 2 slums are also along transport alignment and four slums are along railway line too

3.2.2 Flood Prone Slums

The table below shows the status of flood prone slums.

Table 15: Number of Slums Prone to Floods

No.	Prone to floods	Notified		Non-Notified Slums		Total Slums	Slums in category as % of Total Number of Slums	Total HHs	HHs in category in % terms of total Number of Slum HHs
		No. of Slums	HHs	No. of Slums	HHs				
1.	Not Prone	15	1381	10	416	25	39%	1797	40%
2.	Up to 15 days	23	1757	12	749	35	55%	2506	56%
3.	15-30 days	1	39	2	80	3	5%	119	3%
4.	More than a month	1	41	0	0	1	2%	41	1%
Total		40	3218	24	1245	64	100%	4463	100%

Source: USHA Survey and MIS data validation report

Salient observations from the above table include:

- Around 39% of the notified slums and 40% of non-notified slums covering 40% of total slum households are not at all prone to water logging throughout the year
- Around 58% of the notified slums and 50% of non-notified slums covering around 56% of total slum households remain flooded during the monsoon period upto 15 days
- Households affected by waterlogging by more than 15 days are only 160 accounting for around 0.4% of the total slum households. Details of the 4 slums falling under these two categories have been presented in the table below:

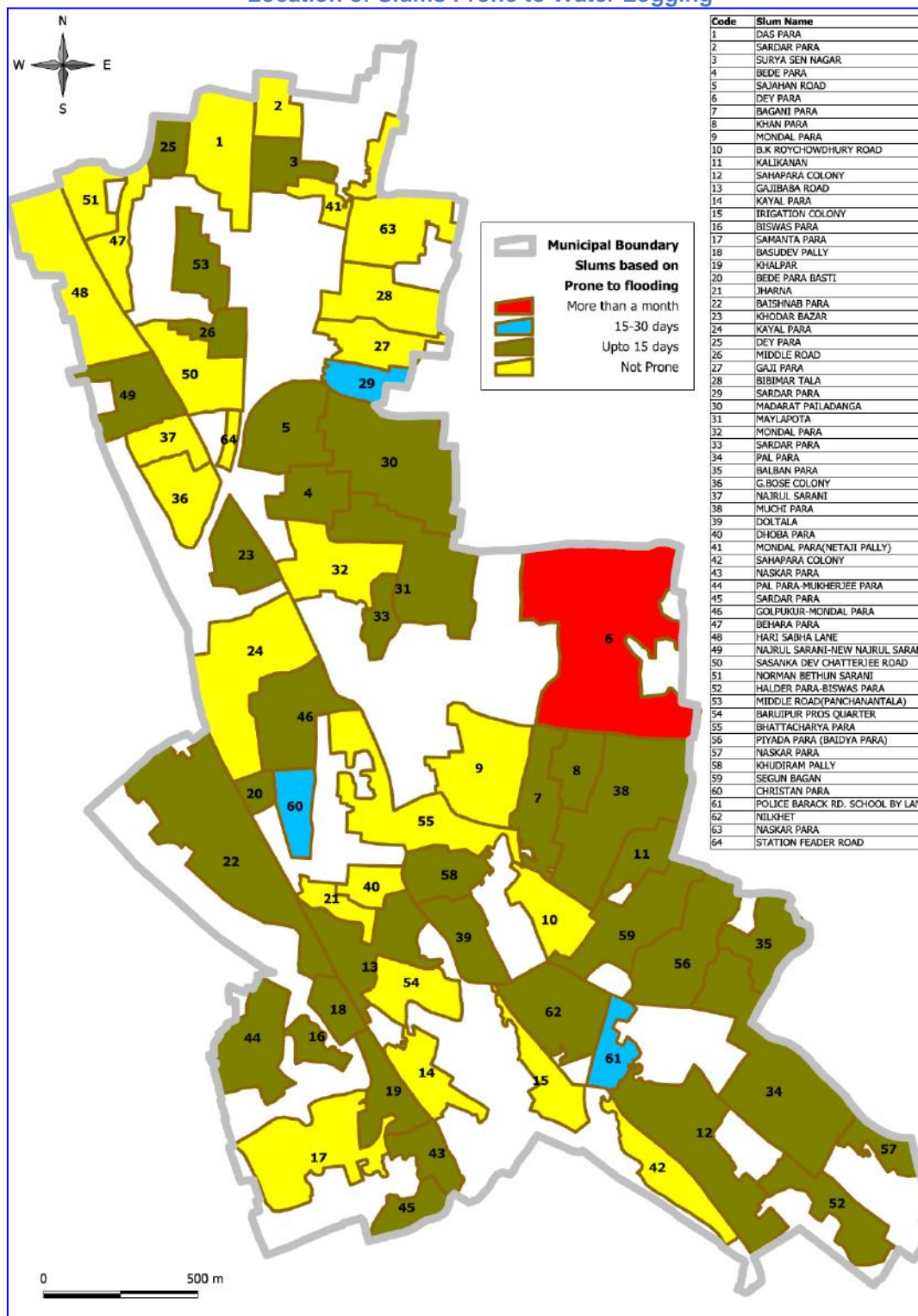
Table 16: Details of Slums Prone to Water logging for more than 15 Days

Slum Name and Code	Ward No.	Status	Area in Sq. Km	Physical location	Location of Slums
Sardar Para(S.C.-029)	13	Notified	0.026	Other / non-hazardous zone	Fringe Area
Christan Para(S.C-060)	10	Notified	0.030	Other / non-hazardous zone	Fringe Area
Police Barack Rd. School By Lane (S.C.-061)	7	Non-Notified	0.025	Other / non-hazardous zone	Core Area
Dey Para(S.C-006)	4	Notified	0.130	Other / non-hazardous one	Core Area

Source: USHA Survey and MIS data validation report

From the table above, it is observed that all the four slums, which remain waterlogged for more than 15 days, are located in other/non-hazardous zone and constitute around 4% of the total slum area of Baruipur. Dey Para located in ward number 4 of Baruipur is the only slum where waterlogging is reported to persist for more than a month.

Location of Slums Prone to Water Logging



3.2.3 Land Use

Slum area constitutes around 49% of the total geographical area of Baruipur implying presence of slums in all types of surrounding land use categories. The map below depicts the current land use in the slums

Land Use Analysis of Slums

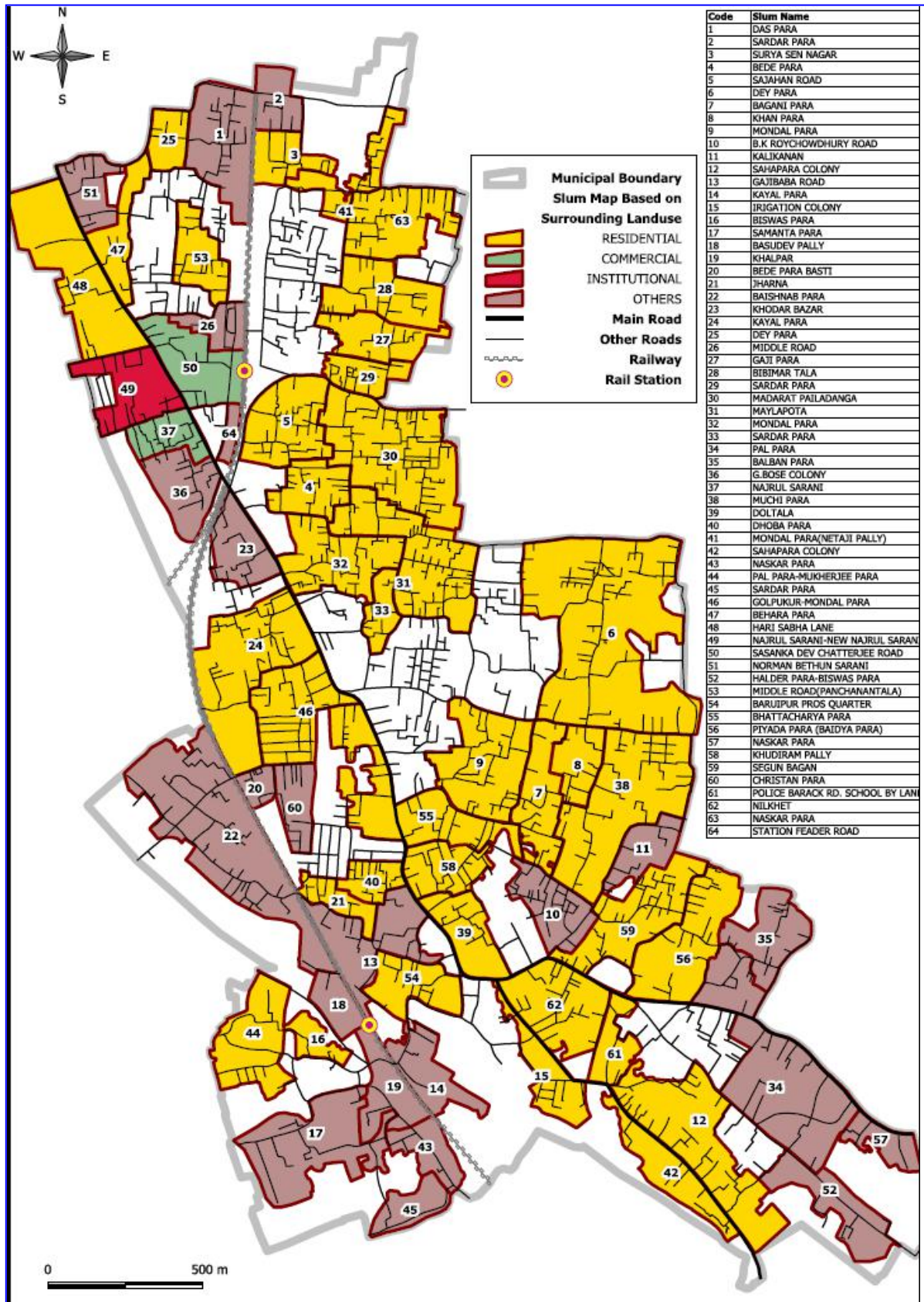


Table below illustrates the distribution of slums according to land use of surrounding area and the number of households for each slum:

Table 17: Distribution of Slums with reference to Land Use

Category	Notified Slums		Non-notified slums			% of HHs	% of Slums	
	No. of Slums	Area (in Sq. Km)	No. of HHs	No. of Slums	Area			No. HHs
Residential	23	1.20	1846	15	0.68	834	60%	59%
Commercial	1	0.03	39	1	0.06	23	1%	3%
Institutional	0	–	0	1	0.05	30	1%	2%
Others	16	0.65	1333	7	0.13	358	38%	36%
Total	40	1.88	3218	24	0.93	1245	100%	100%

Source: USHA Survey and MIS data validation report

Table above shows while 38 slums have only residential area, another 23 slums have been categorised as “Others. Owing to mix land use pattern of slums in its surrounding area, “Others” have been referred as slum areas which are partly residential in nature but either surrounded by or adjacent to railway line/plantation area/agriculture land. Table below shows further details of Slums categorised as “Others”.

Table 18: Distribution of Slums falling in “Others” Category

Category	Notified Slums		Non-notified slums			% of Total HHs	% of total No. of Slums	
	No. of Slums	Area (in Sq. Km)	No. of HHs	No. of Slums	Area			No. HHs
Plantation-Residential	3	0.08	289	1	0.03	25	7%	6%
Railway-Residential	9	0.31	580	2	0.04	133	16%	17%
Railway-Water body	2	0.15	150	0	-	0	3%	3%
Agriculture-Residential	2	0.11	314	4	0.07	200	12%	9%

Source: USHA Survey and MIS data validation report

3.2.4 Tenability Assessment

Having assessed the status of slums with respect to physical location and land use characteristics, all 64 listed slums in Baruipur Municipality are analysed with regard to their tenability in order to determine prioritisation of slums and slum development options i.e. whether planned service provision will be undertaken through in-situ up-gradation /redevelopment or resettlement. The objective of this exercise is to classify slums as Tenable or Untenable and any slums which are classified as Semi-Tenable were further analysed to classify them as Tenable or Untenable. RAY guidelines prescribe the following criteria for classifying the slums as tenable, semi-tenable or untenable are provided in the box below:

Tenable Slums:

1. All slum pockets located on non-objectionable and non-hazardous sites as obtained from NBO formats.
2. As per “Model Property Rights to Slum Dwellers Act, 2011”- All slums settlements which do not fall within the definition of untenable settlements are considered as tenable and fit for in-situ redevelopment / improvement.

Semi Tenable Slums

All slum pockets located on sites which are earmarked for non-residential uses as per Master Plan are categorized as semi-tenable for further analysis and review. Finally, the semi tenable slums are either is categorized as Tenable or Untenable.

Untenable Slums

(i) As per NBO format, slum pockets in the following locations **may be** considered as untenable Major storm water drains, Other drains, Railway line, Major transport alignment, River or water bodies Bank , River or water bodies Bed and others (hazardous or objectionable) including high tension lines.

However, slums on other drains may be examined for being included in the category of semi tenable or tenable

Slums depending on the exact location of the slum and the possibility of in---situ development through sustainable engineering solutions

(ii) As per “Model Property Rights to Slum Dwellers Act, 2011”

Those settlements which are on environmentally hazardous sites, ecologically sensitive areas, prohibited areas around heritage sites and land marked for public spaces, utilities, services and infrastructure.

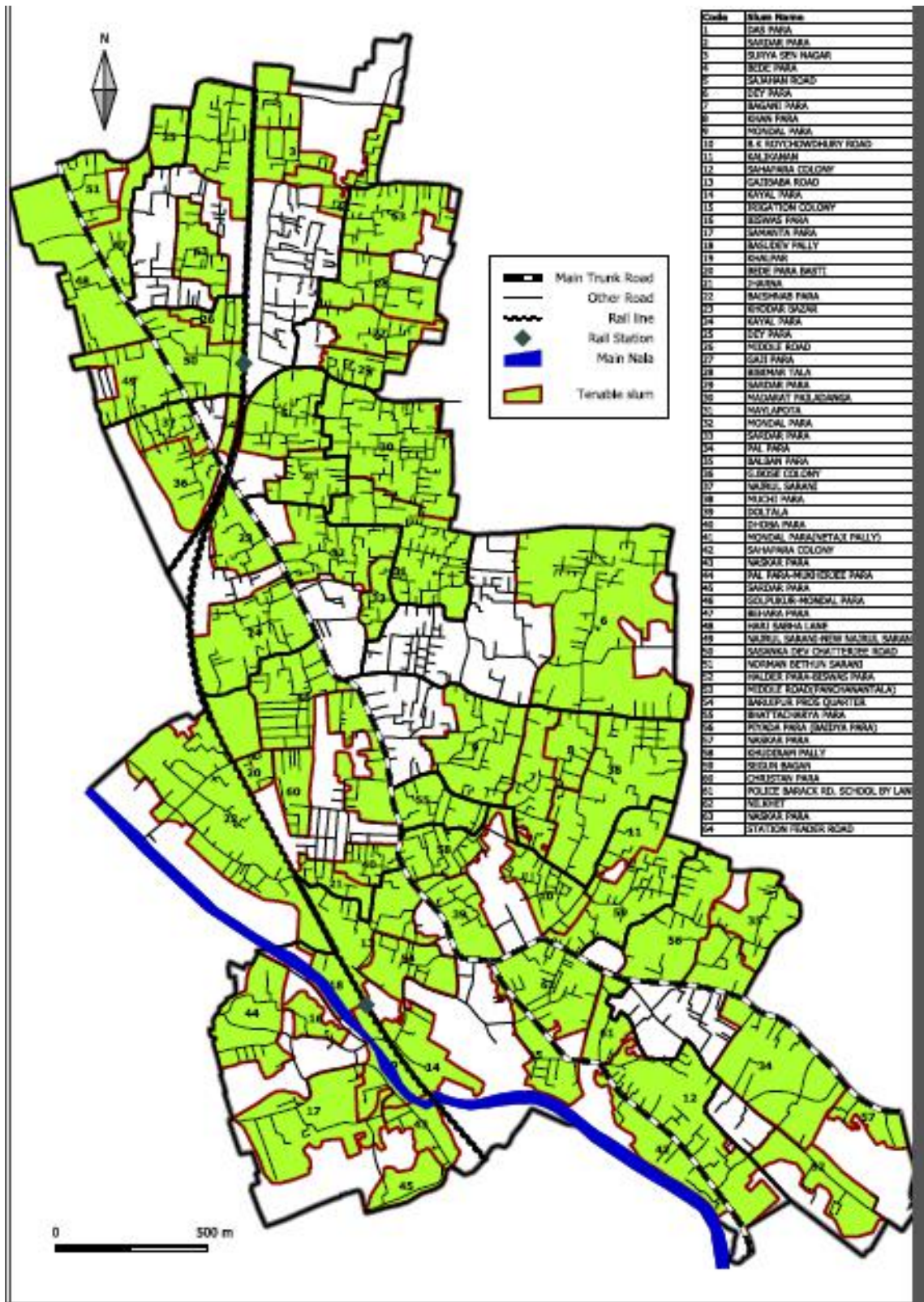
Analysing the above principles, it is observed that out of 64 slums, certain pocket of 2 slums may need to be relocated due to their proximity to railway tracks. However, such partial relocation is achievable on account of low density of slum and availability of adequate land within the slum.

In addition, the tenability of slum was assessed on the following parameters

- **Land Use:** Baruipur municipality has a Land Use and Development Control Plan (LUDCP) which prescribes the mixed land use characteristics for all the four identified development control zones. Looking into the mixed land use, location of the slums in Baruipur is in conformity with the proposed land use.
- **Flooding:** Four slums out of 64 slums are prone to flood for more than 15 days and can be made tenable through sustainable engineering solutions like proper drainage system.

Accordingly, all the 64 slums in Baruipur are considered to be tenable and are considered for prioritisation.

Tenable Slums in Baruipur



3.3 Prioritisation of Slums

In Baruipur, all 64 slums are tenable and are accordingly considered for the purpose of prioritisation. Prioritisation of slums is carried out on the basis of

- Infrastructure Deficiency
- Vulnerability (including housing)
- Security of Tenure

The infrastructure deficiency was analysed with respect to water supply, sanitation, drains and roads in slums and vulnerability was assessed on the basis of housing condition, income level, SC/ST population and minority population. Land tenure status was assessed on the basis of security of tenure i.e. secured or unsecured tenure.

These indicators were analysed across a 3X3X2 matrix to assess the deficiency of slums with respect to above three categories. The key indicators used for analysis in each of the parameter are as follows:

3.3.1 Infrastructure deficiency parameters

The various indicators and their score to assess infrastructure deficiency are provided in the table below:

Table 19: Indicators for assessing Infrastructure deficiency

No.	Indicators	Score		
		1	2	3
1.	Water: Percentage of Households without Individual tap connection	0-30	30-60	60-100
2.	Sanitation: Percentage of Households without access to individual latrine	0-30	30-60	60-100
3.	Drains: Whether the slum is connected, not connected or partially connected to city wide storm water drainage system	Connected	Partially Connected	Not Connected
4.	Roads: Percentage of Households with Non Motorable Katcha and Non Motorable Pucca Roads	0-30	30-60	60-100

Note: 0-30 means less than equal to 30, 30-60 means more than 30 but not more than 60, 60-100 means more than 60

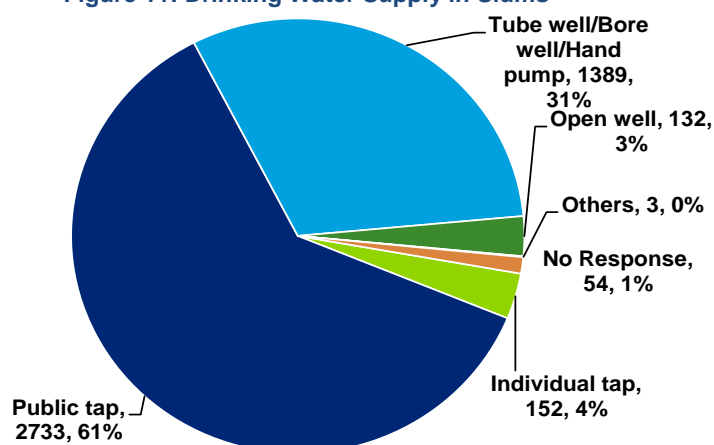
Status of all 64 slums in respect of the four infrastructure deficiency parameters is detailed below:

3.3.1.1 Water

Slum households in Baruipur have limited access to water connection inside their premises. Figure below shows the following

- More than 3/5th of total households are dependent on public tap and about 31% households resort to Tube

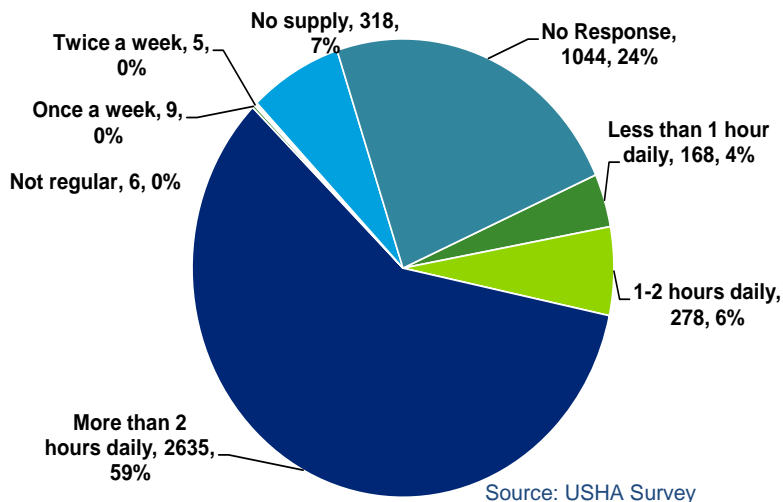
Figure 11: Drinking Water Supply in Slums



well/Bore well/Hand pump for water collection. These two, combined together, constitute around 92% of total slum households.

- Out of the remaining 8% households, 4% households have water connection inside their house and rest 3% have access to open well inside their premises.

Figure 12: Duration of Water Supply in Slum



Slums in Baruipur have intermittent water supply up to a maximum of 6 hours of supply in a day. While around 450 households manage to get water for not more than 2 hours daily, 2635 households, on the contrary, get access to drinking water facility more than 2 hours a day. Number of households reporting no access to drinking water supply are 318 and they are distributed in 15 slums, with

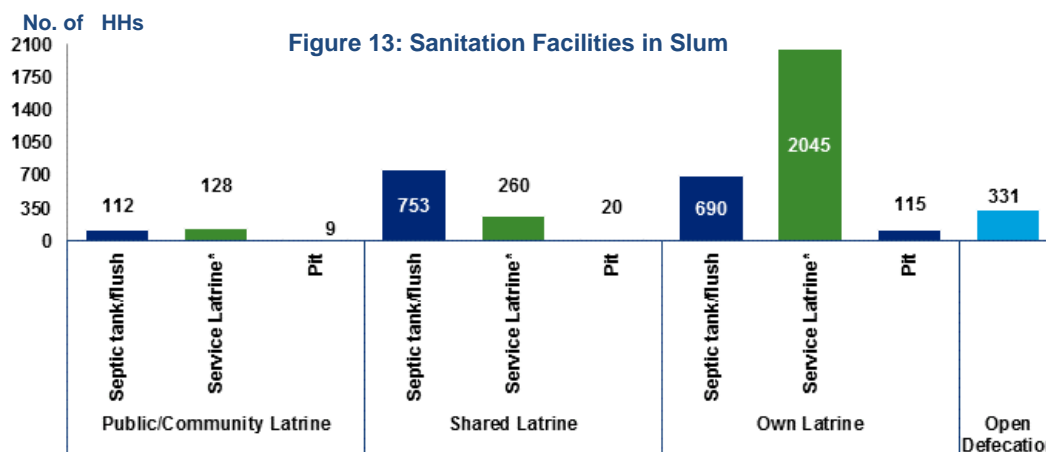
maximum concentration of households is observed in i) Baruipur Pros Quarter (65% of HHs), ii) Kayal Para (64% of HHs), iii) Sardar Para (56% of HHs) and iv) Das Para (48% of HHs).

In terms of proximity to water collection facility in slum, it is observed that more than 80% households have access to drinking water facility within a range of 500 meters from their houses and another 7% households are required to go more than 500 meters but less than 1 Km every day.

3.3.1.2 Sanitation

In terms of access to sanitation facility, 64% households have latrine facility inside their houses, whereas 23% households share latrine with others. Figure below shows Baruipur has comparatively lesser exposure to public/community latrine facilities in slums as only 7% households depend on Public/Community Latrine and moreover, 7% households still resort to open defecation.

Figure below shows access to sanitation facilities in slums of Baruipur.



***Service latrine facility in Baruipur signifies Two-Pit Pour Flush Latrine system**

Analysis of sanitation facilities across notified and non-notified slums shows that

- Majority of the households (46%) have access to insanitary service latrine facility (Two-Pit Pour Flush latrine system) followed by households using shared septic tank/flush latrine (17%) and own septic tank/flush latrine (15%).
- Out of 331 households reported to depend on open defecation, 249 households are from notified slums and remaining from non-notified slums

Access to Bathroom facility

- In terms of access to bathroom facilities, 43% households (Around 1900 Nos.) have bathroom facilities inside their own premise, of which around 70% households are from notified slums and rest from non-notified slums.
- Rest of households do not have any bathroom facilities inside their premises, of which 26% use outside facilities and another 8% depend on community bathrooms.

3.3.1.3 Drains

Improper drainage system is one of the emerging challenges of Baruipur Municipality, which leads to water logging condition in several slums every year during monsoons. None of 64 slums of Baruipur have connectivity to city wide underground drainage/sewer line. Table below shows the status of connectivity to City-wide Storm-water Drainage System.

Table 20: Connectivity to City-wide Storm-water Drainage System

Category	Notified Slums			Non-Notified Slums			% total slum	% total HHs
	No. of Slums	No. of HHs	No. of Population	No. of Slums	No. of HHs	No. of Population		
Fully Connected	7	595	2075	0	0	0	11%	13%
Partially Connection	28	2306	8443	8	453	1618	56%	62%
Not Connected	5	317	1076	16	792	2679	33%	25%
Total	40	3218	11594	24	1245	4297	100%	100%

Source: USHA Survey and MIS data validation report

As can be observed from the above table:

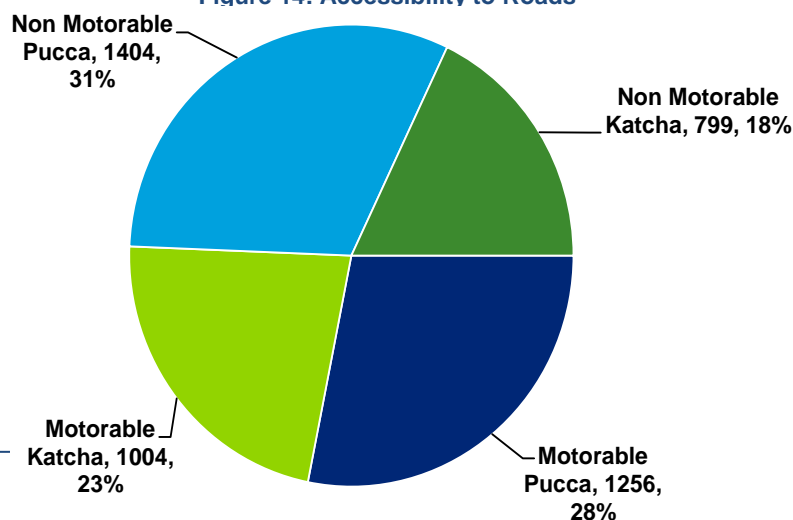
- Out of 64 slums, 595 households staying in 7 slums of Baruipur are fully connected with storm water drainage facility and all the 7 slums are notified slums
- Majority of the slums (36 slums) covering 62% of total HHs are partially connected as only part of their respective slum areas are reported to be connected with the facility
- Total of 21 slums, of which 16 are non-notified slums, are not at all connected with any kind of sewer/drainage system.

3.3.1.4 Roads

Accessibility to roads is an important parameter for development of slums. From the figure alongside, following key things can be ascertained

- About 28% households in slums have access to motorable pucca

Figure 14: Accessibility to Roads



Source: USHA Survey

road and another 31% households to non-motorable pucca road.

- Rest of the households have access to katcha road, of which around 23% households have motorable katcha road facility and rest have access to katcha road, but non-motorable. Annexure B-6 shows photographs of road conditions in slums.

3.3.2 Vulnerability

The various indicators and their score to assess vulnerability is provided in the table below

Table 21: Indicators for assessing vulnerability

No.	Indicators	Score		
		1	2	3
1.	Housing: Percentage of Households with Katcha and Semi Pucca Houses	0-30	30-60	60-100
2.	Income Level: Percentage of HH having income < Rs.3000/- per month	0-30	30-60	60-100
3.	Caste Status: Percentage of SC , ST and OBC in slum	0-30	30-60	60-100
4.	Minority Population: Percentage of Minority Population in a slum	0-30	30-60	60-100

(0-30 means less than equal to 30, 30-60 means more than 30 but not more than 60, 60-100 means more than 60)

Note: Population densities are very low in Baruipur accordingly slum density was not considered for prioritization

Status of all 64 slums in respect of the four infrastructure deficiency parameters is detailed below:

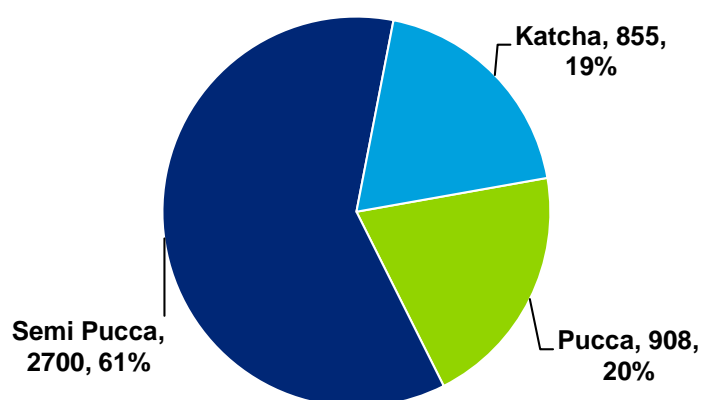
3.3.2.1 Housing

- Out of 4463 households, majority of the households (61% of total HHs) stay in semi-pucca houses followed by households staying in pucca houses, which amounts to about 1/5th of total households. About 19% households stay in katcha houses (please refer annexure B-7 showing photograph of houses).

- Combining katcha and semi pucca houses together, it is found that 80%

of the total houses are required to be considered for the purpose of new construction/upgradation under slum development strategy. Out of these total 3555 houses, 64% of total houses are located in notified slums and rest of the houses are located in non-notified slums.

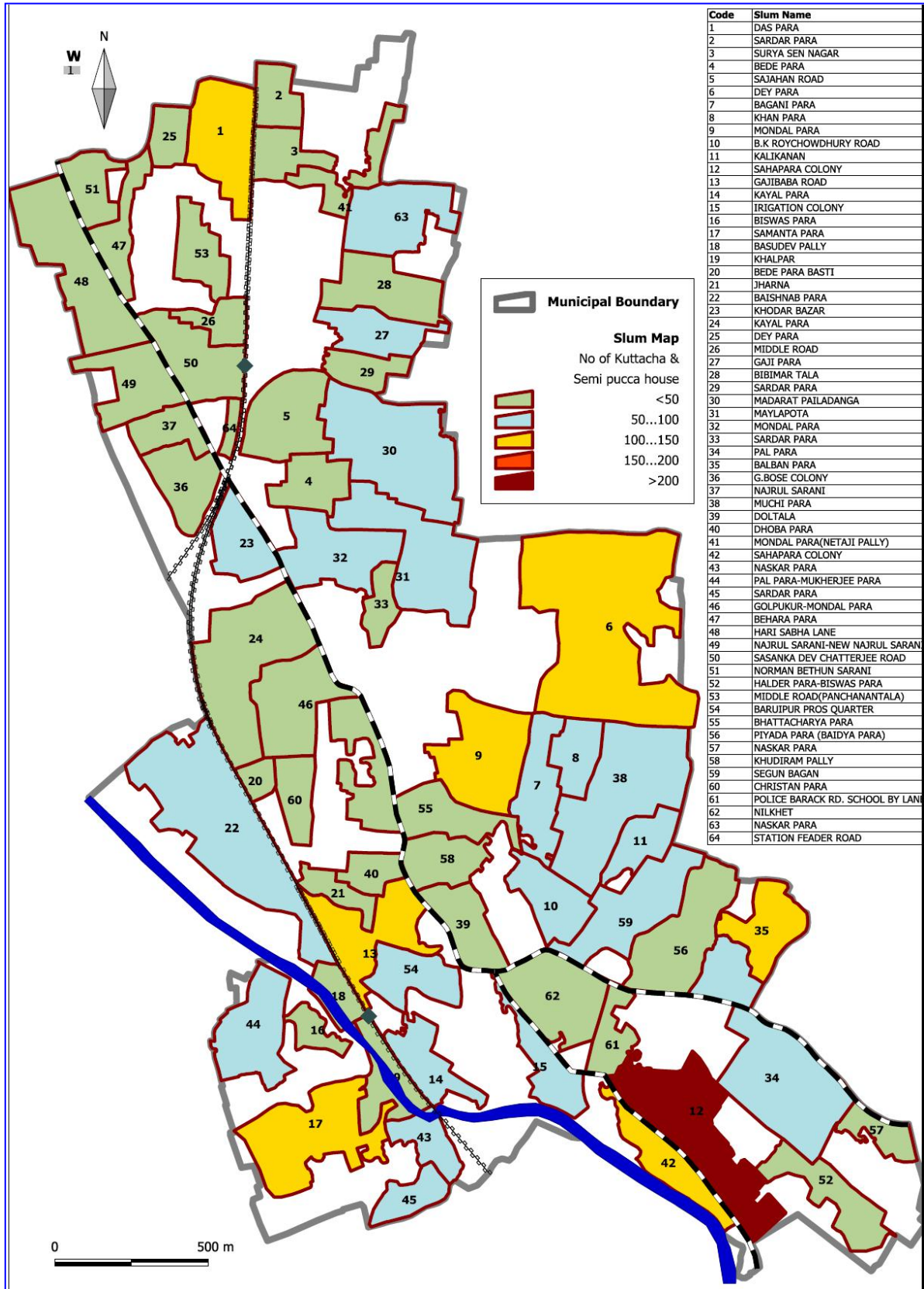
Figure 15: Type/Structure of Houses in Slums



Source: USHA Survey

The image below shows that there are only two slums (slum code 3 and 41) recording less than 50% of katcha and semi pucca houses in these slums and both of these two slums are located in the north eastern part of the city near core area.

Slums with number of Katcha and Semi-pucca houses

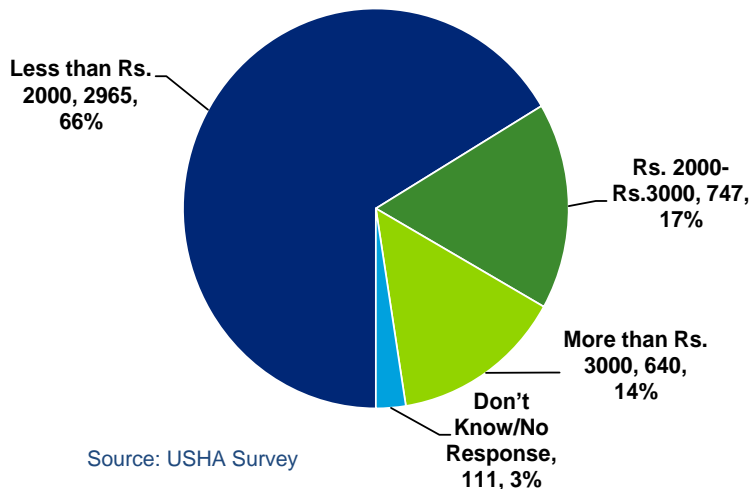


3.3.2.2 Income Level

Figure below shows monthly income of slum households staying in Baruipur. Analysis shows

- 2965 households have monthly income of less than Rs. 2000, of which around 61 households (around 1.4% of total) earn less than Rs. 500 per month and 542 (12% of total) households have monthly income ranging between Rs. 500-Rs.1000. But, majority of households, which is around 55% of total households, fall in monthly income range of Rs. 1000-2000.
- 14% of total households are relatively well off with their average monthly income being more than Rs. 3000. Annexure B-8 shows details of average monthly income and expenditure of households staying in Baruipur.

Figure 16: Monthly income of slum households



3.3.2.3 Caste Status

Majority of the households residing in slums fall under general category with their share to total slum households recording 54% of total households (refer the figure below). Further analysis shows

- SC category households constituting around 36% of total slum households of Baruipur (Refer figure 17: Caste Status of Slum Dwellers

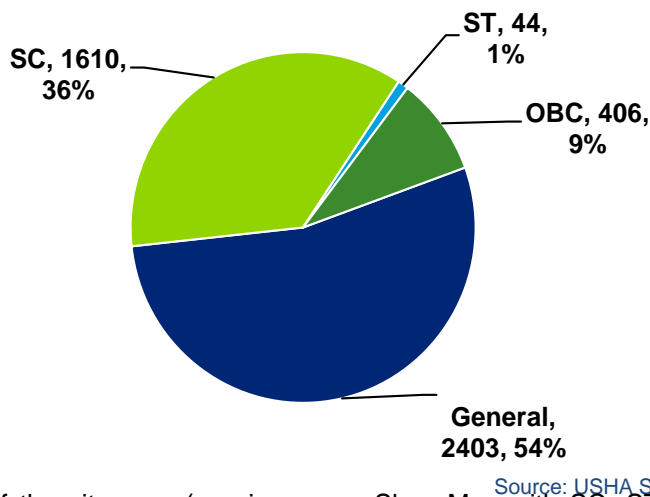
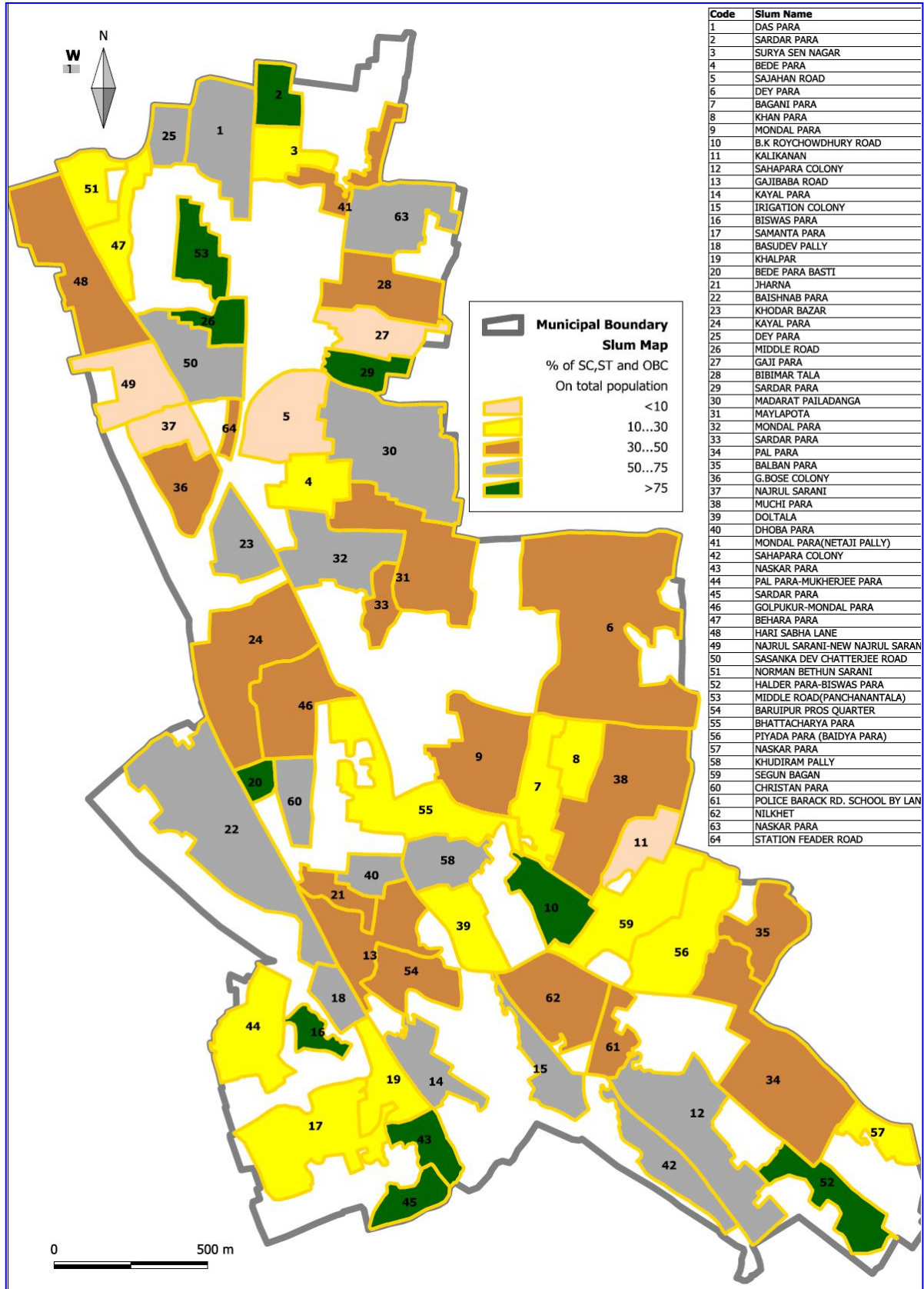


figure 13). Number of households falling under OBC and ST categories is around 450 in aggregate.

- There are 10 slums in which more than 75% of the population is SC, ST and OBC and in another 5 slums, less than 10% of population is SC, ST and OBC. Of these 15 slums, 4 of them are in the core

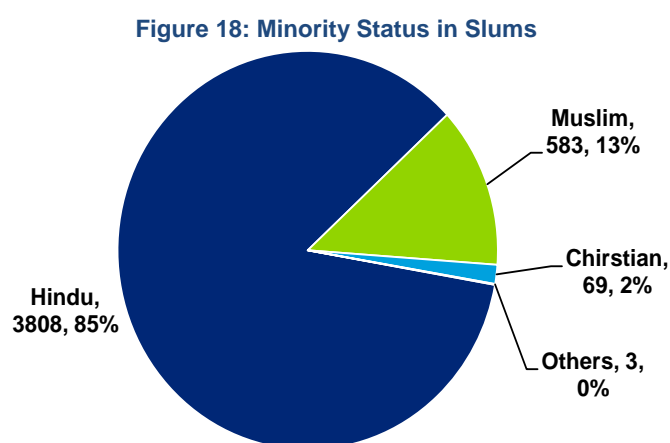
of the city area (see image on Slum Map with SC, ST and OBC concentration). For further details, refer Annexure B-9 showing Caste wise distribution of households in slums for each ward. Also, image below shows slum wise distribution of SC, ST and OBC in Baruipur.

Slum wise distribution of SC, ST and OBC in Baruipur



3.3.2.4 Minority Population

Only 655 households residing in slums have minority status as majority of the slums of Baruipur are dominated by Hindu families (85% of total households). Out of the 655 minority households, Muslim community is dominant followed by households who are Christian (refer figure below).



Source: USHA Survey

3.3.3 Land Tenure Status

Security of tenure was assessed on the basis of slum households having patta and possession certificates.

Table 22: Indicator for assessing security of tenure

No.	Indicators	Score	
		1	2
1.	Land Tenure: Percentage of Households with Patta & Possession Certificate	More than 60	Less than equal to 60

Table below shows the status of land tenure in both notified and non-notified slums of Baruipur.

Table 23: Distribution of Slum based on Tenure Status

Household Tenure Status	Notified Slums		Non-Notified Slums	
	Number of HHs	% of the total	Number of HHs	% of the total
1. With Patta	386	12%	131	11%
2. Possession Certificate/ Occupancy Right	2195	68%	954	77%
3. Encroached-Private Land	151	5%	23	2%
4. Encroached-Public Land	143	4%	57	5%
5. On Rent	194	6%	50	4%
6. Other	119	4%	24	2%
7. No Response/not available	30	1%	6	0%
Total	3218		1245	

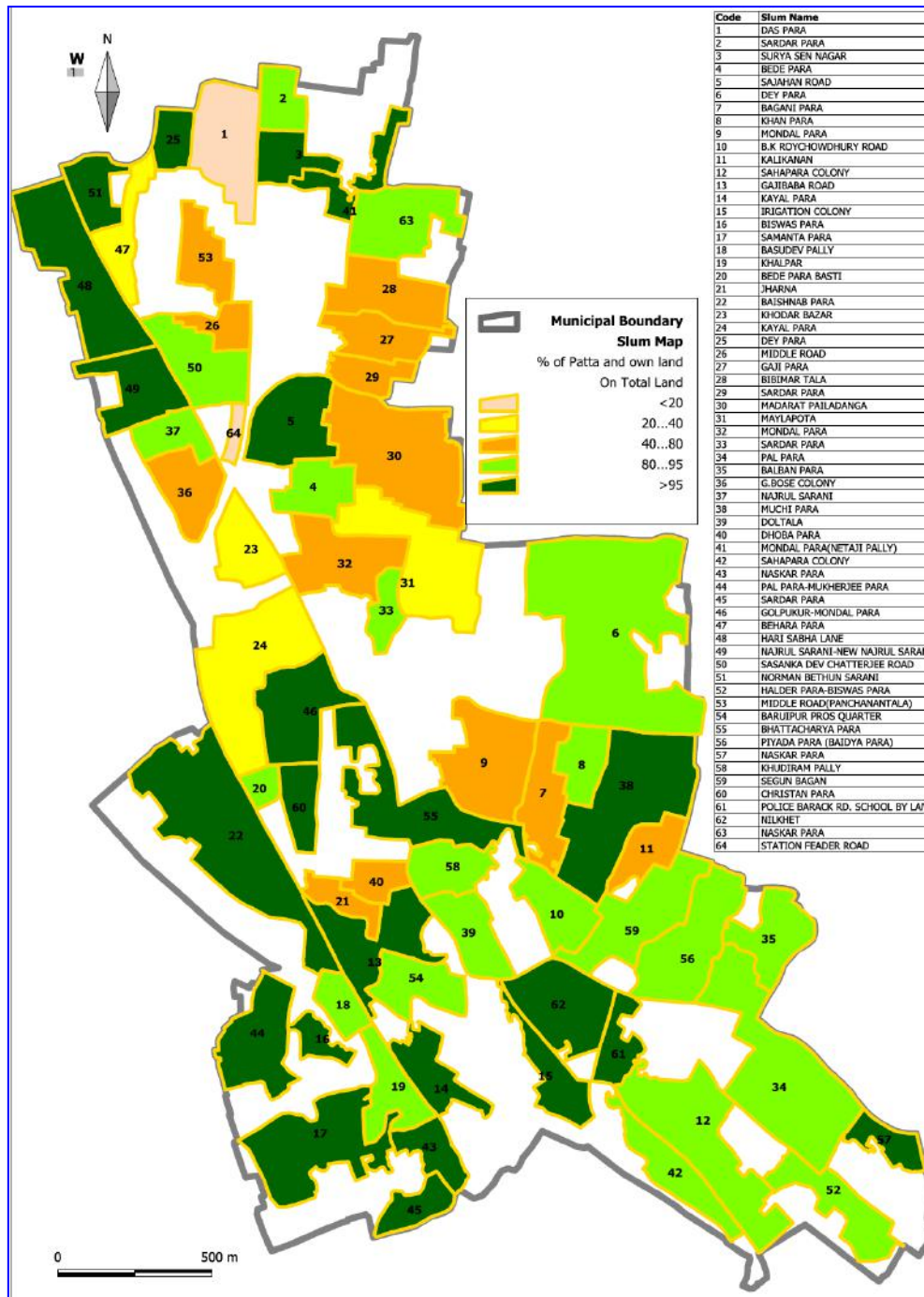
Source: USHA Survey and MIS data validation report

Key observations from the above table are:

- Majority of slum dwellers of Baruipur enjoy secured tenure status. In notified slums 80% households hold patta and possession certificate with them, whereas, in non-notified slums, 88% households hold patta and possession certificate.

- On the contrary, 9% households have no secure tenure status in notified slums as they are reported to have encroached public/private land for homestead purpose. The same percentage share is about 8% in non-notified slums.
- Rest of the categories include households staying on rent and number of households falling under this category is marginal (244 HHs) constituting around 5% of total slum based households.
- Image below has rightly captured the inferences drawn from the table above that majority of the slums have more than 80% secured household tenure, whereas four slums (23, 24, 31 and 47) have less than 40% security of household tenure.

Slum map Showing household tenure (Patta and Owned land) Status



Distribution of slum houses in notified and non-notified slums based on land tenure status and type of structure is given in Annexure B-10 A and Annexure B-10 B.

3.3.4 Coding of slums against status in respect of above three Indicators

After assessing all the slums on the various parameters, slums were scored to arrive at an aggregate score in order to determine the priority matrix. Table below gives scoring and status coding method adopted for prioritisation along with the basis for the aggregated weighted score. An overall status of slums in terms of accessibility to all the basis services is provided in annexure B-11.

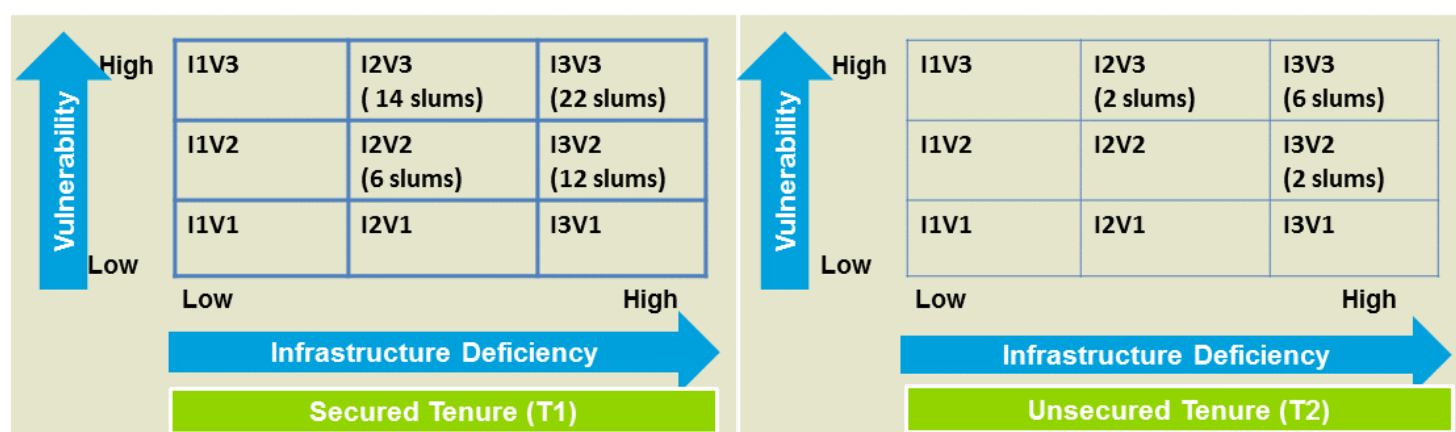
Table 24: Assigning Status Code of Slums against the scores

Parameters	Basis of scoring	Status Code against the aggregated weighted score
Infrastructure deficiency	<ul style="list-style-type: none"> Scores are assigned on the basis of the level of infrastructure deficiency The aggregate score can vary from minimum of 4 to maximum of 12. 	<ul style="list-style-type: none"> Status Code I1: Sound for less than equal to 4 aggregate score Status Code I2: Medium for more than 4 but not more than 8 aggregate score Status Code I3: Vulnerable for more than 8 aggregate score
Vulnerability	<ul style="list-style-type: none"> Scores are assigned on the basis of the level of vulnerability. The aggregate score can vary from minimum of 4 to maximum of 12. 	<ul style="list-style-type: none"> Status Code V1: Sound for less than equal to 4 aggregate score Status Code V2: Medium for more than 4 but not more than 8 aggregate score Status Code V3: Vulnerable for more than 8 aggregate score
Land Tenure	<ul style="list-style-type: none"> Slum with more than 60% of the households having Patta & Possession certificate, will be given a score of 1 implying that the slum has a secure tenure. Slum with less than or equal to 60% of the households having Patta & Possession certificate, will be given a score of 2 implying that the slum has a unsecured tenure 	<ul style="list-style-type: none"> Status Code T1: Secure Tenure-Slum Score of 1 Status Code T2: Unsecured Tenure-Slum Score of 2

3.3.5 Analysis and Scoring

Based on the status codes the slum is placed on a 3X3X2 matrix in terms of Infrastructure deficiency, vulnerability and security of tenure. The number of slums in each category is presented below:-

Detailed list of slums categorised based on the above parameter is as follows:



Detailed matrix analysis for each of the slum is as follows:

Table 25: Slum Ranking

S.No	Name of the Slum	Water	Sanitation	Drain	Road	Total score	Status	Status code-Infrastructure Deficiency	HH Income	Housing	Caste	Minority Status	Total Score (Vulnerability)	Status	Status code-Vulnerability	Tenure	Status	Status Code-Tenure	Combined status code	Rank
1	STATION FEADER ROAD(S.C-064)	3	3	3	2	11	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	2	Unsecure	T2	I3V3T2	1
2	G.BOSE COLONY(S.C.-036)	3	3	2	1	9	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	2	Unsecure	T2	I3V3T2	1
3	KHODAR BAZAR(S.C.-023)	3	3	2	1	9	Vulnerable	I3	3	3	3	1	10	Vulnerable	V3	2	Unsecure	T2	I3V3T2	1
4	KAYAL PARA(S.C.-024)	3	3	2	3	11	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	2	Unsecure	T2	I3V3T2	1
5	MADARAT PAILADANGA(S.C-030)	3	3	2	3	11	Vulnerable	I3	2	3	3	1	9	Vulnerable	V3	2	Unsecure	T2	I3V3T2	1
6	MIDDLE ROAD(PANCHANANTALA)(S.C.-053)	3	2	3	2	10	Vulnerable	I3	3	3	3	1	10	Vulnerable	V3	2	Unsecure	T2	I3V3T2	1
7	SARDAR PARA(S.C.-045)	3	1	3	3	10	Vulnerable	I3	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
8	NASKAR PARA(S.C.-043)	3	1	3	3	10	Vulnerable	I3	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
9	BISWAS PARA(S.C.-016)	3	1	2	3	9	Vulnerable	I3	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
10	NASKAR PARA(S.C.-057)	3	1	3	3	10	Vulnerable	I3	2	3	1	3	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2
11	SASANKA DEV CHATTERJEE ROAD(S.C.-050)	3	1	3	2	9	Vulnerable	I3	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
12	BARUIPUR PROS QUARTER(S.C-054)	3	1	2	3	9	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2
13	KAYAL PARA(S.C.-014)	3	1	2	3	9	Vulnerable	I3	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
14	B.K ROYCHOWDHURY ROAD(S.C-010)	3	2	1	3	9	Vulnerable	I3	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
15	MONDAL PARA(S.C-032)	3	3	2	1	9	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2
16	HARI SABHA LANE(S.C.-048)	3	3	3	3	12	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2
17	SAHAPARA COLONY(S.C-042)	3	2	3	1	9	Vulnerable	I3	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
18	BALBAN PARA(S.C-035)	3	2	2	3	10	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2

SFCPoA for Baruipur Municipality

S.No	Name of the Slum	Water	Sanitation	Drain	Road	Total score	Status	Status code-Infrastructure Deficiency	HH Income	Housing	Caste	Minority Status	Total Score (Vulnerability)	Status	Status code-Vulnerability	Tenure	Status	Status Code-Tenure	Combined status code	Rank
19	MONDAL PARA(S.C-009)	3	3	3	2	11	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2
20	BHATTACHARYA PARA(S.C.-055)	3	3	3	2	11	Vulnerable	I3	3	3	1	2	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2
21	KHUDIRAM PALLY(S.C-058)	3	1	2	3	9	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2
22	MUCHI PARA(S.C.-038)	3	2	3	3	11	Vulnerable	I3	3	3	2	2	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
23	NAJRUL SARANI(S.C.-037)	3	3	2	1	9	Vulnerable	I3	3	3	1	3	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
24	NAJRUL SARANI-NEW NAJRUL SARANI(S.C.-049)	3	1	3	3	10	Vulnerable	I3	3	3	1	3	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
25	SARDAR PARA(S.C.-029)	3	3	3	3	12	Vulnerable	I3	3	2	3	1	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2
26	NASKAR PARA(S.C.-063)	3	2	2	3	10	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2
27	GAJI PARA(S.C.-027)	3	3	2	3	11	Vulnerable	I3	3	3	1	3	10	Vulnerable	V3	1	Secure	T1	I3V3T1	2
28	BIBIMAR TALA(S.C.-028)	3	2	2	3	10	Vulnerable	I3	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I3V3T1	2
29	MIDDLE ROAD(S.C.-026)	3	1	2	1	7	Medium	I2	3	3	3	1	10	Vulnerable	V3	2	Unsecure	T2	I2V3T2	3
30	MAYLAPOTA(S.C-031)	3	1	2	1	7	Medium	I2	3	3	2	1	9	Vulnerable	V3	2	Unsecure	T2	I2V3T2	3
31	BEDE PARA BASTI(S.C.-020)	3	3	1	1	8	Medium	I2	3	3	3	3	12	Vulnerable	V3	1	Secure	T1	I2V3T1	4
32	SAHAPARA COLONY(S.C-012)	3	1	2	2	8	Medium	I2	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I2V3T1	4
33	BAGANI PARA(S.C.-007)	3	1	2	1	7	Medium	I2	3	3	1	2	9	Vulnerable	V3	1	Secure	T1	I2V3T1	4
34	IRIGATION COLONY (S.C.-015)	3	2	2	1	8	Medium	I2	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I2V3T1	4
35	BAISHNAB PARA(S.C.-022)	3	2	1	1	7	Medium	I2	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I2V3T1	4
36	GOLPUKUR-MONDAL PARA(S.C.-046)	3	1	2	1	7	Medium	I2	3	3	2	2	10	Vulnerable	V3	1	Secure	T1	I2V3T1	4
37	BASUDEV PALLY(S.C.-018)	3	1	1	3	8	Medium	I2	3	3	3	1	10	Vulnerable	V3	1	Secure	T1	I2V3T1	4
38	DEY PARA(S.C-006)	3	1	2	2	8	Medium	I2	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I2V3T1	4
39	GAJIBABA ROAD(S.C.-013)	3	1	2	2	8	Medium	I2	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I2V3T1	4
40	KALIKANAN(S.C-011)	3	2	2	1	8	Medium	I2	3	3	1	2	9	Vulnerable	V3	1	Secure	T1	I2V3T1	4
41	KHAN PARA(S.C.-008)	3	1	2	1	7	Medium	I2	3	3	1	2	9	Vulnerable	V3	1	Secure	T1	I2V3T1	4
42	NILKHET(S.C.-062)	3	1	3	1	8	Medium	I2	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I2V3T1	4

SFCPoA for Baruipur Municipality

S.No	Name of the Slum	Water	Sanitation	Drain	Road	Total score	Status	Status code-Infrastructure Deficiency	HH Income	Housing	Caste	Minority Status	Total Score (Vulnerability)	Status	Status code-Vulnerability	Tenure	Status	Status Code-Tenure	Combined status code	Rank
43	POLICE BARACK RD. SCHOOL BY LANE(S.C.-061)	3	1	3	1	8	Medium	I2	3	3	2	1	9	Vulnerable	V3	1	Secure	T1	I2V3T1	4
44	SAJAHAN ROAD(S.C.-005)	3	1	2	2	8	Medium	I2	3	2	1	3	9	Vulnerable	V3	1	Secure	T1	I2V3T1	4
45	DAS PARA(S.C.-001)	3	3	1	2	9	Vulnerable	I3	3	3	0	1	7	Medium	V2	2	Unsecure	T2	I3V2T2	5
46	BEHARA PARA(S.C.-047)	3	1	3	3	10	Vulnerable	I3	3	2	1	1	7	Medium	V2	2	Unsecure	T2	I3V2T2	5
47	PAL PARA-MUKHERJEE PARA(S.C.-044)	3	1	3	3	10	Vulnerable	I3	3	3	1	1	8	Medium	V2	1	Secure	T1	I3V2T1	6
48	SARDAR PARA(S.C.-002)	3	3	2	3	11	Vulnerable	I3	1	3	3	1	8	Medium	V2	1	Secure	T1	I3V2T1	6
49	NORMAN BETHUN SARANI(S.C.-051)	3	1	3	3	10	Vulnerable	I3	3	2	1	1	7	Medium	V2	1	Secure	T1	I3V2T1	6
50	PIYADA PARA (BAIDYA PARA)(S.C.-056)	3	3	2	2	10	Vulnerable	I3	2	3	1	2	8	Medium	V2	1	Secure	T1	I3V2T1	6
51	CHRISTAN PARA(S.C.-060)	3	3	2	1	9	Vulnerable	I3	2	2	2	2	8	Medium	V2	1	Secure	T1	I3V2T1	6
52	DHOBA PARA(S.C.-040)	3	3	2	1	9	Vulnerable	I3	1	2	3	1	7	Medium	V2	1	Secure	T1	I3V2T1	6
53	DOLTALA(S.C-039)	3	1	2	3	9	Vulnerable	I3	3	3	1	1	8	Medium	V2	1	Secure	T1	I3V2T1	6
54	HALDER PARA-BISWAS PARA(S.C.-052)	3	1	2	3	9	Vulnerable	I3	2	1	3	1	7	Medium	V2	1	Secure	T1	I3V2T1	6
55	KHALPAR(S.C.-019)	3	1	3	3	10	Vulnerable	I3	3	3	1	1	8	Medium	V2	1	Secure	T1	I3V2T1	6
56	SEGUN BAGAN(S.C.-059)	3	3	3	3	12	Vulnerable	I3	3	3	1	1	8	Medium	V2	1	Secure	T1	I3V2T1	6
57	SURYA SEN NAGAR(S.C.-003)	3	1	2	3	9	Vulnerable	I3	3	2	1	1	7	Medium	V2	1	Secure	T1	I3V2T1	6
58	PAL PARA(S.C-034)	3	1	2	3	9	Vulnerable	I3	2	2	2	1	7	Medium	V2	1	Secure	T1	I3V2T1	6
59	SAMANTA PARA(S.C.-017)	3	1	1	3	8	Medium	I2	3	3	1	1	8	Medium	V2	1	Secure	T1	I2V2T1	10
60	JHARNA(S.C-021)	3	3	1	1	8	Medium	I2	2	3	2	1	8	Medium	V2	1	Secure	T1	I2V2T1	10
61	MONDAL PARA(NETAJI PALLY)(S.C.-041)	2	1	2	2	7	Medium	I2	3	2	2	1	8	Medium	V2	1	Secure	T1	I2V2T1	10
62	SARDAR PARA(S.C.-033)	3	2	2	1	8	Medium	I2	3	2	2	1	8	Medium	V2	1	Secure	T1	I2V2T1	10
63	DEY PARA(S.C.-025)	3	1	3	1	8	Medium	I2	3	2	2	1	8	Medium	V2	1	Secure	T1	I2V2T1	10
64	BEDE PARA(S.C.-004)	3	1	2	1	7	Medium	I2	2	2	1	2	7	Medium	V2	1	Secure	T1	I2V2T1	10

3.4 Formulation of Slum development options

On the basis of the slum prioritisation exercise, the following slum development strategies have been identified:

- **In-situ slum up-gradation:** More emphasis is on housing up gradation and provision of basic services: i.e., water and sanitation, drainage, roads, street lighting, footpaths, and community facilities. This model involves re- adjustment of existing units to ensure optimum use of land and releasing surplus land for common facilities as part of the densification process of the slums.
- **In-situ slum redevelopment:** This model involves relocating of few slum dwellers in the same location but in different housing units. It will involve the demolition of slum dwellers homes in untenable pockets.

Taking into consideration the strategies as mentioned above, the following development options have been identified:

Table 26: Slum Development Options

S. No	Parameters	Development Options	Model Name	Number of slums
1.	Sound and Medium Infrastructure with Good Housing¹⁸	In-situ upgradation with provision of deficit infrastructure and housing	ISU-1	20
2.	Sound and Medium Infrastructure with Poor Housing	In-situ upgradation with more focus on Housing	ISU-2	2
3.	Vulnerable Infrastructure with Good Housing	In-situ upgradation with more focus on Infrastructure	ISU-3	34
4.	Vulnerable Infrastructure with Poor Housing	Slum redevelopment with focus on both housing and Infrastructure	IRD-1	8

Note:

- Good Housing is assumed to be constituting of more than 60% of pucca and semi pucca houses
- In Baruipur, most of the slums are on private land with very small holding size. Accordingly, land value and land ownership were not considered as a factor for identifying the redevelopment model.
- In Baruipur most of the slums have very low dwelling unit density (Highest Density in Baruipur is 70 Households per hectare) accordingly it was also not considered as a factor for identifying the redevelopment model.

The slum development options were discussed and agreed in the meeting held on October 10, 2013. Annexure-D captures the concurrence of the Councillors on investments, phasing and slum development options.

¹⁸ Slums in Baruipur have only medium and vulnerable infrastructure with no slum having sound infrastructure.

The following table specifies the development model for each of the slums

Table 27: Slum Development Models

S.No	Slum Name	Infrastructure Deficiency	Vulnerability	Tenure	Slum Matrix Ranking	Slum Prioritisation Rank	Household Density per ha	Percentage of Pucca and Semi-Pucca Houses	Housing	Tenability Status	Slum Development Model
1	B.K ROYCHOWDHURY ROAD(S.C-010)	Vulnerable	Vulnerable	Secure	I3V3T1	2	14	75%	Good	Tenable	ISU-3
2	BAGANI PARA(S.C.-007)	Medium	Vulnerable	Secure	I2V3T1	4	21	84%	Good	Tenable	ISU-1
3	BAISHNAB PARA(S.C.-022)	Medium	Vulnerable	Secure	I2V3T1	4	9	80%	Good	Tenable	ISU-1
4	BALBAN PARA(S.C-035)	Vulnerable	Vulnerable	Secure	I3V3T1	2	70	90%	Good	Tenable	ISU-3
5	BARUIPUR PROS QUARTER(S.C-054)	Vulnerable	Vulnerable	Secure	I3V3T1	2	24	83%	Good	Tenable	ISU-3
6	BASUDEV PALLY(S.C.-018)	Medium	Vulnerable	Secure	I2V3T1	4	20	97%	Good	Tenable	ISU-1
7	BEDE PARA(S.C.-004)	Medium	Medium	Secure	I2V2T1	10	13	98%	Good	Tenable	ISU-1
8	BHATTACHARYA PARA(S.C.-055)	Vulnerable	Vulnerable	Secure	I3V3T1	2	5	84%	Good	Tenable	ISU-3
9	BIBIMAR TALA(S.C.-028)	Vulnerable	Vulnerable	Secure	I3V3T1	2	13	63%	Good	Tenable	ISU-3
10	CHRISTAN PARA(S.C-060)	Vulnerable	Medium	Secure	I3V2T1	6	29	77%	Good	Tenable	ISU-3
11	DEY PARA(S.C-006)	Medium	Vulnerable	Secure	I2V3T1	4	13	90%	Good	Tenable	ISU-1
12	DHOBAPARA(S.C.-040)	Vulnerable	Medium	Secure	I3V2T1	6	26	79%	Good	Tenable	ISU-3
13	DOLTALA(S.C-039)	Vulnerable	Medium	Secure	I3V2T1	6	9	89%	Good	Tenable	ISU-3
14	GAJIBABA ROAD(S.C.-013)	Medium	Vulnerable	Secure	I2V3T1	4	21	92%	Good	Tenable	ISU-1
15	GOLPUKUR-MONDAL PARA(S.C.-046)	Medium	Vulnerable	Secure	I2V3T1	4	5	100%	Good	Tenable	ISU-1
16	HALDER PARA-BISWAS PARA(S.C.-052)	Vulnerable	Medium	Secure	I3V2T1	6	27	86%	Good	Tenable	ISU-3
17	IRIGATION COLONY (S.C.-015)	Medium	Vulnerable	Secure	I2V3T1	4	21	86%	Good	Tenable	ISU-1
18	JHARNA(S.C-021)	Medium	Medium	Secure	I2V2T1	10	31	89%	Good	Tenable	ISU-1
19	KALIKANAN(S.C-011)	Medium	Vulnerable	Secure	I2V3T1	4	38	86%	Good	Tenable	ISU-1
20	KAYAL PARA(S.C.-014)	Vulnerable	Vulnerable	Secure	I3V3T1	2	23	94%	Good	Tenable	ISU-3

S.No	Slum Name	Infrastructure Deficiency	Vulnerability	Tenure	Slum Matrix Ranking	Slum Prioritisation Rank	Household Density per ha	Percentage of Pucca and Semi-Pucca Houses	Housing	Tenability Status	Slum Development Model
21	KAYAL PARA(S.C.-024)	Vulnerable	Vulnerable	Unsecure	I3V3T2	1	5	85%	Good	Tenable	ISU-3
22	KHALPAR(S.C.-019)	Vulnerable	Medium	Secure	I3V2T1	6	10	78%	Good	Tenable	ISU-3
23	KHAN PARA(S.C.-008)	Medium	Vulnerable	Secure	I2V3T1	4	44	76%	Good	Tenable	ISU-1
24	KHUDIRAM PALLY(S.C-058)	Vulnerable	Vulnerable	Secure	I3V3T1	2	7	74%	Good	Tenable	ISU-3
25	MADARAT PAILADANGA(S.C-030)	Vulnerable	Vulnerable	Unsecure	I3V3T2	1	8	72%	Good	Tenable	ISU-3
26	MIDDLE ROAD(PANCHANANTALA)(S.C.-053)	Vulnerable	Vulnerable	Unsecure	I3V3T2	1	14	67%	Good	Tenable	ISU-3
27	MIDDLE ROAD(S.C.-026)	Medium	Vulnerable	Unsecure	I2V3T2	3	10	83%	Good	Tenable	ISU-1
28	MONDAL PARA(NETAJI PALLY)(S.C.-041)	Medium	Medium	Secure	I2V2T1	10	17	97%	Good	Tenable	ISU-1
29	MONDAL PARA(S.C-009)	Vulnerable	Vulnerable	Secure	I3V3T1	2	21	95%	Good	Tenable	ISU-3
30	MONDAL PARA(S.C-032)	Vulnerable	Vulnerable	Secure	I3V3T1	2	14	98%	Good	Tenable	ISU-3
31	MUCHI PARA(S.C.-038)	Vulnerable	Vulnerable	Secure	I3V3T1	2	8	100%	Good	Tenable	ISU-3
32	NAJRUL SARANI(S.C.-037)	Vulnerable	Vulnerable	Secure	I3V3T1	2	13	100%	Good	Tenable	ISU-3
33	NILKHET(S.C.-062)	Medium	Vulnerable	Secure	I2V3T1	4	9	96%	Good	Tenable	ISU-1
34	NORMAN BETHUN SARANI(S.C.-051)	Vulnerable	Medium	Secure	I3V2T1	6	9	92%	Good	Tenable	ISU-3
35	PIYADA PARA (BAIDYA PARA)(S.C.-056)	Vulnerable	Medium	Secure	I3V2T1	6	9	96%	Good	Tenable	ISU-3
36	POLICE BARACK RD. SCHOOL BY LANE(S.C.-061)	Medium	Vulnerable	Secure	I2V3T1	4	20	100%	Good	Tenable	ISU-1
37	SAHAPARA COLONY(S.C-042)	Vulnerable	Vulnerable	Secure	I3V3T1	2	32	61%	Good	Tenable	ISU-3
38	SAJAHAN ROAD(S.C.-005)	Medium	Vulnerable	Secure	I2V3T1	4	9	94%	Good	Tenable	ISU-1

S.No	Slum Name	Infrastructure Deficiency	Vulnerability	Tenure	Slum Matrix Ranking	Slum Prioritisation Rank	Household Density per ha	Percentage of Pucca and Semi-Pucca Houses	Housing	Tenability Status	Slum Development Model
39	SAMANTA PARA(S.C.-017)	Medium	Medium	Secure	I2V2T1	10	29	84%	Good	Tenable	ISU-1
40	SARDAR PARA(S.C.-029)	Vulnerable	Vulnerable	Secure	I3V3T1	2	8	73%	Good	Tenable	ISU-3
41	SARDAR PARA(S.C.-033)	Medium	Medium	Secure	I2V2T1	10	25	98%	Good	Tenable	ISU-1
42	SASANKA DEV CHATTERJEE ROAD(S.C.-050)	Vulnerable	Vulnerable	Secure	I3V3T1	2	4	87%	Good	Tenable	ISU-3
43	SEGUN BAGAN(S.C.-059)	Vulnerable	Medium	Secure	I3V2T1	6	19	82%	Good	Tenable	ISU-3
44	SURYA SEN NAGAR(S.C.-003)	Vulnerable	Medium	Secure	I3V2T1	6	24	100%	Good	Tenable	ISU-3
45	SAHAPARA COLONY(S.C.-012)	Medium	Vulnerable	Secure	I2V3T1	4	34	80%	Good	Tenable	ISU-1
46	DEY PARA(S.C.-025)	Medium	Medium	Secure	I2V2T1	10	23	76%	Good	Tenable	ISU-1
47	NASKAR PARA(S.C.-063)	Vulnerable	Vulnerable	Secure	I3V3T1	2	15	62%	Good	Tenable	ISU-3
48	PAL PARA(S.C.-034)	Vulnerable	Medium	Secure	I3V2T1	6	28	94%	Good	Tenable	ISU-3
49	BEHARA PARA(S.C.-047)	Vulnerable	Medium	Unsecure	I3V2T2	5	8	100%	Good	Tenable	ISU-3
50	BISWAS PARA(S.C.-016)	Vulnerable	Vulnerable	Secure	I3V3T1	2	33	94%	Good	Tenable	ISU-3
51	PAL PARA-MUKHERJEE PARA(S.C.-044)	Vulnerable	Medium	Secure	I3V2T1	6	16	98%	Good	Tenable	ISU-3
52	SARDAR PARA(S.C.-002)	Vulnerable	Medium	Secure	I3V2T1	6	20	91%	Good	Tenable	ISU-3
53	NASKAR PARA(S.C.-043)	Vulnerable	Vulnerable	Secure	I3V3T1	2	29	74%	Good	Tenable	ISU-3
54	NASKAR PARA(S.C.-057)	Vulnerable	Vulnerable	Secure	I3V3T1	2	16	96%	Good	Tenable	ISU-3
55	BEDE PARA BASTI(S.C.-020)	Medium	Vulnerable	Secure	I2V3T1	4	61	39%	Poor	Tenable	ISU-2
56	GAJI PARA(S.C.-027)	Vulnerable	Vulnerable	Secure	I3V3T1	2	19	48%	Poor	Tenable	IRD-1
57	KHODAR BAZAR(S.C.-023)	Vulnerable	Vulnerable	Unsecure	I3V3T2	1	16	52%	Poor	Tenable	IRD-1
58	MAYLAPOTA(S.C.-031)	Medium	Vulnerable	Unsecure	I2V3T2	3	7	59%	Poor	Tenable	ISU-2
59	NAJRUL SARANI-NEW NAJRUL SARANI(S.C.-049)	Vulnerable	Vulnerable	Secure	I3V3T1	2	6	47%	Poor	Tenable	IRD-1

S.No	Slum Name	Infrastructure Deficiency	Vulnerability	Tenure	Slum Matrix Ranking	Slum Prioritisation Rank	Household Density per ha	Percentage of Pucca and Semi-Pucca Houses	Housing	Tenability Status	Slum Development Model
60	G.BOSE COLONY(S.C.-036)	Vulnerable	Vulnerable	Unsecure	I3V3T2	1	9	52%	Poor	Tenable	IRD-1
61	HARI SABHA LANE(S.C.-048)	Vulnerable	Vulnerable	Secure	I3V3T1	2	3	52%	Poor	Tenable	IRD-1
62	DAS PARA(S.C.-001)	Vulnerable	Medium	Unsecure	I3V2T2	5	25	37%	Poor	Tenable	IRD-1
63	SARDAR PARA(S.C.-045)	Vulnerable	Vulnerable	Secure	I3V3T1	2	67	51%	Poor	Tenable	IRD-1
64	STATION FEADER ROAD(S.C-064)	Vulnerable	Vulnerable	Unsecure	I3V3T2	1	55	47%	Poor	Tenable	IRD-1

Section 4 – Slum Prevention Strategy

Slum development models proposed in earlier section focusing on improvement, upgradation and redevelopment of existing slums of Baruipur have been designed to address the backlog of existing urban neglect and lack of affordable housing options. Natural growth of population coupled with increasing inward migration over the next decades shall further aggravate the housing shortage being resolved through formulation of curative strategy. Without significant improvements in the capacities of local government and the private sector to provide basic urban services for these residents, many of whom will be poor, urbanisation shall become virtually synonymous with slum formation. Hence there is an increasing need for Baruipur to move interventions from project-based to policy and programmatic approaches.

Given this background, the objective of formulation of slum prevention strategy is to restrict/prevent creation of slums in future by undertaking requisite policy level interventions and addressing constraints in the housing sector.

4.1 Assessment of Housing Supply Trends for the Urban Poor

4.1.1 Housing Supply Trends for the Urban Poor

Majority of the housing projects that have come up in Baruipur municipality over the last few years are focused on providing houses for the Middle Income Group (MIG) and High Income Group (HIG) segments. Housing for the LIG and EWS was limited as it fetched a lower premium compared to higher and middle income housing.

Regarding creation of EWS and LIG houses in Baruipur municipality, it is observed that except for construction of dwelling units leveraging BSUP scheme under JNNURM, no other housing projects for EWS/LIG categories have come up. Since 2007-08, construction of around 2600 dwelling units have been targeted with total amount of around Rs. 69 crores to be spent in three phases. Taking all the three phases together, BSUP scheme have targeted to cover 13000 beneficiaries residing in all the 17 wards of Baruipur.

Baruipur municipality has already initiated construction of affordable houses in 40 slums spread over 17 wards on a piecemeal basis. In the First phase (2008-12) total of 543 houses were constructed in 29 slums spread over 12 wards. In the 2nd phase (2009-ongoing), 1504 dwelling units were constructed out of total 1982 dwelling units planned to be constructed. In addition, under State Sponsored Scheme “Housing for Urban Poor (HUP)” about 100 houses were refurbished or upgraded.

Houses identified under phase-III of BSUP have not yet been initiated and taking all the pending projects altogether, it is observed that more than 550 Dwelling Units for EWS and LIG are still to be constructed in Baruipur.

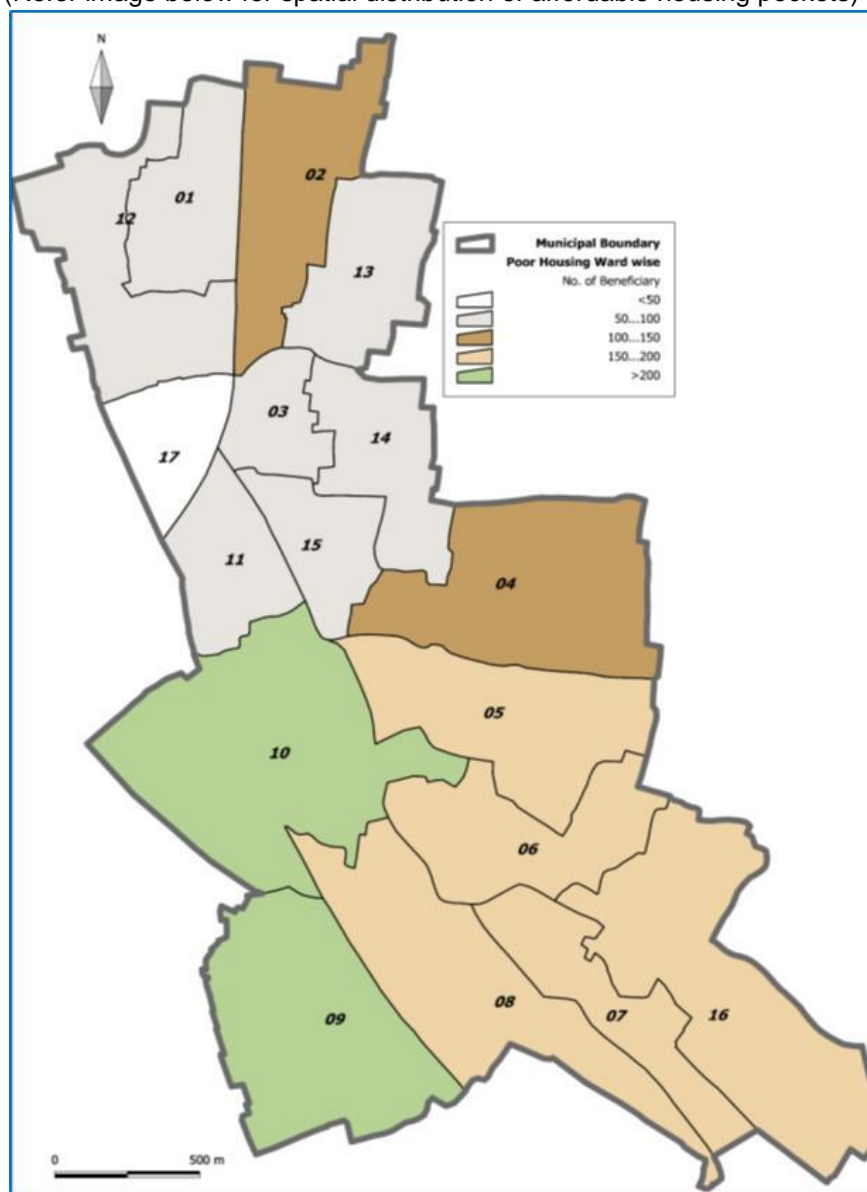
A few big housing projects are reported to come up in village moujas adjacent to Baruipur Municipality. Some of the key residential projects are provided in the box below.

Housing projects in village moujas adjacent to Baruipur Municipality

- **Affordable housing project by Vibgyor Group:** Vibgyor Group is coming up with a mega residential project- Vibgyor Niketan, spreading over 15.5 bighas of land at Madarhat Village, located at north eastern side of Baruipur Municipality. Targeted to be completed on June, 2015, total 23 G+4 towers with accommodation of 500 different types of flats will be set up. Three types of flats have been proposed in the plan, which are i) Studio apartment: 292 sq. ft., ii) 1 BHK flat: 433.5sq.ft. and iii) 2 BHK: 663 sq. ft. (<http://baruipur.olx.in/affordable-housing-project-in-baruipur-iiid-487674018>)
- **Low Cost Housing Complex inside the Housing & Agro Resort project by Sharda Group:** This is another mega residential project which is in pipeline to be constructed by Saradha Realty India Ltd in the village Moujas near Baruipur. The proposed project area is huge, measures 142 bighas of which a part of which of the plan area has been dedicated for setting up low cost housing complexes comprising of three block of different sizes, smallest of which admeasures 532 sq. ft. (<http://saradhagroup.com/construction/pdf/Baruipur.pdf>)

4.1.2 Spatial Distribution of Affordable Housing Pockets

Map below provides spatial distribution of houses that are constructed under BSUP scheme since 2008. It is observed that affordable housing pockets are comparatively much more visible in southern part of the municipality. This may be attributed to the fact that housing condition in slums located in the southern-most wards is inferior with more than 75% of slum houses are either katcha or semi-pucca. (Refer image below for spatial distribution of affordable housing pockets)



4.2 Assessment of Existing and likely Future Housing Shortage

Housing Shortage with regard to the Baruipur Municipality has been analysed on the basis of information available through USHA Survey, Census Records, Stakeholders' consultation, State level and National level reports and policies.

As prescribed by RAY Guidelines the housing shortage is assessed by adopting two pronged approach. They are:

- I. **Curative Approach:** The housing shortage or deficiency for the existing slums is worked out at 3,555 units and is summarised in the following table:

Table 28: Housing Shortage- Curative Approach

S. No	Structure of the House	Number of Units
I.	Upgradation from Semi-Pucca House to Pucca Houses	2700
II.	Construction of Pucca Houses for Katcha houses	855
Total		3555

- II. **Preventive Approach:** The preventive approach is aimed at prevention of new slums by providing for adequate affordable housing for the migrant population and for the persons, who due to lack of affordable housing options may shift to slums. Preventive approach takes into consideration both the existing housing shortage and housing units that may be required in the future.

Future Housing Requirement

The future housing requirement is calculated to address the requirement due to increased population and migration till the year 2025.

- I. **Population Growth Requirements:**

. The population for Baruipur till year 2025 is projected as follows:

Table 29: Projected Population growth

Year	Population	Number of Households	Size of Household
1981	26229	4570	5.7
1991	37659	7201	5.2
2001	44913	10114	4.4
2011	53564 (Projected)	12174	4.4
2013	55628 (Projected)	12643	4.4
2021	63882 (Projected)	14519	4.4
2025	68804 (Projected)	15637	4.4

Note: For the year 2013 onwards size of household is assumed to be the same as in 2011 i.e. 4.4, the number of households has been arrived at by dividing the projected population with the household size.

The additional housing Requirement for the Baruipur till 2025 is estimated as **2995 houses** (15637 less 12643). The current housing shortage is 28.12% of the total households (3555 slum households as compared to total of 12643 households in Baruipur). Accordingly, the future housing requirement is estimated to be about **842 households** i.e. 28.12% of additional 2995 households.

Total Housing requirement for Baruipur shall be as follows:

Table 30: Total Housing Requirement

Sl. No.	Particulars	Dwelling Units
1.	Current housing shortage (Curative Strategy)	3555
2.	Future housing requirement (Preventive Strategy)	842
Total		4397

4.3 Availability of Vacant Land for Affordable Housing

Analysis of vacant land from satellite image and field survey shows that there are ample vacant lands within the municipality area of Baruipur (see images below). The total vacant land including agricultural land, plantation area and unused vacant land is 1.37 sq. km (or 137 Ha.) which is around 24% of the Municipal area¹⁹.

From the table below it is observed that leaving apart privately owned agriculture land (around 28%) and land under plantation (around 56%), Baruipur is left with small piece of vacant land (around 16.3 % of total vacant land) which can be targeted as potential site for EWS housing and more than 98% of this vacant land is owned by private parties as Government owned vacant land constitutes around 0.3% of the total unused vacant land.

Table 31: Characteristics of vacant land in Baruipur

Sl. No.	Vacant land characteristics	Area in Sq. Km	Percentage
1	Agricultural (privately owned)	0.3828	27.9%
2	Plantation (privately owned)	0.7644	55.8%
2.	Vacant land –Private	0.2187	16%
3.	Vacant Land -Govt.	0.0041	0.3%
	Total	1.37	

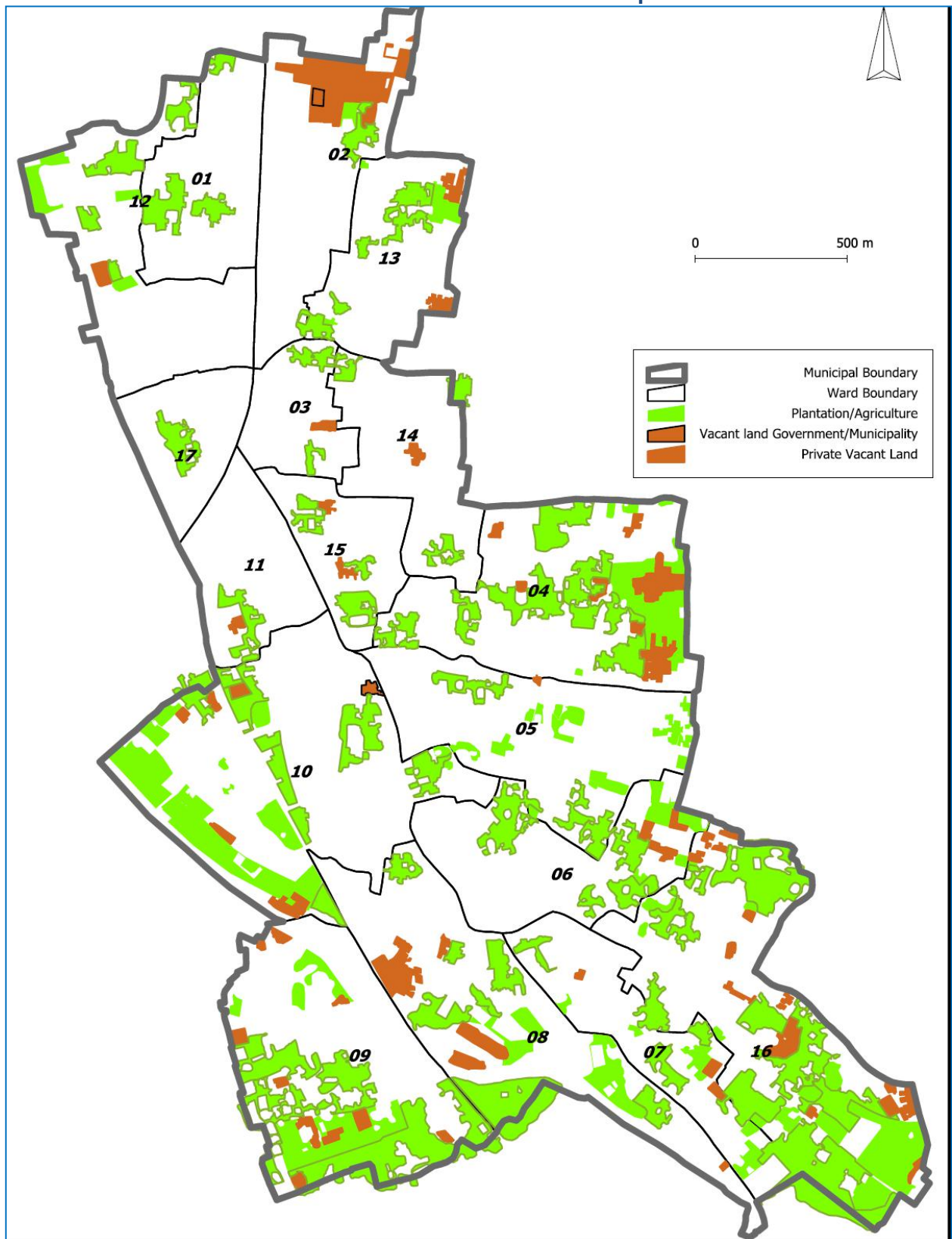
Source: GIS Analysis

Dominance of land coming under agriculture and plantation is attributed to the geographical location of the municipality. As Baruipur is situated in the southern most fringe of Kolkata megacity, the urbanization process is more prominent in the northern part of the Municipality which is relatively closer to Kolkata than rest of the parts. On the contrary, the southern part of the municipality is rural in nature with agricultural and private plantation areas (see the image below). This has led the slums located in southern part of the municipality, particularly slums in the ward Nos. 4, 5,6,7,8,9,10 and 16.

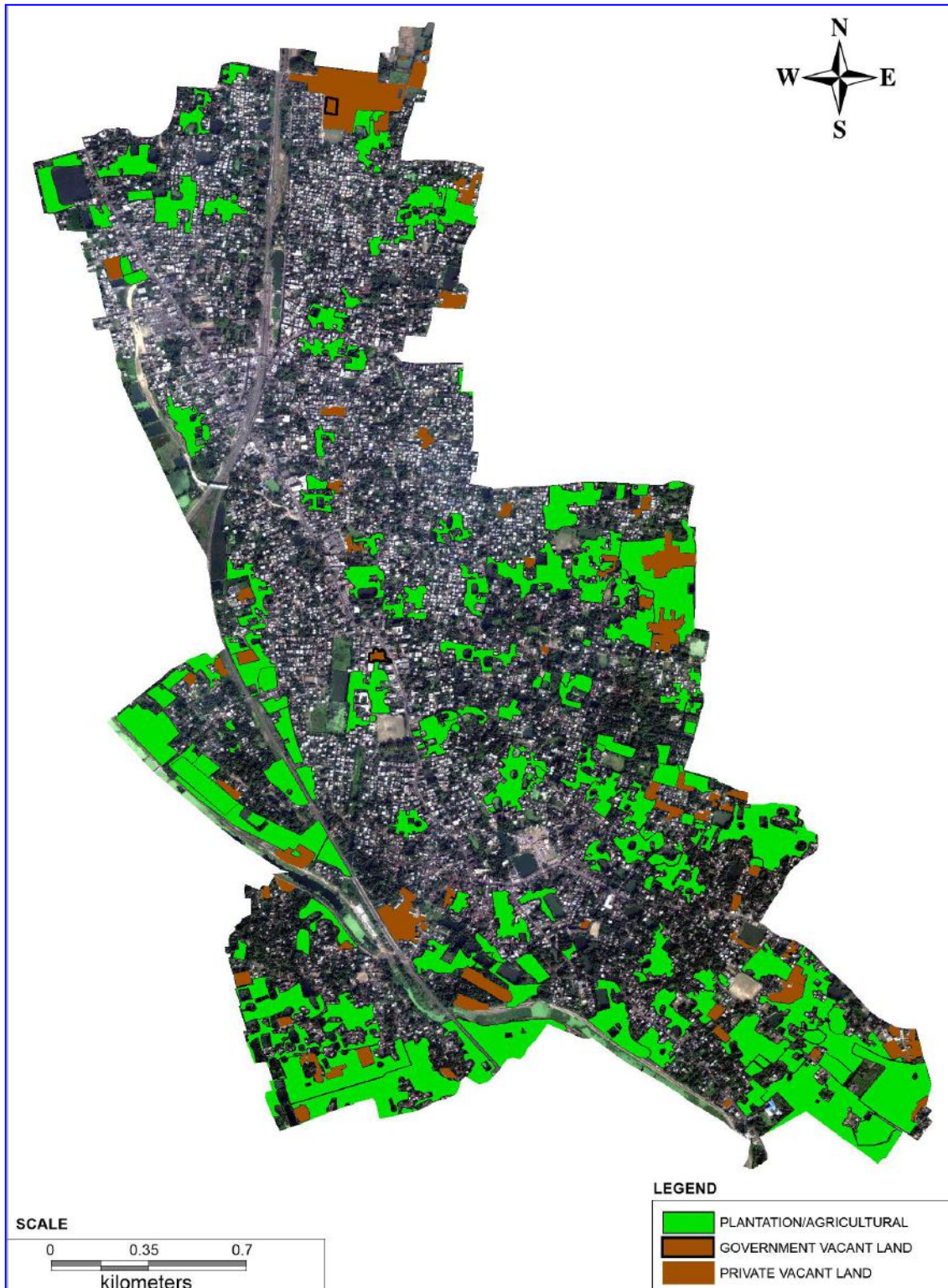
Accordingly, to meet the housing shortage Baruipur Municipality has to manage more than the available land lying vacant with private parties and Govt. bodies. Hence, Baruipur Municipality may look into the process of conversion of agricultural land into residential use to accommodate EWS housing shortage.

¹⁹ These vacant lands with its characteristics have been demarcated from the satellite images and the ownership of the vacant land has been captured from the field survey.

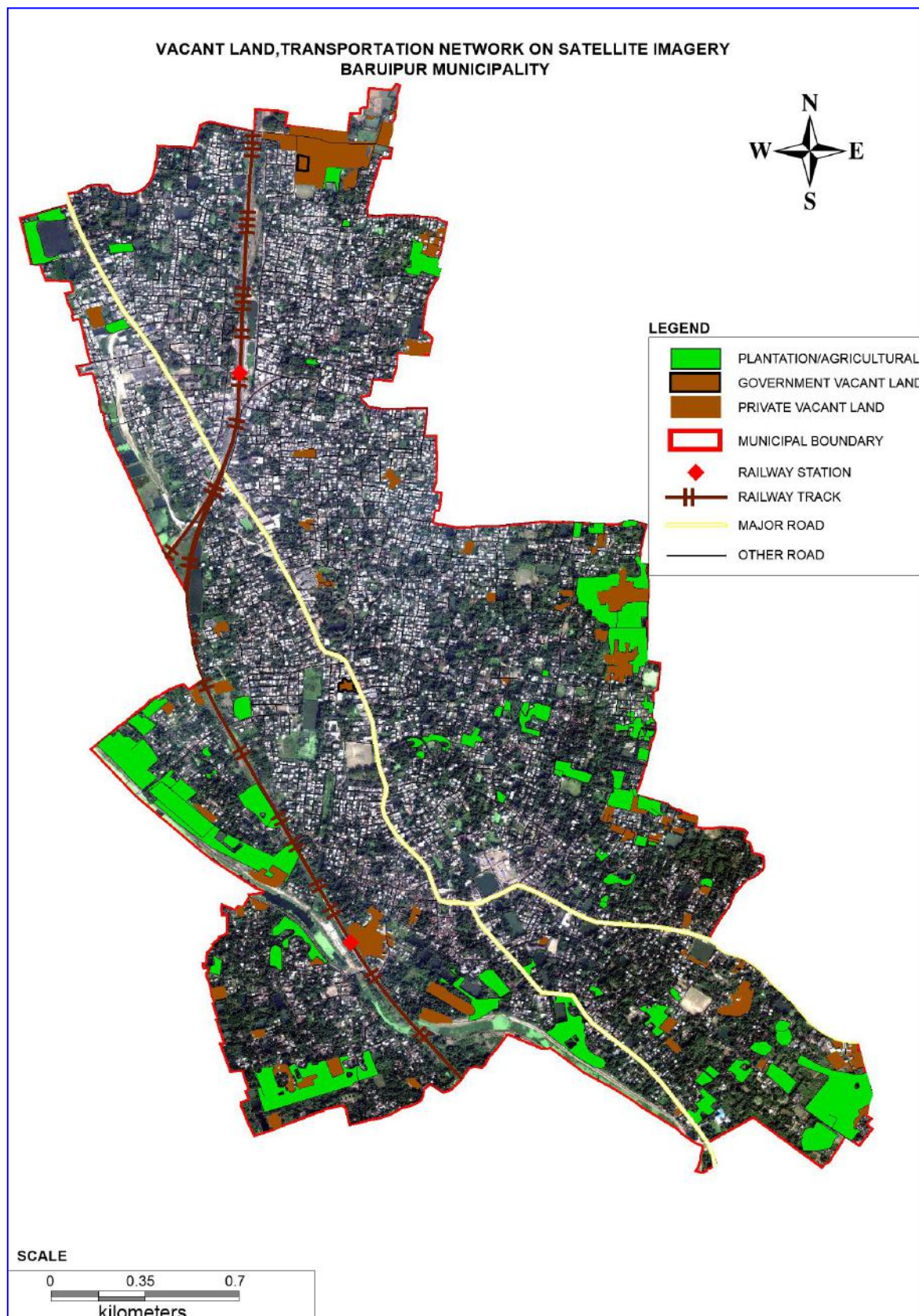
Characteristics of vacant land in Baruiपुर



Vacant Land pockets marked on Satellite image



Vacant Land with Trunk Infrastructure marked on satellite image



4.4 Formation of Future Supply options and policy reforms

As per estimates made in the previous section, approximately 4397 dwelling units are required to meet the current and future housing shortage. This quantum of housing shortage shall be distributed among the various Governments/Semi Govt/Private agencies as follows:-

Table 32: Target to various housing agencies to meet housing shortage

Sl. No.	Particulars	Curative Housing Target (No of Dwelling Units)	Preventive Housing Target (No of Dwelling Units)	Remarks
1	Baruipur Municipality	3555		Baruipur Municipality shall be the agency for in situ upgradation & development of all 64 slums and 3555 households.
2	Joint Venture Companies/Private Players	-	421	Current Joint venture companies/private real estate players will be responsible for the creation of future housing shortage. The various incentives/concessions to private players shall be provided in accordance with the affordable housing policy.
3	West Bengal Housing Board (State Government Undertaking)	-	421	
Total		3555	842	

Note: The above targets shall be finalized during the course of preparation of Affordable Housing Policy of Government of West Bengal.

With an objective to increase housing supply for EWS/LIG, number of policy reforms / directives has already been issued by the Central Government primarily under the flagship JNNURM programme. In addition, RAY has highlighted number of mandatory and optional policy reforms to ensure creation and supply of adequate affordable housing stock. Government of West Bengal and Baruipur Municipality have already made significant progress in achieving reform milestones, summary of the progress and way forward for each of these reform is provided in the section below:

4.4.1 Earmarking of developed land in all housing projects for EWS/LIG (Mandatory-State & ULB)

Reservation of 15% of residential FAR/FSI or 35% of dwelling units for EWS/LIG categories whichever is higher, with a system of cross-subsidisation in all future housing projects

Action Taken by West Bengal

Government of West Bengal, by a Notification issued in 2011, has made it mandatory for all the public and private agencies developing a) housing project or b) subdivision of plot/land for development, both admeasuring 5000 sq. m or more, to reserve / earmark 25% of the dwelling units

or plot (in case of subdivision/fragmentation of developed land) to EWS and LIG category residing in the planning area.

Status of Implementation in Baruipur Municipality and way forward

Baruipur Municipality is in agreement with the notification and look forward to earmark DUs/plot size for EWS/LIG category in all future housing projects likely to come up in municipal area. A number of housing projects are coming up in the adjoining villages/moujas and it is expected that these areas may be added to the Baruipur Municipality shortly. The provisions of the notification shall also be applied in the adjoining areas to create adequate vacant land/dwelling units for EWS/LIG segment.

4.4.2. Revision of Building Byelaws to Streamline Approval Process (Optional- State & ULB)

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

Action Taken by West Bengal

Government of West Bengal has already made requisite amendments in the West Bengal Municipal (Building) Rules, 2007 and provisions concerning adjudication system for resolving disputes and time frame for approval process have been incorporated in the rule.

GoWB has already started the process of implementation of integrated e-governance system of which building plan sanction is one of the key modules.

Status of Implementation in Baruipur Municipality and way forward

Baruipur Municipality has adhered to the time bound clearance mechanism as per prescribed rule and enabling institutional framework inside the municipality has been set up to facilitate clearance and approval process. In addition, Baruipur Municipality is in the process of implementing the integrated e-governance module to further streamline the sanction process.

4.4.3 Internal Earmarking of funds for urban poor (Mandatory-State & ULB)

A non-lapsable earmarking of 25% of the budget of the municipality to provide basic services to the urban poor

Action Taken by West Bengal

The provisions for constitution of non-lapsable Basic Services for Urban Poor Fund in the municipalities, and for specifying the budgetary process and nature of non-lapsable Basic Services for Urban Poor Fund, have been made in section 70A, 70B and 70C of West Bengal Municipal Act, 1993 and have been brought into effect from 1st march, 2012.

Status of Implementation in Baruipur Municipality and way forward:

Baruipur has already earmarked close to 30% of municipal budget in the year 2012-13 on revenue as well as capital accounts for the poor. In addition, a separate 'Pro-poor' fund has also been created in order to utilize the funds efficiently and carry forward unutilized funds for use in the next year.

4.5.4 Rent Control Legislation (Optional-State Level)

Amendments in the Rent Control Act balancing the interest of landlords and tenants

Action Taken by West Bengal

As part of JNNURM Reform every state must formulate a law balancing the interest of landlords and tenants and in West Bengal, the State Govt. had already enacted the West Bengal Premises Tenancy Act 1997 after taking in to account the views of the tenants association and house owners association. Salient features of the act have been detailed out in the box below.

- **Rights and duties of landlords:** Tenant can be evicted for making certain repairs and rebuilding. The tenant is entitled to reoccupy the building after the repairs.
- **Eviction of Tenants:** If tenant makes a default in payment of rent for three months within a period of 12 months or for three rental periods within a period of 3 years where the rent is not payable monthly/ if the land lord requires the premises for his own occupation
- **Recovery of Possession:** No order or decree for the recovery of the possession of any premises by the landlord shall be made by the civil judge except on a suit being instituted by such landlord on one or more of the grounds
- **Fair rent provisions:** No tenant shall be liable to pay to the landlord for the occupation of any premises any amount in excess of the fair rent for that premises
- **Right to Deposit Rent:** Option of remitting the rent to the landlord by postal money order within 15 days of the refusal or deposit the rent with the Controller.
- **Exemption:** Any residential premises which carry more than Rs.3000 as monthly rent
- **Tax:** Every tenant has to pay his share of municipal tax as an occupier of the premises

Status of Implementation in Baruipur Municipality and way forward

Rental housing market is not adequately matured in Baruipur as only 244 slum households are staying on rental accommodation constituting 5% of total slum households. In Baruipur, out of 64 slums, not a single rental accommodation is observed in 24 slums with an average 80% of households holding Patta/possession certificate in these slums. Moreover, in another 23 slums, number of households staying on rent is insignificant (less than 5 households) substantiates the fact that demand for rental housing in Baruipur is limited.

Learnt from the experiences highlighting that rental housing percentage is higher in the case of EWS and LIG in other urban areas of India, it is imperative that penetration of rental housing option needs to be strengthened in strategic locations of the city so that tenants find them commercially attractive on the basis of ease of transport connectivity and communication. Furthermore based on discussions with concerned stakeholders, it is perceived that recovery of possession of premises and limited effort from tenants to undertake day-to-day maintenance of the premises constrain promotion of rental housing market, although low level of demand emerges as the prime factor behind limited penetration of rental housing. Hence, Baruipur municipality shall lay much more emphasis on ground level implementation of the provisions of the act to promote rental housing market in Baruipur municipal area.

4.5.5 Assigning long term lease rights to slum dwellers (Mandatory- State & ULB)

Commitment and willingness to assign mortgage-able and renewable, long-term (15 years) inheritable lease rights to slum dwellers who have been a resident of the slum for more than 5 years.

Action Taken by West Bengal

Government of West Bengal is in the process of formulating a scheme to provide ong term inheritable lease rights to urban poor.

Status of Implementation in Baruipur Municipality and way forward:

Baruipur Municipality shall implement the provisions of scheme as soon as it is finalized by the State Government.

4.5.6 Formulation of State Policy for Affordable Housing (Optional-State)

Each and every state is required to formulate an affordable housing policy focusing on all requisite policy interventions with respect to promotion of affordable housing in the state.

Action Taken by West Bengal

Government of West Bengal is in the process of formulating a housing policy which shall take cognizance of the following interventions for affordable housing

- Simplification of land conversion and layout / building plan approval process
- Reservation of FAR/FSI and providing TDR facilities to private developers
- Land conversion plan for affordable housing
- Constitution of a land bank and preparation of an asset management plan
- Time-bound clearance processes and penalty options, if delayed
- Mandatory requirements for constructing mini township projects for affordable housing
- Access to housing finance

Status of Implementation in Baruipur Municipality and way forward:

With the formulation of the policy, Baruipur Municipality shall get requisite benefits in promoting affordable housing market in Baruipur.

4.5.7 Amendments in Master plan (Optional-State & ULB)

Amendments of Master Plans to provide for inclusive growth through inclusionary zoning and other measures for inclusive development

Action Taken by West Bengal

GoWB is planning to include the provisions related to inclusionary zones in the West Bengal Town and Country Planning Act, 1979.

Status of Implementation in Baruipur Municipality and way forward

Baruipur Municipality shall implement the provisions as and when the provisions are notified by the State Government.

4.5.8 Creation of a Municipal Cadre (Mandatory-State & ULB level)

Creating and establishing a municipal cadre for social/community development and urban poverty alleviation during the plan period.

Action Taken by West Bengal

West Bengal has already transferred functions including i) Safeguarding the interests of weaker sections society, ii) Slum improvement and up-gradation, iii) Urban poverty alleviation under the 12th schedule of Constitution to the ULBs. In this context, GoWB has issued a notification in 2006 on restructuring of UPE cell along with defining role and responsibility of the cell in urban poverty alleviation.

In addition, the State Government has already notified specific staffing norms for each ULB. The Executive Office cadre is in place and Finance officers are also from the state service cadre.

Status of Implementation in Baruipur Municipality and way forward

Baruipur Municipality shall have the requisite municipal cadre as and when the creation of municipal cadre is sanctioned by the GoWB.

Other Reforms to increase demand for affordable housing

4.5.9 Housing Finance to the poor

Since the initiation of BSUP scheme in 2007-08, around 1900 dwelling units for EWS/LIG have been constructed in Baruipur and it is observed that contribution of beneficiaries for this purpose has been fixed at Rs. 20,000/- in construction of dwelling unit. United Bank of India (UBI) has extended housing finance to the beneficiaries leveraging joint liability model combining 5-6 beneficiaries into a group with the all group members were held liable, in case of any default from any of the members. Ward committee played a pivotal role in coordinating the overall housing finance process and more than 800 beneficiaries were reported to have been granted loan using this model.

Way forward

Baruipur municipality shall emphasize on using this joint liability model in extending housing finance facility to slum dwellers in context of RAY. Once adequate staffs shall be recruited in the UPE cell, UPE cell shall coordinate the overall process in coordination with CDS and respective ward committees. In addition, municipality, in active cooperation with state shall attempt to motivate other banks/FIs in extending loan to the targeted beneficiaries.

4.5.10 Livelihood Development

Considering that about 83% of the slum dwellers in Baruipur have household income of less than Rs 3,000 per month and have very little or nil savings, there is a considerable need to enhance the skills and thus income of the slum dwellers for them to be able to contribute towards beneficiary share and O&M cost of the dwelling units. Baruipur Municipality has initiated number of skill development trainings and Enterprise Development Programme (EDP) for this purpose and number of persons belonging to EWS/LIG category was trained.

Way forward

Going forward, municipality shall take up many more such livelihood promotion programmes for slum dwellers in active coordination with Skill Development Council set up under chairmanship of the Hon'ble Chief Minister of the state.

4.6 Timeline for Achieving the Reforms

A roadmap for implementing the requisite policy measures to be taken up by the state Government shall be specified in the MoA, an indicative timeline is provided in the table below:

Period	Measures
Year 1 (From the time of Approval of SFCPoA)	<ul style="list-style-type: none"> • Long term inheritable lease rights • Formulation of Affordable Housing Policy • Preparation of a master plan with clearing provisioning of inclusive zoning • Setting up credit guarantee fund and registering all the banks/FIS with the fund • Networking with other banks/FIs for availing housing finance for urban poor • Recruitment of requisite municipal cadres to promote slum development and urban poverty alleviation programmes
Year 2	<ul style="list-style-type: none"> • Implementation of all the acts and policies formulated/enacted in the year 1 at ULB level • Roll out necessary capacity building/training programs to Government and ULB officials for sensitising about policy measures and provision of act formulated in Year 1

Section 5 – Financing and Implementation Strategy

5.1 Investment Requirements and Financing Plan

The investment requirement is based on the following:

- Cost for Construction and up gradation of existing housing
- Cost for Infrastructure development
- Other Costs
 - Cost for Social Infrastructure
 - Cost for Operation and Maintenance
 - Cost for DPR & PMC Consultancy

The details for each of the component are specified in the sections below.

5.1.1 Cost for Construction of Housing and up gradation of existing housing

Curative Housing Shortage: Cost for construction of new houses and up gradation of semi-pucca to pucca houses for all 64 slums is shown in the table below:

Table 33: Housing shortage and up gradation requirements

S. No	Number of Houses to be Constructed	Units	Cost (In Lakhs)	Total Cost (in Lakhs)
I.	Construction and up gradation of houses (Katcha and Semi-Pucca)	3555	3	10665
Total				10,665

5.1.2 Cost for Infrastructure Development

1. Infrastructure Gap for the curative housing shortage is calculated on the following basis:
 - The existing infrastructure in slums was assessed on the basis of GIS
 - The required road length and street light were assessed on the basis of prescribed norms & standards based on slum area and distance between the two street light poles respectively
 - The infrastructure gap for road length and street light was assessed on the basis of difference between required infrastructure and existing infrastructure.
 - The required water pipeline and storm water drainage was assessed on the basis of per capita norms (People who do not have access to individual tap connection and slums not connected to storm water drainage)

2. The Cost for providing the physical infrastructure is provided in the table below:

Table 34: Cost of Physical Infrastructure

Infrastructure Component	Total Cost (in Rs Lakhs)
Water Supply	1172
Storm Water Drainage	585
Road	1501
Street Lights	486
Total	3744

5.1.3 Other Costs

Other costs for the slums are taken as follows:

- Operation and Maintenance cost is assumed to be 4% of the total cost
- Administrative & Operating Expenses (A &OE) including DPR , IEC, capacity Building and PMC cost is assumed to be at 5% of the total cost

5.1.4 Total Costs

Total cost for the curative strategy of 64 slums and future housing stock is provided in the table below:

Table 35: Total Cost (Figures in Rs Lakhs)

Strategy	Number of Units	Housing Cost:-(A)	O&M Cost @4% of (A):- (B)	DPR & PMC cost @ 5% of (A):- (C)	Total Housing Cost:- (D)=(A) +(B)+(C)	Physical and Social Infrastructure Cost:- (E)	O&M Cost @4% of (E):- (F)	DPR & PMC Costs @5% of (E): (G)	Total Physical and Social Infrastructure Cost:- (H)=(E)+(F) +(G)	Total Cost:- (D)+(H)
Curative	3555	10665	427	533	11625	3744	150	187	4081	15706
Preventive	842	2526	101	126	2753	842	34	42	918	3671
Total	4397	13191	528	660	14378	4586	183	229	4998	19377

5.2 Sharing pattern

MoHUPA has prescribed that the cost of Infrastructure cannot be more than Rs one lakh per dwelling unit and cost of dwelling unit cannot exceed Rs three lakh per dwelling unit and the sharing pattern shall be as specified in the table below

Table 36: Sharing Pattern

Sharing Pattern (In percentage terms)				
Component	Ministry of Housing and Urban Poverty Alleviation, Government of India	Government of West Bengal	Baruipur Municipality	Beneficiary
Housing (Curative Strategy –Existing Slums)	75%	20%	N.A	5%
Infrastructure (Curative Strategy –Existing Slums)	75%	20%	5%	N.A
Housing under RAY (Preventive)	Rs 75,000 per DU (in accordance with	Concessions in accordance with	Concessions in	Sale price to be

Sharing Pattern (In percentage terms)				
Component	Ministry of Housing and Urban Poverty Alleviation, Government of India	Government of West Bengal	Baruipur Municipality	Beneficiary
	Affordable Housing in Partnership, Scheme Guidelines	the Affordable Housing Policy	accordance with the Affordable Housing Policy	determined in accordance with AHP scheme guidelines.

(The above sharing pattern for Curative Strategy has been approved by the State Level Sanctioning and Monitoring Committee in its meeting held on January 15, 2014)

The total investment under curative strategy required for housing and infrastructure shall be a total of Rs 15,706 lakhs, comprising of total housing cost of Rs 11,625 lakhs and Rs 4,081 lakhs as infrastructure cost. Ray guidelines prescribe that the infrastructure cost shall be maximum of Rs. one lakh per unit, i.e. a total of Rs 3,555 lakh. The details are summarized in the table below:

Table 37: Investments required under RAY

Particulars	Total Base Cost:-(A)	O&M Cost :- (B)=4% of (A)	DPC & PMC Cost:- (C)=5% of (A)	Total Funding Requirement:- (D)=(A)+(B)+(C)
Figures (in Rs Lakh)				
Housing	10665	427	533	11625
Infrastructure Requirement	3744	150	187	4081
Infrastructure funding ceiling from MoHUPA	3555	142	178	3875
Additional Infrastructure to be met through other centrally sponsored schemes/state				206

The fund sharing for the above costs between MoHUPA, State Government, ULB and beneficiary shall be as follows:

Table 38: Fund Share

Sharing Pattern (Figure in Rs Lakhs)					
	Ministry of Housing and Urban Poverty Alleviation, Government of India	Government of West Bengal	Baruipur Municipality	Beneficiary	Total
Housing	8719	2325		581	11625
Infrastructure	2906	775	194		3875
Additional Infrastructure to be met through other centrally sponsored schemes/state/ULB					206
Total	11625	3100	194	581	15706

The detailed funding requirement for each of the slum is provided in Annexure C-2

5.2.1 Financial Plan linked to phase wise coverage of slums and creation of affordable housing stock

The curative strategy for Baruipur is expected to be spread over eight years from F.Y 2013-14 to F.Y 2020-21. Year Wise costing for housing and infrastructure is provided in the following table:-

Table 39: Year wise cost and coverage of slums

Year	No of slums to be covered	Housing Cost (in Rs Lakh)	Infrastructure Cost (in Rs Lakh)	Total Cost (in Rs Lakh)
F.Y 13-14	6	954.84	278.12	1232.96
F.Y 14-15	7	1962	602.06	2564.06
F.Y 15-16	10	1546.71	634.84	2181.55
F.Y 16-17	8	1311.27	542.72	1853.99
F.Y 17-18	10	1906.41	562.27	2468.68
F.Y 18-19	5	1425.72	451.00	1876.72
F.Y 19-20	10	1422.45	508.84	1931.29
F.Y 20-21	8	1095.45	500.87	1596.32
Total	64	11624.85	4080.72	15705.57

Year wise coverage of slums on the basis of the prioritisation matrix and discussion with Board of Councilors, Baruipur Municipality with regard to contribution of funds from Baruipur Municipality is provided in the table below:

Table 40: Year wise coverage of slums

S.No	Slum Name	Ward Number	Slum Model	Houses to be constructed or upgraded	Costing-Housing and Infrastructure (in Rs Lakh)	Total Costing-Housing (in Rs Lakh)	Total Costing-Infrastructure (in Rs Lakh)	Year
1	MIDDLE ROAD(PANCHANANTALA)(S.C.-053)	1	ISU-3	41	162	134	27.8	F.Y 13-14
2	STATION FEADER ROAD(S.C-064)	17	IRD-1	45	178	147	30.8	F.Y 13-14
3	KHODAR BAZAR(S.C.-023)	11	IRD-1	53	216	173	42.3	F.Y 13-14
4	KHUDIRAM PALLY(S.C-058)	6	ISU-3	23	93	75	18.2	F.Y 13-14
5	NAJRUL SARANI-NEW NAJRUL SARANI(S.C.-049)	12	IRD-1	26	124	85	38.6	F.Y 13-14
6	SAMANTA PARA(S.C.-017)	9	ISU-1	104	461	340	120.4	F.Y 13-14
7	MONDAL PARA(S.C-032)	15	ISU-3	52	225	170	54.6	F.Y 14-15
8	BARUIPUR PROS QUARTER(S.C-054)	8	ISU-3	84	337	275	62.4	F.Y 14-15
9	BHATTACHARYA PARA(S.C.-055)	10	ISU-3	27	158	88	69.4	F.Y 14-15
10	MONDAL PARA(S.C-009)	5	ISU-3	137	550	448	102.1	F.Y 14-15
11	SAJAHAN ROAD(S.C.-005)	3	ISU-1	26	131	85	46.4	F.Y 14-15
12	SAHAPARA COLONY(S.C-012)	7	ISU-1	253	1041	827	214.0	F.Y 14-15
13	SURYA SEN NAGAR(S.C-003)	2	ISU-3	21	122	69	53.2	F.Y 14-15
14	MADARAT PAILADANGA(S.C-030)	14	ISU-3	59	274	193	81.4	F.Y 15-16
15	SARDAR PARA(S.C.-029)	13	ISU-3	11	51	36	15.3	F.Y 15-16
16	G.BOSE COLONY(S.C.-036)	17	IRD-1	26	128	85	43.4	F.Y 15-16
17	B.K ROYCHOWDHURY ROAD(S.C-010)	6	ISU-3	56	207	183	24.2	F.Y 15-16
18	NASKAR PARA(S.C.-057)	16	ISU-3	22	100	72	27.8	F.Y 15-16
19	SARDAR PARA(S.C.-045)	9	IRD-1	50	209	164	45.7	F.Y 15-16
20	NASKAR PARA(S.C.-043)	9	ISU-3	56	237	183	54.0	F.Y 15-16
21	GAJI PARA(S.C.-027)	13	IRD-1	57	245	186	58.9	F.Y 15-16
22	DEY PARA(S.C-006)	4	ISU-1	111	630	363	267.5	F.Y 15-16
23	MONDAL PARA(NETAJI PALLY)(S.C.-041)	2	ISU-1	25	98	82	16.7	F.Y 15-16

S.No	Slum Name	Ward Number	Slum Model	Houses to be constructed or upgraded	Costing-Housing and Infrastructure (in Rs Lakh)	Total Costing-Housing (in Rs Lakh)	Total Costing-Infrastructure (in Rs Lakh)	Year
24	KAYAL PARA(S.C.-024)	11	ISU-3	37	212	121.0	90.6	F.Y 16-17
25	NAJRUL SARANI(S.C.-037)	17	ISU-3	37	142	121	21.1	F.Y 16-17
26	SASANKA DEV CHATTERJEE ROAD(S.C.-050)	12	ISU-3	14	105	46	59.5	F.Y 16-17
27	BIBIMAR TALA(S.C.-028)	13	ISU-3	46	212	150	61.3	F.Y 16-17
28	NASKAR PARA(S.C.-063)	13	ISU-3	58	250	190	60.8	F.Y 16-17
29	KAYAL PARA(S.C.-014)	8	ISU-3	72	304	235	68.4	F.Y 16-17
30	SAHAPARA COLONY(S.C-042)	8	ISU-3	118	467	386	81.4	F.Y 16-17
31	HARI SABHA LANE(S.C.-048)	12	IRD-1	19	162	62	99.6	F.Y 16-17
32	BALBAN PARA(S.C-035)	16	ISU-3	128	519	419	100.5	F.Y 17-18
33	MUCHI PARA(S.C.-038)	5	ISU-3	77	375	252	123.1	F.Y 17-18
34	MIDDLE ROAD(S.C.-026)	12	ISU-1	16	72	52	19.7	F.Y 17-18
35	MAYLAPOTA(S.C-031)	14	ISU-2	68	282	222	60.0	F.Y 17-18
36	BEDE PARA BASTI(S.C.-020)	10	ISU-2	39	146	128	18.5	F.Y 17-18
37	BASUDEV PALLY(S.C.-018)	9	ISU-1	31	137	101	35.4	F.Y 17-18
38	GOLPUKUR-MONDAL PARA(S.C.-046)	10	ISU-1	32	138	105	33.2	F.Y 17-18
39	KALIKANAN(S.C-011)	6	ISU-1	59	248	193	54.6	F.Y 17-18
40	IRIGATION COLONY (S.C.-015)	8	ISU-1	84	329	275	54.6	F.Y 17-18
41	NILKHET(S.C.-062)	7	ISU-1	49	223	160	62.7	F.Y 17-18
42	POLICE BARACK RD. SCHOOL BY LANE(S.C.-061)	7	ISU-1	44	186	144	41.8	F.Y 18-19
43	KHAN PARA(S.C.-008)	5	ISU-1	91	366	298	68.5	F.Y 18-19
44	BAGANI PARA(S.C.-007)	5	ISU-1	88	354	288	66.6	F.Y 18-19
45	GAJIBABA ROAD(S.C.-013)	8	ISU-1	126	518	412	106.2	F.Y 18-19
46	BAISHNAB PARA(S.C.-022)	10	ISU-1	87	452	284	167.9	F.Y 18-19

S.No	Slum Name	Ward Number	Slum Model	Houses to be constructed or upgraded	Costing-Housing and Infrastructure (in Rs Lakh)	Total Costing-Housing (in Rs Lakh)	Total Costing-Infrastructure (in Rs Lakh)	Year
47	BEHARA PARA(S.C.-047)	12	ISU-3	10	70	33	37.5	F.Y 19-20
48	DAS PARA(S.C.-001)	1	IRD-1	141	556	461	94.5	F.Y 19-20
49	DHOBIA PARA(S.C.-040)	10	ISU-3	34	138	111	27.3	F.Y 19-20
50	NORMAN BETHUN SARANI(S.C.-051)	12	ISU-3	15	78	49	28.8	F.Y 19-20
51	SARDAR PARA(S.C.-002)	2	ISU-3	45	187	147	39.5	F.Y 19-20
52	DOLTALA(S.C-039)	6	ISU-3	27	132	88	43.8	F.Y 19-20
53	CHRISTAN PARA(S.C-060)	10	ISU-3	49	209	160	48.6	F.Y 19-20
54	KHALPAR(S.C.-019)	9	ISU-3	27	145	88	56.2	F.Y 19-20
55	HALDER PARA-BISWAS PARA(S.C.-052)	16	ISU-3	9	89	29	59.7	F.Y 19-20
56	SEGUN BAGAN(S.C.-059)	6	ISU-3	78	328	255	73.0	F.Y 19-20
57	BISWAS PARA(S.C.-016)	9	ISU-3	46	180	150	29.7	F.Y 20-21
58	PAL PARA-MUKHERJEE PARA(S.C.-044)	9	ISU-3	81	351	265	85.9	F.Y 20-21
59	PIYADA PARA (BAIDYA PARA)(S.C.-056)	16	ISU-3	33	194	108	85.7	F.Y 20-21
60	PAL PARA(S.C-034)	16	ISU-3	65	419	213	206.0	F.Y 20-21
61	DEY PARA(S.C.-025)	12	ISU-1	18	74	59	14.9	F.Y 20-21
62	JHARNA(S.C-021)	10	ISU-1	45	169	147	21.8	F.Y 20-21
63	SARDAR PARA(S.C.-033)	15	ISU-1	24	108	78	29.1	F.Y 20-21
64	BEDE PARA(S.C.-004)	3	ISU-1	23	103	75	27.7	F.Y 20-21

Note: The above cost has been worked out on the basis of Schedule of Rate for the Year 2012-13 and does not take into account the price escalations that may accrue in the subsequent years. The DPR for each slum shall detail out the actual investment that will be required for development of a particular slum.

5.3 Formulation of a Credit Plan

5.3.1 Review of Accessibility and Affordability of Housing Finance for Urban Poor

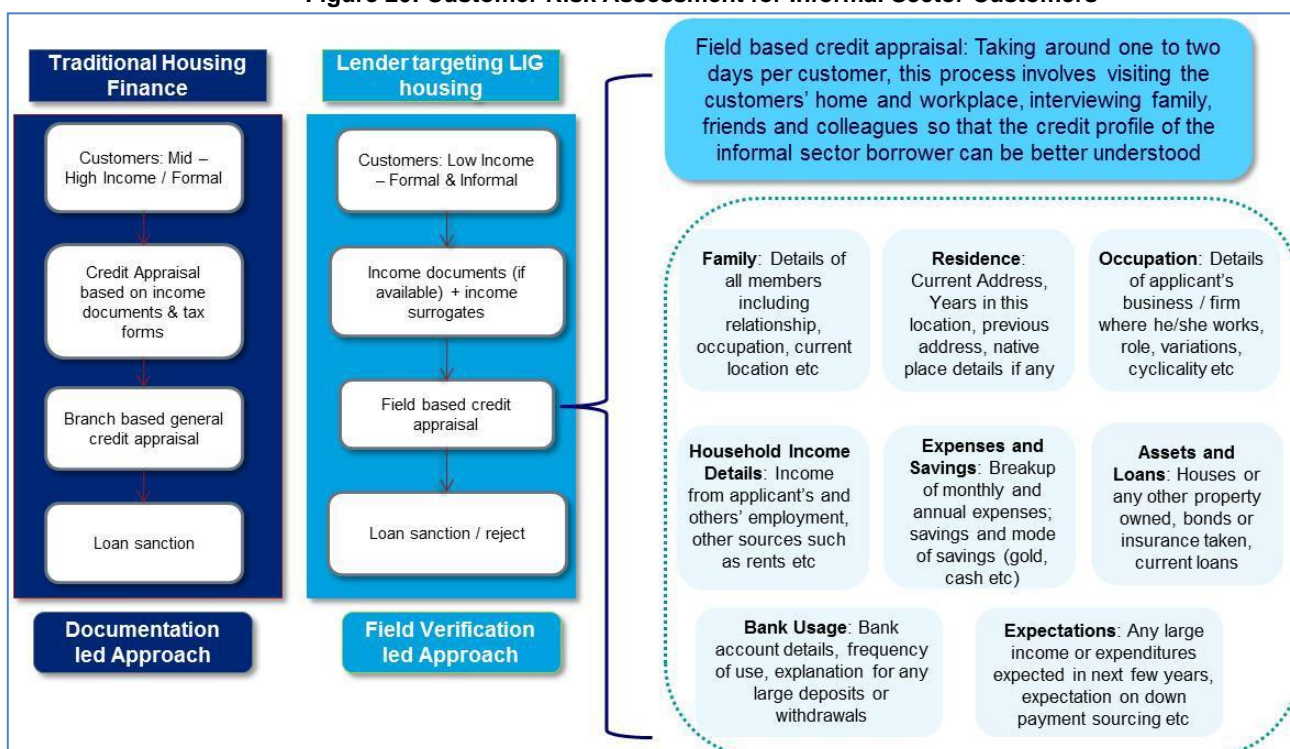
Despite having an extensive network of financial institutions, banks and apex housing cooperative societies, the households falling under low income and economically weaker sections category especially from the unorganized work force have no or limited access to institutional finance.

The lack of access to credit for the poor is attributable to the practical difficulties arising from discrepancy between mode of operation followed by financial institutions and the economic characteristics and financing needs of lower income households. For example, commercial lending institutions require that borrowers have a ownership of land and stable source of income out of which principal and interest can be paid back according to agreed terms. However, the income of many self –employed households is not stable, regardless of its size.

In last few years, many Housing Finance Companies have emerged and have adapted their business model from branch focused loan sanction and disbursement to sourcing customers directly from project site through tie-up with developers. The appraisal and loan sanctioning process has also been altered to suit the requirements of the customer at hand by making it more aligned to customer assessment rather than the income assessment.

Following diagram compares the housing finance process by Traditional Housing Finance and lender targeting housing finance companies.

Figure 20: Customer Risk Assessment for Informal Sector Customers



The above diagram clearly shows that the housing loan process is more targeted towards customer and is attuned to their profile and requirements. The above process/method needs to be adopted by all SCB and HFC to sanction loans for the EWS and people in Informal sectors.

Government of West Bengal and Baruipur Municipality have taken number of initiatives for providing finance/loan to beneficiaries who were sanctioned houses under BSUP and IHSDP and intend to avail loan facilities. The following table illustrated the key features of the housing finance from two of the Nationalised Bank i.e. State Bank of India and Union Bank of India

Table 41: Housing Finance under BSUP and IHSDP

Loan Feature	State Bank of India	Union Bank of India
Eligibility Criteria	<ul style="list-style-type: none"> • Slum dweller as per formal sponsoring/recommendation of the local Corporation/Municipality • Standard MoU between the sponsoring corporation/municipality and the concerned bank branch, covering the roles and responsibilities • Security- Primary and Equitable Mortgage of land 	<ul style="list-style-type: none"> • Individuals, aged minimum 21 years, must be permanent domicile in slum area under the Municipality having voter card & BPL card. • Beneficiary should have clear Land ownership /tenure slip secured by patta. Title of land should be preferably in the name of the wife & alternatively jointly in the names of husband & wife. In exceptional cases, title in the name of male beneficiary may be permitted. • Up gradation of existing housing unit or construction of new housing unit. In both cases, the applicants should own land
Own Contribution of Beneficiary & Home Loan	<ul style="list-style-type: none"> • 20% of the capital cost, 80% being met by the Government, subject to a maximum amount of Rs 20,000 	<ul style="list-style-type: none"> • 20% of cost of project subject to own contribution in the range of Rs 5000/- to Rs 6000/- & the balance amount will be financed by the bank. • Maximum Rs 15,000 per beneficiary for upgradation or construction of house

Source: jnnurmwestbengal.gov.in

The above table reveals that the ownership of land is one of the foremost criteria for availing finance from bank and the maximum loan from the bank is not more than 20,000. In Baruipur, about 83% of the slum dwellers have ownership (in terms of patta and possession certificate). In addition, Baruipur Municipality has successfully mobilised joint liability model among slum dwellers to enable them to obtain housing finance from Banks.

Other Housing finance schemes

The Ministry of Housing and Urban Poverty Alleviation (MH&UPA), Government of India has designed a Revised Interest Subsidy Scheme - renamed as Rajiv Rinn Yojana (or Rajiv Loan Scheme), as an additional instrument for addressing the housing needs of the EWS/LIG segments in urban areas. The Scheme envisages the provision of a fixed interest subsidy of 5% (500 basis points) on interest charged on the admissible loan amount to EWS and LIG segments to enable them to buy or construct a new house or for carrying out addition (of a room / kitchen / toilet / bathroom) to the existing building. It is expected that slum dwellers in Baruipur Municipality will be covered under this scheme and will be able to avail the benefits under Rajiv Rinn Yojana.

In addition, as beneficiary contribution in RAY is expected to be about Rs 30,000 and about 83% of the slum dwellers in Baruipur have income of less than Rs 3,000 p.m. there is a need for the

livelihood and skill development for improving the repayment capacity of the slum dwellers. Realizing this Government of West Bengal has constituted a Skill Development Council under chairmanship of the Hon'ble Chief Minister to substantially increase the efforts under the Skill Development Programme.

Community Consultation

With an objective to ascertain the impact of the above two housing finance schemes currently operating in slums of Baruipur Municipality, number of focus group discussions has been conducted involving slum communities during validation of annexure-I slum MIS data. Based on the feedbacks received from slum residents in respect of the benefits and constraints faced in accessing housing finance, following points have been put together to summarise them all:

Benefits:

1. **Banks are extending housing loan under joint liability model:** By forming informal group comprising of 4-5 HHs coming together for the purpose of availing bank loan through group mechanism against mutual guarantee has helped many slum households to avail loan
2. With majority of the slum dwellers having ownership (patta and possession certificate) rights, the loan disbursement process has become simple and less time consuming

Constraints:

1. **Limited access to Information:** Most of the slum dwellers are not aware of the Schemes implemented by the Government or the programme routed through Banks. Hence, the schemes intended for the targeted beneficiaries do not reach whenever and wherever required.
2. **Authorisation issue:** Banks don't extend loan unless the loan application is supported by an authorisation letter issued by elected representatives on their behalf.
3. **Lesser focus on Priority sector lending:** Despite the existence of the schemes, sanction of loan for EWS and Slum Dwellers is not priority of the banks. Banks show relatively lesser interest in giving loans to slum dwellers or economic weaker section leading to delay in getting loan
4. **Ownership right is the foremost criteria for availing loan:** Households not having any legal documents are not eligible to apply for loan from Banks.
5. **Lack of handholding support:** As the lending procedure involves lots of paper work and requires communicating with bank officials during the process, lack of handholding support in facilitating the process on their behalf delays or discontinues the process at times.

5.3.2 Strengthening the Credit Flow and Review of Accessibility and Affordability of Housing Finance for Urban Poor

Baruipur Municipality shall continue to play active role in facilitating housing loan for the slum dwellers by organising help desks and entering into an active dialogue with banks to extend the housing loan. Two CDS at Baruipur Municipality shall play active role in identifying, motivating and organising beneficiaries to seek loans for building or buying houses. CDS members shall also assist the beneficiaries in understanding the financing options, modalities of obtaining the loan, procedures and paperwork of the bank, obtaining requisite certificates to get the loan and receipt of repayment.

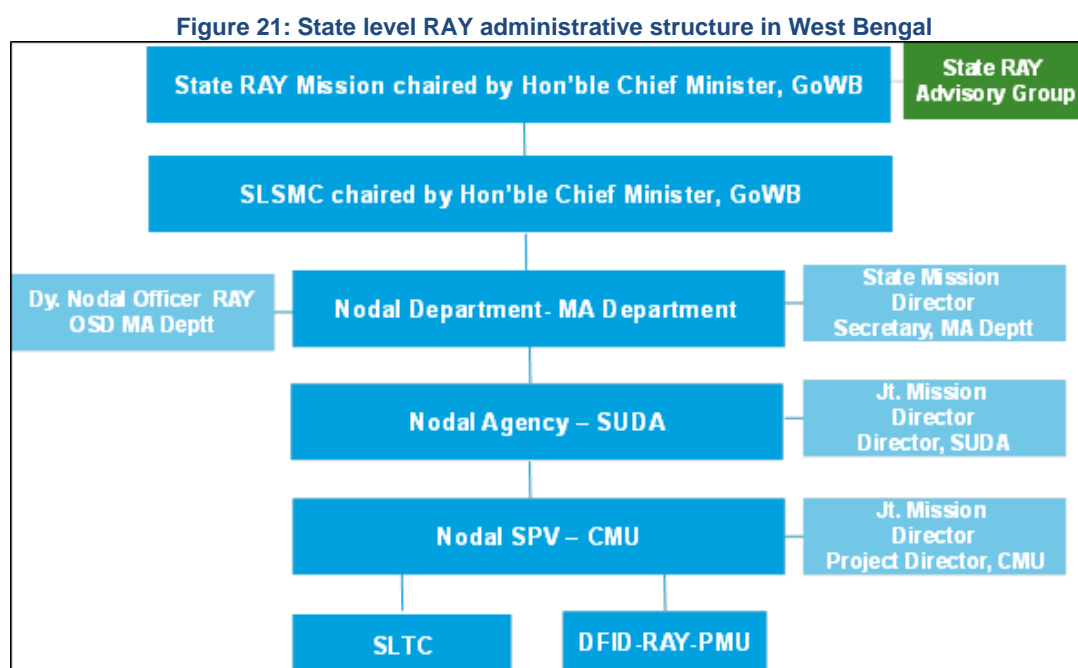
In addition, Baruipur Municipality with assistance from the CDS shall

- Assist Financial Institutions/lenders in identifying beneficiaries and undertaking verification procedures
- Forward application of eligible beneficiaries to the financing institutions
- Monitor data at ULB level indicating the number of applications sponsored, applications sanctioned, loan disbursed and application rejected.
- Closely interact with lead district managers of lead banks and State Level Bankers' Committee to resolve any bottlenecks with sanction and disbursement of loans

5.4 Institutional Arrangements for Implementation of Development Options

5.4.1 RAY Structure in West Bengal

Government of West Bengal has already laid down requisite and adequate administrative structure in line with the requirements under RAY guideline. RAY administrative structure in West Bengal can be depicted in the following figure:



- I. **State RAY Mission:** RAY Mission in West Bengal was created vide G.O No. 190/MA/C-10/3S-19/2010 Pt.-III dated February 28, 2013 with Hon'ble Chief Minister of West Bengal as Chairperson of the Mission. The Mission is empowered to take all overriding decision concerning land use, town planning and master planning.
- II. **State Level Sanctioning and Monitoring Committee:** SLSMC was constituted in West Bengal was created vide G.O No. 191/MA/C-10/3S-19/2010 Pt.-III dated February 28, 2013 with Hon'ble Chief Minister of West Bengal as Chairperson of the Committee Mission. The Committee will oversee, guide, review and monitor the preparation and implementation of projects and the reforms for the cities.
- III. **Nodal Department:** Municipal Affairs Department, Government of West Bengal has been designated as the Nodal Department for Coordinating and directing the ULBs with regard to

RAY. The Nodal Department shall coordinate with other state departments (PWD, Irrigation), PSU and Central Government Undertaking including Railways, Airports etc.

- IV. **Nodal Agency:** SUDA has been designated as the Nodal Agency to coordinate all the RAY activities and fund management with the Ministry of Housing and Urban Poverty Alleviation, Government of India.
- V. **Nodal SPV:** Change Management Unit, Kolkata Urban Services for Poor programme has been designated as Nodal SPV to ensure the implementation of RAY activities at ULB level and issue the operational guidelines to ULB for ensuring the implementation of Slum Free City Plan of Action.

In addition, Government of West Bengal is planning to constitute a RAY advisory group constituting of eminent citizens, civil society members with proven experience in mobilizing collective action for community empowerment/slum development/reforms in urban governance. This advisory group will advise the government on and encourage mobilisation of the community, public-private partnerships and citizen's involvement in governance at grass-root level.

5.4.2 RAY Structure at the Baruipur Municipality

Baruipur Municipality shall be the nodal agency for implementation of SFCPoA and has set up a robust administrative structure for implementation. The roles and responsibilities of the key stakeholder are as follows:

- I. **RAY Nodal Officer:** Chairperson of the Baruipur Municipality has been designated as the RAY Nodal Officer for the Baruipur Municipality demonstrating the commitment and willingness of the Baruipur Municipality to implement the SFCPoA
- II. **RAY Working Group:** Baruipur Municipality has created a RAY working group with departmental heads of all key departments including PWD, Revenue, Health, Water Supply, Planning, Poverty and BSUP. The working group was instrumental in preparing the SFCPoA and going forward will be responsible for the implementation of SFCPoA.
- III. **Slum level federation at city level and slum dweller association at slum level:** Baruipur Municipality has two CDS covering 17 wards and plan to establish a slum level federation at city level and slum dweller association at slum level for smooth implementation of RAY and ensuring that the detailed project reports are prepared in consultation with the community. The slum dweller association would also implement the O&M plan, which community had agreed upon, by collecting the contributions amongst themselves and formation of group housing societies as may be required.

In addition, Baruipur Municipality shall also work closely with other State level agencies for implementation of SFCPoA. The roles and responsibilities of the various agencies for implementation of SFCPoA shall be as follows:

Table 42: Role and Responsibility of different agencies

Name of the Agency	Preparation of SFCPoA	Affordable Housing Policy and Reforms	Community participation	Planning- Land & Zoning	Planning – Design	Implementation	Reform/Grievance Redressal	Post Implementation
Baruipur Municipality	✓		✓	✓	✓	✓	✓	✓
Kolkata Metropolitan Development Authority		✓		✓		✓		
Change Management Unit , Municipal Affairs Department	✓	✓				✓		
Town and Country Planning Office, Urban Development Department		✓		✓		✓		
MED					✓	✓		
WBHB					✓	✓		✓
NGOs	✓		✓		✓	✓		✓
Slum Community/CBOs	✓		✓		✓	✓		✓
Private Sector					✓	✓		✓

Annexure

Annexure A: Section I - Background, Approach & Methodology

A-1: Photographs taken during state level and follow up training in Baruipur

State Level Training Photos Conducted during February 2013



Annexure B: Section 3- Slum Improvement

B-1: Distribution of Slums based on status, population and area of slums

Status of Slums	Area-Population	0 ≤ 1000 sq. m	1000 ≤ 3000 sq. m	3000 ≤ 6000 sq. m	6000 ≤ 9000 sq. m	9000 ≤ 12000 sq. m	> 12000sqm	Total
Number of Notified slums	0 ≤ 100 persons	-	-	-	-	-	4	4
	100 ≤ 250 persons	-	-	-	1	-	16	17
	250 ≤ 500 persons	-	-	-	-	-	14	14
	500 ≤ 1000 persons	-	-	-	-	-	5	5
	>1000 persons	-	-	-	-	-	0	0
	Total number of slums	0	0	0	1	0	39	40
Number of Non- Notified slums	0 ≤ 100 persons	-	-	-	-	-	4	4
	100 ≤ 250 persons	-	-	-	2	-	12	14
	250 ≤ 500 persons	-	-	-	-	-	6	6
	500 ≤ 1000 persons	-	-	-	-	-	-	0
	>1000 persons	-	-	-	-	-	-	0
	Total number of slums	-	-	-	2	-	22	24
Total number of Slums	0 ≤ 100 persons	-	-	-	-	-	8	8
	100 ≤ 250 persons	-	-	-	3	-	28	31
	250 ≤ 500 persons	-	-	-	-	-	20	20
	500 ≤ 1000 persons	-	-	-	-	-	5	5
	>1000 persons	-	-	-	-	-	0	0
	Total number of slums	0	0	0	3	0	61	64

Source: USHA Survey and MIS data validation report

B-2: Distribution of Slums based on Ownership, Population and Area

No. of Slums on	Population	0 ≤ 1000 sq. m	1000 ≤ 3000 sq. m	3000 ≤ 6000 sq. m	6000 ≤ 9000 sq. m	9000 ≤ 12000 sq. m	>12000 sq. m	Total
Private	0 ≤ 100 persons	-	-	-	-	-	9	9
	100 ≤ 250 persons	-	-	-	3	-	27	30
	250 ≤ 500 persons	-	-	-	-	-	20	20
	500 ≤ 1000 persons	-	-	-	-	-	5	5
	>1000 persons	-	-	-	-	-	0	0
	Total number of Slums	-	-	-	3	-	61	64
Total number of Slums	0 ≤ 100 persons	-	-	-	-	-	9	9
	100 ≤ 250 persons	-	-	-	3	-	27	30
	250 ≤ 500 persons	-	-	-	-	-	20	20
	500 ≤ 1000 persons	-	-	-	-	-	5	5
	>1000 persons	-	-	-	-	-	0	0
	Total number of slums	-	-	-	3	-	61	64

Source: USHA Survey and MIS data validation report

B-3: Distribution of slums with reference to Core or Fringe area

Category of Slums as per area	Number of Notified Slums			Number of Non-Notified slums			Total Number of Slums			Area category of slums in % terms of total number of Slums
	In Core City (A)	In Fringe Area (B)	Total (C)	In Core City (D)	In Fringe Area (E)	Total (F)	In Core City (G)	In Fringe Area (H)	Total (I)	
0 ≤1000 sq. m (1)	-	-	-	-	-	-	-	-	-	-
1000 ≤3000 sq. m (2)	-	-	-	-	-	-	-	-	-	-
3000 ≤6000 sq. m (3)	-	-	-	-	-	-	-	-	-	-
6000 ≤9000 sq. m (4)	-	-	-	-	-	-	-	-	-	-
9000 ≤12000 sq. m (5)	0	1	1	1	1	2	1	2	3	5%
>12000 sq. m (6)	16	23	39	9	13	22	25	36	61	95%
Total Number of Slums (7)	16	24	40	10	14	24	26	38	64	
Location-wise Slum in % terms of total number of Slums	25%	38%	63%	16%	22%	38%	41%	59%		

Source: USHA Survey and MIS data validation report

B-4: Land use Pattern, Area Land Value of all the 64 slums of Baruipur

Sl. No.	Name of the slum and Slum Code	Land Use	Area of Slum (in Sq. Km)	Land Value Zones
1	Das Para(S.C.-001)	Railway-Residential	0.0594	Z1
2	Sardar Para(S.C.-002)	Railway-Residential	0.0223	Z1
3	Surya Sen Nagar(S.C-003)	Residential	0.0279	Z1
4	Bede Para(S.C.-004)	Residential	0.0329	Z2
5	Sajahan Road(S.C.-005)	Residential	0.0599	Z2
6	Dey Para(S.C-006)	Residential	0.1303	Z3
7	Bagani Para(S.C.-007)	Residential	0.0433	Z3
8	Khan Para(S.C.-008)	Residential	0.0250	Z3
9	Mondal Para(S.C-009)	Residential	0.0699	Z2
10	B.K Roychowdhury Road(S.C-010)	Plantation-Residential	0.0418	Z3
11	Kalikanan(S.C-011)	Plantation-Residential	0.0200	Z4
12	Sahapara Colony(S.C-012)	Residential	0.0740	Z4
13	Gajibaba Road(S.C.-013)	Railway-Residential	0.0595	Z3
14	Kayal Para(S.C.-014)	Railway-Residential	0.0308	Z3
15	Irigation Colony (S.C.-015)	Residential	0.0400	Z3
16	Biswas Para(S.C.-016)	Residential	0.0150	Z3
17	Samanta Para(S.C.-017)	Agriculture-Residential	0.0455	Z4
18	Basudev Pally(S.C.-018)	Railway-Waterbody	0.0155	Z3
19	Khalpar(S.C.-019)	Railway-Residential	0.0328	Z4
20	Bede Para Basti(S.C.-020)	Railway-Residential	0.0068	Z2
21	Jharna(S.C-021)	Residential	0.0206	Z3
22	Baishnab Para(S.C.-022)	Railway-Waterbody	0.1296	Z3
23	Khodar Bazar(S.C.-023)	Railway-Residential	0.0397	Z1
24	Kayal Para(S.C.-024)	Residential	0.0802	Z2
25	Dey Para(S.C.-025)	Residential	0.0144	Z1
26	Middle Road(S.C.-026)	Railway-Residential	0.0235	Z1
27	Gaji Para(S.C.-027)	Residential	0.0366	Z2
28	Bibimar Tala(S.C.-028)	Residential	0.0497	Z2
29	Sardar Para(S.C.-029)	Residential	0.0265	Z1

Sl. No.	Name of the slum and Slum Code	Land Use	Area of Slum (in Sq. Km)	Land Value Zones
30	Madarat Pailadanga(S.C-030)	Residential	0.1194	Z2
31	Maylapota(S.C-031)	Residential	0.0952	Z2
32	Mondal Para(S.C-032)	Residential	0.0610	Z2
33	Sardar Para(S.C.-033)	Residential	0.0212	Z2
34	Pal Para(S.C-034)	Agriculture-Residential	0.0654	Z3
35	Balban Para(S.C-035)	Plantation-Residential	0.0219	Z4
36	G.Bose Colony(S.C.-036)	Railway-Residential	0.0310	Z1
37	Najrul Sarani(S.C.-037)	Commercial	0.0291	Z1
38	Muchi Para(S.C.-038)	Residential	0.0970	Z3
39	Doltala(S.C-039)	Residential	0.0417	Z2
40	Dhoba Para(S.C.-040)	Residential	0.0225	Z3
41	Mondal Para(Netaji Pally)(S.C.-041)	Residential	0.0334	Z2
42	Sahapara Colony(S.C-042)	Residential	0.0386	Z4
43	Naskar Para(S.C.-043)	Agriculture-Residential	0.0249	Z4
44	Pal Para-Mukherjee Para(S.C.-044)	Residential	0.0550	Z3
45	Sardar Para(S.C.-045)	Agriculture-Residential	0.0086	Z4
46	Golpukur-Mondal Para(S.C.-046)	Residential	0.0716	Z2
47	Behara Para(S.C.-047)	Residential	0.0290	Z1
48	Hari Sabha Lane(S.C.-048)	Residential	0.0637	Z1
49	Najrul Sarani-New Najrul Sarani(S.C.-	Public Semi-Public	0.0530	Z1
50	Sasanka Dev Chatterjee Road(S.C.-050)	Commercial	0.0593	Z1
51	Norman Bethun Sarani(S.C.-051)	Plantation-Residential	0.0268	Z1
52	Halder Para-Biswas Para(S.C.-052)	Agriculture-Residential	0.0164	Z3
53	Middle Road(Panchanantala)(S.C.-053)	Residential	0.0313	Z1
54	Baruipur Pros Quarter(S.C-054)	Residential	0.0349	Z3
55	Bhattacharya Para(S.C.-055)	Residential	0.0662	Z2
56	Piyada Para (Baidya Para)(S.C.-056)	Residential	0.0486	Z3
57	Naskar Para(S.C.-057)	Agriculture-Residential	0.0167	Z3
58	Khudiram Pally(S.C-058)	Residential	0.0368	Z2
59	Segun Bagan(S.C.-059)	Residential	0.0440	Z3

Sl. No.	Name of the slum and Slum Code	Land Use	Area of Slum (in Sq. Km)	Land Value Zones
60	Christan Para(S.C-060)	Railway-Residential	0.0300	Z2
61	Police Barack Rd. School By Lane(S.C.-061)	Residential	0.0251	Z2
62	Nilkhet(S.C.-062)	Residential	0.0572	Z2
63	Naskar Para(S.C.-063)	Residential	0.0483	Z2
64	Station Feeder Road(S.C-064)	Railway-Residential	0.0081	Z1
Total			2.8064	

Source: USHA Survey and MIS data validation report

Land Value of four zones Baruipur

Zone	Approximate Present Market Value (In Rs.) per Katha	WBVB Land Value in INR 2011 per Katha
Z1-High	10,00,000	50,000
Z2-Moderately High	6,00,000 – 6,50,000	40,000
Z3-Medium	3,00,000 – 4,00,000	30,000
Z4-Low	1,00,000 – 1,50,000	20,000

Source: West Bengal Valuation Board

B-5A: Relationship between age and density of population in Notified slums

Age of Slum (in years)	Notified Slums					
	Core Area			Fringe Area		
	Number of slums	Area of slums (in Sq. m)	Density of population	Number of slums	Area of slums (in Sq. m)	Density of population
<1	-	-	-	-	-	-
01-05	-	-	-	-	-	-
06-10	-	-	-	-	-	-
11-15	-	-	-	1	49716.500	0.00445
16-20	-	-	-	1	76186.823	0.00419
21-25	-	-	-	-	-	-
26-30	5	239453.178	0.00801	3	159618.484	0.00427
>30	11	442676.046	0.00450	19	1037034.299	0.00645
TOTAL	16	682129.223	0.01251	24	1322556.106	0.01935

Source: USHA Survey and MIS data validation report

B-5B: Relationship between age and density of population in Non-Notified slums

Age of Slum (in years)	Non-Notified Slums					
	Core Area			Fringe Area		
	Number of slums	Area of slums (in Sq. m)	Density of population	Number of slums	Area of slums (in Sq. m)	Density of population
<1	-	-	-	-	-	-
01-05	-	-	-	-	-	-
06-10	-	-	-	-	-	-
11-15	-	-	-	1	43962.910	0.00666
16-20	-	-	-	-	0.000	-
21-25	-	-	-	-	0.000	-
26-30	1	8124.108	0.02228	1	77337.172	0.00260
>30	9	412460.702	0.00351	12	429661.276	0.00506
TOTAL	10	420584.809	0.02579	14	550961.359	0.01432

Source: USHA Survey and MIS data validation report

B-6: Road Condition in slums of Baruipur

ROAD CONDITIONS – MINOR ROADS



IRRIGATION COLONY



PAILADANGA



SAHAPARA



SARDARPARA

B-7: Housing Condition in slums of Baruiपुर

HOUSING CONDITIONS – PUCCA HOUSING



DHOBA PARA



MIDDLE ROAD PANCHANANTALA



HARISABHA LANE



MONDAL PARA

HOUSING CONDITIONS – SEMI PUCCA HOUSING



HARISABHA LANE



DHOBA PARA



NAJRUL SARANI 17

HOUSING CONDITIONS – KUTCHHA HOUSING



NAJRUL SARANI 12



MOYLAPOTA



STATION FEEDER ROAD



BEDE PARA



SAHA PARA WARD 8

B-8: Average Monthly income and expenditure of Households staying in slums

Average Monthly Income of Slum Households									
City	No. of House holds	Total Population	Average Monthly Income of Household (in Rs.)						
			Less than Rs.500	Rs.501- Rs.1000	Rs.1001- Rs.1500	Rs.1501- Rs.2000	Rs.2001- Rs.3000	More than Rs.3000	Don't Know
Baruipur	4463	15891	61	542	1043	1319	747	640	111

Source: USHA Survey and MIS data validation report

Average Monthly Expenditure of Slum Households								
City	No. of House holds	Total Population	Average Monthly Income of Household (in Rs.)					
			Less than Rs.500	Rs.501- Rs.1000	Rs.1001- Rs.1500	Rs.1501- Rs.2000	Rs.2001- Rs.3000	More than Rs.3000
Baruipur	4463	15891	137	617	1214	859	1581	55

Source: USHA Survey and MIS data validation report

B-9: Caste wise distribution of households in slums for each ward

Ward No.	No. of Slums in Ward	No. of HHs	Total Population	General	SC	ST	OBC
1	2	192	690	46	143	-	3
2	3	171	642	103	37	31	-
3	2	96	407	84	9	-	3
4	1	173	588	94	12	-	67
5	4	431	1481	308	64	1	58
6	5	281	993	193	78	4	6
7	3	353	1368	157	186	-	10
8	5	492	1719	222	196	-	74
9	7	461	1459	230	230	-	1
10	7	434	1490	195	138	2	99
11	2	102	415	45	55	-	2
12	7	180	523	107	71	-	2
13	4	230	870	141	85	1	3
14	2	165	542	74	57	-	34
15	2	139	526	71	61	-	7
16	5	450	1772	256	156	4	34
17	3	113	406	77	32	1	3
Total	64	4463	15891	2403	1610	44	406

B-10A: Distribution of Slum Houses in Notified Slums based on Land Tenure Status and type of structure

No. of Slum Households, by Land Tenure Status & Type/Structure in Notified Slums							
House by Type/ Structure	Land Tenure Status						
	With Patta	Possession Certificate/Occupancy Right	Encroached-Private Land	Encroached-Public Land	On Rent	Other	No response
Pucca	62	359	24	-	8	6	4
Semi Pucca	293	1536	86	45	134	40	18
Katcha	31	300	41	98	52	73	8
Total	386	2195	151	143	194	119	30

B-10B: Distribution of Slum Houses in Non-notified Slums based on Land Tenure Status and type of structure

No. of Slum Households, by Land Tenure Status & Type/Structure in Non-Notified Slums							
House by Type/ Structure	Land Tenure Status						
	With Patta	Possession Certificate/Occupancy Right	Encroached-Private Land	Encroached-Public Land	On Rent	Other	No response
Pucca	31	118	1	1	-	6	1
Semi Pucca	87	637	2	36	33	10	4
Katcha	13	199	20	20	17	8	1
Total	131	954	23	57	50	24	6

B-11: Access to services in Slums

Category	Notified Slums		Non Notified Slums		Total		% Slums of Total No of Slums
	Number of Slums	Number of HH	Number of Slums	Number of HH	Number of Slums	Number of HH	
Connectivity to Water Supply							
Fully	-	-	-	-	-	-	
Partially	28	2280	6	353	34	2633	59%
Not Connected	12	938	18	892	30	1830	41%
Total	40	3218	24	1245	64	4463	
Duration of Water Supply							
daily Less than 1 hr.		151		17		168	4%
daily 1-2 hrs.		170		108		278	6%
Daily more than 2 hrs.		1968		667		2635	59%
Once a week		7		2		9	0%
Twice a week		4		1		5	0%
Not regular		5		1		6	0%
No Supply		913		449		1362	31%
Total		3218		1245		4463	
Source of Drinking Water							
Individual tap		86		66		152	3%
Public tap		2005		728		2733	61%
Tube wells/Bore well/hand pump		982		407		1389	31%
Open well		92		40		132	3%
Tank/pond		2		-		2	0%
River/canal/lake/spring		-		-		-	0%
Others		5		-		5	0%
Water tanker		-		-		-	0%
No response		46		4		50	1%
Total		3218		1245		4463	
Connectivity to wide Sewerage system							
Fully							
Partially							
Not Connected	40	3218	24	1245	64	4463	100%
Total	40	3218	24	1245	64	4463	
Connectivity to Storm water drainage							
Fully	7	595	-	-	7	595	13%
Partially	28	2306	8	453	36	2759	62%
Not Connected	5	317	16	792	21	1109	25%
Total	40	3218	24	1245	64	4463	
Drainage and Sewerage Facility							
Access to storm water drainage							

Category	Notified Slums		Non Notified Slums		Total		% Slums of Total No of Slums
	Number of Slums	Number of HH	Number of Slums	Number of HH	Number of Slums	Number of HH	
Access to underground drainage/ sewer line							
Access to digester							
Not connected to sewer or digester							
Total							
Latrine Facilities							
Public/Community latrine-Septic tank/flush		74		38		112	3%
Public/Community latrine- Service latrine		113		24		137	3%
Public/Community latrine-Pit		7		2		9	0%
Shared latrine - Septic tank/flush/		491		262		753	17%
Shared latrine-Service latrine		239		24		263	6%
Shared latrine-Pit		17		3		20	0%
Own latrine - Septic tank/flush/		454		236		690	15%
Own latrine-Service latrine		1460		573		2033	46%
Own Latrine-Pit		102		13		115	3%
Open Defecation		249		82		331	7%
Total		3206		1257		4463	100%
Arrangement of Garbage Disposal							
Municipal Staff		32		20		52	81%
Municipal Contractor							
Residents themselves							
Others							
No Arrangements		8		4		12	19%
Total		40		24		64	
Frequency of Garbage Disposal							
Daily		6		3		9	14%
Once in 2 days		25		15		40	63%
Once in a week		1		2		3	5%

Category	Notified Slums		Non Notified Slums		Total		% Slums of Total No of Slums
	Number of Slums	Number of HH	Number of Slums	Number of HH	Number of Slums	Number of HH	
Once in 15 days							
Not Collected	8		4		12		19%
Total	40		24		64		
Frequency of clearance of open drains							
Daily							
Once in 2 days							
Once in a week	21		3		24		38%
Once in 15 days	12		10		22		34%
Not Collected	7		11		18		28%
Total	40		24		64		
Approach Road/Lane/Constructed Path to the slum							
Motorable Pucca	5		1		6		9%
Motorable Katcha							
Non Motorable Pucca	18		12		30		47%
Non Motorable Katcha	17		11		28		44%
Total	40		24		64		
Internal Road							
Motorable Pucca	5		1		6		9%
Motorable Katcha							
Non Motorable Pucca	17		7		24		38%
Non Motorable Katcha	18		16		34		53%
Total	40		24		64		
Distance from Nearest Motorable Road							
Less than 0.5 Km	40		24		64		100%
0.5-1 Km							
1-2 Km							
2-5Km							
>5 Km							
Total	40		24		64		
Availability of Street Light							
Yes	36		16		52		81%
No	4		8		12		19%
Total	40		24		64		

Annexure-C: Financial Plan**C-1: Financial Benchmarks Used**

Infrastructure Requirements	Benchmarks
Required Road coverage (in sq. meters) of Slum Area	8%
Average Road Width (in Meters)	2
Distance between two street light poles (in Meters)	35

Per Capita Investment Cost by Sector		
Sector	Average Cost (2009-10 prices)	Current Prices assuming escalation
Water Supply	5099	6119
Storm Water Drains	3526	4231
Escalation Factor	20%	

Source: Report on Indian Urban Infrastructure and Services – March 2011

C-2: Investment Requirement for each slum

Cost in Rs Lakhs

Slum	Notified/Non-Notified	Housing Cost	O&M Cost	A&OE (including DPR & PMC Costs)	Total Housing Cost	Physical and Social Infrastructure Cost	O&M Cost	DPR & PMC Costs	Total Physical and Social Infrastructure Cost	Total Cost
Das Para(S.C.-001)	Notified	423	16.92	21.15	461.07	87	3	4	95	556
Sardar Para(S.C.-002)	Notified	135	5.4	6.75	147.15	36	1	2	39	187
Surya Sen Nagar(S.C-003)	Notified	63	2.52	3.15	68.67	49	2	2	53	122
Bede Para(S.C.-004)	Non-Notified	69	2.76	3.45	75.21	25	1	1	28	103
Sajahan Road(S.C.-005)	Notified	78	3.12	3.9	85.02	43	2	2	46	131
Dey Para(S.C-006)	Notified	333	13.32	16.65	362.97	245	10	12	267	630
Bagani Para(S.C.-007)	Notified	264	10.56	13.2	287.76	61	2	3	67	354
Khan Para(S.C.-008)	Non-Notified	273	10.92	13.65	297.57	63	3	3	69	366
Mondal Para(S.C-009)	Non-Notified	411	16.44	20.55	447.99	94	4	5	102	550
B.K Roychowdhury Road(S.C-010)	Notified	168	6.72	8.4	183.12	22	1	1	24	207
Kalikanan(S.C-011)	Notified	177	7.08	8.85	192.93	50	2	3	55	248
Sahapara Colony(S.C-012)	Notified	759	30.36	37.95	827.31	196	8	10	214	1041
Gajibaba Road(S.C.-013)	Non-Notified	378	15.12	18.9	412.02	97	4	5	106	518
Kayal Para(S.C.-014)	Notified	216	8.64	10.8	235.44	63	3	3	68	304
Irigation Colony (S.C.-015)	Notified	252	10.08	12.6	274.68	50	2	3	55	329
Biswas Para(S.C.-016)	Notified	138	5.52	6.9	150.42	27	1	1	30	180
Samanta Para(S.C.-017)	Notified	312	12.48	15.6	340.08	110	4	6	120	461
Basudev Pally(S.C.-018)	Notified	93	3.72	4.65	101.37	32	1	2	35	137
Khalpar(S.C.-019)	Notified	81	3.24	4.05	88.29	52	2	3	56	145
Bede Para Basti(S.C.-020)	Notified	117	4.68	5.85	127.53	17	1	1	18	146
Jharna(S.C-021)	Notified	135	5.4	6.75	147.15	20	1	1	22	169
Baishnab Para(S.C.-022)	Non-Notified	261	10.44	13.05	284.49	154	6	8	168	452
Khodar Bazar(S.C.-023)	Non-Notified	159	6.36	7.95	173.31	39	2	2	42	216
Kayal Para(S.C.-024)	Non-Notified	111	4.44	5.55	120.99	83	3	4	91	212
Dey Para(S.C.-025)	Notified	54	2.16	2.7	58.86	14	1	1	15	74
Middle Road(S.C.-026)	Notified	48	1.92	2.4	52.32	18	1	1	20	72
Gaji Para(S.C.-027)	Notified	171	6.84	8.55	186.39	54	2	3	59	245
Bibimar Tala(S.C.-028)	Notified	138	5.52	6.9	150.42	56	2	3	61	212
Sardar Para(S.C.-029)	Notified	33	1.32	1.65	35.97	14	1	1	15	51
Madarat Pailadanga(S.C-030)	Notified	177	7.08	8.85	192.93	75	3	4	81	274

Slum	Notified/Non-Notified	Housing Cost	O&M Cost	A&OE (including DPR & PMC Costs)	Total Housing Cost	Physical and Social Infrastructure Cost	O&M Cost	DPR & PMC Costs	Total Physical and Social Infrastructure Cost	Total Cost
Maylapota(S.C-031)	Notified	204	8.16	10.2	222.36	55	2	3	60	282
Mondal Para(S.C-032)	Notified	156	6.24	7.8	170.04	50	2	3	55	225
Sardar Para(S.C.-033)	Non-Notified	72	2.88	3.6	78.48	27	1	1	29	108
Pal Para(S.C-034)	Notified	195	7.8	9.75	212.55	189	8	9	206	419
Balban Para(S.C-035)	Notified	384	15.36	19.2	418.56	92	4	5	101	519
G.Bose Colony(S.C.-036)	Non-Notified	78	3.12	3.9	85.02	40	2	2	43	128
Najrul Sarani(S.C.-037)	Notified	111	4.44	5.55	120.99	19	1	1	21	142
Muchi Para(S.C.-038)	Non-Notified	231	9.24	11.55	251.79	113	5	6	123	375
Doltala(S.C-039)	Notified	81	3.24	4.05	88.29	40	2	2	44	132
Dhoba Para(S.C.-040)	Notified	102	4.08	5.1	111.18	25	1	1	27	138
Mondal Para(Netaji Pally)(S.C.-041)	Notified	75	3	3.75	81.75	15	1	1	17	98
Sahapara Colony(S.C-042)	Non-Notified	354	14.16	17.7	385.86	75	3	4	81	467
Naskar Para(S.C.-043)	Notified	168	6.72	8.4	183.12	50	2	2	54	237
Pal Para-Mukherjee Para(S.C.-044)	Non-Notified	243	9.72	12.15	264.87	79	3	4	86	351
Sardar Para(S.C.-045)	Non-Notified	150	6	7.5	163.5	42	2	2	46	209
Golpukur-Mondal Para(S.C.-046)	Non-Notified	96	3.84	4.8	104.64	31	1	2	33	138
Behara Para(S.C.-047)	Non-Notified	30	1.2	1.5	32.7	34	1	2	37	70
Hari Sabha Lane(S.C.-048)	Non-Notified	57	2.28	2.85	62.13	91	4	5	100	162
Najrul Sarani-New Najrul Sarani(S.C.-049)	Non-Notified	78	3.12	3.9	85.02	35	1	2	39	124
Sasanka Dev Chatterjee Road(S.C.-050)	Notified	42	1.68	2.1	45.78	55	2	3	60	105
Norman Bethun Sarani(S.C.-051)	Non-Notified	45	1.8	2.25	49.05	26	1	1	29	78
Halder Para-Biswas Para(S.C.-052)	Non-Notified	27	1.08	1.35	29.43	55	2	3	60	89
Middle Road(Panchanantala)(S.C.-053)	Notified	123	4.92	6.15	134.07	25	1	1	28	162
Baruipur Pros Quarter(S.C-054)	Non-Notified	252	10.08	12.6	274.68	57	2	3	62	337
Bhattacharya Para(S.C.-055)	Notified	81	3.24	4.05	88.29	64	3	3	69	158
Piyada Para (Baidya Para)(S.C.-056)	Notified	99	3.96	4.95	107.91	79	3	4	86	194
Naskar Para(S.C.-057)	Notified	66	2.64	3.3	71.94	25	1	1	28	100
Khudiram Pally(S.C-058)	Notified	69	2.76	3.45	75.21	17	1	1	18	93
Segun Bagan(S.C.-059)	Notified	234	9.36	11.7	255.06	67	3	3	73	328
Christan Para(S.C-060)	Non-Notified	147	5.88	7.35	160.23	45	2	2	49	209

SFCPoA for Baraipur Municipality

Slum	Notified/Non-Notified	Housing Cost	O&M Cost	A&OE (including DPR & PMC Costs)	Total Housing Cost	Physical and Social Infrastructure Cost	O&M Cost	DPR & PMC Costs	Total Physical and Social Infrastructure Cost	Total Cost
Police Barack Rd. School By Lane(S.C.-061)	Non-Notified	132	5.28	6.6	143.88	38	2	2	42	186
Nilkhet(S.C.-062)	Non-Notified	147	5.88	7.35	160.23	57	2	3	63	223
Naskar Para(S.C.-063)	Non-Notified	174	6.96	8.7	189.66	56	2	3	61	250
Station Feader Road(S.C-064)	Notified	135	5.4	6.75	147.15	28	1	1	31	178
Total Funding Requirement		10665	426.6	533.25	11624.85	3744	150	187	4081	15706

Annexure-D: BoC Meeting held on October 10, 2013

Barupur Municipality- Phasing of Slums October 10, 2013

Year	No of slums to be covered	Housing Cost (in Rs Lakh)	Infrastructure Cost (in Rs Lakh)	Total Cost (in Rs Lakh)	ULB Contribution (in Rs Lakh)	Wards Covered																	
F.Y 13-14	6	954.84	278.12	1232.96	27.81	1	17	11	6	12	9												
F.Y 14-15	7	1962	802.06	2564.06	80.21	15	8	10	5	3	7	2											
F.Y 15-16	10	1548.71	634.84	2181.55	83.48	14	13	17	6	16	9	9	13	4	2								
F.Y 16-17	8	1311.27	542.72	1853.99	54.27	11	17	12	13	13	8	8	12										
F.Y 17-18	10	1906.41	562.27	2468.68	56.23	16	5	12	14	10	9	10	6	8	7								
F.Y 18-19	5	1425.72	451.00	1876.72	45.10	7	5	5	8	10													
F.Y 19-20	10	1422.45	508.84	1931.29	50.88	12	1	10	12	2	5	10	9	18	8								
F.Y 20-21	8	1095.45	500.87	1596.32	50.09	9	9	16	18	12	10	15	3										
Total	64	11624.85	4080.72	15705.57	408.07																		

Handwritten notes:
 Subhas Chandra 10/10/13
 G. K. Saha 10/10/2013
 Binayak Das 10/10/13
 Binayak Das 10/10/13
 Binayak Das 10/10/13

As accepted by Councilors

Barupur Municipality-Ward Wise and Year Wise Phasing October 10, 2013

S.No	Slum Name	Ward Number	Slum Prioritisation Rank	Rank	Slum Model	Houses to be constructed or upgraded	Costing-Housing and Infrastructure (in Rs Lakh)	Total Costing-Housing (in Rs Lakh)	Total Costing-Infrastructure (in Rs Lakh)	ULB Contribution-10% of Infrastructure	Year
1	MIDDLE ROAD/PANCHANANTAL (A)(S.C.-053)	11	03/372		1 ISU-3	41	162	134	27.8	2.8	F.Y 13-14
2	STATION FEADER ROAD(S.C.-064)	17	03/372		1 RD-1	45	178	147	30.8	3.1	F.Y 13-14
3	KHODAR BAZAR(S.C.-023)	11	03/372		1 RD-1	53	216	173	42.3	4.2	F.Y 13-14
4	KHIDRAM PALLY(S.C.-056)	8	03/371		2 ISU-3	23	93	75	14.2	1.8	F.Y 13-14
5	BISWAS PARA(S.C.-016)	9	03/371		2 ISU-3	46	180	150	29.7	3.0	F.Y 20-21
6	NAJIRUL SARANI-NEW NAJIRUL SARANI(S.C.-049)	12	03/371		2 RD-1	26	124	85	36.6	3.9	F.Y 13-14
7	MADARAT PALADANGA(S.C.-030)	14	03/372		1 ISU-3	58	274	193	61.4	8.1	F.Y 15-16
8	SARDAR PARA(S.C.-029)	13	03/371		2 ISU-3	11	51	38	15.3	1.6	F.Y 15-16
9	KAYAL PARA(S.C.-024)	11	03/372		1 ISU-3	37	212	121.9	60.6	8.1	F.Y 16-17
10	NAJIRUL SARANI(S.C.-037)	17	03/371		2 ISU-3	37	142	121	21.5	2.1	F.Y 16-17
11	G BOSE COLONY(S.C.-036)	17	03/372		1 RD-1	26	128	85	43.4	4.3	F.Y 15-16
12	B K ROYCHANDHURY ROAD(S.C.-010)	6	03/371		2 ISU-3	86	207	183	24.2	2.4	F.Y 15-16
13	NASKAR PARA(S.C.-067)	16	03/371		2 ISU-3	22	100	72	27.8	2.8	F.Y 15-16

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14) SARDAR PARA(S.C.-040)	9 (0V3T1)	2 (RD-1)	50	209	164	45.7	4.0 (F.Y 15-16)
15) NASKAR PARA(S.C.-043)	9 (0V3T1)	2 (SU-3)	56	237	183	54.0	5.4 (F.Y 15-16)
16) MONDAL PARA(S.C.-032)	15 (0V3T1)	2 (SU-3)	62	225	170	54.0	5.5 (F.Y 14-15)
17) GAJI PARA(S.C.-027)	13 (0V3T1)	2 (RD-1)	57	245	188	58.8	5.9 (F.Y 15-16)
18) SASANKA DEV CHATTERJEE ROAD(S.C.-050)	12 (0V3T1)	2 (SU-3)	14	105	46	59.5	6.0 (F.Y 16-17)
19) BARUPUR PROCS QUARTER(S.C.-054)	8 (0V3T1)	2 (SU-3)	84	337	275	62.4	6.2 (F.Y 14-15)
20) BIBMAR TALA(S.C.-025)	13 (0V3T1)	2 (SU-3)	46	212	150	61.3	6.1 (F.Y 16-17)
21) NASKAR PARA(S.C.-063)	13 (0V3T1)	2 (SU-3)	58	250	190	60.8	6.1 (F.Y 16-17)
22) KAYAL PARA(S.C.-014)	8 (0V3T1)	2 (SU-3)	72	304	235	68.4	6.8 (F.Y 16-17)
23) BHATTACHARYA PARA(S.C.-055)	10 (0V3T1)	2 (SU-3)	27	158	88	69.4	6.9 (F.Y 14-15)
24) SAHAPARA COLONY(S.C.-042)	8 (0V3T1)	2 (SU-3)	118	467	386	61.4	6.1 (F.Y 15-17)
25) SALSAN PARA(S.C.-036)	16 (0V3T1)	2 (SU-3)	126	519	419	100.5	10.1 (F.Y 17-18)
26) HARI SABHA LANE(S.C.-048)	12 (0V3T1)	2 (RD-1)	19	162	62	99.6	10.0 (F.Y 16-17)
27) MONDAL PARA(S.C.-009)	5 (0V3T1)	2 (SU-3)	137	560	448	102.1	10.2 (F.Y 14-15)

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28) MUCHI PARA(S.C.-038)	5 (0V3T1)	2 (SU-3)	77	375	252	123.1	12.3 (F.Y 17-18)
29) MIDDLE ROAD(S.C.-028)	12 (2V3T2)	3 (SU-1)	16	72	52	19.7	2.0 (F.Y 17-18)
30) MAYAPOTA(S.C.-031)	14 (2V3T2)	3 (SU-2)	68	282	222	60.0	6.0 (F.Y 17-18)
31) BEDE PARA BASTI(S.C.-020)	10 (2V3T1)	4 (SU-2)	39	146	128	18.5	1.8 (F.Y 17-18)
32) BASUDEV PALLY(S.C.-018)	8 (2V3T1)	4 (SU-1)	31	137	101	35.4	3.5 (F.Y 17-18)
33) GOLPURJA MONDAL PARA(S.C.-046)	10 (2V3T1)	4 (SU-1)	32	138	105	33.2	3.3 (F.Y 17-18)
34) POLICE BARACK RD SCHOOL BY LANE(S.C.-061)	7 (2V3T1)	4 (SU-1)	44	186	144	41.8	4.2 (F.Y 18-19)
35) SAJAHAN ROAD(S.C.-005)	3 (2V3T1)	4 (SU-1)	28	131	85	46.4	4.6 (F.Y 14-15)
36) KALIKANAN(S.C.-011)	6 (2V3T1)	4 (SU-1)	59	248	192	54.6	5.6 (F.Y 17-18)
37) RIGATION COLONY (S.C.-015)	8 (2V3T1)	4 (SU-1)	64	329	275	54.6	5.5 (F.Y 17-18)
38) NILOHITI(S.C.-062)	7 (2V3T1)	4 (SU-1)	49	223	160	62.7	6.3 (F.Y 17-18)
39) KHAN PARA(S.C.-006)	5 (2V3T1)	4 (SU-1)	91	366	298	68.6	6.9 (F.Y 18-19)
40) BAGANI PARA(S.C.-007)	5 (2V3T1)	4 (SU-1)	88	364	293	66.6	6.7 (F.Y 18-19)
41) GAJBABA ROAD(S.C.-013)	8 (2V3T1)	4 (SU-1)	126	518	412	106.2	10.6 (F.Y 18-19)

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42	BAISHNAB PARA(S.C.-022)	10	(2V3T1)	4	(ISU-1)	87	452	284	167.9	16.8	F.Y 18-19
43	SAHAPARA COLONY(S.C-012)	7	(2V3T1)	4	(ISU-1)	253	1041	627	214.0	21.4	F.Y 14-15
44	DEY PARA(S.C-006)	4	(2V3T1)	4	(ISU-1)	111	630	363	267.5	26.7	F.Y 15-16
45	BEHARA PARA(S.C.-047)	12	(2V2T2)	3	(ISU-3)	10	70	33	37.5	3.7	F.Y 19-20
46	DAS PARA(S.C.-001)	1	(2V2T2)	5	(RD-1)	141	550	451	94.0	9.5	F.Y 19-20
47	DHOBA PARA(S.C.-040)	10	(2V2T1)	6	(ISU-3)	34	138	111	27.3	2.7	F.Y 19-20
48	NORMAN BETHUN SARAN(S.C.-051)	12	(2V2T1)	6	(ISU-3)	18	78	49	28.8	2.9	F.Y 19-20
49	SARDAR PARA(S.C.-002)	2	(2V2T1)	6	(ISU-3)	45	187	147	30.2	3.0	F.Y 19-20
50	DOLTALA(S.C-039)	6	(2V2T1)	6	(ISU-3)	27	132	86	43.6	4.4	F.Y 19-20
51	CHRISTAN PARA(S.C-060)	10	(2V2T1)	6	(ISU-3)	49	209	160	43.6	4.0	F.Y 19-20
52	BURYA SEN NADAR(S.C-003)	2	(2V2T1)	6	(ISU-3)	21	122	69	63.2	6.3	F.Y 14-15
53	KHALPAR(S.C.-019)	9	(2V2T1)	6	(ISU-3)	27	145	88	56.2	5.6	F.Y 19-20
54	HALDER PARA-BISWAS PARA(S.C.-052)	10	(2V2T1)	6	(ISU-3)	9	89	29	59.7	6.0	F.Y 19-20
55	SEGUN BAGAN(S.C.-058)	6	(2V2T1)	6	(ISU-3)	78	328	255	73.0	7.3	F.Y 19-20

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56	PAL PARA-MUKHERJEE PARA(S.C.-044)	9	(2V2T1)	6	(ISU-3)	81	351	265	85.9	8.6	F.Y 20-21
57	PIYADA PARA (BAIDYA PARA)(S.C.-056)	16	(2V2T1)	6	(ISU-3)	33	194	108	65.7	6.6	F.Y 20-21
58	PAL PARA(S.C-034)	16	(2V2T1)	6	(ISU-3)	65	419	213	206.0	20.6	F.Y 20-21
59	DEY PARA(S.C.-025)	12	(2V2T1)	10	(ISU-1)	18	74	59	14.9	1.5	F.Y 20-21
60	MONDAL PARA(NETAJI PALLY)(S.C.-041)	2	(2V2T1)	10	(ISU-1)	25	98	82	16.7	1.7	F.Y 15-16
61	JHARNA(S.C-021)	10	(2V2T1)	10	(ISU-1)	45	169	147	21.8	2.2	F.Y 20-21
62	SARDAR PARA(S.C.-033)	15	(2V2T1)	10	(ISU-1)	24	108	78	29.1	2.9	F.Y 20-21
63	BEDE PARA(S.C.-004)	3	(2V2T1)	10	(ISU-1)	23	103	75	27.7	2.8	F.Y 20-21
64	SAMANTA PARA(S.C.-017)	9	(2V2T1)	10	(ISU-1)	104	461	340	120.4	12.0	F.Y 13-14

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