

Detailed Project Report

Detailed Project Report for Construction of 724 EWS Houses under
BLC mode of Pradhan Mantri Awas Yojana (PMAY)-HFA (U) for
Baruipur Municipality

2018 - 19



Submitted by



Baruipur Municipality
Dist: South 24 parganas,
West Bengal
November, 2018

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Preface

Pradhan Mantri Awas Yojana (PMAY) aims at Providing Housing for All (HFA) by 2022 when the Nation Complete 75 years of its independence.

The urban homeless persons contribute to the economy of the cities and thus the Nation as cheap labour in the informal sector; yet they live with no shelter or social security . The urban homeless service with many challenges like no access to elementary Public Services such as health, education, food, water and sanitation. Pradhan Mantri Awas Yojana (PMAY) also aims at providing a pucca house to every family with water connection, toilet facilities, 24 X 7 electricity supply and access.

The Mission seeks to address the housing requirement of urban poor including slum dwellers through “In Situ” Slum Redevelopment, Affordable Housing through credit linked subsidy, Affordable Housing in partnership and subsidy for beneficiary led individual house. Under the mission, beneficiaries can take advantage under one component only.

Baruipur Municipality takes only two verticals i.e. “Slum redevelopment with private Participation” and another vertical is “Beneficiary led construction”. From present Demand Assessment survey for Housing for all (HFA), it is noticed that 2218 household covering under this project. Out of these 2218 houses, 2042 houses will be constructed through “Beneficiary-led-Construction” and 176 houses will be constructed through “Redevelopment with private participation”.

In the year 2015-16, Baruipur Municipality took 128 nos. beneficiaries from 64 slums and 1 Non slum and successfully implemented the project and the year 2017-18, municipality took 321 nos. beneficiaries from 57 nos. slum and 4 nos. Non Slum in and successfully implemented the project. Now Baruipur Municipality's total beneficiaries of the scheme are 724 nos from 59 nos slum and 1 no of Non Slum projected for the year 2018 - 19 .Total cost of the project is **Rs. 2930.752 lakh** as per relevant department & P.W.D. schedule of rates.

Introductory Note by Chairman

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 148 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 DPR of PMAY for BLC mode for the financial year 2018-19 after successful implementation of PMAY for the financial year 2015-16 and 2017-18. 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 DPR of **Housing For All (PMAY)** for BLC mode for the financial year 2018-19 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 Pradhan Mantri Awas Yojana 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. DPR of Pradhan Mantri Awas Yojana for the year 2018-19 has been prepared and we look forward for a great future.


Chairman
Baruipur Municipality
Chairman
Baruipur Municipality

Planning Team

- I. Shri. Shakti Roy Chowdhury, Chairman, Baruipur Municipality.
- II. Shri. Goutam kumar Das, Vice Chairman, Baruipur Municipality.
- III. Shri. Swadesh Mondal, Executive Officer, Baruipur Municipality, (Nodal Officer for HFA).
- IV. Shri. Subhasis Ghosh, Urban Planner, Baruipur Municipality.
- V. Shri. Shibendu Marik, Accounts & Finance Coordinator, Baruipur Municipality.
- VI. Shri. Arunava Guha, I.T Coordinator, Baruipur Municipality.
- VII. Shri. Arindam Dutta, S.A.E. , Baruipur Municipality.
- VIII. Shri. Kartick Mondal, S.A.E., Baruipur Municipality.
- IX. Shri. Sudipta Halder, S.A.E., Baruipur Municipality.

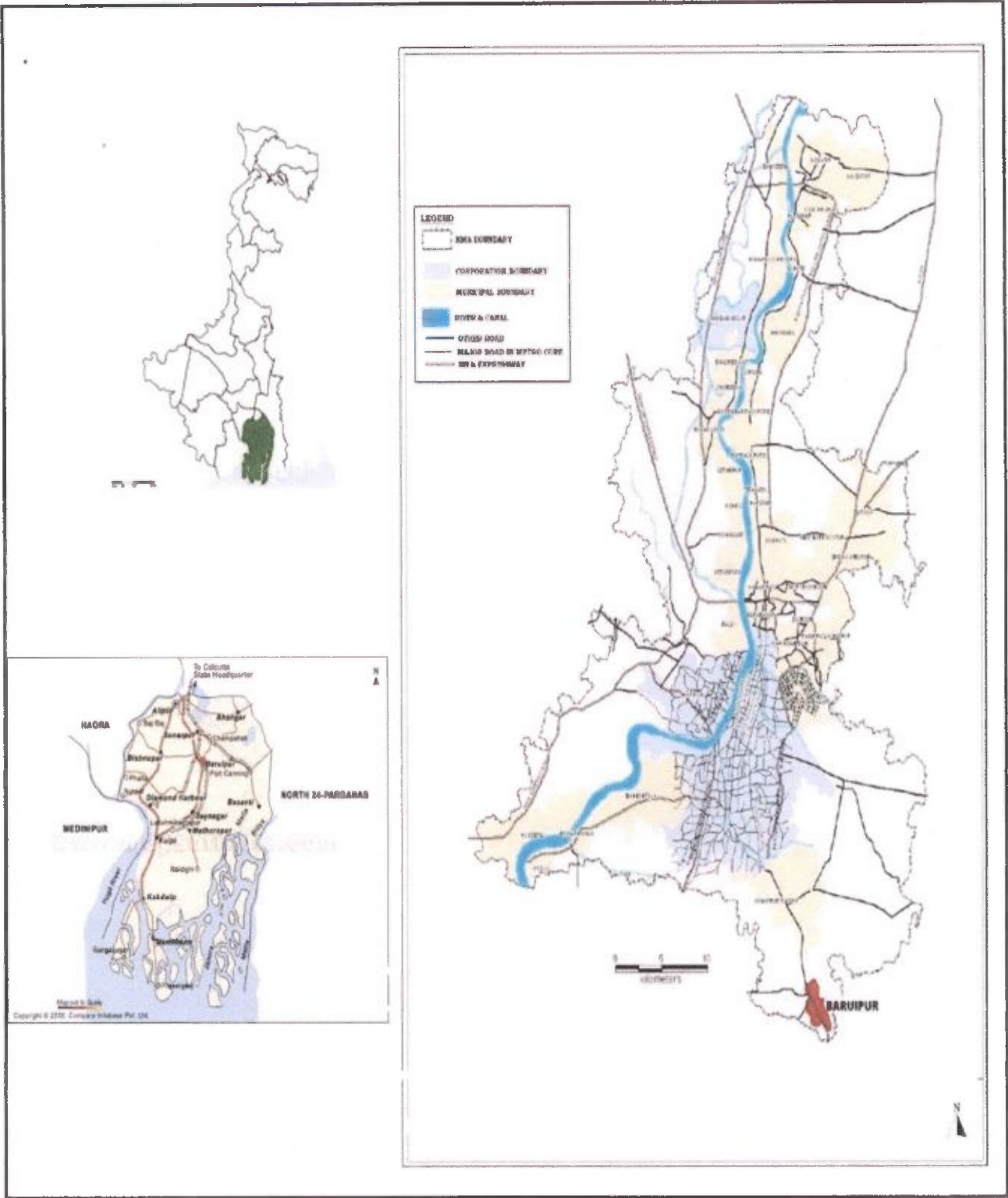
Abbreviations

A&OE	Administrative and Other Expenses	LIG	Low Income Group
AHP	Affordable Housing in Partnership	MD	Mission Directorate
AIP	Annual Implementation Plan	MoA	Memorandum of Agreement
BMTPC	Building Materials & Technology Promotion Council	MoHUPA	Ministry of Housing and Urban Poverty Alleviation
CDP	City Development Plan	MoU	Memorandum of Understanding
CLS	Credit linked subsidy	NA	Non Agricultural
CNA	Central Nodal Agencies	NBC	National Building Code
CPHEEO	Central Public Health and Environmental Engineering Organisation	NHB	National Housing Bank
CSMC	Central Sanctioning and Monitoring Committee	NOC	No Objection Certificate
DIPP	Department of Industrial Policy and Promotion	NPV	Net Present Value
DPR	Detailed Project Report	PLI	Primary Lending Institution
EMI	Equated Monthly Installment	RWA	Residents' Welfare Association
EWS	Economically Weaker Section	SECC	Socio Economic and Caste Census
FAR	Floor Area Ratio	HFAPoA	Slum Free City Plan of Action
FSI	Floor Space Index	SLAC	State Level Appraisal Committee
HFA	Housing for All	SLNA	State Level Nodal Agency
HFAPoA	Housing for All Plan of Action	SLSMC	State Level Sanction and Monitoring Committee
IEC	Information Education & Communication	TDR	Transfer of Development Rights
IFD	Integrated Finance Division	TPQMA	Third Party Quality Monitoring Agency
IIT	Indian Institute of Technology	ULB	Urban Local Boday
IS	Indian Standard	UT	Union Territory

Working Definitions

Affordable Housing Project:	Housing Projects where 35 % of the houses are constructed for EWS category
Beneficiary	A beneficiary family will comprise husband, wife and unmarried children. The beneficiary family should not own a pucca house (an all-weather dwelling unit) either in his//her name or in the name of any member of his/her family in any part of India
Carpet Area	Area enclosed within the walls, actual area to lay carpet. This area does not include the thickness of the inner walls.
Central Nodal Agencies	Nodal Agencies identified by Ministry for the purposes of implementation of Credit Linked subsidy component of the mission
Economically Weaker Section(EWS)	EWS households are defined as households having an annual income up to Rs 3, 00,000(Rupees Three Lakhs). States/UTs shall have the flexibility to redefine the annual income criteria as per local conditions in consultation with the Centre
EWS House	An all-weather single unit or a unit in a multi storeyed super structure having carpet area of upto 30 sq.m. with adequate basic civic services and infrastructure services like toilet , water, electricity etc. States can determine the area of EWS as per their local needs with information to Ministry
“Floor Area Ratio” (FAR)/FSI	<p>The quotient obtained by dividing the total covered area (plinth area) on all the floors by the area of the plot:</p> $\text{FAR} = \frac{\text{Total covered area on all the floors} \times 100}{\text{Plot area}}$ <p>If States/Cities have some variations in this definition, State/City definitions will be accepted under the mission</p>
Implementing Agencies	Implementing agencies are the agencies such as Urban Local Bodies, Development Authorities, and Housing Boards etc. which are selected by State Government / SLSMC for implementing Housing for All Mission.
Low Income Group (LIG)	LIG households are defined as households having an annual income between Rs.3, 00,000 (Rupees Three Lakhs One) up to Rs.6, 00,000 (Rupees Six Lakhs). States/UTs shall have the flexibility to redefine the annual income criteria as per local conditions in consultation with the Centre.
Primary Lending Institutions (PLI)	Scheduled Commercial Banks, Housing Finance Companies, Regional Rural Banks (RRBs), State Cooperative Banks, Urban Cooperative Banks or any other institutions as may be identified by the Ministry
Slum	A compact area of at least 300 population or about 60-70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities.
State Land Nodal Agencies (SLNAs)	Nodal Agency designated by the State Governments for implementing the Mission
Transfer of Development Rights (TDR)	TDR means making available certain amount of additional built up area in lieu of the area relinquished or surrendered by the owner of the land, so that he can use extra built up area himself in some other land.

Location Map



Map no. 1: Location Map of Baruipur Municipality

City Profile

Baruipur is a sub-divisional town of the district of South 24-Parganas situated on the banks of Tolly's canal at the crossing of Diamond Harbour and Lakshmikantapur between Kolkata and Sunderbans. According to common belief, the name was derived from the word 'Barui' which means betel planter. Its geographical location is 20° 30' latitude North and 88° 25' longitude East. Baruipur became a sub-division in 1858. Earlier, it was part of a sub-division, which was basically a sub-division created during the British regime for collection of taxes under a collector. The land is bounded on the north by Sonarpur, south by Jainagar, east by Canning and west by Bishnupur. During those days it was well known for its indigo plantation. Baruipur municipality covers an area of 9.07 Sq.Km. only.

Baruipur Municipality is located at the extreme southern side of Kolkata Metropolitan Area. Railway line has connected this municipality with Kolkata and southern part of South 24 Pgs. Garia – Baruipur Road or Kulpi Road is one of the major roads, which has connected the area with Kolkata and North 24 Pgs through E.M Bye Pass. Other major roads like Madarat Road, Dhabdhabi Road, and Canning Road connected the area with eastern part and Amtala Road has linked it with the adjacent western part.

A brief look into the municipality

1	Name of the District:	24 Parganas(South)
2	Year of establishment:	1869
3	Area (in sq. Km):	9.07 SQ. K.M.
4	No. of wards:	17
5	Population (Census 2011):	
5.1	Male	26718
5.2	Female	26410
5.3	Total	53128
6	Density of Population (Per sq. km.)	5857
7	Break up of Population (2011):	
7.1	SC	13157
7.2	ST	317
7.3	Minorities	4054
8	Date when last election held:	30 th May,2010
9	Year of Last Assessment of Properties:	2012-13
10	Literacy Rate	85.41%
11	Number of BPL Household (as per SUDA Survey):	2882
12	Slum Scenario	
12.1	Total No of Slum	64
12.2	Total Slum Population (as per USHA)	15891
12.3	Percentage of Slum Population to the total population	29%
13	Housing status for Urban Poor: (as on 31.03.14)	
13.1	No. of beneficiaries provided with Houses under BSUP / IHSDP/ "Housing for Urban Poor"	BSUP – 1743.
14	Length of Municipal Road: (in km.)	123.47 K.M.
15	Length of Drain: (in km.)	80.84 K.M.
16	Water Supply:	
16.1	No. of Tubewell	204
16.2	No. of Stand post	529

16.3	No. of houses connected with water supply network	5000 (Approx)
17	Total no. of light posts.	4129
18	Health :	
18.1	No. of Hospital (ULB / Govt./ Private)	1 no.
18.2	No. of Municipal Health Sub-Centre	5 Nos.
19	Education :	
19.1	No. of Higher Secondary School (Municipal/ others)	3
19.2	No. of Secondary School (Municipal/ others)	1
19.3	No. of Primary School(Municipal/ others)	17
19.4	No. of Sishu Siksha Kendras (SSK)	Nil
20	Other Infrastructure (Both Municipal & Others) :	
20.1	Bridge	2
20.2	Flyover	1
20.3	Stadium	Nil
20.4	Parks and Gardens	17
20.5	Playground	10
20.6	Auditorium/Community Hall	8
20.7	Borough Office	Nil
20.8	Ward office	1
20.9	Market	5
20.10	Burning Ghat	1
20.11	Electric Crematorium	1
20.12	Burial Ground	2
20.13	Public Library	2
20.14	Bus Terminus	Nil
20.15	Ferry Ghat	Nil
20.16	Guest House/ Tourist Lodge	1
20.17	Community Latrine	9
20.18	Night Shelter	Nil
20.19	Others (Please specify) -	-

Profile of Baraipur Municipality

Annexure 7C
(Para 14.5 of the Guidelines)
Format for Project under Beneficiary Led Construction Or Enhancement

1	Name of the State:	:	West Bengal						
2	Name of the District:	:	South 24 Parganas						
3	Name of the City:	:	Baruipur						
4	Project Name:	:	HFA - BARUIPUR 2018-19						
5	Project Code:	:	19801747034N0						
6	State Level Nodal Agency:	:	State Urban Development Agency (SUDA)						
7	Implementing Agency/ ULB	:	Baruipur Municipality						
8	Date of Approval by State Level Sanctioning and Monitoring Committee (SLSMC)	:							
9	No. of location covered in project: No of Slum Area Covered & No of Non Slum Area Covered	:	Name of Location	No. of beneficiaries	Whether Slum / Non-Slum	If Slum, then Slum type	If slum, whether it gets completely rehabilitated		
		:	Baruipur Municipal Area	724	Covering both Slum & Non-Slum area	Notified	No		
10	Project Cost (Rs. In Lakhs)	:	2,930.75						
11	No. of beneficiaries covered in the project	:	GEN	SC	ST	OBC	Total	Minority	Person with Disability
		:	411	240	0	73	724	90	0
12	Whether beneficiary have been selected as PMAY Guidelines?	:	Yes						
13	No. of Houses constructed / acquired. Please specify ownership (Any of these)	:	Joint	Female	Male		Transgender		
		:	0	189	535		0		
14	No. of beneficiaries covered in the project	:	Male	Female	Transgender				
		:	535	189	0				
15	Whether it has been ensured that selected beneficiaries have rightful ownership of the land ?	:	Yes						
16	Whether building plan for all houses have been Approved?	:	Yes						
17	i. GoI grant required (Rs. 1.5 lakh per eligible beneficiary)	:	1,086.00						

	(Rs. in Lakhs)		
	ii. State grant, (Rs. in Lakhs)	:	1,530.54
	iii. ULB grant (Rs. in Lakhs)	:	133.22
	iv. Beneficiary Share (Rs. in Lakhs)	:	181.00
	v. Total (Rs. in Lakhs)	:	2,930.75
18	Whether technical specification / design for housing have been ensured as per Indian Standards / NBC/ State Norms?	:	Yes
19	Whether it has been ensured that balance cost of construction is tied up with State Grant, ULB Grant & Beneficiary Share ?	:	Yes
	Whether trunk and line infrastructure is existing or being provisioned ?	:	
	i. Water Supply	:	Yes
	ii. Sewerage	:	No
	iii. Road	:	Yes
	iv. Storm Water Drain	:	Yes
	v. External Electrification	:	Yes
	vi. Solid Waste Management	:	Yes
	vii. Any Other	:	Yes
	viii. In case, any infrastructure has not been proposed, reason thereof.	:	-
20	Whether disaster (earthquake, flood, cyclone, landslide etc.) resistant features have been adopted in concept, design and implementation of the project ?	:	Yes
21	Whether Demand Survey Completed for entire city ?	:	Yes
22	Whether City-wide integrated project have been formulated ? If not reasons thereof ?	:	Yes
23	Whether validation with SECC data for housing condition conducted ?	:	Yes
24	Whether Direct Benefit Transfer (DBT) of fund to individual bank account of beneficiary ensured in the project ?	:	Yes

25	Whether there is provision in DPR for tracking/monitoring the progress of individual houses through geo-tagged photographs ?	Yes
26	Whether any innovation/cost effective / Green technology adopted in the project?	Yes
27	Comments of SLAC after techno economic appraisal of DPR	Project covers the most needy beneficiaries
28	Project brief including any other information ULB/State would like to furnish	The project covers all wards
29	Project Submission Date to SLSCMC	

It is hereby confirmed that State/UT and ULB have checked all the beneficiaries as per guidelines of HFA. It is also submitted that no beneficiary has been selected for more than one benefit under the Mission including Credit Linked Subsidy Scheme (CLSS) component of the Mission.


Chairman
 Signature of the
 Mayor/ Chairperson/Municipal Commissioner

Signature
 Chief Engineer
 M.E Dte,GoWB

Signature
 Director,SUDA

Signature
 Principal Secretary,
 UD & MA Department,GoWB

Executive Summary

Project Details

1	Name of the State:	:	West Bengal
2	Name of the District:	:	South 24 Parganas
3	Name of the City:	:	Baruipur
4	Project Name:	:	HFA - BARUIPUR 2018-19
5	Project Cost (Rs. in Lakhs)	:	2,930.75
6	Central Share (Rs. in Lakhs)	:	1,086.00
7	State Share (Rs. in Lakhs)	:	1,530.54
8	ULB Share (Rs. in Lakhs)	:	133.22
9	Beneficiary share (Rs. in Lakhs)	:	181.00
10	Total Infrastructure Cost (Rs. in Lakhs)	:	266.43
11	Percentage of Infrastructure Cost of Housing Cost	:	10
12	Infrastructure Cost per Dwelling Unit (Rs. in Lakhs)	:	0.368
13	Year of Implementation	:	2018-19
14	Component Housing Construction	:	Beneficiary Led Construction (BLC)
15	SOR Adopted	:	PWD (WB) w.e.f 1.7.14 with current corrigendum

Project Contributions (Physical + Financial) (Rs. in Lakh)

Sl	Scheme Component	Type	Qty	Unit	Rate (in Rs/Unit)	Proposed Project Cost (In Lakh)	Appraised Project Cost (In Lakh)	Central Share (Rs. 1.5Lakh/ DU)	State Govt. Share (Rs. 1.93Lakh/ DU)	ULB Share @ 0.184 Lakh/ DU	Beneficiaries Share @ 0.25 Lakh/DU)
A. HOUSING											
1	New in-situ										
	Single Storied Units		724	Nos	368000.00	2,664.32	2,664.32	1,086.00	1,397.32	0.00	181.00
Total Housing Cost Sub Total (A)						2,664.32	2,664.32	1,086.00	1,397.32	0.00	181.00
B. INFRASTRUCTURE											
Sl	Scheme Component	Type	Qty	Unit	Rate (in Rs/Unit)	Proposed Project Cost (In Lakh)	Appraised Project Cost (In Lakh)	Central Share (Rs. in Lakh)	State Govt. Share (@50%) (in Lakh)	ULB Share (@50%) (in Lakh)	Beneficiaries Share (in Lakh)
1 ROADS											
	CC Road	2.5m wide	3252	Mt	4097.00	133.22	133.22	0.00	66.61	66.61	0.00

2. WATER SUPPLY											
3 STORM WATER DRAINS											
	Surface Drain	450 x 600	3649	Mt	3651.00	133.21	133.21	0.00	66.61	66.61	0.00
	Total Infrastructure Cost Sub Total (B)					266.43	266.43	0.00	133.22	133.22	0.00
	GRAND TOTAL (A+B)					2,930.75	2,930.75	1,086.00	1,530.54	133.22	181.00



Arindam Dutta

Junior Engineer (Civil)

Signature of the level
Competent Technical officer

Name & Designation:
Arindam Dutta, J.E.
Mobile No- 9433347806

Fax No:

Telephone No: 033-2433-
8201

E-mail: barui_07@yahoo.com

Signature

Director(SUDA)

Name & Designation: Smt D. Dutta Gupta,
Director,SUDA

Fax No: 033-23585767

Telephone No: 033-23585767

E-mail: wbsudadir@gmail.com


Signature of the State
level Competent
Technical Officer

Name & Designation: Chief
Engineer, MeDte, GoWB
Bikash Bhavan, South
Block, 1st Floor, Salt lake, Kol-
91

Fax No: 033-23375474

Telephone No: 033-23371331

E-mail: ce_medte@yahoo.com


Signature of the Mayor/
Chairperson/ Municipal
Commissioner/Administrator

Name & Designation: Shakti
Roy Chowdhury, Chairman,
Baruipur Municipality.

Mob- 9836442485
Fax No: 033-2433-0980

Telephone No: 033-2433-8201


E-mail: barui_07@yahoo.com

BARUIPUR MUNICIPALITY
WORK AND COST SUMMARY - SLUM WISE DETAILS (FOR THE YEAR 2018-2019)

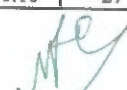
HFA

CLUSTER-I

Sl. No.	Ward No.	Slum Code	Name of Slum	Area SqKm	House hold for 2015-16 to 2021-22	HOUSING		PHYSICAL INFRASTRUCTURE				Grand Total (Rs. In lakh)
						Dwelling Units (@ Rs.3.6785 Lakh/each)		Surface Drain (450X600) @ Rs.3651/Mt		Concrete Roads (@Rs.4097/Mt)		
						Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	
1	1	053	MIDDLE ROAD(PANCHANANTALA)	0.0313	16	6	22.08	30	1.10	27	1.10	24.29
2		001	DAS PARA	0.0594	8	4	14.72	20	0.74	18	0.74	16.19
3	2	041	MONDAL PARA (NETAJI PALLY)	0.0334	28	15	55.20	76	2.76	67	2.76	60.72
4		003	SURYA SEN NAGAR	0.0279	16	11	40.48	55	2.02	49	2.02	44.53
5	3	005	SAJAHAN ROAD	0.0599	24	8	29.44	40	1.47	36	1.47	32.38
6		004	BEDEPARA	0.0329	11	10	36.80	50	1.84	45	1.84	40.48
7	4	006	DEY PARA	0.1303	85	38	139.84	192	6.99	171	6.99	153.82
8		007	BAGANI PARA	0.0433	60	20	73.60	101	3.68	90	3.68	80.96
9	5	008	KHAN PARA	0.0250	59	18	66.24	91	3.31	81	3.31	72.86
10		009	MONDAL PARA	0.0699	47	16	58.88	81	2.94	72	2.94	64.77
11		038	MUCHI PARA	0.0970	49	13	47.84	66	2.39	58	2.39	52.62
12	6	010	B.K ROYCHOWDHURY ROAD	0.0418	27	3	11.04	15	0.55	13	0.55	12.14
13		011	KALIKANAN	0.0200	37	16	58.88	81	2.94	72	2.94	64.77
14		039	DOLTALA	0.0417	19	8	29.44	40	1.47	36	1.47	32.38
15		058	KHUDIRAM PALLY	0.0368	16	10	36.80	50	1.84	45	1.84	40.48
16	7	059	SEGUN BAGAN	0.0440	54	29	106.72	146	5.34	130	5.34	117.39
17		012	SAHAPARA COLONY	0.0740	123	49	180.32	247	9.02	220	9.02	198.35
18		061	POLICE BARACK ROAD	0.0251	58	23	84.64	116	4.23	103	4.23	93.10
19		062	NILKHET	0.0572	44	3	11.04	15	0.55	13	0.55	12.14
20	8	013	GAZIBABA ROAD	0.0595	96	27	99.36	136	4.97	121	4.97	109.30
21		014	KAYAL PARA	0.0308	40	15	55.20	76	2.76	67	2.76	60.72
22		015	IRRIGATION COLONY	0.0400	41	20	73.60	101	3.68	90	3.68	80.96
23		042	SAHAPARA COLONY	0.0386	59	9	33.12	45	1.66	40	1.66	36.43
24		054	BARUIPUR PROS QUARTER	0.0349	21	2	7.36	10	0.37	9	0.37	8.10
25	9	016	BISWAS PARA	0.0150	17	3	11.04	15	0.55	13	0.55	12.14
26		017	SAMANTA PARA	0.0455	91	31	114.08	156	5.70	139	5.70	125.49
27		019	KHAL PAR	0.0328	18	2	7.36	10	0.37	9	0.37	8.10
28		043	NASKAR PARA	0.0249	26	14	51.52	71	2.58	63	2.58	56.67
29		044	PAL PARA- MUKHARJEE PARA	0.0550	31	25	92.00	126	4.60	112	4.60	101.20
30	10	045	SARDAR PARA	0.0086	32	10	36.80	50	1.84	45	1.84	40.48
31		020	BEDE PARA	0.0068	13	4	14.72	20	0.74	18	0.74	16.19
32		021	JHARNA BASTI	0.0206	20	7	25.76	35	1.29	31	1.29	28.34
33		022	BAISNAB PARA	0.1296	113	37	136.16	186	6.81	166	6.81	149.78
34		040	DHOBA PARA	0.0225	18	8	29.44	40	1.47	36	1.47	32.38
35		046	GOLPUKUR	0.0716	23	5	18.40	25	0.92	22	0.92	20.24
36		055	BHATTACHARJEE PARA	0.0662	18	5	18.40	25	0.92	22	0.92	20.24
37	11	060	CHRISTAN PARA	0.0300	20	4	14.72	20	0.74	18	0.74	16.19
38		023	KHODAR BAZAR	0.0397	29	15	55.20	76	2.76	67	2.76	60.72
39		024	KAYAL PARA	0.0802	11	3	11.04	15	0.55	13	0.55	12.14
40		025	DEY PARA	0.0144	27	6	22.08	30	1.10	27	1.10	24.29
41	12	026	MIDDLE ROAD	0.0235	20	1	3.68	5	0.18	4	0.18	4.05
42		047	BEHARA PARA	0.0290	13	4	14.72	20	0.74	18	0.74	16.19
43		048	HARI SABHA LANE	0.0637	19	6	22.08	30	1.10	27	1.10	24.29
44		049	NAJRUL SARONI-NEW NAJRUL SARANI	0.0530	25	6	22.08	30	1.10	27	1.10	24.29


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Sl. No.	Ward No.	Slum Code	Name of Slum	Area SqKm	House hold for 2015-16 to 2021-22	HOUSING		PHYSICAL INFRASTRUCTURE				Grand Total (Rs. In lakh)
						Dwelling Units (@ Rs.3.6785 Lakh/each)	Surface Drain (450X600) @ Rs.3651/Mtr	Concrete Roads (@Rs.4097/Mt)				
									Qty.	Amt.	Qty.	
45		050	S.D.CHATTERJEE ROAD	0.0593	19	5	18.40	25	0.92	22	0.92	20.24
46		051	NORMAN BETHUN SARONI	0.0268	20	7	25.76	35	1.29	31	1.29	28.34
47	13	027	GAJI PARA	0.0366	13	4	14.72	20	0.74	18	0.74	16.19
48		028	BIBIMATALA	0.0497	27	9	33.12	45	1.66	40	1.66	36.43
49		063	NASKAR PARA	0.0483	30	21	77.28	106	3.86	94	3.86	85.01
50	14	030	MADARAT PAYLADANGA	0.1194	7	5	18.40	25	0.92	22	0.92	20.24
51		031	MOYALA POTA	0.0952	13	7	25.76	35	1.29	31	1.29	28.34
52	15	032	MONDAL PARA	0.0610	17	13	47.84	66	2.39	58	2.39	52.62
53		033	SARDAR PARA	0.0212	15	5	18.40	25	0.92	22	0.92	20.24
54	16	034	PAL PARA	0.0654	80	27	99.36	136	4.97	121	4.97	109.30
55		035	BALBAN PARA	0.0219	72	25	92.00	126	4.60	112	4.60	101.20
56		052	HALDER PARA-BISWAS PARA	0.0164	16	4	14.72	20	0.74	18	0.74	16.19
57		056	PIYADA PARA (BAIDYA PARA)	0.0486	31	12	44.16	60	2.21	54	2.21	48.58
58		057	NASKAR PARA	0.0167	13	2	7.36	10	0.37	9	0.37	8.10
59	17	037	NAZRUL SARANI	0.0291	10	3	11.04	15	0.55	13	0.55	12.14
Total (A)				2.7029	2005.00	718.00	2642.24	3619.00	132.11	3225.00	132.11	2906.46

WORK AND COST SUMMARY -NON SLUM WISE DETAILS (FOR THE YEAR 2018-2019)

Sl. No.	Ward No.	Name of Non Slum	Area SqKm	House hold for 2015-16 to 2021-22	HOUSING		PHYSICAL INFRASTRUCTURE				Grand Total (Rs. In lakh)
					Dwelling Units (@ Rs.3.67858 Lakh/each)	Surface Drain (450X600) @ Rs.3651/Mt	Concrete Roads (@Rs.4097/Mt)				
								Qty.	Amt.	Qty.	
1	14	PAL PARA	0.3380	8	6	22.08	30	1.10	27	1.10	24.29
Total (B)			0.3380	8.00	6.00	22.08	30.00	1.10	27.00	1.10	24.29
Grand Total (A+B)			3.04	2013.00	724.00	2664.32	3649.00	133.21	3252.00	133.22	2930.75


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 Chairman
 Baruipur Municipality

Slum wise Infrastructure Details

BARUIPUR MUNICIPALITY

PMAY (HFA-2018-2019)

Sl. No.	Slum Code	Name of Slum	Dwelling Unit	Infrastructure	
				Drains (In Mtr)	Roads (In Mtr)
1	053	MIDDLE ROAD(PANCHANANTALA)	6	30	27
2	001	DAS PARA	4	20	18
3	041	MONDAL PARA (NETAJI PALLY)	15	76	67
4	003	SURYA SEN NAGAR	11	55	49
5	005	SAJAHAN ROAD	8	40	36
6	004	BEDEPARA	10	50	45
7	006	DEY PARA	38	192	171
8	007	BAGANI PARA	20	101	90
9	008	KHAN PARA	18	91	81
10	009	MONDAL PARA	16	81	72
11	038	MUCHI PARA	13	66	58
12	010	B.K ROYCHOWDHURY ROAD	3	15	13
13	011	KALIKANAN	16	81	72
14	039	DOLTALA	8	40	36
15	058	KHUDIRAM PALLY	10	50	45
16	059	SEGUN BAGAN	29	146	130
17	012	SAHAPARA COLONY	49	247	220
18	061	POLICE BARACK ROAD	23	116	103
19	062	NILKHET	3	15	13
20	013	GAZIBABA ROAD	27	136	121
21	014	KAYAL PARA	15	76	67
22	015	IRRIGATION COLONY	20	101	90
23	042	SAHAPARA COLONY	9	45	40
24	054	BARUIPUR PROS QUARTER	2	10	9
25	016	BISWAS PARA	3	15	13
26	017	SAMANTA PARA	31	156	139
27	019	KHAL PAR	2	10	9
28	043	NASKAR PARA	14	71	63
29	044	PAL PARA- MUKHARJEE PARA	25	126	112
30	045	SARDAR PARA	10	50	45
31	020	BEDE PARA	4	20	18
32	021	JHARNA BASTI	7	35	31
33	022	BAISNAB PARA	37	186	166
34	040	DHOBA PARA	8	40	36
35	046	GOLPUKUR	5	25	22


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Sl. No.	Slum Code	Name of Slum	Dwelling Unit	Infrastructure	
				Drains (In Mtr)	Roads (In Mtr)
36	055	BHATTACHARJEE PARA	5	25	22
37	060	CHRISTAN PARA	4	20	18
38	023	KHODAR BAZAR	15	76	67
39	024	KAYAL PARA	3	15	13
40	025	DEY PARA	6	30	27
41	026	MIDDLE ROAD	1	5	4
42	047	BEHARA PARA	4	20	18
43	048	HARI SABHA LANE	6	30	27
44	049	NAJRUL SARONI-NEW NAJRUL SARANI	6	30	27
45	050	S.D.CHATTERJEE ROAD	5	25	22
46	051	NORMAN BETHUN SARONI	7	35	31
47	027	GAJI PARA	4	20	18
48	028	BIBIMATALA	9	45	40
49	063	NASKAR PARA	21	106	94
50	030	MADARAT PAYLADANGA	5	25	22
51	031	MOYALA POTA	7	35	31
52	032	MONDAL PARA	13	66	58
53	033	SARDAR PARA	5	25	22
54	034	PAL PARA	27	136	121
55	035	BALBAN PARA	25	126	112
56	052	HALDER PARA-BISWAS PARA	4	20	18
57	056	PIYADA PARA (BAIDYA PARA)	12	60	54
58	057	NASKAR PARA	2	10	9
59	037	NAZRUL SARANI	3	15	13
Total (A)			718	3619	3225

Non Slum wise Infrastructure Details

BARUIPUR MUNICIPALITY

PMAY (HFA-2018-2019)

Sl. No.	Ward No.	Name of Non Slum	Dwelling Unit	Infrastructure	
				Drains (In Mtr)	Roads (In Mtr)
1	14	PAL PARA	6	30	27
Total (B)			6	30	27

Grand Total (A+B)			724	3649	3252
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Chairman
Baruipur Municipality

Infrastructure Cost

BARUIPUR MUNICIPALITY

PMAY (HFA-2018-2019)

SL. NO	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE PER UNIT (In Rs.)	TOTAL COST (Rs. In lakh)
1	SURFACE DRAIN (SEC-450x600)	3649.00	MTR.	3651.00	133.21
2	CONCRETE ROADS	3252.00	MTR.	4097.00	133.22
Total =					266.43


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Baruipur Municipality at a glance:

1: History:

Baruipur has a history of human civilization. Each historic antiquities of the site found from archeological excavation in the outskirts of Baruipur reveals that there was a major early historic human settlement dated back to the 1st century A.D. The fact has been further re-instated by some renowned scholars in their statement published in South Asian Studies-10, 1994, which is reproduced below.

'Atghara' in northeast of Baruipur- the early historic antiquity of the site in the outskirts of Baruipur was reported in IAR- 1956, P.P.-29-30, where there was reference to early historic terracotta's, grey pottery, rouletted pottery, cast copper coins etc. from the site. The terracotta's, rouletted ware and an inscribed seal from Atghara were also mentioned in IAR-1957-58, P-70. The terracotta's from Moury-sung period onwards are indeed locally well known features of the site. One still notices a structural mound at Atghara and there is perceptible spread of occupation of deposit, which according to a local estimate is spread over 13 to 14 acres of land. In 1989, the Directorate of Archeology of West Bengal Govt. excavated the visible structural mound. The report is unpublished but there is a reference to its results in a handout issued on the occasion on South 24-Parganas history conference at Baruipur on December 1, 1991. The sequence of the site goes back to Mauryan period and continues upto 10-12 centuries A.D. A terracotta image of Jain Tirthankara was obtained from the latter context. In the earlier context one notes the presence of NBPB Sanghikushan red ware earthen vessels bearing faces of women terracotta Yakshini images etc. It has been pointed out that the areas of Gazir Danga, SitaKundu and Phasir Danga in the neighbourhood yield comparable antiquities whenever tanks, wells, foundations for houses are dug. There is little doubt that there was a major historic settlement at Atghara.

2: Year of establishment:

Baruipur Municipality is established in the year of 1869.

3: Administrative Boundaries:

Baruipur is a sub-divisional town of the district of South 24-Parganas situated on the banks of Tolly's canal at the crossing of Diamond Harbour and Lakshmikantapur between Kolkata and Sunderbans. According to common belief, the name was derived from the word 'Barui' which means betel planter. Its geographical location is 20° 30' latitude North and 88° 25' longitude east. Baruipur became a sub-division in 1858. Earlier, it was part of a sub-division, which was basically a sub-division created during the British regime for collection of taxes under a collector. The land is bounded on the north by Sonarpur, south by Jainagar, east by Canning and west by Bishnupur. During those days it was well known for its indigo plantation. Baruipur municipality covers an area of 9.07 Sq.Km. only.

4: Linkages of Rail, Road, Port and Air:

Baruipur Municipality is located at the extreme southern side of Kolkata Metropolitan Area. Railway line has connected this municipality with Kolkata and southern part of South 24 Pgs. Garia – Baruipur Road or Kulpi Road is one of the major roads, which has connected the area with Kolkata and North 24 Pgs through E.M Bye Pass. Other major roads like Madarat Road, Dhabdhabi Road, and Canning Road connected the area with eastern part and Amtala Road has linked it with the adjacent western part.

5: Demographic growth and population Projection:

Population and development are intrinsically interrelated and progress in any component can catalyze improvement in others. In recognition of this awareness the CDP seeks to integrate the population perspective with all development policies to be undertaken in the plan. The population statistics is provided below:

Population of Baruipur

Sl. No.	Item	Baruipur
1	Total population (Census 2011)	53128
2	Decadal Growth (Census 2011) (%)	18.29
3	Density (Per Sq. Km)	5857

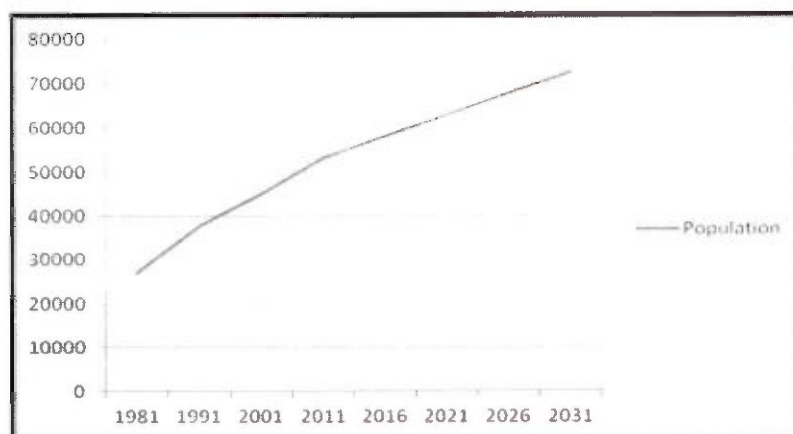
Source: Census of India, 2011

The combination of high population growth and density, poverty, and limited resources makes the developing urban areas distinctive as in the case of Baruipur. This population will not only require additional area for settlement to keep the density in check but also increasing infrastructural facilities to lead a minimum standard of life. The population projection is important because the services and facilities provided by the municipality ought to increase at the same ratio as the population growth. The projected population in the next 5 to 10 year should have the infrastructure and the economic stability and social standing for a good and healthy life. Thus a systematic development of the basic infrastructure is the need of the day. The projected population figures are as follows

Population Projection

Year	Population	Year	Population
1981	27081	2016	58057
1991	37659	2021	62923
2001	44964	2026	67789
2011	53128	2031	72656

Source: Census of India, 2011



The ward wise population figures of the municipality is given in the following table –

Ward-wise population (2011 census)

Ward No.	Number of Households	Total population
1	929	3735
2	982	3820
3	541	2420
4	961	3971
5	887	3517
6	791	3143
7	507	2122
8	920	3535
9	607	2439
10	1204	4815
11	537	2117
12	764	3113
13	844	3336
14	988	3873
15	475	1949
16	840	3410
17	449	1813
Total	13226	53128

Source : Census 2011

Some other demographic features of the municipality are as given below –

Sex Ratio: -

The sex ratio of the municipality 964: 1000 (2001 census) which is slightly higher than national average ie 947:1000 (2001 census)

Literacy Rate: -

Percentage of literate in the ULB is 87.3% and the rest 12.7 % is illiterate. (2001 census)

Child Population: -

The percentage of minor population in this ULB is 11.6 %.(2001 census)

6: Places of Interest:

Baruipur has a number of remarkable places of interest scattered throughout. One can visit the ruins of the temple of “Kalyan Mahadeb”, a Vishnu temple at Kalyanpur. There is one huge temple of the popular God “Dakshin Ray” at the village of Dhabdhabi. Baruipur museum is another noteworthy place worth visiting for its collection of many antiquities belonging to the historic Gangaridees and many other historic articles dating back to different periods of Sen, Pal, Gupta and Kushan dynasty. There is one temple of Lord Chaitanya near Puratan Bazar. On the south of this bazaar lies Dolmancha. Temple of Goddess Mahalakshmi is located near Kachari Bazar. There is a double storied building at Mashiditala. One can visit the twin villages of Sitakundu and Atghara where different archeological

excavations have unearthed a number of antique objects dating from different early historic periods of Sen, Pal, Gupta and Kushan dynasties. A terracotta image of ascetic Lord Buddha has been unearthed from one such excavation at Atghara village. Kalidas dutta memorial museum at Ramnagar and Sunderban regional museum

at Baruipur are two areas worth visiting for their collections of early historic periods bearing testimonies of ancient civilization of this region. Many other ruins of Vishnu temples can be seen at different locations at Baruipur.

7: Festivals:

The following festivals are observed in different months of the year e.g. Rash Mela is observed in October-November, Charak Mela in March-April, Rath Mela in July. Barumi Mela and a public gathering to sing the praise of Maha Prabhu are held in Dolmanch in some specific period each year. Dolmanch is around 200 years old. Bishalakshmi Mandir and Jagaddhatri Mandir are also too quite old structures.

8: Traditional Arts/Crafts:

Terracotta works is one of the bet examples of local handicrafts. Amongst small scale and cottage industries surgical instrument making is a noptable example. Another cottage industry is the manufacturing of incensed stick where a large section of women folk are involved.

9: Climate:

Baruipur is located in hot and humid zone. It is equidistant from the tropic of cancer in the north and Bay of Bengal in the south. Climate of a region depends on various factors like its distance from the sea, type of air and oceanic currents, soil structure, magnitude of rainfall, existing forestry's etc. Strong monsoon winds blowing from the Bay of Bengal over this area generates ample rainfall. Maximum temperature recorded in the months of April/May during peak summer is around 40°C and minimum temperature noted in the months of December/January during winter is 7°C average annual rainfall is 1750mm. relative humidity ranges between 70% to 85%, minimum and maximum respectively. The rainfalls together with its geographic location are two (2) factors that regulate its climate. As evident from the figure above, Baruipur enjoys extreme heat during summer and moderate cold during winter.

10: Soil and Ground water scenario:

Moderate to heavy rainfall during monsoon coupled with occasional rainfall in other times of the season have resulted in large-scale water reserve beneath the earth's surface. The water from the underground source sometimes collects on the earth's surface through different fissures in the earth's crust and creates large natural water bodies like ponds, tanks and creeks etc. at different locations. Due to availability of water around the year in those water bodies the place has added potential for developing pisci culture. In some of the creeks, lobsters are grown. The structure of the town is mostly composed of alluvium borne by the river flow. Somewhere loamy soil, an admixture of alluvium and sandy soil, constitute the soil structure. The former type is good for cultivation of all types of crops and fruits. Water retention capacity of the later type being comparatively high, this type of soil is good for paddy as well as jute. Judging from the nature Gangetic West Bengal, particularly due to wide scale variations in the river flow at different times of the season, the topography of the town is found to be undulated at riverside. Otherwise it is more or less flat in other areas with mild slope towards south.

11: Municipal Office:

Municipal Office is situated at ward no.15, kulpi road; Baruiapur. There is one ward office which is located near police station at ward no. 12.

12: Land Use

The total area¹ of the Baruiapur computed on GIS Platform is 567 Ha or 5.67 sq. Km². The different utilities and detailed features of Baruiapur Land use were mapped in GIS and were broadly categorized in line with the UDPFI guidelines.

Table below shows Land use distribution of Baruiapur.

Land Use pattern in Baruiapur

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 Baruiapur land use that needs to be highlighted include:

- Baruiapur is primarily a residential area with limited industrial activities, so industrial area has been clubbed with commercial area
- Baruiapur 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:

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%

¹ The existing land use /land cover map of Baruiapur 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.

² 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.

Plantation	0.76	13.5%
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.

Land Use of Baruipur town



Existing Infrastructure situation of the city

WATER SUPPLY

1. Source

Piped water supply was first commissioned in Baruipur town with the construction of the water treatment plant at Budge Budge by the PHE Directorate. Apart from the surface water, ground water also remains the main source of supply of water. The municipality does not have a 'ground water law' that regulates its exploitation and this aggravates the practice. The average depth of tube wells installed is around 350-400 metres. The features of water supply in Baruipur is presented below

Features for Water supply in Baruipur

Source	Quantity and type
Surface water	1.12 MLD
Ground water	1 MLD
Duration of water supply per day	6 hours
No. of OHTs and total capacity	5
Distribution Line	75 km
No. of stand posts	529
No. of Hand pumps	204
Total no. of service connections	3616
Domestic connections	3614
Non-domestic	2

Source : Municipality, year 2011.

2. Coverage

The water supply network extends over most of the core city and peripheral areas but does not meet consumer demand. Only 27% of the households within municipal limits are covered with piped water supply system, more than 3.4% percent is served with hand pumps, 1.5% from own tube wells and other sources. Within the areas served with piped water supply, the population does not get water as per the demand as water supply is intermittent throughout the town and available for only 6 hours a day. Consumers spend considerable resources on intermediate systems and tube wells to manage or augment the supply.

The entire ward wise water supply indicators in the municipality is given in the table below –

Water supply system in Baruipur Municipality

Ward	Connection at Household	Public Stand post	Public tube well
1	343	32	06
2	401	35	11
3	161	27	08
4	233	38	16
5	269	35	16
6	171	32	14
7	171	37	08
8	111	32	19
9	119	33	13
10	321	35	14
11	195	27	10
12	172	36	08
13	190	30	06
14	266	28	11
15	214	20	17
16	200	34	21
17	077	18	06
Grand Total	3614	529	204

Source : Municipality, Year 2012.

Estimated @ of 135 lpcd, Baruipur Municipality requires 7180785 litres or 7.18 MLD of water per day. The actual supply of water is 2.12 MLD. Thus there is serious gap of 5.06 MLD per day calculated on the basis of the population of 2011. This deficiency is bound to increase with increase in population provided that the existing supply of water is not augmented. An estimated gap calculated till 2031 is provided below

Prospective gap in water supply

Year	Population	Supply in MLD	Demand @ 135 lpcd	Gap in MLD
2011	53191	2.12	7.81	5.06
2016	58057	2.12	7.84	5.72
2021	62923	2.12	8.49	6.37
2026	67789	2.12	9.15	7.03
2031	72656	2.12	9.81	7.69

Source: technical analysis

Population Forecast and water demand of ULB by the KMDA.

ULB	Area (Sq. KM)	Census populn.(Lakh)	Projected Population (Lakh)				Supply Rate (lpcd)	Demand Forecast(MGD)				
		2001	2011	2015	2021	2025		2001	2011	2015	2021	2025
Baruipur	9.07	0.45	0.56	0.6	0.67	0.72	135	1.34	1.66	1.78	1.99	2.14

Baruipur Municipality has taken up the following water supply project to improve on the present situation under JNNURM which has been presented below.

3. On going Water supply scheme under JNNURM

Water Supply Scheme in Baruipur Municipality	
Objective	To provide treated surface water in Baruipur Municipality
Area covered	All the 17 wards of the Municipality
Population to be benefited	About 0.45 Lakh (2001) About 0.96 Lakh (Projected for design year 2039)
Implementing Agency	Kolkata Metropolitan Water Supply and Sewerage authority
Major components	<ul style="list-style-type: none"> ◇ One semi-underground reservoir of 0.25 mg capacity ◇ Clear water pumps ◇ Booster Chlorination plant ◇ 5 nos. of Elevated Service Reservoirs of total capacity of 2.2ML ◇ Distribution network of about 9.2 km with DI pipes of varying diameters ◇ 100% metering of HSC for water supply & bulk meters

Source: Municipality

It is estimated that after the completion of the project Baruipur Municipality will get water @135lpcd. The project is for the designed based on the projected population of 2039. However several inherent problems plague the water supply distribution network in Baruipur at present which needs to be addressed for the efficient utilization and total coverage and equal distribution to all areas.

According to the water demand estimation of KMWSSA the water demand is estimated as follows –

Water Demand (KMWSSA)

Particulars	Consumption (2009) in lpcd	Consumption (2024) in lpcd	Consumption (2039) in lpcd	Demand (2009) in MLD	Demand (2024) in MLD	Demand (2039) in MLD	Remark
Domestic demand	135	135	135	7.36	9.84	12.90	Population in 2001 = 44964.
Industrial demand	0	0	0	0	0	0	
Fire demand = $100 \times \sqrt{\text{population in thousand}} \times 1000/\text{Pop}$	13.54	11.71	10.23	0.74	0.85	0.98	Projected population in 2009= 54543.
UFW	15%	15%	15%	1.22	1.60	2.08	Projected population in 2024 = 72885
Total demand				9.32	12.30	15.96	Projected population in 2039 – 95587

Source: Draft Development plan 2007-2012

The water supply scheme is supposed to supply the estimated water supply in the present point in time and coverage will increase.

4. Key issues

However there were some issues in the execution of water supply scheme which need to be considered in planning for the future:

1. Faulty planning and laying of distribution line: water pipelines were laid without proper planning resulting in different categories and quality of pipelines. Asbestos pipes still exist but its location is not known owing to the absence of any network map. Low pressure areas are created in number areas like ward no 13, 14,16,2 etc.
2. Inadequate service delivery and management of water supply: water supply is intermittent and restricted to a few hours a day and quality of water inconsistent, imposing high coping costs on consumers and increasing health risks. Finally, estimated leakages are high, which affects service delivery negatively and deprives the water agencies of revenue .In wards like 2,14,16,9 piped water supply has not reached to all areas , thereby resulting in inadequate supply of water in these wards.
3. Water resource management: In the absence of regulation governing the exploitation and use of ground water, extraction has become expensive and unsustainable.
4. Data is inadequate. Because there is no metering, it is impossible to accurately assess consumption, leakage and revenue potential. The system is 'reactive' rather than 'proactive', and unable to ensure efficient supply

Hence the intervention areas in Water supply in the municipality are –

1. Revamping of the entire water supply network with proper planning of pipelines and points as well as 100 % coverage of household connection.
2. Prevention of water loss due to leakage and outdated quality of pipeline and improving water management.
3. Preparation of existing water supply network map as baseline information and also for preparation of drainage master plan.
4. Imposing regulatory checks for water resource management

ROAD NETWORK, TRAFFIC AND TRANSPORTATION

1. Coverage

The road network in Baruipur has grown all around to a total of 123 kms. The most important road of the city is the Kolkata – Bishnupur road which bifurcates the town from north to south just as the Railways does the same east west. Some of the major arterial roads are Bantala road, Kheyadaha road, Narayanpur-Bodra road, Chakraberia-Baruipur road, Baruipur-Canning road, Baruipur-Amtala road, Madarat Road etc. The Eastern Metropolitan bypass, connecting the eastern fringes of Kolkata including Salt Lake Township and the newly growing Rajarhat Township, also serves the area.

While more than 60 % of roads are black topped and concrete. 16% of the road network is still kutcha road and 23% WBM Roads

Existing Road inventory

Category	Length in mts	% to total length
Black top	43157.24	34.95
Concrete	29776.9	24.11
WBM	1618.5	1.31
Brick	28428.2	23.02
Kuchcha	20497	16.59
	123477.8	100

Source : Municipality, Year 2011.

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 have deteriorated which in turn reduces the speed of moving traffic.

Wardwise Road inventory (in mts)

Ward	Black top	Concrete	WBM	Brick	Kuchcha
1	1967.1	1571.1		1464.8	438.2
2	2641	1373		3333	770
3	1408	1115		1533.4	130
4	4712.6	751.9	781.5	1737.1	3372
5	2049.3	1818		2936.6	511.6
6	982.4	1606	306	1871	1502
7	3188	1682		74	139
8	4356	3366		1469	2416
9	2649.24	1275	156	920	914
10	4906.1	1650	375	2842.4	4383
11	1493	1229		1503	267
12	2468.2	1909.5		906.7	435
13	1430	1486.1		2247	795
14	1640	2350		3751	904
15	2391	1947		340	774
16	4356	3366		1469.2	2416.2
17	519.3	1281.3		30	330
	43157.24	29776.9	1618.5	28428.2	20497

Source: Municipality, Year 2011.

According to the traffic survey conducted by the municipality in 2006 some of the major pressure points are as follows –

Traffic volume

Name of the road with location	Capacity in terms of PCU per hour			Capacity saturation level	Suggestion
	Standard (as per existing carriage way available)	Workable (applying efficiency factor) *	Actual (as per peak traffic flow)		
Kulpi road Padmapukur	3045	2132	1560	Not yet saturated	In the interest of public convenience

Name of the road with location	Capacity in terms of PCU per hour			Capacity saturation level	Suggestion
	Standard (as per existing carriage way available)	Workable (applying efficiency factor) *	Actual (as per peak traffic flow)		
end					and safety foot paths of 1.5 meter width to be provided on either side.
Kulpi road Kachari Bazar	2100**	1470	1957	Super saturated	Widening of carriageway, provision of parking lane of 3 meters width and footpath on either side required.
Kulpi road Baruipur Rail gate	2625	1838	1957	-do-	Provision of footpaths on both sides and widening of carriage way is required.
Canning road Puratan Bazar	2362	1838	871	Enough space capacity available	In the interest of public convenience and safety foot paths of 1.5 meter width to be provided on either side.
Canning road Puratan Thana	2362	1654	541	-do-	-do-
Amtala road Padmapukur end	2100	1470	398	-do-	-do-
Joynagar Majilpur road Puratan Bazar end	2100	1470	425	-do-	-do-
Dhapdhapi road Puratan Thana road	2100	1470	116	-do-	-do-
Norman Bethune Sarani Padmapukur end	1940	1358	138	-do-	-do-
Norman Bethune Sarani Madarat end	1940	1358	201	-do-	-do-
Ukilpara road Rasmoni Math end	1675	1184	205	Enough space capacity available	In the interest of public convenience and safety foot paths of 1.5 meter width to

Name of the road with location	Capacity in terms of PCU per hour			Capacity saturation level	Suggestion
	Standard (as per existing carriage way available)	Workable (applying efficiency factor) *	Actual (as per peak traffic flow)		
					be provided on either side.
Ukilpara road Kulpi road end	1675	1184	150	Enough space capacity available	In the interest of public convenience and safety foot paths of 1.5 meter width to be provided on either side.
Nabin chandra road Kulpi road end	1675	1184	148	-do-	-do-
Nabin chandra road Khodar Bazar end	1312	918	99	-do-	-do-

Source: Draft Development plan 2007-2012

In the last 6 years the traffic volume has increased in all these roads. However no recent survey is available to corroborate this. Widening of these roads as suggested in the Ist generation DDP has not been implemented anywhere.

The major traffic intersections in the municipality are some of the blocking points which often chokes the traffic movement of the town. Where there is need for traffic control.

Major Traffic intercrossing points:

1. Baruipur Railway Crossing
2. Padmapukur Crossing
3. Puratan Bazar Crossing
4. Baruipur Police Station

a. Major problems of roads, traffic & transportation:

The situation analysis and stakeholder discussions brought out the salients problems of roads, traffic and transportation as follows:

1. 16% of total roads is kutchra or earthen roads
2. Narrow roads with mixed mode of traffic
3. No traffic rule maintained and Inadequate traffic management
4. Lack of proper traffic control system at the intersections.
5. Severe congestion due to vehicular – Pedestrian conflict
6. Regional level traffic like long distance buses plying within the city
7. Heterogeneous composition of vehicles
8. Absence of well planned public transport system
9. Street lighting is good but needs some improvement

To counter the problem of heavy congestion on the Kulpi road due to the railway crossing, a flyover over the rail line is proposed and work is in progress under

Based on the problems the identified intervention areas are –

1. 100% coverage of surfaced road in the municipality either bituminous or concrete.
2. Widening of roads with controlled traffic movement.
3. Strict implementation of traffic rules.

DRAINAGE

1. Coverage

The total drainage network of Baruipur municipality is of 80.84 kms. Out of this 75.913 kms are pucca drains and 4.932 km is kutchra drains. The storm water drains carry sullage and rainwater and ultimately drains into two main drainage channels - Adi Ganga located on the western side of the municipality and Kata Khal located on Panchayet area on eastern side, which ultimately falls in Piali 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 remain 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 monsoon as indicated in the table below

Water logged areas

Sl. no.	Area	Ward
1	Surya Sen Nagar, Vidyasagar Palli	2
2	Shahjahan Road	3
3	Pirpukur, Baganipara	5
4	Kalikanan	6
5	Golpukur near Bedepukur	10-11
6	Naskarpara, Thaipara	13
7	Madarat Panchanantala	4
8	Panchanantala	14
9	Saratpalli	14
10	Sadarpara Rd.(Behind Hospital)	15
11	Balban	16
12	Dakshin Roy Palli, Dey Para, North Cabin Rd., K.G. Das Rd.	1
13	Madarat Panchanantala	4
14	Saha Para Colony	7
15	Bhuban Mohan Nagar	8
16	Roy Saheb Palli	9
17	Nazrul Sarani	12
18.	Nazrul Sarani, G. Bose Colony	17

Source: Municipality

Adi Ganga and Kata Khal, which acts as main drainage channels of the municipality, run through Panchayet areas. So wastewater from main outfalls of Baruipur Municipality has to traverse a long distance through the Panchayet areas before falling into the two main drainage channels. But it gets clogged at every discharge point due to improper slopping of the drains in Panchayat areas and creates waterlogging situation at those points. In addition to this, improper sloping at various points within the municipality and siltation in high drains also causes water logging in several points within Baruipur Municipality.

2. Major issues

1. Improper contour results in water logging
2. Clogging of drains and outfall points
3. Broken drains / bad conditions of drains
4. Kutcha open surface drains

In this juncture DPC with the help of KMDA has taken initiative to integrate drainage system of Panchayet areas with that of municipalities of the whole Baruipur P.S. In this regard they will design and lay drainage system in Panchayat areas and will link it with main outfalls of municipalities.

SANITATION

The sanitation and drainage system of the town is well below the standard for such a big and important urban centre of West Bengal. Sanitation facility of the town is in the form of septic tanks and pour flush latrine. Drainage to the household level is much neglected.

SOLID WASTE MANAGEMENT

A solid waste management system that is efficient, hygienic and environment-friendly is an essential requirement for Baruipur. This system is interlinked to sewerage and drainage system since garbage eventually finds its way into the sewers through manholes and into open drains adversely impacting their functioning. Another important issue is the inappropriate use of the drainage network. Many people use drainage channel as dumping place for solid waste which blocks the flow of water and causes widespread overflow.

According to the conservancy department, Baruipur generates about 45 metric tonnes of waste per day from households as wells as commercial and institutional facilities like hospitals and hotels.

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 near by vat points (primary collection centre) Lack of awareness and civic sense among the general public leads to indiscriminate throwing of garbage on roadside and vested land. 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. With rapid industrialization waste collection and transportation in a systematic manner has become inevitable.

As mentioned the total solid waste generated in the municipality is 45 metric tonnes per day which is huge compared to other municipalities. Though the municipality has a door to door collection system, details of instruments are given in asset inventory, this needs to be more effective. There have been lapses in the system, as everyday collection

is not done in all the wards resulting in accumulation of garbage and waste. There is also a serious lack of awareness among the masses as people tend to dump waste in drains, water bodies and any open area or land. This causes not only a negative environmental impact but also creates health hazard among the people especially in slum areas where there is lack of proper drainage water and water logging.

Based on the identified problems associated with Solid Waste Management the following intervention areas have been identified Intervention areas

1. Creating a provision for solid waste dumping with scientific landfilling
2. Creating awareness among the people for systematic solid waste disposal

STREET LIGHTS

The town is lit by 3604 street lights of which 54.82 % of lights constitute tube light. The total road length of the town including Highways is 122 km. The average distance between street lights is 36 m. Timer switches are not provided for the street lights to minimize the energy consumption. The break-up details of the street lights and the power consumed in the town are as follows:

Electricity supply system

Existing Light details	Numbers	Percentage distribution	Consumption in W/hr /day
Direct lamp (100w)	128	3.55	153600
Lamp (60W)	1106	30.69	796320
Tube lights (40w)	1976	54.83	948480
Sodium Vapour lamp (150w)	146	4.05	262800
Mercury vapour lamp (250w)	248	6.88	744000
	3604		2905200
Per hr consumption per day	2905200 w or		
	2905.2 KW		

Source: Municipality, Year 2012.

Therefore the present level of energy consumption in Barui pur Municipality is enormous and the intervention in this area is straight forward.

1. Installation of energy efficient street lights
2. Provision of timer switches to prevent wastage
3. Provision of street phasing system

Consolidating the entire infrastructure scenario and the existing infrastructure assets of the municipality as available in municipal records the following asset inventory has been done which us a at a glance picture of the assets and their conditions –

Asset inventory and condition assessment of key municipal services

Service Area	Quantity/ Length (if applicable)	Capacity (if applicable)	Physical condition (good/bad)
Water Supply			
Water Treatment Plant	Nil	-	-
Deep Tube well	7	-	Good
Hand Tube well	204	-	Good
Street Stand post	529	-	Good
Length of Water pipeline (in kilometer)	99.867	-	Good
Underground Reservoir	1	-	Good
Overhead Reservoir	5	2.2 MLD	Good
Sewerage and Sanitation			
Sanitary latrine constructed	1743	-	Good
Community Latrine /Public Toilet	9	-	Good
Length of Sewer Line (in kilometer)	Nil	-	-
Sewage Treatment Plant (STP)	1	1.5 MLD	Good
Pumping Station	1	2.2 MLD	Good
Drainage			
Kutcha Drain (in km.)	4.932	-	Good
Pucca Drain (in km.)	69.912	-	Good
Underground / covered Drain (in km.)	6.001	-	Good
Total Drain (in km.)	80.84	-	Good
Road			
Metalled Road (in km.)	102.97	-	Good
Non-Metalled Road (in km.)	20.50	-	Good
Other Roads (in km.)	-	-	-
Total Road (in km.)	123.47	-	Good
Solid Waste Management			
Dumping Ground, if any	1	6 Bigha	Bad
Landfill site , if any	Nil	-	-
Composting Plant, if any	Nil	-	-
Mechanical Sweeper, if any	Nil	-	-
Compactors, if any	Nil	-	-
Street Light			
No. of Light Post	4129	-	Good
No. of High Mast Light Post	Nil	-	-
No. of Trident Light Post	223	-	Good
No. of other Ornamental Light Post	Nil	-	-

Other Infrastructure :			
Bridge	2	-	Good
Flyover	1	-	Good
Stadium	Nil	-	Good
Parks	17	-	Good
Playground	10	-	Good
Auditorium/Community Hall	8	-	Good
Borough Office	Nil	-	Good
Ward office	1	-	Good
ULB Market	1	-	Good
Shopping Mall	Nil	-	-
Burning Ghat	1	-	Good
Electric Crematorium	1	-	Good
Burial Ground	2	-	Good
Public Library	2	-	Good
Bus Terminus	Nil	-	Good
Ferry Ghat	Nil	-	-
Guest House/ Tourist Lodge	1	-	Good
Road Roller	2	-	Good
Cess Pool	2	-	Good
No. of Slaughter House:	Nil	-	Good
i)Municipal Slaughter House	Nil	-	-
ii)Other Slaughter House	Nil	-	-
Fire Station	1	-	-
Others (Please specify)	-	-	-

Ongoing Intra-Municipal Infrastructure Projects in the ULB

Sl. No.	Project name and Location	Project cost	Implementing Agency	Source of Fund	Targeted time for completion
1.	Treated surface water supply in Baruipur Municipality	1.30 Crores	KMWSA	JNNURM	2014
2.	Sewerage treatment plant	1 Crore	East Kolkata Wetland management	East Kolkata Wetland management	2014
3.	Renovation of Rabindra Bhawan including central air conditioning , electrical and plumbing work , Repair and Painting of the Bhawan.	1,28,14,729	Ministry of culture and information technology	Ministry of culture and information technology	2015

Introduction to Pradhan Mantri Awas Yojana(PMAY)

Housing for All (HFA) Scheme has since been launched by the Ministry of Housing & Urban Poverty Alleviation (MoHUPA), Govt. of India in Mission mode which envisages provision of Housing for All by 2022 when the Nation completes 75 years of its Independence. The Mission seeks to address the housing requirement of urban poor including slum dwellers through following programme verticals:

- a) Redevelopment of slums with private participation
- b) Promotion of affordable Housing for weaker section through credit linked subsidy
- c) Affordable Housing in partnership with public sectors
- d) Subsidy for beneficiary-led individual house construction.

In compliance with the objective and as per direction of the Ministry of Housing & Urban Poverty Alleviation (MoHUPA) and State Urban Development agency(SUDA), West Bengal was undertake a demand survey through suitable means for accessing the actual demand of housing.

Pradhan Mantri AwasYojana (PMAY),a path breaking scheme for the slum dwellers and urban poor envisages a 'Pucca house to every family' through encouraging States to tackle the problem of slum in holistic manner. It calls for a multi-pronged approach focusing on:

- Bringing existing slums within the formal system and enabling the to avail of the 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.
- Tackling the shortages of urban land and housing hat 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.
- Enactment of a set of reforms at the state and city level related to inclusive planning regulation and financing ,which would ensure that adequate fresh housing stock and services get created on an ongoing basis to address both current and future needs of cities.

Integrated approach covering shelter, services and livelihoods for poor Slum communities

The duration of Pradhan Mantri Awas Yojana [PMAY]

2015 TO 2022

Eligible Components of the PMAY:

Allotment of Houses

Allotment of dwelling units will be in the name of the female member of the . Alternatively, it can be allotted in the name of husband and wife jointly. Ownership of land required for every Beneficiary.

A EWS beneficiary family will comprise husband, wife and unmarried children. The beneficiary family should not own a pucca house (an all weather dwelling unit either in his/her name or in the name of any member of his/her family in any part of India to be eligible to receive central assistance under the mission.

EWS households are defined as households having an annual income up to Rs.3, 00,000 (Rupees Three Lakhs). States/UTs shall have the flexibility to redefine the annual income criteria as per local conditions in consultation with the Centre.

Following infrastructure will be considered for support under PMAY:

1. Water connection
2. Toilet facilities
3. 24 x 7 Electric facilities
4. Roads

Need for Projects

This development project models will give benefits in the city. One of the key objectives of developing the Projects is to incentivize innovation and encourage new approaches and solutions that can demonstrably improve the quality and quantity of shelter and services for the poor.

Such innovation could encompass:

- Projects with strong community participation i.e. Slum up gradation/ redevelopment projects initiated/spearheaded by the community; or with their demonstrable involvement and participation in design, planning and implementation
- New models of public-private partnerships whereby the private sector can be encouraged to take up affordable housing for the EWS/LIG.
- Innovations in planning, demonstrating integrated livelihoods, shelter and services; or convergence.
- Innovative or cost effective and green building design and technologies.
- Financial innovations in delivering the city/state wide programme.

Aims and Objectives

Vision

The mission seeks to address the housing requirement of urban poor including slum dwellers through following programme verticals:

- Slum rehabilitation of Slum Dwellers with participation of private developers using land as a resource
- Promotion of Affordable Housing for weaker section through credit linked subsidy
- Affordable Housing in Partnership with Public & Private sectors
- Subsidy for beneficiary-led individual house construction

Objectives

The project has been designed keeping in mind the following objectives.

- Integrated development of all existing slums, notified or non-notified, i.e., development of infrastructure and housing in the slums/rehabilitation colonies for the slum dwellers/urban poor, including rental housing.
- Development/improvement/maintenance of basic services to the urban poor, including water supply, sewerage, drainage, solid waste management, approach and internal road, street lighting.
- The Creation of affordable housing stock, including rental housing with the provision of civic infrastructure and services, on ownership.
- Encouraging Public Private Partnership by having pay and use toilets and educate the slum dwellers for keeping the environment clean and hygienic.

Funding Pattern of PMAY

Funding pattern for PMAY (Housing for all)

- Central share 1.5 LAKH of total cost of dwelling unit.
- Beneficiary share 0.25 LAKH of total cost of dwelling unit.
- State share rest of total cost of dwelling unit.
- State + ULB bear the cost of infrastructure
- State share for infrastructure to be minimum 5%.
- ULB share for infrastructure to be minimum 5%.
- Cost of infrastructure 10 % of sum total cost of dwelling unit.

Approvals & Release of Funds

- Releases and approvals to be on the basis of DPRs which need to be submitted with approval of State Level Sanctioning and Monitoring Committee.
- Innovative projects to be considered for sanction even in the preparatory stage.

- Central Funds to be released in three installments to the State Governments/SLNA; central assistance under different components will be released to the state / UTs after the approval of CSMC and with concurrence of the integrated Financial Division of the Ministry. Central share would be released in three installments of 40%, 40% and 20% each.

Summary of Investment

Project Costing

The costing for the individual sectors has been made on the basis of applicable Schedule of Rates. The details of each of the sub-projects have been provided in the respective sections.

The cost components include:

Infrastructure:

Cost of infrastructure development/up-gradation including water supply, storm water drainage, roads (BT & CC) & drainage etc.

Housing:

Construction Costs would need to be arrived from the various components that are proposed to be implemented and would vary depending on the development option identified.

GOI Contribution:

PMAY scheme guidelines stipulate that, 1.5 lakh of the unit cost of dwelling unit.

The Central share would be available as per milestones set out in Memorandum of Agreement (MoA).

Beneficiary Contribution:

In order to ensure beneficiaries interest, financial contribution by the beneficiaries is critical. The share of beneficiary contribution in housing proposed to be a minimum of 25000.

State Contribution:

The decision would be left to the remaining share would have to be arranged by the State. State will contribute 5% of total Dwelling cost for infrastructure.

ULB Contribution:

ULB have no contribution on dwelling unit cost. ULB will contribute 5% of total Dwelling cost for infrastructure.

In the 1st Meeting of SLSMC of West Bengal it has been decided that the flowing funding pattern should be adopted for implementation of PMAY until further revision.

Type of City/Towns as per 2011 census	Component	Contribution of			
		Central Rs.(Lakhs)	State Rs.(Lakhs)	ULB Rs.(Lakhs)	Beneficiaries Rs.(Lakhs)
Total cost of Beneficiary LED Construction	Housing	1.5	1.93	Nil	0.25
	Infrastructure	Nil	5 %	5 %	Nil

Project Cost and Financing Strategy (For the year 2018 - 19):

For Dwelling Unit

Total no of Dwelling unit = 724 Nos
Rate per Dwelling unit = 3.68 Lakh
Total Cost of Dwelling unit = $724 \times 3.68 = 2664.32$ Lakh
Central Share = 724×1.5 Lakh = 1086 Lakh
State Share = 724×1.93 Lakh = 1397.32 Lakh
Beneficiary Share = 724×0.25 Lakh = 181 Lakh
ULB Share = NIL

For Infrastructure

10 % of total Dwelling unit cost = $2664.32 \text{ Lakh} \times 10\% = 266.432$ Lakh
Central Share = NIL
State Share = $50\% \times 266.432 \text{ Lakh} = 133.216$ Lakh
Beneficiary Share = NIL
ULB Share = $50\% \times 266.432 \text{ Lakh} = 133.216$ Lakh

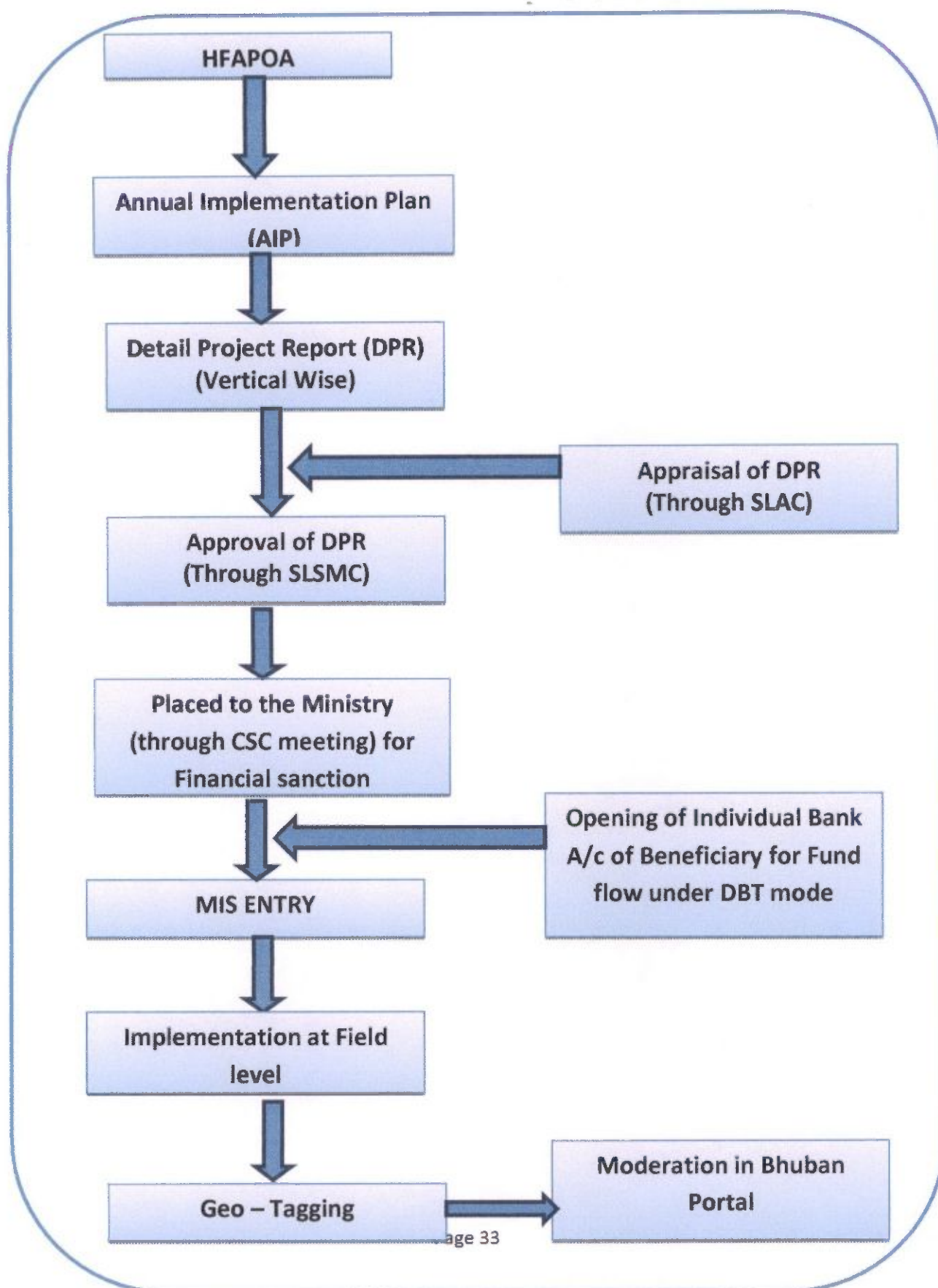
The total project cost will be = $(2664.32 + 266.432) = 2930.752$ Lakh.

Out of these, 2664.32 Lakh is the cost of Housing Infrastructure. The following table shows the share of cost between housing infrastructure & Physical Infrastructure.

Table: Cost Break up between Housing & Infrastructure

SINo.	Component	Cost on Lakh
1.	Housing Cost	2664.320
2.	Infrastructure Cost	266.432
	Total	2930.752

Work flow of PMAY – HFA (U) for 2018-19



HFAPoA and Pradhan Mantri Awas Yojana (Housing for All)

To give pucca house for every family is currently on the global agenda. One of the Millennium Development Goals (MDGs) is to 'achieve significant improvement in the lives of slum dwellers, by 2022. Similar goals are set forth by Pradhan Mantri Awas Yojana in 2022, to create pucca house for every family.

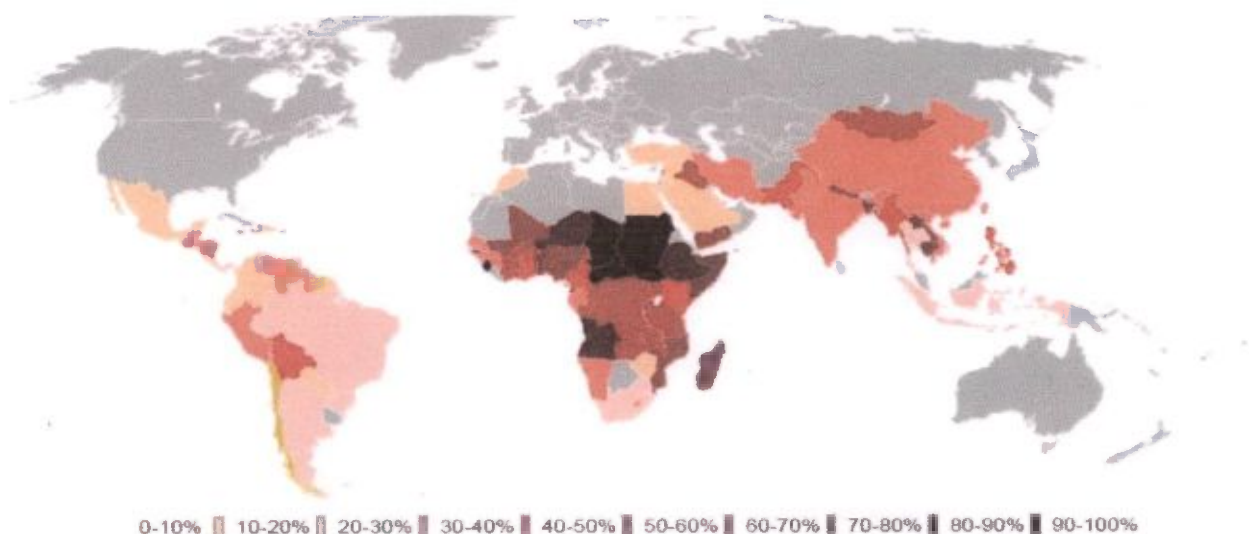
ULB undertake a demand survey through suitable means for assessing the actual demand of housing. While validating demand survey, Cities should consider possible temporary migration from rural areas to the city just to take advantage of housing scheme and exclude such migrants from list of beneficiaries. On the basis of demand survey and other available data, cities prepare Housing for All Plan of Action (HFAPoA). HFAPoA should contain the demand of housing by eligible beneficiaries in the city along with the interventions selected out of four verticals. The information regarding beneficiaries is collected by ULB in suitable. While preparing HFAPoA, ULB and Implementing Agencies should also consider the affordable housing stock already available in the city as Census data suggests that large number of houses are vacant.

Bank account number and Aadhaar number/Voter ID card/any other unique identification details of intended beneficiaries or a certificate of house ownership from Revenue Authority of beneficiary's native district will be integrated in the data base of HFAPoA for avoiding duplication of benefit to one individual family. Beneficiaries is validated by ULBs thereby ensuring their eligibility at the time of preparation of the projects and approval of projects.

On the basis of HFAPoA, States/Cities subsequently prepare the Annual Implementation Plans (AIPs) dividing the task upto 2022 in view of the availability of resources and priority. For larger cities, HFAPoA and AIPs is prepared at sub-city (ward/zone etc.) level with the approval of concerned State/UT Government. The result of demand survey, draft HFAPoA and draft AIP is discussed with the local representatives including MLAs and MPs of that area so that their views are adequately factored in while finalising the plans and beneficiary list.

Cities which have already prepared Slum Free City Plan of Action (SFCPoA) or any other housing plan with data on housing, utilise the existing plan and data for preparing "Housing for All Plan of Action" (HFAPoA). Houses constructed under various schemes should be accounted for while preparing HFAPoA.

Urban Population living in slums and the Indian scenario (UN-HABITAT)



The preparation of HFAPoA broadly involve Slum Development/Rehabilitation Plans based on

- a. Survey of all slums – notified and non-notified;
 - b. Mapping of slums using the state-of-art technology;
 - c. Integration of geo-spatial and socio-economic data; and
 - d. Identification of development model proposed for each slum.
1. Base maps to an appropriate scale would be a pre-requisite for the preparation of Slum Development Plan/Slum-free City Plan. States/UTs may need to proceed in the following steps for the preparation of Slum-free City Plans.
 2. Securing CARTOSAT II/latest satellite images from NRSC/ISRO and preparation of base maps for the whole city and its fringes using the images;
 3. Identification and inventory of all slum clusters of all descriptions in the urban agglomeration with the help of satellite image and other available data;
 4. Inventory of all possible vacant lands in each zone of the urban agglomeration that could be used for slum development/ rehabilitation development purposes;
 5. Development of Slum Map of every slum within the city and its fringes using GIS with CARTOSAT II images, ground level spatial data collected through total station survey, collating spatial information with respect to plot boundaries, network of basic infrastructure like roads, sewerage, storm drainage and water lines, etc and superimposing this on the satellite image and importing them into GIS platform as the first step towards the preparation of Slum Development Plans and Slum Free City Plan.

6. This may be undertaken with the help of technical partners of NRSC/ ISRO/other technical institutions.
7. Identification and engagement of Lead NGO/CBO to guide and anchor community mobilization for the purpose of slum survey, (May be more than one NGO/CBO in different slum zones) of the city. These Lead NGOs/CBOs should also be associated in slum survey operations and dialogues for preparation of slum level development plans;
8. Conduct of Slum Survey based on the detailed formats (with or without changes) Prepared by the Ministry of Housing & Urban Poverty Alleviation with the help of National Buildings Organization (NBO) - after due training of trainers, training of survey personnel /canvassers and canvassing. It would be helpful for community mobilization to pick as many canvassers from the sourced slum or nearby slum pockets;
9. Collection of bio-metric identification data of slum dwellers based on the above survey (subject to guidelines issued by Unique Identity Authority of India (UIDAI));
10. Entry of data from Slum Surveys in the web-enabled MIS application (to be provided by Ministry of HUPA), compilation and collation of data, preparation of Slum-wise, City and State Slum Survey Database and Baseline Reports. The MIS will assist in developing a robust Slum and Slum Households Information System. (Guidelines and software for development of the MIS will be issued by the Ministry of HUPA);
11. Integration of Slum MIS with GIS Maps to enable the preparation of GIS-enabled Slum Information System that is to be used for the preparation of meaningful Slum Development Plans and Slum-free City Plan using a city-wide/zone-based approach.(Guidelines and software for development of GIS platform and its integration with the MIS will be issued by the Ministry of HUPA);

List of slums under projects Pradhan Mantri Awas Yojana of Baruipur Municipality (2015 – 2022)

Sl. No.	Slum Code No.	Name of Slum	Location /Address	Ward No.	Area of Slum(In Sq. K.M.)
1	001	Das Para	Das Para	1	0.0594
2	002	Sardar Para	Sardar Para	2	0.0223
3	003	Surya Sen Nagar	Surya Sen Nagar	2	0.0279
4	004	Bede Para	Bede Para	3	0.0329
5	005	Sajahan Road	Sajahan Road	3	0.0599
6	006	Dey Para	Dey Para	4	0.1303
7	007	Bagani Para	Bagani Para	5	0.0433
8	008	Khan Para	Khan Para	5	0.0250
9	009	Mondal Para	Mondal Para	5	0.0699
10	010	B.K Roychowdhury Road	B.K Roychowdhury Road	6	0.0418
11	011	Kalikanan	Kalikanan	6	0.0200
12	012	Sahapara Colony	Sahapara Colony	7	0.0740
13	013	Gajibaba Road	Gajibaba Road	8	0.0595
14	014	Kayal Para	Kayal Para	8	0.0308
15	015	Irigation Colony	Irigation Colony	8	0.0400
16	016	Biswas Para	Biswas Para	9	0.0150
17	017	Samanta Para	Samanta Para	9	0.0455
18	018	Basudev Pally	Basudev Pally	9	0.0155
19	019	Khalpar	Khalpar	9	0.0328
20	020	Bede Para Basti	Bede Para Basti	10	0.0068
21	021	Jharna	Jharna	10	0.0206
22	022	Baishnab Para	Baishnab Para	10	0.1296
23	023	Khodar Bazar	Khodar Bazar	11	0.0397
24	024	Kayal Para	Kayal Para	11	0.0802
25	025	Dey Para	Dey Para	12	0.0144
26	026	Middle Road	Middle Road	12	0.0235
27	027	Gaji Para	Gaji Para	13	0.0366
28	028	Bibimar Tala	Bibimar Tala	13	0.0497
29	029	Sardar Para	Sardar Para	13	0.0265
30	030	Madarat Pailadanga	Madarat Pailadanga	14	0.1194
31	031	Maylapota	Maylapota	14	0.0952
32	032	Mondal Para	Mondal Para	15	0.0610
33	033	Sardar Para	Sardar Para	15	0.0212
34	034	Pal Para	Pal Para	16	0.0654
35	035	Balban Para	Balban Para	16	0.0219
36	036	G.Bose Colony	G.Bose Colony	17	0.0310
37	037	Najrul Sarani	Najrul Sarani	17	0.0291
38	038	Muchi Para	Muchi Para	5	0.0970

39	039	Doltala	Doltala	6	0.0417
40	040	Dhoba Para	Dhoba Para	10	0.0225
41	041	Mondal Para(Netaji Pally	Mondal Para(Netaji Pally	2	0.0334
42	042	Sahapara Colony	Sahapara Colony	8	0.0386
43	043	Naskar Para	Naskar Para	9	0.0249
44	044	Pal Para-Mukherjee Para	Pal Para-Mukherjee Para	9	0.0550
45	045	Sardar Para	Sardar Para	9	0.0086
46	046	Golpukur-Mondal Para	Golpukur-Mondal Para	10	0.0716
47	047	Behara Para	Behara Para	12	0.0290
48	048	Hari Sabha Lane	Hari Sabha Lane	12	0.0637
49	049	Najrul Sarani-New Najrul Sarani	Najrul Sarani-New Najrul Sarani	12	0.0530
50	050	Sasanka Dev Chatterjee Road	Sasanka Dev Chatterjee Road	12	0.0593
51	051	Norman Bethun Sarani	Norman Bethun Sarani	12	0.0268
52	052	Halder Para-Biswas Para	Halder Para-Biswas Para	16	0.0164
53	053	Middle Road(Panchanantala)	Middle Road(Panchanantala)	1	0.0313
54	054	Baruipur Pros Quarter	Baruipur Pros Quarter	8	0.0349
55	055	Bhattacharya Para	Bhattacharya Para	10	0.0662
56	056	Piyada Para (Baidya Para	Piyada Para (Baidya Para	16	0.0486
57	057	Naskar Para	Naskar Para	16	0.0167
58	058	Khudiram Pally	Khudiram Pally	6	0.0368
59	059	Segun Bagan	Segun Bagan	6	0.0440
60	060	Christan Para	Christan Para	10	0.0300
61	061	Police Barack Rd. School By Lane	Police Barack Rd. School By Lane	7	0.0251
62	062	Nilkhet	Nilkhet	7	0.0572
63	063	Naskar Para	Naskar Para	13	0.0483
64	064	Station Feeder Road	Station Feeder Road	17	0.0081

List of Non-slums under projects Pradhan Mantri Awas Yojana of Baruipur Municipality (2015 – 2022)

Sl. No.	Name of Non – Slum	Location /Address	Ward No.	Area of ward(In Sq. K.M.)
1	Behara Para	Behara Para	1	0.338
2	Dey Para	Dey Para	1	
3	Dakhin Roy Pally	Dakhin Roy Pally	1	
4	Natun Para	Natun Para	11	0.526
5	Pal Para	Pal Para	14	0.368

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.

As on September 2015, Baruipur had a total of 64 slums spread across all the 17 wards of the municipality. The population of Baruipur is 58057 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 HFAPoA and validated by ULB and community, a total of 4463 households stay in slums. Out of 4463 household, 2700 household living in semi pucca house and 855 household living in kuchha house.

Ward wise slum population and number of households are presented in the table below:

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 (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 Baruiapur 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.

Number of Households in Slums

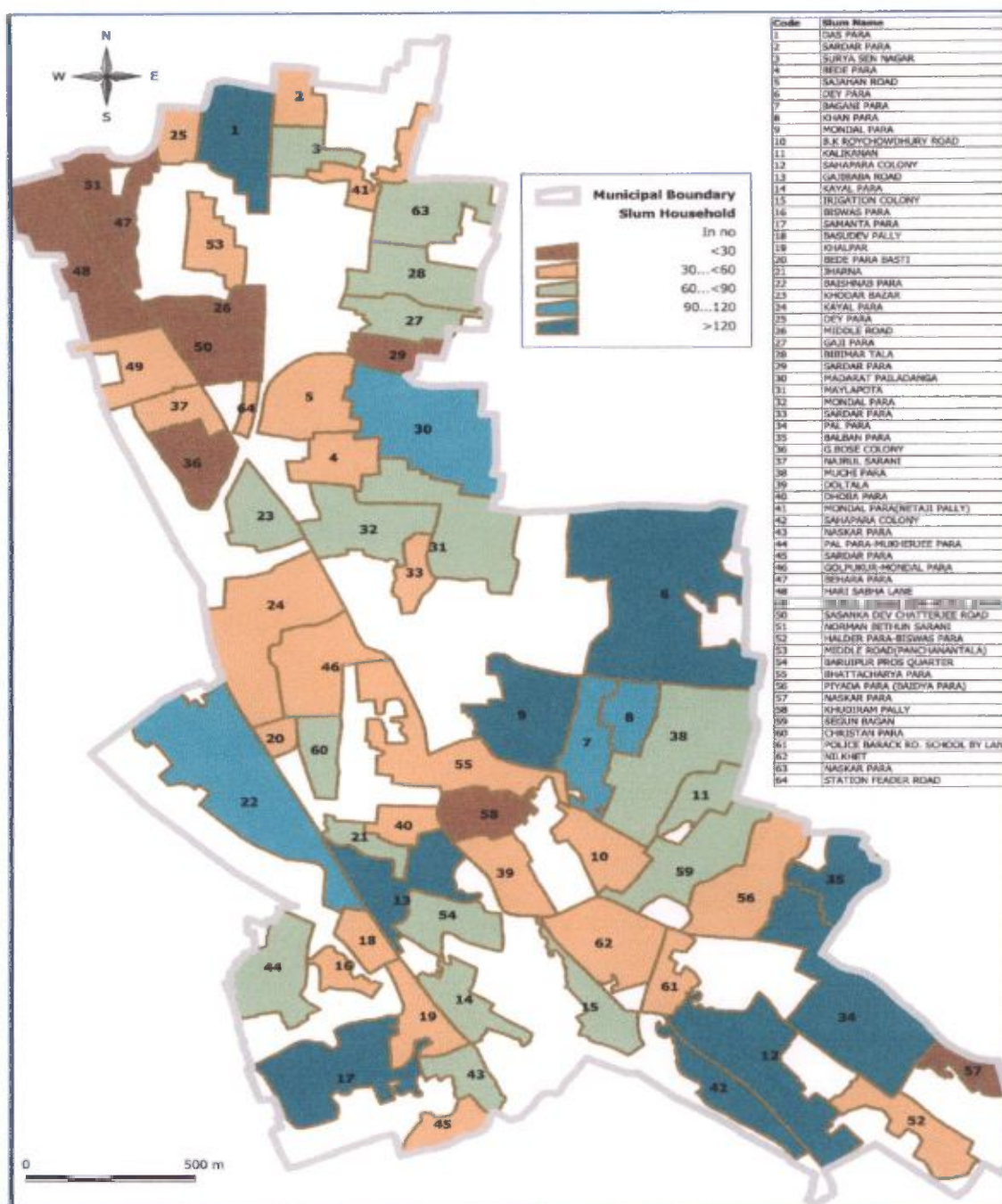


Table below represents ward wise distribution of all the slums along with their ownership status, and age.

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.	6	010	BK Roychowdhury Road	Notified	Private	30
14.		011	Kalikanan	Notified	Private	60
15.		039	Doltala	Notified	Private	100
16.		058	Khudiram Pally	Non-Notified	Private	60
17.	7	059	Segun Bagan	Non-Notified	Private	15
18.		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

Sl. No.	Ward No.	Slum Code	Name of the Slum and location	Slum Status	Ownership of Land	Age of Slum
23.	9	015	Irrigation Colony	Notified	Private	30
24.		042	Sahapara Colony	Non-Notified	Private	50
25.		054	Baruipur Pros Quarter	Non-Notified	Private	80
26.		016	Biswas Para	Notified	Private	100
27.		017	Samanta Para	Notified	Private	80
28.		018	Basudev Pally	Notified	Private	40
29.		019	Khalpar	Notified	Private	75
30.		043	Naskar Para	Non-Notified	Private	140
31.	10	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.		040	Dhoba Para	Notified	Private	100
37.		046	Golpukur Mondal Para	Non-Notified	Private	100
38.		055	Bhattacharya Para	Non-Notified	Private	50
39.	11	060	Christian Para	Non-Notified	Private	50
40.		023	Khoda Bazar	Notified	Private	50
41.		024	Kayal Para	Notified	Private	100
42.	12	025	Dey Para	Notified	Private	50
43.		026	Middle Road	Notified	Private	40
44.		047	Behara Para	Non-Notified	Private	50
45.		048	Hari Sabha Lane	Non-Notified	Private	50
46.		049	Najrul Sarani (New Najrul	Non-Notified	Private	45

Sl. No.	Ward No.	Slum Code	Name of the Slum and location	Slum Status	Ownership of Land	Age of Slum
			Sarani)			
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
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 Monthly Income and expenditure of Households staying in slums

Average Monthly Income of Slum Households									
City	No. of Households	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 Households	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

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

Source: USHA Survey and MIS data validation report

Housing structure type of all slums (2015-16 to 2021-22)

Sl. No.	Ward Number	Slum Code	Slum Name	Semi-Pucca	Katcha	Total
1	1	001	DAS PARA	8	0	8
2	1	053	MIDDLE ROAD(PANCHANANTALA)	16	0	16
3	2	041	MONDAL PARA(NETAJI PALLY)	28	0	28
4	2	002	SARDAR PARA	37	4	41
5	2	003	SURYA SEN NAGAR	16	0	16
6	3	004	BEDE PARA	11	0	11
7	3	005	SAJAHAN ROAD	23	1	24
8	4	006	DEY PARA	76	9	85
9	5	007	BAGANI PARA	56	4	60
10	5	008	KHAN PARA	57	2	59
11	5	009	MONDAL PARA	47	0	47
12	5	038	MUCHI PARA	43	6	49
13	6	010	B.K ROYCHOWDHURY ROAD	27	0	27
14	6	039	DOLTALA	19	0	19
15	6	011	KALIKANAN	37	0	37
16	6	058	KHUDIRAM PALLY	16	0	16
17	6	059	SEGUN BAGAN	54	0	54
18	7	062	NILKHET	44	0	44
19	7	061	POLICE BARACK RD. SCHOOL BY LANE	57	1	58
20	7	012	SAHAPARA COLONY	119	4	123
21	8	054	BARUIPUR PROS QUARTER	21	0	21
22	8	013	GAJIBABA ROAD	96	0	96
23	8	015	IRIGATION COLONY	41	0	41
24	8	014	KAYAL PARA	40	0	40
25	8	042	SAHAPARA COLONY	23	0	23
26	9	018	BASUDEV PALLY	5	0	5
27	9	016	BISWAS PARA	17	0	17
28	9	019	KHALPAR	18	0	18
29	9	044	PAL PARA-MUKHERJEE PARA	31	0	31

30	9	017	SAMANTA PARA	89	2	91
31	9	045	SARDAR PARA	31	1	32
32	9	043	NASKAR PARA	26	0	26
33	10	022	BAISHNAB PARA	111	2	113
34	10	020	BEDE PARA BASTI	12	1	13
35	10	055	BHATTACHARYA PARA	16	2	18
36	10	060	CHRISTAN PARA	18	2	20
37	10	040	DHOBA PARA	18	0	18
38	10	046	GOLPUKUR-MONDAL PARA	23	0	23
39	10	021	JHARNA	19	1	20
40	11	024	KAYAL PARA	11	0	11
41	11	023	KHODAR BAZAR	18	11	29
42	12	047	BEHARA PARA	13	0	13
43	12	026	MIDDLE ROAD	16	4	20
44	12	049	NAJRUL SARANI-NEW NAJRUL SARANI	13	12	25
45	12	051	NORMAN BETHUN SARANI	20	0	20
46	12	050	SASANKA DEV CHATTERJEE ROAD	16	3	19
47	12	025	DEY PARA	20	7	27
48	12	048	HARI SABHA LANE	12	7	19
49	13	028	BIBIMAR TALA	25	2	27
50	13	027	GAJI PARA	13	0	13
51	13	029	SARDAR PARA	7	0	7
52	13	063	NASKAR PARA	29	1	30
53	14	030	MADARAT PAILADANGA	5	2	7
54	14	031	MAYLAPOTA	11	2	13
55	15	032	MONDAL PARA	17	0	17
56	15	033	SARDAR PARA	15	0	15
57	16	035	BALBAN PARA	72	0	72
58	16	052	HALDER PARA-BISWAS PARA	16	0	16
59	16	056	PIYADA PARA (BAIDYA PARA)	30	1	31
60	16	034	PAL PARA	80	0	80
61	16	057	NASKAR PARA	12	1	13
62	17	037	NAJRUL SARANI	10	0	10
63	17	064	STATION FEADER ROAD	1	0	1
64	17	036	G.BOSE COLONY	4	0	4
Total				1932	95	2027

Source: Demand Survey.(N.B. – Non Slum data and Format – A data not including in this table)

Slum Profile and its Location

Slum status as per Location

Location wise analysis shows that 26 slums are situated in core area³ of the municipality, of which 16 slums are notified slums and 10 slums are non-notified slums. Remaining 38 slums are situated in fringe area⁴ 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:

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 excluding⁵ 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.

³ **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.

⁴ **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.

⁵ 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.

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

Sl. No.	Name of the slum and Slum Code	Land Use	Area of Slum (in Sq. Km)	Land Value Zones
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
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-	0.0086	Z4

Sl. No.	Name of the slum and Slum Code	Land Use	Area of Slum (in Sq. Km)	Land Value Zones
		Residential		
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
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	

Summary of Findings of Demand Survey

Housing for All (HFA) Scheme has since been launched by the Ministry of Housing & Urban Poverty Alleviation (MoHUPA), Govt. of India in Mission mode which envisages provision of Housing for All by 2022 when the Nation completes 75 years of its Independence. The Mission seeks to address the housing requirement of urban poor including slum dwellers through following programme verticals:

- Redevelopment of slums with private participation
- Promotion of affordable Housing for weaker section through credit linked subsidy
- Affordable Housing in partnership with public sectors
- Subsidy for beneficiary-led individual house construction.

In compliance with the objective and as per direction of the Ministry of Housing & Urban Poverty Alleviation (MoHUPA) and State Urban Development agency(SUDA), West Bengal was undertake a demand survey through suitable means for accessing the actual demand of housing. For this mission Baruipur Municipality undertook Demand survey on 18.09.2015 and completed the survey on 01.10.2015. From this survey, different information have been took off. Summary of findings of survey have been given below:

Distribution of family heads of the slum

FAMILY HEAD				
WARD NO	MALE	FEMALE	OTHER	TOTAL
1	98	42	0	140
2	65	20	0	85
3	24	11	0	35
4	65	20	0	85
5	185	30	0	215
6	116	37	0	153
7	164	61	0	225
8	193	64	0	257
9	169	51	0	220
10	142	82	1	225
11	28	14	1	43
12	105	37	1	143
13	65	12	0	77
14	19	9	0	28
15	23	9	0	32
16	174	38	0	212
17	31	12	0	43
TOTAL	1666	549	3	2218

Source ; Demand survey,2015

From the above table, it is noticed that Municipality conducted of survey of 2212 household. Out of 2218 households, 1666 households headed by male member, 549 households headed by female member and 3 households headed by other. Ward-wise details are given in the table.

Out of 2218 households, 2042 households falls under Form –B (Slum – 2027 & Non- Slum – 15) and 176 household falls under Form –A.

Religion of the households

WARD NO	HINDU	MUSLIM	CHRISTIAN	SIKH	OTHER	BUDDHISM	JAINISM	TOTAL
1	134	6	0	0	0	0	0	140
2	83	0	0	0	2	0	0	85
3	14	21	0	0	0	0	0	35
4	80	3	1	0	1	0	0	85
5	123	91	0	0	0	1	0	215
6	138	15	0	0	0	0	0	153
7	225	0	0	0	0	0	0	225
8	253	4	0	0	1	0	0	258
9	220	0	0	0	0	0	0	220
10	165	49	10	0	0	0	0	224
11	28	15	0	0	0	0	0	43
12	120	20	0	0	2	0	1	143
13	64	13	0	0	0	0	0	77
14	27	0	1	0	0	0	0	28
15	32	0	0	0	0	0	0	32
16	178	33	1	0	0	0	0	212
17	28	15	0	0	0	0	0	43
TOTAL	1912	285	13	0	6	1	1	2218

Source ; Demand survey,2015

From the above table, it is noticed that out of 2218 households, 1912 households falls under Hindu community, 285 households falls under Muslim Community, 13 households falls under Christian community, 6 households falls other community and single household falls under Buddhism and Jainism community each. Ward-wise details are given in the table.

Out of the total beneficiary around 2042 beneficiary opted for Beneficiary Led Construction. The details of the ownership of land for 2042 is given in table below.

Ownership details of the households

Ownership Details				
Ward No.	Own	Rented	Otherwise	TOTAL
1	28	0	0	28
2	73	0	12	85
3	18	0	17	35
4	69	0	16	85
5	215	0	0	215
6	81	0	72	153
7	151	1	73	225
8	180	0	41	221
9	219	0	1	220
10	220	4	1	225
11	32	1	10	43
12	84	26	33	143
13	77	0	0	77
14	9	0	19	28
15	32	0	0	32
16	199	1	12	212
17	15	0	0	15
TOTAL	1702	33	307	2042

Source ; Demand survey,2015 (Note – Only B format)

From the above mentioned table, it implies that Out of total 2042 households, 1702 households have own ownership, 33 households lives in rented house but they have own land and 307 households ownership is other wise i.e. ancestral property. Ward-wise details are given in the table.

Housing structure details of the households

Type of house			
Ward No.	Semi pucca	Kucha	TOTAL
1	28	0	28
2	81	4	85
3	34	1	35
4	76	9	85
5	203	12	215
6	153	0	153
7	220	5	225
8	221	0	221
9	217	3	220
10	217	8	225
11	32	11	43
12	110	33	143
13	74	3	77
14	22	6	28

15	32	0	32
16	210	2	212
17	15	0	15
TOTAL	1945	97	2042

Source ; Demand survey,2015 (Note – Only B format)

From the above table, it shows that, out of total 2042 households,1945 households lives in semi-pucca structure house and 97 households lives in kucha structure house. Ward-wise details are given in the table.

Type of Housing requirement details of the households

TYPE OF HOUSING REQUIRMENT			
WARD NO	ENHANCMENT	NEW HOUSE	TOTAL
1	0	140	140
2	17	68	85
3	0	35	35
4	45	40	85
5	0	215	215
6	0	153	153
7	14	211	225
8	4	253	257
9	0	220	220
10	183	42	225
11	0	43	43
12	0	143	143
13	4	73	77
14	0	28	28
15	12	20	32
16	0	212	212
17	0	43	43
TOTAL	279	1939	2218

Source ; Demand survey,2015

From the above table, it is noticed that out of total 2218 households falls under the scheme. From that only 279 households require enhancement of house and 1939 household require new house construction. Ward-wise details are given in the table.

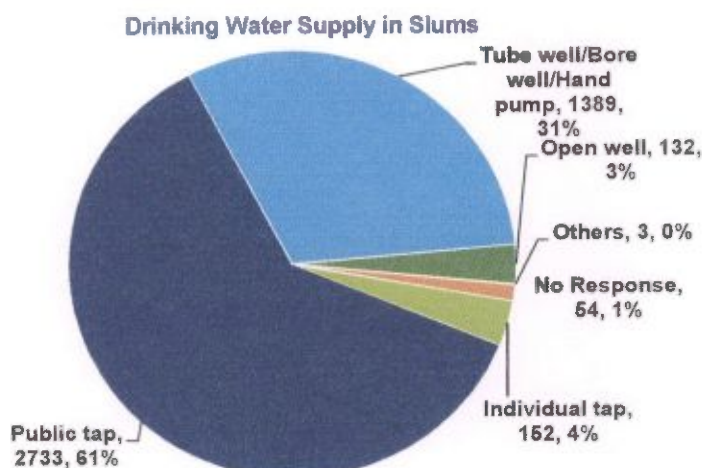
In summarizing the HFAPoA of Baruipur Municipality, Baruipur Municipality takes two verticals for implementation of the project i.e. “Slum Redevelopment with Private participation” and “Beneficiary –led – construction”. For this project, Baruipur Municipality conducted Demand Assessment survey for getting total requirement of houses in the ULB. From this survey, the total survey form received 2218. From 2218 forms, 2042 forms for Format B. Out of 2042 2027 form received from 64 slums and 15 forms received from non slums. 176 forms for format A received from 3 slums. Out of these 2218 houses. 2042 houses will be constructed through “Beneficiary-led-Construction” and 176 houses will be constructed through “Redevelopment with private participation”.

Broad infrastructure status in slum areas

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

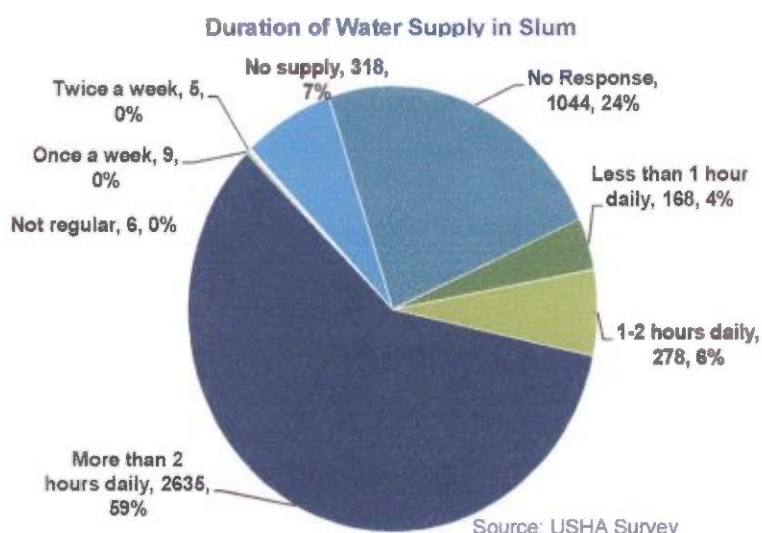
Water

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



Source: USHA Survey

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



Source: USHA Survey

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.

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.

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.

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

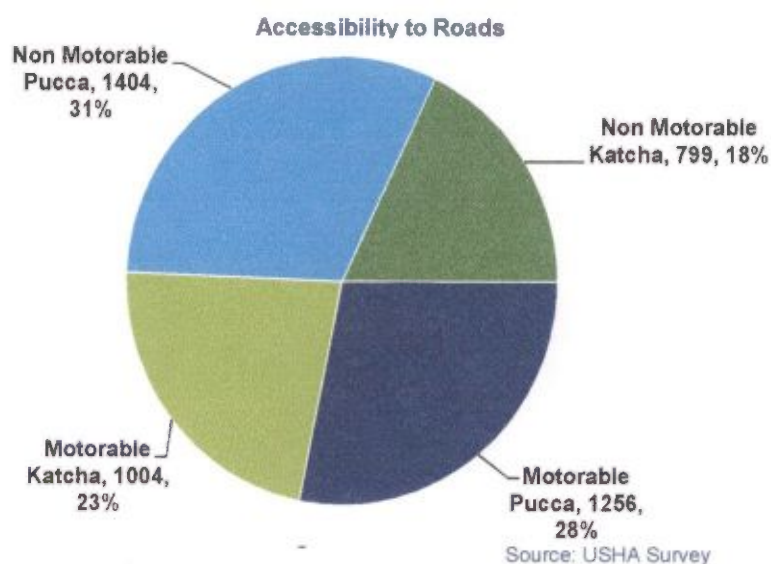
As can be observed from the above table:

- 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.

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 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.



Project Justification (For the year 2018-19)

For the following reasons Baruipur Municipality selected the slums and non-slums namely mentioned below as first project for preparation of DPR under Pradhan Mantri Awas Yojana:

Sl. No	Name of the Slums/Non-Slums	Status	Land	Age in years	National High Way	Status of Housings	Road Status	Habitation pattern
1	Middle Road(Pancha nantala)	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	100	No National highway is pass from the area. Main PWD road is 2 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
2	Das Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	60	No National highway is pass from the area. Main PWD road is 2 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
3	Mondal Para(Netaji Pally)	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	60	No National highway is pass from the area. Main PWD road is 3 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

4	Surya Sen Nagar	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
5	Bede Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 2 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
6	Sajahan Road	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
7	Dey Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	50	No National highway is pass from the area. Main PWD road is 2 KM away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/ti	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

					from the slum.	les on roof		
8	Bagani Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	60	No National highway is pass from the area. Main PWD road is 2 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
9	Khan Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	50	No National highway is pass from the area. Main PWD road is 3 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
10	Mondal Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	60	No National highway is pass from the area. Main PWD road is 2 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
11	Muchi Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 1	Major population is living in huts, made of darma / bricks with tin sheets and	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

					KM away from the slum.	asbestos/tiles on roof		
12	B.K. Roychowdhury road	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
13	Doltala	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	70	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
14	Kalikanan	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 2 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
15	Khudiram Pally	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	50	No National highway is pass from the area. Main PWD	Major population is living in huts, made of darma / bricks with tin	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

					road is 2 KM away from the slum.	sheets and asbestos/tiles on roof		
16	Segun Bagan	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	60	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
17	Nilkhet	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
18	Police Barack Road	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	30	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
19	Sahapara Colony	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the	Major population is living in huts, made of	Majority portion of roads are Kucha or brick road	Habitation pattern in the slums is congested with insufficient open

			es own land.		area. Main PWD road is 1 KM away from the slum	darma / bricks with tin sheets and asbestos/ti les on roof	or damaged roads.	space
20	Baruipur Pros. Quarter	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiari es own land.	60	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/ti les on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
21	Gajibaba Road	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiari es own land.	40	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/ti les on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
22	Irigation Colony	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiari es own land.	50	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/ti les on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
23	Kayal Para	The condition of living in the slum is	The ownership of land belongs to	30	No National highway is pass	Major population is living in huts,	Majority portion of roads are Kucha or	Habitation pattern in the slums is congested with

		unhygienic	beneficiaries own land.		from the area. Main PWD road is 2 KM away from the slum.	made of darma / bricks with tin sheets and asbestos/tiles on roof	brick road or damaged roads.	insufficient open space
24	Sahapara Colony	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
25	Biswas Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	35	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads	Habitation pattern in the slums is congested with insufficient open space
26	Pal Para-Mukherjee Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 2 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

27	Samanta Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	45	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
28	Sardar Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	30	No National highway is pass from the area. Main PWD road is 2 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
29	Naskar Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 2 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
30	Khalpar	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	30	No National highway is pass from the area. Main PWD road is 2 KM away from the	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

					slum.			
31	Baishnab Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	50	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
32	Bedepara Basti	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
33	Bhattacharya Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	60	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
34	Christan Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	35	No National highway is pass from the area. Main PWD road is 1 KM away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/ti	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

					from the slum.	les on roof		
35	Dhoba Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	50	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
36	Golpukur-Mondal Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
37	Jharna	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	50	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
38	Kayal Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	35	No National highway is pass from the area. Main	Major population is living in huts, made of darma / bricks	Majority portion of roads are Kucha or brick road or damaged	Habitation pattern in the slums is congested with insufficient open space

					PWD road is 2 KM away from the slum.	with tin sheets and asbestos/tiles on roof	roads.	
39	Khodar bazar	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
40	Behara Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
41	Middle Road	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	50	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
42	Najrul Sarani-New Najrul sarani	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own	40	No National highway is pass from the area.	Major population is living in huts, made of darma /	Majority portion of roads are Kucha or brick road or	Habitation pattern in the slums is congested with insufficient open space

			land.		Main PWD road is 1 KM away from the slum.	bricks with tin sheets and asbestos/tiles on roof	damaged roads.	
43	Norman Bethun sarani	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
44	Sasanka Dev Chaterjee Road	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	70	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
45	Dey Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	35	No National highway is pass from the area. Main PWD road is KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
46	Hari Sabha lane	The condition of living in the slum is	The ownership of land belongs to	60	No National highway is pass	Major population is living in huts,	Majority portion of roads are Kucha or	Habitation pattern in the slums is congested with

		unhygienic	beneficiaries own land.		from the area. Main PWD road is 1 KM away from the slum.	made of darma / bricks with tin sheets and asbestos/tiles on roof	brick road or damaged roads.	insufficient open space
47	Bibimar Tala	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	55	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
48	Gaji Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
49	Naskar Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	30	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

50	Madarat payladanga	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	35	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
51	Maylapota	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	50	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
52	Mondal Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	40	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
53	Sardar Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	35	No National highway is pass from the area. Main PWD road is	Major population is living in huts, made of darma / bricks with tin sheets and	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

					0.5 KM away from the slum.	asbestos/ti les on roof		
54	Balban Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiari es own land.	30	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/ tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
55	Piyada Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiari es own land.	45	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/ tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
56	Palpara	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiari es own land.	50	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/ tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
57	Naskar Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiari es own	40	No National highway is pass from the area.	Major population is living in huts, made of darma /	Majority portion of roads are Kucha or brick road or	Habitation pattern in the slums is congested with insufficient open space

			land.		Main PWD road is 0.5 KM away from the slum.	bricks with tin sheets and asbestos/tiles on roof	damaged roads.	
58	Halder Para-Biswas Para	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	30	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
59	Najrul Sarani	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	45	No National highway is pass from the area. Main PWD road is 0.5 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
60	Pal Para (Non-Slum)	The condition of living in the slum is unhygienic	The ownership of land belongs to beneficiaries own land.	35	No National highway is pass from the area. Main PWD road is 1 KM away from the slum.	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are Kucha or brick road or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

Housing Status (For the Year 2018-19)

Housing is the constituent of the social infrastructure of the economy. Like the other constituents, such as the system of education and health, housing also can either reduce or enhance the disparities in the society.

House Type /Structure (For the Year 2018-19)

Sl. No.	Ward no.	Slum Name	Semi Pucca	Katcha	Total
1	1	MIDDLE ROAD(PANCHANANTALA) (SC-053)	5	1	6
2		DAS PARA (SC-001)	3	1	4
3	2	MONDAL PARA (NETAJI PALLY) (SC-041)	14	1	15
4		SURYA SEN NAGAR (SC- 003)	11	0	11
5	3	SAJAHAN ROAD (SC-005)	8	0	8
6		BEDEPARA (SC- 004)	10	0	10
7	4	DEY PARA (SC-006)	35	3	38
8	5	BAGANI PARA (SC-007)	17	3	20
9		KHAN PARA (SC-008)	11	7	18
10		MONDAL PARA (SC-009)	16	0	16
11		MUCHI PARA (SC-038)	10	3	13
12	6	B.K ROYCHOWDHURY ROAD (S.C-010)	3	0	3
13		KALIKANAN (S.C-011)	16	0	16
14		DOLTALA (S.C-039)	8	0	8
15		KHUDIRAM PALLY (S.C-058)	10	0	10
16		SEGUN BAGAN (S.C-059)	29	0	29
17	7	SAHAPARA COLONY(S.C-012)	46	3	49
18		POLICE BARACK ROAD (S.C-061)	22	1	23
19		NILKHET (S.C-062)	3	0	3
20	8	GAZIBABA ROAD (S.C-013)	26	1	27
21		KAYAL PARA (S.C-014)	15	0	15
22		IRRIGATION COLONY (S.C-015)	20	0	20
23		SAHAPARA COLONY (S.C-042)	9	0	9
24		BARUIPUR PROS QUARTER (S.C-054)	2	0	2
25	9	BISWAS PARA (S.C-016)	3	0	3
26		SAMANTA PARA (S.C-017)	31	0	31
27		KHAL PAR (S.C-019)	2	0	2
28		NASKAR PARA (S.C-043)	14	0	14
29		PAL PARA- MUKHARJEE PARA (S.C-044)	25	0	25
30		SARDAR PARA (S.C-045)	9	1	10

31	10	BEDE PARA (S.C-020)	3	1	4
32		JHARNA BASTI (S.C-021)	6	1	7
33		BAISNAB PARA (S.C-022)	37	0	37
34		DHOBIA PARA (S.C-040)	8	0	8
35		GOLPUKUR (S.C-046)	5	0	5
36		BHATTACHARJEE PARA (S.C-055)	5	0	5
37		CHRISTAN PARA (S.C-060)	4	0	4
38	11	KHODAR BAZAR(S.C.- 023)	10	5	15
39		KAYAL PARA(S.C.-024)	3	0	3
40	12	DEY PARA (S.C.- 025)	6	0	6
41		MIDDLE ROAD (S.C.- 026)	1	0	1
42		BEHARA PARA (S.C. - 047)	4	0	4
43		HARI SABHA LANE(S.C.- 048)	6	0	6
44		NAJRUL SARONI-NEW NAJRUL SARANI.(S.C.- 049)	6	0	6
45		S.D.CHATTERJEE ROAD (S.C.-050)	5	0	5
46		NORMAN BETHUN SARONI (S.C.-051)	7	0	7
47	13	GAJI PARA (S.C. - 027)	4	0	4
48		BIBIMATALA (S.C. - 028)	8	1	9
49		NASKAR PARA (S.C.- 063)	21	0	21
50	14	MADARAT PAYLADANGA (S.C.- 030)	5	0	5
51		MOYALA POTA (S.C.- 031)	7	0	7
52	15	MONDAL PARA (S.C. - 032)	10	3	13
53		SARDAR PARA (S.C.- 033)	4	1	5
54	16	PAL PARA(S.C.-034)	24	3	27
55		BALBAN PARA(S.C.-035)	23	2	25
56		HALDER PARA-BISWAS PARA(S.C.-052)	2	2	4
57		PIYADA PARA (BAIDYA PARA)(S.C.-056)	12	0	12
58		NASKAR PARA(S.C.-057)	2	0	2
59	17	NAZRUL SARANI (S.C.- 037)	3	0	3
		TOTAL	674	44	718

Sl. No.	Ward no.	Non-Slum Name	Semi Pucca	Katcha	Total
1	14	PAL PARA	6	0	6
		TOTAL	6	0	6

Proposed Intervention

In line with the vision to 'housing for all', an integrated housing programme is proposed to be implemented. The target will be all the slum dwellers in the pocket. In situ single dwelling units are proposed.

Building type	Number of DU
In situ single Unit	724 within 59 slums and 1 non slums

Building Plan

The buildings are proposed to cover an area of approximate 32 Sq. mt along with provision of 2 rooms, kitchen and sanitation facility. The layout, size and type design of housing dwelling units depends on the local conditions and the preferences of the beneficiary. The houses, has been designed in accordance with the desire of the beneficiaries, keeping in view the climatic conditions and the need to provide ample space, kitchen, ventilation, sanitary facilities, etc. and the community perceptions, preferences and cultural attitudes.

In line with the scheme, carpet area of the house will be not less than 25 sq. mts and preferably two room accommodation plus kitchen and toilet should be constructed.

Building material

- PCC (1:3:6) for foundation
- RCCM-20 for substructure & superstructure (Column, Beam, Slab)
- HYSD Steel
- 1st class Brick Masonry
- 1:6 (Cement: Sand) plaster– 10 mm on soft of beam &slab, 15 mm on internal walls & 20 mm on external walls
- IPS flooring

Structural Design

- Following are the general considerations in the analysis /design.
- For all structural elements, M20 grade concrete and Fe 415 grade of steel is used.
- Plinth beams passing through the columns are provided as tie beams.
- Pedestals are proposed up to ground level.
- Beam Centre-line dimensions are followed for analysis and design.
- For all the building, walls of 250 mm and 125 mm thick with 20 mm External plaster and 12mm thick internal plaster are considered.
- Seismic loads are considered acting in the horizontal direction along either of the two principal directions.

Design data

- Live load: 2.0kN/m² at typical floor
- 1.5 kN/m² on terrace (With Access): 0.75kN/m² on terrace (without Access) Floor finish 50mm (0.05*24)= : 1.2kN/m²
- Ceiling plasters 12mm (0.012*20.8): 0.25kN/m²
- Partition walls (Wherever Necessary): 1.0kN/m²
- Terrace finish: 1.5kN/m²
- Earth quake load: As per IS-1893(Part1)- 2002
- Depth of foundation below ground: 0.7m
- Walls: 250 mm thick brick masonry walls at external and 125mm walls internal.

Reference codes:

- IS456:2000-Code of practice-Plain and Reinforced concrete.
- IS: 1893:2002- Criteria for Earthquake resistant design of structures (Part-IIS: 13920:1993
- Ductile detailing of Reinforced concrete structures subjected to seismic forces.
- SP:34 – Hand Book on Concrete Reinforcement and Detailing.
- S:875:1987 Code of practice for design loads other than earthquake) for buildings and structures.(Part-2)
- NBC: 2005.

Identification of Beneficiaries

Municipality, Municipal Corporation, in consultation with State Urban Development Agency (SUDA), will approve the phasing of the beneficiaries in the region. The beneficiaries so identified and the projects so prepared shall be done in consultation with the committees and community development societies already existing in that particular city. The identification of beneficiaries will be on the basis of the base line survey already conducted under PMAY Demand Survey.

Allotment of Houses

Allotment of dwelling units will be in the name of the female member of the household. Alternatively, it can be allotted in the name of husband and wife jointly. Ownership of land required for every Beneficiary.

Town Planning Norms

Up-gradation of existing constructions and construction of new houses shall only be taken after approval of the layout by the urban local body. Respective State Govts. May relax some town planning norms for sanction of such layout Plans, to facilitate HOUSING SCHEME, however, minimum acceptable standards of Town Planning will need to be set and followed.

All planning are done as per UDPFI & CPHEOO guidelines and local Municipal Bye-laws.

Compliance with Municipal Bye laws

All designs & drawings are created keeping in line with the municipal bye laws.

Tenure

Un like rural areas, land is scarce in urban areas particularly in large metropolises. Under HOUSING SCHEME, the responsibility for providing land for the project rests with the State Government or its agencies.

Summary of Investment

Project Costing

The costing for the individual sectors has been made on the basis of applicable Schedule of Rates. The details of each of the sub-projects have been provided in the respective sections.

The cost components include:

Infrastructure:

Cost of infrastructure development/up-gradation including water supply, storm water drainage, roads (BT & CC) & drainage etc.

Housing:

Construction Costs would need to be arrived from the various components that are proposed to be implemented and would vary depending on the development option identified.

GOI Contribution:

PMAY scheme guidelines stipulate that, 1.5 lakh of the unit cost of dwelling unit.

The Central share would be available as per milestones set out in Memorandum of Agreement (MoA).

Beneficiary Contribution:

In order to ensure beneficiaries interest, financial contribution by the beneficiaries is critical. The share of beneficiary contribution in housing proposed to be a minimum of 25000.

State Contribution:

The decision would be left to the remaining share would have to be arranged by the State. State will contribute 5% of total Dwelling cost for infrastructure.

ULB Contribution:

ULB have no contribution on dwelling unit cost. ULB will contribute 5% of total Dwelling cost for infrastructure.

In the 1st Meeting of SLSCMC of West Bengal it has been decided that the flowing funding pattern should be adopted for implementation of PMAY until further revision.

Type of City/Towns as per 2011 census	Component	Contribution of			
		Central Rs.(Lakhs)	State Rs.(Lakhs)	ULB Rs.(Lakhs)	Beneficiaries Rs.(Lakhs)
Total cost of Beneficiary LED Construction	Housing	1.5	1.93	Nil	0.25
	Infrastructure	Nil	5 %	5 %	Nil

Project Cost and Financing Strategy (For the year 2018-19):

For Dwelling Unit

Total no of Dwelling unit = 724 Nos

Rate per Dwelling unit = 3.68 Lakh

Total Cost of Dwelling unit = $724 \times 3.68 = 2664.32$ Lakh

Central Share = 724×1.5 Lakh = 1086 Lakh

State Share = 724×1.93 Lakh = 1397.32 Lakh

Beneficiary Share = 724×0.25 Lakh = 181 Lakh

ULB Share = NIL

For Infrastructure

10 % of total Dwelling unit cost = $2664.32 \text{ Lakh} \times 10\% = 266.432$ Lakh

Central Share = NIL

State Share = $50\% \times 266.432 \text{ Lakh} = 133.216$ Lakh

Beneficiary Share = NIL

ULB Share = $50\% \times 266.432 \text{ Lakh} = 133.216$ Lakh

The total project cost will be = $(2664.32 + 266.432) = 2930.752$ Lakh.

Out of these, 2664.32 Lakh is the cost of Housing Infrastructure. The following table shows the share of cost between housing infrastructure & Physical Infrastructure.

Table: Cost Break up between Housing & Infrastructure

S.No.	Component	Cost on Lakh
1.	Housing Cost	2664.320
2.	Infrastructure Cost	266.432
	Total	2930.752

Housing for All Plan of Action (HFAPoA)

In Intervention Plan, Barui pur Municipality takes only two verticals i.e. “ Slum redevelopment with private Participation” and another vertical is “ Beneficiary led construction”. From present Demand Assessment survey for Housing for all (HFA), it is noticed that 2218 household covering under this project. Out of these 2218 houses, 2042 houses will be constructed through “Beneficiary-led-Construction” and 176 houses will be constructed through “Redevelopment with private participation”. Under “Beneficiary-led-Construction” each beneficiary will get 1.5 lakh from central assistance and under “Redevelopment with private participation” each beneficiary will get 1 lakh from central assistance.

Details of central assistance is given in the following tables:

I. Slum - wise Intervention strategies for Taneble Slums										
Ward No	Name of the Slum	Area of Slum in Sq. Mts	Total no. of Households as per USHA	Eligible Slum Households	Whether “ In-situ” redevelopment with private Participation	Required Area for In - situ Redevelopment in Sq. mts.	FSI/FAR		Name of the other slum if proposed for resettlement in this slum	Proposed year of intervention
							Existing	Proposed		
1	Das Para(S.C.-001)	59400	147	112	Yes	N/A	2.25	2.50	N/A	2018-19
8	Sahapara Colony(S.C-042)	38600	123	36	Yes	N/A	2.25	2.50	N/A	2019-20
17	Station Feeder Road(S.C-064)	8100	45	28	Yes	N/A	2.25	2.50	N/A	2019-20

II. Slum-wise Intervention Strategies for Untaneble Slums

Name of the Slum	Area of the slum in Sq. Mtrs.	Total no. of Slum Households as per USHA	Proposed Development Strategy i) Affordable Housing Project (AHP) ii) Credit Linked Subsidy Scheme (CLSS) iii) Beneficiary Led Construction iv) Clubbing with other Teneble Slums	Proposed year of intervention
Das Para(S.C.-001)	59400	147	Beneficiary Led Construction	2015-16 to 2018-19
Sardar Para(S.C.-002)	22300	45	Beneficiary Led Construction	2015-16 to 2020-21
Surya Sen Nagar(S.C.-003)	27900	68	Beneficiary Led Construction	2015-16 to 2018-19
Bede Para(S.C.-004)	32900	44	Beneficiary Led Construction	2015-16 to 2017-18
Sajahan Road(S.C.-005)	59900	52	Beneficiary Led Construction	2015-16 to 2019-20
Dey Para(S.C.-006)	130300	173	Beneficiary Led Construction	2015-16 to 2021-22
Bagani Para(S.C.-007)	43300	91	Beneficiary Led Construction	2015-16 to 2021-22
Khan Para(S.C.-008)	25000	110	Beneficiary Led Construction	2015-16 to 2021-22
Mondal Para(S.C.-009)	69900	150	Beneficiary Led Construction	2015-16 to 2020-21
B.K Roychowdhury Road(S.C.-010)	41800	59	Beneficiary Led Construction	2015-16 to 2019-20
Kalikanan(S.C.-011)	20000	76	Beneficiary Led Construction	2015-16 to 2020-21
Sahapara Colony(S.C.-012)	74000	253	Beneficiary Led Construction	2015-16 to 2021-22
Gajibaba Road(S.C.-013)	59500	127	Beneficiary Led Construction	2015-16 to 2021-22
Kayal Para(S.C.-014)	30800	72	Beneficiary Led Construction	2015-16 to 2020-21
Irigation Colony (S.C.-015)	40000	86	Beneficiary Led Construction	2015-16 to 2020-21
Biswas Para(S.C.-016)	15000	49	Beneficiary Led Construction	2015-16 to 2018-19
Samanta Para(S.C.-017)	45500	134	Beneficiary Led Construction	2015-16 to 2021-22
Basudev Pally(S.C.-018)	15500	31	Beneficiary Led Construction	2015-16 to 2016-17

Khalpar(S.C.-019)	32800	32	Beneficiary Led Construction	2015-16 to 2018-19
Bede Para Basti(S.C.-020)	6800	41	Beneficiary Led Construction	2015-16 to 2017-18
Jharna(S.C.-021)	20600	64	Beneficiary Led Construction	2015-16 to 2018-19
Baishnab Para(S.C.-022)	129600	119	Beneficiary Led Construction	2015-16 to 2021-22
Khodar Bazar(S.C.-023)	39700	63	Beneficiary Led Construction	2015-16 to 2019-20
Kayal Para(S.C.-024)	80200	39	Beneficiary Led Construction	2015-16 to 2017-18
Dey Para(S.C.-025)	14400	33	Beneficiary Led Construction	2015-16 to 2019-20
Middle Road(S.C.-026)	23500	24	Beneficiary Led Construction	2015-16 to 2018-19
Gaji Para(S.C.-027)	36600	71	Beneficiary Led Construction	2015-16 to 2017-18
Bibimar Tala(S.C.-028)	49700	63	Beneficiary Led Construction	2015-16 to 2019-20
Sardar Para(S.C.-029)	26500	22	Beneficiary Led Construction	2015-16 to 2016-17
Madarat Pailadanga(S.C.-030)	119400	94	Beneficiary Led Construction	2015-16 to 2016-17
Maylapota(S.C.-031)	95200	71	Beneficiary Led Construction	2015-16 to 2017-18
Mondal Para(S.C.-032)	61000	86	Beneficiary Led Construction	2015-16 to 2018-19
Sardar Para(S.C.-033)	21200	53	Beneficiary Led Construction	2015-16 to 2018-19
Pal Para(S.C.-034)	65400	180	Beneficiary Led Construction	2015-16 to 2021-22
Balban Para(S.C.-035)	21900	154	Beneficiary Led Construction	2015-16 to 2021-22
G.Bose Colony(S.C.-036)	31000	29	Beneficiary Led Construction	2015-16 to 2016-17
Najrul Sarani(S.C.-037)	29100	39	Beneficiary Led Construction	2015-16 to 2017-18
Muchi Para(S.C.-038)	97000	80	Beneficiary Led Construction	2015-16 to 2020-21
Doltala(S.C.-039)	41700	36	Beneficiary Led Construction	2015-16 to 2018-19

Dhoba Para(S.C.-040)	22500	58	Beneficiary Led Construction	2015-16 to 2018-19
Mondal Para(Netaji Pally)(S.C.-041)	33400	58	Beneficiary Led Construction	2015-19 to 2019-20
Sahapara Colony(S.C-042)	38600	123	Beneficiary Led Construction	2015-16 to 2019-20
Naskar Para(S.C.-043)	24900	72	Beneficiary Led Construction	2015-16 to 2019-20
Pal Para-Mukherjee Para(S.C.-044)	55000	86	Beneficiary Led Construction	2015-16 to 2020-21
Sardar Para(S.C.-045)	8600	57	Beneficiary Led Construction	2015-16 to 2020-21
Golpukur-Mondal Para(S.C.-046)	71600	33	Beneficiary Led Construction	2015-16 to 2019-20
Behara Para(S.C.-047)	29000	24	Beneficiary Led Construction	2015-16 to 2017-18
Hari Sabha Lane(S.C.-048)	63700	21	Beneficiary Led Construction	2015-16 to 2018-19
Najrul Sarani-New Najrul Sarani(S.C.-049)	53000	30	Beneficiary Led Construction	2015-16 to 2019-20
Sasanka Dev Chatterjee Road(S.C.-050)	59300	23	Beneficiary Led Construction	2015-16 to 2018-19
Norman Bethun Sarani(S.C.-051)	26800	25	Beneficiary Led Construction	2015-16 to 2018-19
Halder Para-Biswas Para(S.C.-052)	16400	44	Beneficiary Led Construction	2015-16 to 2018-19
Middle Road(Panchanantala)(S.C.-053)	31300	45	Beneficiary Led Construction	2015-16 to 2018-19
Baruipur Pros Quarter(S.C-054)	34900	84	Beneficiary Led Construction	2015-16 to 2019-20
Bhattacharya Para(S.C.-055)	66200	31	Beneficiary Led Construction	2015-16 to 2018-19
Piyada Para (Baidya Para)(S.C.-056)	48600	45	Beneficiary Led Construction	2015-16 to 2020-21
Naskar Para(S.C.-057)	16700	27	Beneficiary Led Construction	2015-16 to 2017-18
Khudiram Pally(S.C-058)	36800	27	Beneficiary Led Construction	2015-16 to 2018-19
Segun Bagan(S.C.-059)	44000	83	Beneficiary Led Construction	2015-16 to 2021-22
Christan Para(S.C-060)	30000	88	Beneficiary Led Construction	2015-16 to 2018-19

Police Barack Rd. School By Lane(S.C.-061)	25100	49	Beneficiary Led Construction	2015-16 to 2021-22
Nilkhet(S.C.-062)	57200	51	Beneficiary Led Construction	2015-16 to 2021-22
Naskar Para(S.C.-063)	48300	74	Beneficiary Led Construction	2015-16 to 2019-20
Station Feeder Road(S.C-064)	8100	45	Beneficiary Led Construction	2015-16 to 2019-20

III. Year - wise Proposed Interventions in Slums

Year	Number of Beneficiaries and Central Assistance Required (Rs. In Crores)													
	Redevelopment through Private Participation			Beneficiary -Led Construction			Credit Linked Subsidy			Affordable Housing in Partnership			Total	
	No. of Slu ms	No. of Benefic iaries	Amo unt	No. of Slu ms	No. of Benefici aries	Amou nt	No. of Slu ms	No. of Benefici aries	Amo unt	No. of Slu ms	No. of Benefici aries	Amo unt	No. of Benefici aries	Amoun t
2015 -16	Nil	N/A	0	64	127	1.905	Nil	N/A	N/A	Nil	N/A	N/A	127	1 905
2016 -17	Nil	N/A	0	63	310	4.65	Nil	N/A	N/A	Nil	N/A	N/A	310	4.65
2017 -18	Nil	N/A	0	59	354	5.31	Nil	N/A	N/A	Nil	N/A	N/A	354	5.31
2018 -19	1	112	1.12	50	350	5.25	Nil	N/A	N/A	Nil	N/A	N/A	462	6.37
2019 -20	2	64	0.64	33	330	4.95	Nil	N/A	N/A	Nil	N/A	N/A	394	5.59
2020 -21	Nil	N/A	0	21	253	3.795	Nil	N/A	N/A	Nil	N/A	N/A	253	3.795
2021 -22	Nil	N/A	0	12	303	4.545	Nil	N/A	N/A	Nil	N/A	N/A	303	4.545
Total	3	176	1.76		2027	30.405							2203	32.165

IV. Year - wise Proposed Intervention for Other Urban Poor based on Demand survey

Year	Number of Beneficiaries and Central Assistance Required (Rs. In Crores)							
	Beneficiary-led Construction		Credit Linked Subsidy		Affordable Housing in Partnership		Total	
	No. of Beneficiaries	Amount	No. of Beneficiaries	Amount	No. of Beneficiaries	Amount	No. of Beneficiaries	Amount
2015-16	1	0.015	Nil	0	Nil	0	1	0.015
2016-17	5	0.075	Nil	0	Nil	0	5	0.075
2017-18	0	0	Nil	0	Nil	0	0	0
2018-19	9	0.135	Nil	0	Nil	0	9	0.135
2019-20	0	0	Nil	0	Nil	0	0	0
2020-21	0	0	Nil	0	Nil	0	0	0
2021-22	0	0	Nil	0	Nil	0	0	0
Total	15	0.225					15	0.225

V. Year - wise targets under different component

Interventions		Number of Beneficiaries and Central Assistance Required (Rs. In Crores)														Total	
		2015-16		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22			
		No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Redevelopment through Private Participation	Slums	Nil	N/A	Nil	N/A	Nil	N/A	112	1.12	64	0.64	Nil	N/A	Nil	N/A	176	1.76
Subsidy for beneficiary-led improvement of existing house	Slums	127	1.905	310	4.65	354	5.31	350	5.25	330	4.95	253	3.795	303	4.545	2027	30.405
	Non-Slums	1	0.015	5	0.075	0	0	9	0.135	0	0	0	0	0	0	15	0.225
Credit Linked subsidy to individual beneficiaries	Slums	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A
	Non-Slums	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A
Affordable Housing in Partnership (AHP)	Slums	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A
	Non-Slums	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A
Total																2218	32.3900

Post Project Monitoring

Sector wise monitoring and implementation plan

A strong implementation plan and administration frame work is essential or implementation of the identified projects that require strengthening of the Municipal Corporation and evolution of a Community Structure.

Accurate assessment of investment requirements and devising suitable financing strategy are the key components of any sustainable slum rehabilitation program. Implementing bodies must recognize and measure the various costs of developing infrastructure and housing, including the costs for subsequent maintenance. As the scheme is a collaborative effort of multiple stakeholders, with a few of them contributing financially as well, it is important to estimate the required capital expenditure for developing the infrastructure and improving the housing stock as accurately as possible.

National Level

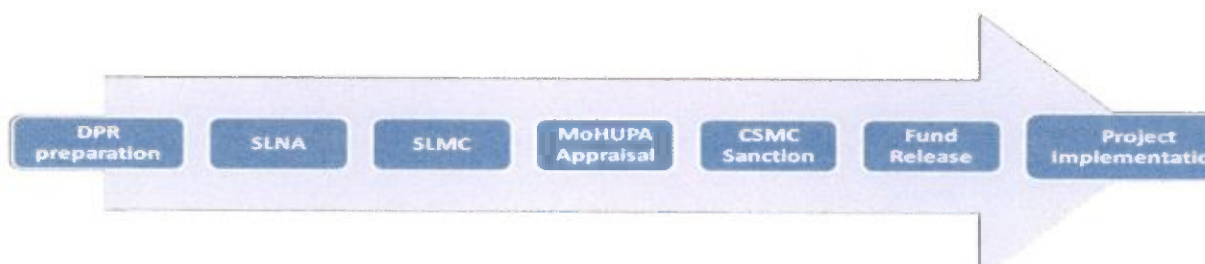
PMAY Mission Directorate

There shall be a PMAY Mission Directorate under the charge of a Joint Secretary under the Ministry of Housing and Urban Poverty Alleviation, supported by staff and a Programme Management Unit with experts having expertise in the areas of survey and statistics, computerization and MIS, Planning, Project engineering ,Social development ,Monitoring and evaluation etc. for ensuring effective co-ordination with State Governments for expeditious processing of the State Slum-free PoAs and project proposals and providing hand holding support to States/UTs.

State Level

PMAY Mission Director

The State Level Nodal Agency for PMAY/SUDA, West Bengal will have coordination of all scheme and reform-related activities more than one department handling urban development, Local self-government, and Housing. SLNA. The Mission Directorate supported by a team of dedicated professionals having expertise in the fields of GIS, MIS, town planning, community development, project engineering, capacity development etc



Baruipur Municipality

The Municipality shall act as the implementation agency for the project .Keeping in mind the criticality of the project.

DETAILED ESTIMATE FOR THE CONSTRUCTION OF SINGLE UNIT DWELLING HOUSE OF BARUIPUR MUNICIPALITY

Pradhan Mantri Awas Yojana Housing For All (Urban)

Total Covered Area- 32.58 sq.m (With Electrical Works)

Reference of Schedule of Rates : PWD (W.B.), Schedule of Rates Building & Sanitary w.e.f-01.07.2014 & Corrigenda

Floor Area 25.77 sqm

Sl. No.	Description of Works	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
1	Earthwork in excavation in foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing spreading or stacking the spoils within a lead of 75 m as directed including trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water etc. as required complete. a) Depth of excavation not exceeding 1500mm . SOR, PWD, P-1, I -2 a	13.000	%cu.m	12047.00	1566.11
2	Earth work in filling in foundation trenches or plinth with good earth in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete.(Payment to be made on the basis of measurement of finished quantity of work) a) With earth obtained from excavation of foundation. SOR, PWD, P-1, T/3 a	11.120	%cu.m	7831.00	870.81
3	Supplying Laying Polithin Sheets etc. SOR, PWD, P-45, T - 13	22.000	sqm	25.00	550.00
4	Cement concrete with graded Stone ballast (40 mm.) excluding shuttering.a) In ground floor and foundation.6 : 3 : 1 proportion Pakur variety SOR, PWD, Page 24 ; Item -10 a	3.500	cu.m.	5823.00	20380.50
5	25 mm. thick damp proof with cement concrete (4:2:1) (with graded stone aggregate 10 mm. Normal size) and painting the top surface with a coat of bitumen using 1.7 kg. per sq.m. including heating the bitumen and cost and carriage of all materials complete. SOR, PWD, P-45, T-12	6.810	sqm,	297.00	2022.57
6	Brick work with 1st class bricks in cement mortar (6:1) a) In foundation and plinth. b) In super structure SOR, PWD, P-29, T -22(a), (b)	10.430 15.240	cum cum	5719.00 5943.00	59649.17 90571.32
7	125mm thick brick work with 1st. class bricks in cement mortar (4:1). a) In ground floor SOR, PWD, P-73, I -29	23.220	sq.m.	783.00	18181.26
8	Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes. (I) Pakur Variety SOR, PWD, P-14, T -7(I)	3.940	cu.m.	6851.66	26995.54
9	Reinforcements for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc. including supply of rods, initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16G black annealed wire at every inter-section, complete as per drawing and direction. (a) For works in foundation, basement and upto roof of ground floor / upto 4m. (I) Tor steel/Mild steel. SOR, PWD, P-27, T -15(I)	0.309	MT	60705.93	18775.74
10	Hire and labour charges for shuttering with centreing and necessary staging upto 4 m. using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams, columns, lintels curved or straight including fitting, fixing and striking out after completion of works. (upto roof of ground floor). (When the height of a particular floor is more than 4 m. the equivalent floor ht. shall be taken as 4 m. and extra for works beyond the initial 4 m. ht. shall be allowed under 12(e) for every 4 m. or part thereof.) SOR, PWD, P-66, T -12(a) 25 mm. to 30 mm. thick wooden shuttering as per decision & direction of Engineer-in-charge. Ground Floor	37.063	M ²	360.00	13342.68


Arindam Dutta
Junior Engineer (Civil)
Baruipur Municipality



Chairman
Baruipur Municipality

SL No.	Description of Works	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
11	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints or roughening of concrete surface, including throating, nosing and drip course where necessary . In ground floor. A) With 6:1 cement mortar. a) Inside wall 20 mm thick plaster SOR, PWD, P-151, T -2 (i)(b) b) Out side Wall, 15mm th. SOR, PWD, P-151, I -2 (i)(c) B)10mm th ceiling plaster (4:1) SOR, PWD, P-151, I -2 (i)(c)	116.940 111.950 23.330	sq.m. sq.m. sq.m.	181.00 156.00 140.00	21166.14 17464.20 3266.20
12	Neat cement punning about 1.5mm thick in wall, dado, window, sills, floor, drain etc. SOR, PWD, P-152, I -8	26.700	sq.m.	38.00	1014.60
13	Artificial stone in floor,dado, staircase etc. with cement concrete (4:2:1) with stone chips laid in panels as directed with topping made with ordinary or white cement (as necessary) and marble dust in proportion (2:1) including smooth finishing and rounding off corners and including application of cement slurry before flooring works, using cement @ 1.75 kg./sq.m. all complete including all materials and labour. In ground floor. 3 mm. thick topping (High polishing grinding on this item is not permitted) with ordinary cement. 20mm thick SOR, PWD, P-40, I -3 (i)	26.490	sq.m.	265.00	7019.85
14	Supplying, fitting & fixing MS clamp for fixing door and window frame made of flat bent bar, end bifurcated, fixed in cement concrete with stone chips (4:2:1)a fitted and fixed complete as per direction. 40mm x 6mm x 125 mm length. (Cost of cement concrete will be paid separately) SOR, PWD, P-90, I -18 (c)	34	each	22.00	748.00
15	Wood work in door and window frame fitted and fixed complete including a protective coat of painting at the contact surface of the frame other Local wood SOR, PWD, P-85, T -1(i)	0.213	cu.m.	46171.00	9834.42
16	Panel Shutter of door & Window (each Panel Consisting Of single Plan without Join) 25 mm thick shutter with 12 mm thick Panel of size 30 to 45 cm. Other Local wood SOR, PWD, P-105, I -84 (iv)c	8.520	sq.m.	1567.00	13350.84
17	Iron butt hinges of approved quality fitted and fixed with steel screws, with ISI mark. a)75mm x 47mm x 1.70mm SOR, PWD, P-91, T -20(iv)	32.000	each	34.00	1088.00
18	Iron Socket Bolt of approved quality fitted and fixed complete. i) 150 mm long x 10 mm dia SOR, PWD P-93, I -25,c	11.000	each	71.00	781.00
19	White washing including cleaning and smoothening surface thoroughly (5 parts of stone lime and 1 part of shell lime should be used in the finishing coat). Two Coats SOR, PWD, P-155, I -3 (b)	124.960	%sq.m	1887.00	2358.00
20	Colour washing with ella with a coat of white wash priming including cleaning and smoothing surface thoroughly external surface One Coat SOR, PWD, P-155, I -4(ii)(a)	100.560	%sq.m	1514.00	1522.48
21	Priming one coat on timber, plastered or on steel or other metal surface with synthetic enamel/oil bound primer of approved quality including smoothening surfaces by sand papering etc. 1) On timber surface SOR, PWD, P - 162, I - 7(a) 2) On Steel Surface SOR, PWD, P - 162, I - 7(b)	 21.690 2.700	 sq.m. sq.m.	 41.00 31.00	 889.29 83.70
22	Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary : With finer gloss (hi-gloss)-With any shade except white. a) On timber or plastered surface Two Coats b) On Steel surface Two Coats SOR, PWD, P - 162, - 8A(aii),(bii)	 21.690 2.700	 sq.m. sq.m.	 89.00 86.00	 1930.41 232.20


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SL No.	Description of Works	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
23	Iron hasp bolt of approved quality fitted and fixed complete (oxidised) with 16 mm dia with center bolt and round fitting. 300 mm long SOR, PWD, P-93, I - 27c	2.000	each	193.00	386.00
24	Precast piered concrete jally work as per design and manufacture's specification including moulding etc. with stone chips and necessary reinforcement shuttering complete including fitting, fixing in position in all floors. (a) 37.5 mm th. panels Cement & steel required for this item will not be issued by deptt. SOR, PWD, P-32, I - 38 (b)	1.690	sq.m.	351.00	593.19
25	Supplying, fitting and fixing UPVC down pipes A type and fittings conforming to IS 13592-1992 with necessary clamps nails including making holes in walls, etc. and cutting trenches in any soil, through masonry concrete structure etc. if necessary and mending good damages including jointing with jointing materials (Spun yarn, valamoid / bitumen / M. seal etc.) complete. P-173, I-21 A (II), C(II), D(II) SOR, PWD, P173, I - 21 A (II), C(II), D(II)				
	i) UPVC Pipe 110 mm dia	3.000	Mtr.	291.00	873.00
	ii) UPVC Bend 87.5 degree 110 mm dia	2.000	each	162.00	324.00
	iii) UPVC Shoe 110 mm	1.000	each	128.00	128.00
26	M.S.or W.I. Ornamental grill of approved design joints continuously welded with M.S, W.I. Flats and bars of windows, railing etc. fitted and fixed with necessary screws and lugs in ground floor. Grill weighing 10 kg/sq m to 16 kg/m2 SOR, PWD, P - 76, I - 10 (I) (2.70sqm @ 10.5kg per sqm = 28.35 kg)	0.284	Qntl	8247.00	2342.15
27	Shallow water closet Indian pattern(I.P.W.C.) of approved make in white vitreous chinaware supplied, fitted and fixed in position (excluding cost of concrete for fixing). 450 mm long SOR, PWD, (Sanitary) P - 65, I - 1 (III)	1.000	each	1062.00	1062.00
28	Foot rest for water closet of size 275 mm X 125 mm with Artificial stone(4:2:1) with 6 mm stone chips and chequered including adding colour as necessary. SOR, PWD, (Sanitary) P - 66, I - 9	1.000	Pair	70.00	70.00
29	Supplying, fitting and fixing cast iron 'P' or 'S' trap conforming to I.S. 3989 / 1970 and 1729 / 1964 including lead caulked joints and painting two coats to the exposed surface. S Trap 100 mm SOR, PWD, (Sanitary) P - 54, I - 14(B-III)	1.000	each	923.00	923.00
30	Supplying, fitting fixing CI Round Gratings 150mm dia SOR, PWD, (Sanitary) P - 55, I - 18(II)	1.000	Each	100.00	100.00
	Construction of 2 circular leach pit of inside diameter 1000 mm. & a depth of 1000 mm. With a layer of 250 mm. Thick brick work with cement mortar (6:1) & honeycombed brick wall (4:1) at every alternate layer upto a height of 925 mm. From bottom and then 125 mm. thick brick wall (4:1) for a height of 300 mm. and covered with 75mm. RCC slab (4:2:1) with 8mm tor steel @ 150 mm. centre to centre both ways including plastering and neat cement punning on top of the slab and making hooking arrangement on slab for lifting of the slab if require as well as jointing the connection with the inspection pit (450 x 450) covered with 50mm thick RCC slab (4:2:1) with stone chips and necessary reinforcement and connected with 100 mm dia PVC pipe laid over rammed earth and then covered the pipe properly with powder earth including supplying fitting fixing fibre glass pan P-tap & polythene pipe as per requirement to connect with the inspection pit complete with all respect as per direction of EIC.(ANNEXURE-II)	1	Item	7544.00	7544.00
TOTAL AMOUNT			Rs.		350000.36
Say			Rs.		350000.00
Add for Electrical Works (ANNEXURE-I)			Rs.		17858.00
TOTAL AMOUNT			Rs.		367858.00
(Rupees Three lakh Sixty seven thousand Eight hundred & Fifty eight only)					



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ESTIMATE FOR ELECTRICAL WORKS FOR ONE DWELLING UNIT UNDER RAY


(ANNEXURE-I)


SLNo	SOR	Item of works	Unit	Rate	Quantity	Amount
1	PWD/Vol-I (Aug 2008) A/1(b)/E-9	Supplying & fitting polythene pipe complete with fittings as necessary. Under ceiling /beam/bound with 22SWG GI wire inclusive S & Drawing 1x18 SWG GI wire as fish wire inside the pipe & fittings and providing 55 mm dia disc of MS sheet (20SWG) having colour paint at one face first ended at the load point end of the polythene pipe with fish wire (synchronizing with roof/beam casting work of building construction) 19 mm dia 3 mm thick polythene pipe	RM	39.00	25.00	975.00
2	PWD/Vol-I (Aug 2008) A/1(m)/E-17	Powerckt wiring supplying and drawing 1 : 1KV grade single core stranded FR PVC insulated & unseathed single core stranded Copper wire (Finolex make) 2 x 2.5 sqmm (PH & N) +1x1.5 sqmm (ECC) per laid polythene pipe and by the prelaid GI fish wire & making necessary connections as required.	RM	76.00	50.00	3800.00
3	PWD/Vol-I (Aug 2008) A/1/2 (a- i)/E-17	Concealed Distribution wiring in in 2x1.5 sqmm single core standard *FR* insulated and unseathed cop per wire Finolex make & 1x1.5 sq mm single core stranded PVC insulated and unseathed cop per (Finolex make) wire used as ECC in 19 mm bore 3 mm thk. polythene pipe complete with all accessries embedded in wall smooth run to light / fan/call bell point with pino key type switchb (6 Amps) (Anchor make) fixed on sheet metal (16 SWG) Switch Board with bakelite/ perspex (wall maching colour) Top cover (3 mm thick) flushed in wall including mending all good damages to original finish Average per point 6.00 mt.	points	828.00	10.00	8280.00
4	PWD/Vol-I (Aug 2008) A/4 (a- i)/E-18	Deistribution concealed wiring with 2x1.5 sq mm (PH & N) single core stranded FR PVC insulated & unsheathed single core sttranded 1.1 KV grade Copper Wire (finolex) & 1x1.5 sq mm (ECC) single core stranded (PH & N) 1.1 KV grade cu wire (finolex) & 1 x 1.5 sq mm single core stranded PVC insulated & unsheathed cu wire (finolex) used as ECC in 19 mm bore, 3 mm thick polythene pipe complete with all accessories embedded in wall 250 volt 5 amp 3 pin plug point including S & F 250 Volt 5 amp 3 pin flush type plug socket & piano key type swich (Anchor make) on existing switch board as mentioned sl. no.3	points	76.00	2.00	152.00


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Sl.No	SOR	Item of works	Unit	Rate	Quantity	Amount
5	PWD/Vol-I (Aug 2008) E-17, A 1-e	Supplying & drawing 1.1 KV grade single core stranded FR PVC insulated & unseathed single core stranded cu Wire 3x2.5 sq mm (finolex make) in the prelaidd polythene pipe & by the prelaidd GI fishwire & making necessary connection as required (CESC supply to consumer DP near to CESC & inside the room another DP near CESC & inside the room another DP of dwelling units)	RM	86.00	15.00	1290.00
Sl.No.	SOR	Item of works	Unit	Rate	Quantity	Amount
6	KMC 2008-09)A/(1/e) p/(h)	Supplying Delivery & instalation on wall of 30/32 amp DP MCB of Havel's make with enclosed box along with all its necessary 1 connection complete.(Anchor)	nos	808.00	2	1616.00
7	PWD/Vol-I (Aug 2008) 2(a) G-1	Earthing in soft soil with 50 mm dia GI pipe (TATA make Medium) 3.64 mm th. X 3.04 Mtr long and 1 x 4 SWG GI (hot dip) wire (4 m long) 13 mmdia x 80 mm long GI bolts, double nuts, double washer including S & F 15 mm dia GI protection (1 mtr long) to be filled with bitumen partly under the ground level & partly above GL driven to an average depth of 3.65 m below the GL & restoring surface duly rammed.	each	1715.00	1	1715.00
8	PWD/Vol-I (Aug 2008) 5(a-iv) G-3	Connecting the equipment to earth BUSbar inclusive S&F 10 SWG (Hot Dip) GI wire on wall /floor with a staples buried inside wall /floor as required & making connection to equipments with bolt, nut, washer, cable lugs etc. as required & mending good damages.	M	6.00	5	30.00
				TOTAL		17858.00
Rupees Seventeen Thousand Eight Hundred Fifty Eight Only						17858.00


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Detailed Estimate for Single Dwelling unit
Floor area 25.36 sqm Built up area 32.18 sqm

	C/L of main outer wall			125 mm Partition wall		Varandah C/L
	4.65			3.375		1.275
	0.8			1.15		0.9
	1.15			1.15	2.3	2.175
	3.45			2.187		
	1.15			1.9		
	1.7			1.387	5.474	
	3.375			11.149		
	1.275					
	2.825					
	3.125					
	23.5					
	X wall	1.25				
Sl.no.						
1	Earth work in excavation					
	250 mm wall					
	1 23.5	0.75	0.7	12.34		
	0.875	0.75	0.7	0.46		
	24.375			12.8	m ³	
	125 mm Wall					
	2.625		0.4	0.225	0.24	
	WC	0.4	0.4	0.225	0.04	
	Bath	0.65	0.4	0.225	0.06	
	5.474	0.75		0.225		
	4.724	0.4		0.225	0.43	
	Varanda	1.425	0.4	0.225	0.13	
					0.88	
	Step	0.5	0.9	0.075	0.034	
					13.715	m ³
2	Soling					
	24.375	0.75		18.281		
	11.45	0.4		4.58		
				22.861		
3	Polythene sheet					
	2.575	3.125		8.047		
	2.875	2.625		7.547		
	2	1.65		3.3		
	passage	0.625	2.375	1.484		
	Bath&WC	2.7	0.9	2.43		
	Varndah	1.025	0.6	0.615		
	step	0.9	0.5	0.45		
				23.873		
4	Jhama concrete					
		18.28	0.075	1.371		
		4.58	0.075	0.344		
		23.93	0.075	1.795		
				3.51		
5	Earth work in filling 1/5 excavation					
		13.715	5	2.743		
		23.48	0.375	8.805		
				11.548	m ³	

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6	B.W (6:1) in Foundation of plinth							
		23.5	0.625	14.6875				
		23.5	0.5	11.75				
		23.5	0.375	8.8125				
				35.25	0.15	5.288		
		23.5	0.25		0.525	3.084		
	X wall	0.938	0.625	0.586				
		1	0.5	0.5				
		1.063	0.375	0.399				
				1.485	0.15	0.223		
		1.125	0.25		0.525	0.148		
	125mm	3.125	0.25		0.525	0.41		
	Bath&WC	2	0.9	0.25	0.523	0.235		
	Kit	5.224	0.25		0.525	0.686		
	Vard	1.925	0.25		0.525	0.253		
	Steps		0.5	0.9	0.15	0.068		
			0.25	0.9	0.15	0.034		
						10.427	m	
7	DPC	23.5						
		1.125						
		24.625		0.25		6.156		
		3.125						
		1.8						
		5.224						
		10.149		0.125		1.269		
						7.425		
	Less	0.9	0.25	0.225				
		0.9	0.125	0.113				
	3	0.75	0.125	0.281				
						0.619		
						6.806	sqm	
8	BW in super structure (6:1)							
		23.5						
		1.125						
		24.625	2.75	0.25	16.93			
	Parapet	23.8	0.075	0.25	0.446			
						17.376		
	Less opens							
	1	0.9	2.1	1.89				
	4	0.9	0.9	3.24				
	1	0.75	0.9	0.675				
	3	0.75	0.75	1.688				
				7.493	0.25	1.873		
	Lintel							
	1	1.525	1.525					
	4	1.2	4.8					
	1	1.05	1.05					
			7.375	0.25	0.1	0.184		
	Woz							
	1	3.05	3.05	0.25	0.1	0.076		

					(-)	2.134			
	Net brick work						15.242	m ³	
9	125 th. Brick work (6:1)								
	room		3.125	2.6	8.125				
	kit		2.125	2.75	5.844				
			1.65	2.75	4.5375				
			1.45	2.65	3.8425				
	2		0.9	2.1	3.78				
						26.12875			
	Less opening								
	1	0.9	0.9						
	3	0.75	2.25						
			3.15	2.1	6.615				
	Lintel								
	1	1.3	1.3						
	1	1.025	1.025						
			2.325	0.1	0.2325				
					6.8475				
						19.28125			
	Parapet								
		23.5		0.15		3.525			
						22.806			
	passeege	0.75		0.55		0.4125			
						23.219	sqm		
10	Conc M-20								
	Roof slab								
	32.15	1.1475	31.003		0.1	3.1			
	Beam		3.625	0.25	0.15	0.136			
			2.575	0.25	0.1	0.064			
	Lintel						3.301		
	D1	1	1.525	1.525					
	W1	4	1.2	4.8					
	W2	1	1.05	1.05					
	WO2	1	3.05	3.05					
				10.425	0.25	0.1	0.261		
	D1	1	1.39	1.39					
	D2	1	1.025	1.025					
	D2	2	1.4	2.8					
	O2	1	0.875	0.875					
	D2	2		6.09	0.125	0.1	0.076		
	Chaja								
	W1	4	1.2	4.8					
	W2	1	1.03	1.03					
	D1	1	1.275	1.275					
	W02	1	3.05	3.05					
				10.155	0.3	0.075	0.228		
							3.866	m ³	
11	Reinforcement								
		3.866	0.80%	1	7850	0.243	MT		

12	Shuttering							
	31	23.5	1.125					
			24.63	0.25				
	31			6.156	24.844			
	Side beam	2	3.125	0.15	0.9375			
		2	2.325	0.1	0.465			
	side slab	1	25.3	0.1	2.53			
	Lintel	1	0.9	0.25	0.225			
		1	1.525	0.1	0.153			
		1	1.275	0.35	0.446			
		1	0.3	0.05	0.015			
						29.615	sqm	
	4W1	4	0.9	0.25	0.9			
		4	1.2	0.1	0.48			
		4	1.2	0.35	1.68			
	2	4	0.3	0.05	0.12			
	1W2	1	0.75	0.25	0.188			
		1	1.05	0.1	0.105			
		1	1.05	0.35	0.368			
	2	1	0.3	0.05	0.03			
	WO2	3	0.75	0.25	0.563			
	1	1	3.05	0.1	0.305			
		1	3.05	0.35	1.068			
	2	1	0.3	0.05	0.03			
	Lintel 125 Wall							
	D1	1	0.9	0.125	0.113			
		2	1.3	0.1	0.26			
	D2	2	0.75	0.125	0.188			
	2	2	1.15	0.1	0.46			
	D2	2	0.75	0.125	0.188			
		2	1.9	0.1	0.38			
						7.423		
						37.038	sqm	
13	Plaster (6:1)							
	Out side 15 mmth.							
		25.3	2.85	1.125	0.45			
					4.425	111.953	sqm	
	Inside 20 mm th.							
	2	2.7	3.125	2.75	32.038			
	2	2.875	2.625	2.75	30.25			
	2	2	1.65	2.75	20.075			
	2	2.075		2.75	11.413			
	Above lintel							
	1	0.75		0.65	0.488			
	Bath							
	2	0.9		2.75	4.95			
	WC							
	1	2.95		2.75	8.113			
	1	2.25		2.75	6.188			
	4	2.2		0.9	7.92			
	125 wall							

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	2	0.9		0.125	0.225			
						121.658		
	Open out side less							
	3	0.75		2.1	4.725			
					(-)	4.725		
						116.933	sqm	
	Celling Plaster				24.47			
	Less				1.14			
						23.33	Sqm	
14	Neat cement punning							
	Out side	Plinth						
		25.3	0.45			11.385	Sqm	11.385
	Inside		2.7	3.125				
			2	5.825	0.1	1.165	Sqm	
			2.875	2.625				
			2	5.5	0.1	1.1	Sqm	
	Kitchen		2	1.65				
			2	3.65	0.45	3.285	Sqm	
			1	1.65	0.45	0.743	Sqm	
			2	2.075	0.1	0.415	Sqm	
	Varanda			1.775	0.1	0.178	Sqm	
	step WC	1		3	0.45	1.35	Sqm	
	Bath			3.5	2	7	Sqm	
				0.75	0.1	0.075	Sqm	
	In side punning						15.31	15.31
	Total							26.695 Sqm
15	Art. Stone flooring							
	Floor area					25.37	sqm	
	Step	2	0.9	0.25		0.45		
	W1	4	0.9	0.1		0.36		
	W2	1	0.75	0.1		0.075		
	W3	3	0.75	0.1		0.225		
							26.48	Sqm
16	Ms Clamp for door & window							
	D1+D2	4		6		24		
	W1+W2	5		2		10		
							34 nos.	
17	Wood work in Door & window frame							
	D1	2	5.1	10.2				
	D2	2	4.95	9.9				
	W1	4	3.6	14.4				
	W2	1	3.3	3.3				
				37.8	0.075	0.075	0.213	m3
18	Z batten shutter							
	D1	2	0.775	2.025		3.139		
	D2	2	0.625	2.025		2.531		
	W1	4	0.775	0.775		2.403		
	W2	1	0.775	0.625		0.484		
							8.557	sqm
19	Iron Butt Hinges							

	D1+D2					12		
	W1	4	4			16		
	W2	1	4			4		
							32 nos.	
20	Iron socket bolt							
	Door			6				
	Window			5				
							11 nos.	
21	White wash							
	Inside+Ceiling Plaster- inside punning							
			116.933	23.33	15.31		124.953	sqm
22	Colour wash							
	Out side Plaster- out side punning							
			111.953	11.385			100.568	sqm
23	Priming on timber sutface							
	2	2	0.9	2.1		7.56		
	2	2	0.75	2.1		6.3		
	4	2	0.9	0.9		6.48		
	1	2	0.75	0.9		1.35		
							21.69	sqm
24	Painting best quality on wooden surface							
	same sl.no. 23						21.69	sqm
25	MS ornamental gril....10Kg-16 Kg							
	W1	4	0.75	0.75	2.25			
	W2	1	0.75	0.6	0.45			
					2.7			
					@12Kg/sqm		32.4	Kg
26	Priming on Steel sutface						2.7	sqm
27	Painting best quality on steel surface						2.7	sqm
	same sl.no. 24							
28	R.C.C. Shelf							
		1.75	0.5				0.875	sqm
29	Roof treatment with cow dang							
				32.18				
	Deduct	1.14	(varanda)	1.14				
	Cornice	25	0.125	3.125				
				27.915			27.915	sqm


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Cost Estimate for 2 Nos Leach Pit for single unit Dwelling Unit
P.W.D Schedule of Rates effect from 1st July 2014

(ANNEXURE-II)

SI No	Description of Items	Quantity	Unit	Rate	Amount
1	Earth work in excavation of foundation trenches or drains in all sorts of soil (including mixed soil but excluding or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches leveling dressing and ramming the bottom boiling out water aqs required complete. Depth of exavation not existing 1500mm P.No-1, I-2(a)	2.500	%Cu.M	12047.00	301.18
2	Cement concrete with graded jhama Khoa ballast (30 mm size) excluding shuttering. In ground floor and foundation (a) 6:3:1 proportion.	0.050	Cu.M	5803.06	290.15
3	Brick work with 1st class bricks in cement mortar (6 :1). a) In foundation & Plinth P.no-29, I-21(a)	0.010	Cu.M	5719.00	57.19
4	125 mm. thick brick work with 1st class bricks in cement mortar (4 : 1) G.Floor	3.000	SqM	714.00	2,142.00
5	Controlled Cement concrete with well graded stone chips (20 - mm nominal size) excluding shuttering and reinforcement with complete design of concrete as per I : 456 and relevant special publications submission of job mix formula after preliminary mix design after testing of concrete cubes as per direction of Engineer-in charge Consumption of cement will not be less than 300 Kg of cement -with Super plasticiser per cubic meter of controlled concrete but actual consumption will be determined on- the basis of preliminary test and job mix formula. -I n ground floor and foundation. [Using concrete mixture] M 20 Grade P.no-12, I-6(a)	0.145	Cu.M	6871.54	996.37
6	Reinforcemnet for reinforced concrete work in all sorts of structures incl. Distribution bars, stirrups, binder etc. incl. supply of rods, initial straightening & removal of loose rust (if necessary), cutting to requisite length, hooking etc P.no-27, I-15(a)(i)	0.010	M.T	68508.00	685.08
7	Supplying, fitting and fixing UPVC down pipes A type and fittings conforming to IS 13592-1992 with necessary clamps nails including making holes in walls, etc. and cutting trenches in any soil, through masonry concrete structure etc. if necessary and mending good damages including jointing with jointing materials (Spun yarn, valamoid / bitumen / M. seal etc.) complete.				
	i) UPVC Pipe 110 mm dia P.no-173, I-	4.000	Mtr	291.00	1,164.00
	ii) UPVC Bend 87.5 degree 110 mm dia P.no-174, I-21(B)C(ii)	2.000	Each	162.00	324.00
8	Jaffri brick work 125 mm. thick with 1st class bricks in cement mortar (4:1) including 12 mm. thick cement plaster (4:1) in all faces in ground floor P.no-32, I-35	2.000	SqM	792.00	1,584.00
Cost of 2 no leach pit					7,543.97
Total=					7,544.00

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Rate Analysis
Brick Work 4:1 in foundation & plinth

Step - 1	Schedule Rate	Rs	6068.00(A)
Step - 2	Deduct cost of cement=(Qty of cement)x(lissue rate of cement vide item no-1 column-4 Table1-1 of Annexure-1 0.055x8100	Rs	672.30(B)
Step - 3	Add cost of cement supplied by cost contractor including 10% proffite = 1.1x(Qanty of cement)x(Basik price of cement vide item no -1 column- 5 table-1-1 of annexure -1 1.1x.055x7364	Rs	672.33 (C.)
	Note;- Quantity of cement shall be same as step-2 Final Rate of item = Rs A - Rs B + Rs C = Rs D	Rs	6068.03 (D)

Rate Analysis
Ordinary Mix Concreate 1:1.5:3

Step - 1	Schedule Rate	Rs	6802.63 (A)
Step - 2	Deduct cost of cement=(Qty of cement)x(lissue rate of cement vide item no-1 column-4 Table 1-1 of Annexure-1 0.286x8100	Rs	2316.6 (B)
Step - 3	Add cost of cement supplied by cost contractor including 10% proffite = 1.1x(Qanty of cement)x(Basik price of cement vide item no -1 column- 5 table-1-1 of annexure -1 1.1x.286x7364	Rs	2316.71 (C.)
	Note;- Quantity of cement shall be same as step-2 Final Rate of item = Rs A - Rs B + Rs C = Rs D	Rs	6802.74 (D)

Rate Analysis
P.C.C 1:3:6 With Jhama Khoa

Step - 1	Schedule Rate	Rs	5803.00 (A)
Step - 2	Deduct cost of cement=(Qty of cement)x(lissue rate of cement vide item no-1 column-4 Table 1-1 of Annexure-1 0.16x8100	Rs	1296.00(B)
Step - 3	Add cost of cement supplied by cost contractor including 10% proffite = 1.1x(Qanty of cement)x(Basik price of cement vide item no -1 column- 5 table-1-1 of annexure -1 1.1x.16x7364	Rs	1296.06 (C.)
	Note;- Quantity of cement shall be same as step-2 Final Rate of item = Rs A - Rs B + Rs C = Rs D	Rs	5803.06 (D)


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Annexure - II

Format - A

(Format for Rate Analysis of Cement Concrete Item)

Item 7. Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding Consumption of Stone aggregate (Page B-59) 20 mm = 0.573 Cum

10 mm = 0.287 Cum
10 Km

Distance of site considered =

Steps	Quantity	Unit	Rate	Amount
Step - 1 Rate of item as per relevant section of this Schedule A =	1.00	CUM	5389.00	5389.00
Step - 2 Add cost of stone aggregate of different grading as per consumption required for one cum of concrete.				
(As per table:T-1)				
Station : kalyani				
20mm Nominal Size:	0.573	CUM	1463.00	838.30
10mm Nominal Size:	0.287	CUM	1296.00	371.95
Total B =				1210.25
Step - 3 Add cost of carriage of stone aggregate as per consumption required for one cum of concrete.				
(As per table:T-2)				
20mm Nominal Size:	0.573	CUM	178.50	102.28
10mm Nominal Size:	0.287	CUM	178.50	51.23
Total C =				153.51
Step - 4 Add cost for loading and unloading of stone aggregate				
(As per table:T-3)				
20mm Nominal Size:	0.573	CUM	58.00	33.23
10mm Nominal Size:	0.287	CUM	58.00	16.65
Total D =				49.88
Final Rate of Item = [Rs. A - Rs.B + Rs.C + Rs.D] = Rs.				6802.64


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ESTIMATE FOR CONSTRUCTION OF CONCRETE ROAD 2.5 METRE WIDE OF BARUIPUR MUNICIPALITY

Pradhan Mantri Awas Yojana Housing For All (Urban)

PWD BUILDING SCHEDULE 2014

Sl No	Description of Items	Length	Breadth	Depth	Quantity	Unit	Rate	Amount
1	Earth work in excavation of foundation trenches or drains in all sorts of soil (including mixed soil but excluding or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches leveling dressing and ramming the bottom boiling out water aqs required complete . Depth of exavation not existing 1500mm P.No-1, I-2(a)	1.00	2.5	0.400	1.000	%Cu.M	12047.00	120.47
2	Filling foundation or plinth by silver sand in layer not exceeding 150 mm. as directed and consolidating same by through saturation with water ramming complete. Including the cost of supply of sand. (a) by fine sand P.No-2, I-4(B)	1.00	2.5	0.200	0.500	%Cu.M	110422.00	552.11
3	Single brick flat soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with powdered earth or local sand P.no-11, I-1	1.00	2.5		2.500	Sq.M	377.00	942.50
4	Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, in ground floor as per relevant IS codes P.no-24, I-10(a)	1.00	2.5	0.125	0.313	Cu.M	6802.74	2,125.86
5	Brick edging 75 mm. wide with picked jhama bricks, laid true to line and level including cutting necessary trench in sopil or in hard metalld surface, laying the bricks and repacking the trench (on both sides of the edging) with spoils and ramming the same throughly, complete as per direction. (b) Brick-on-end edging (250 mm) depth. P.No-189, I-3(b)	2.00			2.000	%Mtr	9392.00	187.84
6	Removal of rubbish, earth etc. from the working site and disposal of the same beyond the compound in conformity with the Municipal /Corporation Rules for such disposal, loading into truck and cleaning the site in all respect as per direction of Engineer - in - Charge P.no-9, I-13	1.00	2.500	0.400	1.000	Cu.M	168.00	168.00
Toatl=								4,096.78
Total=								4,097.00

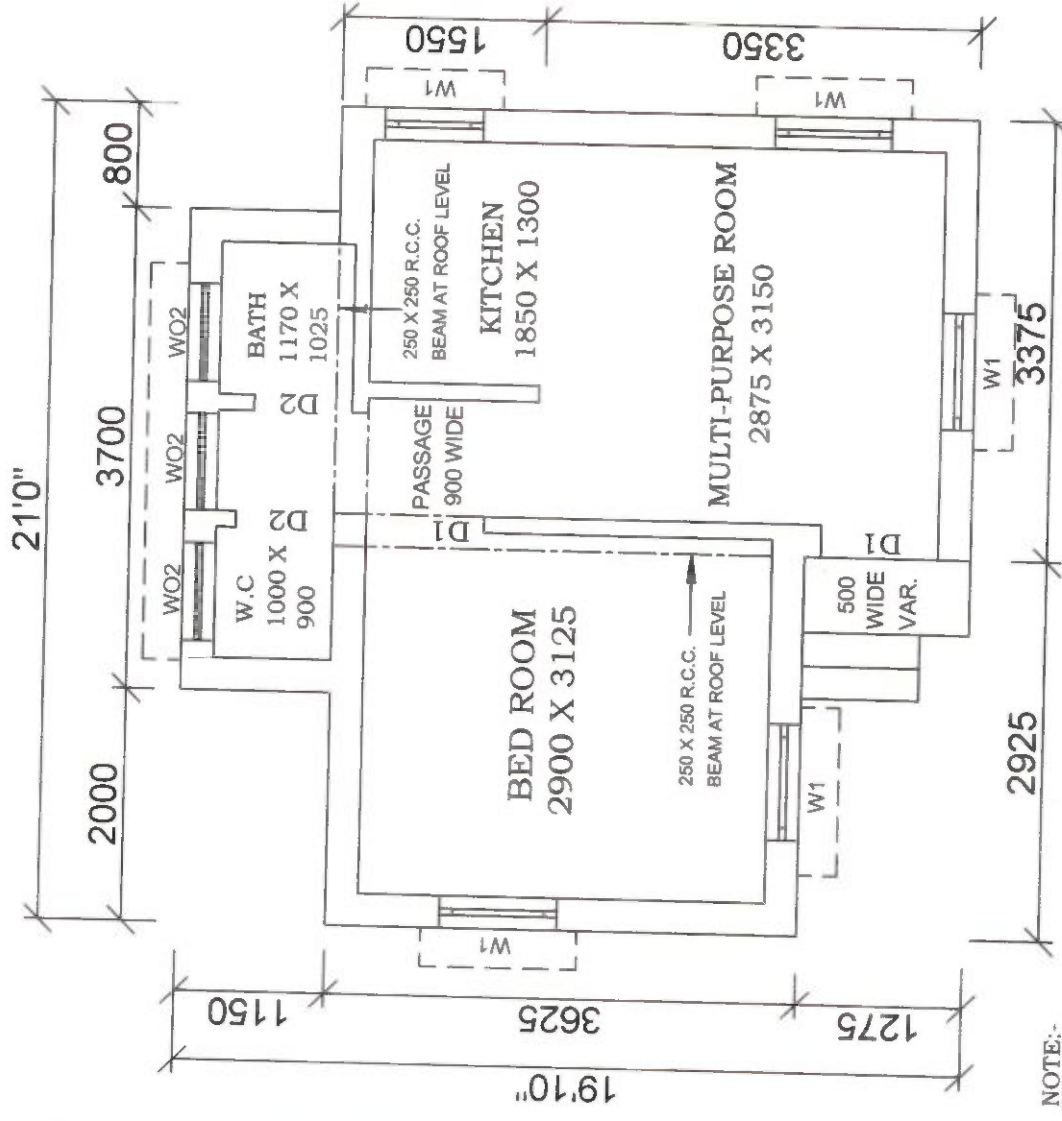

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ESTIMATE FOR CONSTRUCTION OF SURFACE DRAIN (450X600)								
PWD BUILDING SCHEDULE 2014								
Sl No	Description of Items	Length	Breadth	Depth	Quantity	Unit	Rate	Amount
1	Earth work in excavation of foundation trenches or drains in all sorts of soil (including mixed soil but excluding or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches leveling dressing and ramming the bottom boiling out water as required complete. Depth of excavation not existing 1500mm P.No-1, I-2(a)	1.00	1.1	0.775	0.853	%Cu.M	12047.00	102.70
2	Single brick flat soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with powdered earth or local sand P.no-11, I-1	1.00	1.1		1.100	Sq.M	377.00	414.70
3	Cement concrete with graded jhama Khoa ballast (30 mm size) excluding shuttering. In ground floor and foundation (a) 6:3:1 proportion.	1.00	1.1	0.100	0.110	Cu.M	5803.06	638.34
4	Brick work with 1st class bricks in cement mortar (4 :1). a) In foundation & Plinth P.no-29, I-21(a)	1.00	0.25	1.200	0.300	Cu.M	6068.00	1,820.40
5	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints or roughening of concrete surface including throating, nosing and drip course where necessary. (Gr.floor). i) With 4:1 cement mortar. a) 20 mm. Thick plaster. P.no-151, I-2(a)	1.00	1.7		1.700	Sq.M	206.00	350.20
6	Neat cement punning above 1.5 mm thick in wall, dado, windowsills, floor, drain etc. P.no-152, I-8	1.00	1.700		1.700	Sq.M	38.00	64.60
7	Artificial stone in floor dado staircase etc. with cement concrete 1:2:4 with stone chips laid in pannels as directed with topping made with ordinary or white cement (as measured) and marble dust in proportion (2:1) including smooth finishing and round P.no-40, I-3(ii)	1.00	0.450		0.450	Sq.M	303.00	136.35
8	Removal of rubbish, earth etc. from the working site and disposal of the same beyond the compound in conformity with the Municipal /Corporation Rules for such disposal. loading into truck and cleaning the site in all respect as per direction of Engineer - in -Charge P.no-9, I-13	1.00	0.950	0.775	0.7363	Cu.M	168.00	123.69
Total=								3,650.98
Total=								3,651.00


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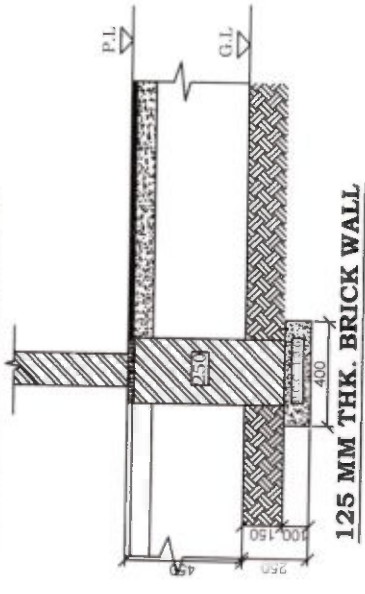
NOTE:-

1. ALL WINDOW OPENINGS (W1&W2) WILL BE PROVIDED WITH Z-BATTEN SHUTTERS.
2. ALL DOORS (D1&D2) - 25TH Z-BATTEN SHUTTERS, SINGLE LEAF.
3. W2 - OPENING PROVIDED WITH R.C.C. JALLI.
4. PLINTH HEIGHT - 450 TH.
5. CEILING HEIGHT - 2750 TH.
6. MAIN WALL - 250 TH.
7. PARTITION WALL - 125 TH.
8. ROOF SLAB, BEAM, LINTEL, ETC. WITH REINFORCED CEMENT CONCRETE M20 GRADE.
9. FLOOR OF VERANDAH, WC, BATH, & KITCHEN ROOM TO BE KEPT 17 MM BELOW THE FLOOR LEVEL OF ROOM & PASSAGE.
10. 100 MM TH. PIECE LINTEL OVER OPENING HAVE BEEN PROVIDED.
11. ALL DIMENSION ARE IN MM.

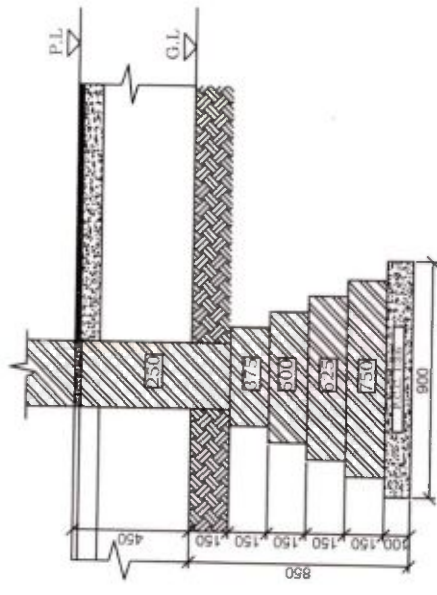
DOORS & WINDOWS SCHEDULE		
MARKING	DIMENSION	
W1	900 X 900	
W2	750 X 900	
WO2	750 X 750	
D1	900 X 2100	
D2	750 X 2100	

FLOOR AREA - 25.77 SQM.
BUILT UP AREA - 32.58 SQM.

FOUNDATION DETAILS



125 MM THK. BRICK WALL



250 MM THK. BRICK WALL

PRADHAN MANTRI AWAS YOJANA
HOUSING FOR ALL (URBAN)

OFFICE OF THE CHIEF ENGINEER
MUNICIPAL ENGINEERING DIRECTORATE
GOVT. OF WEST BENGAL

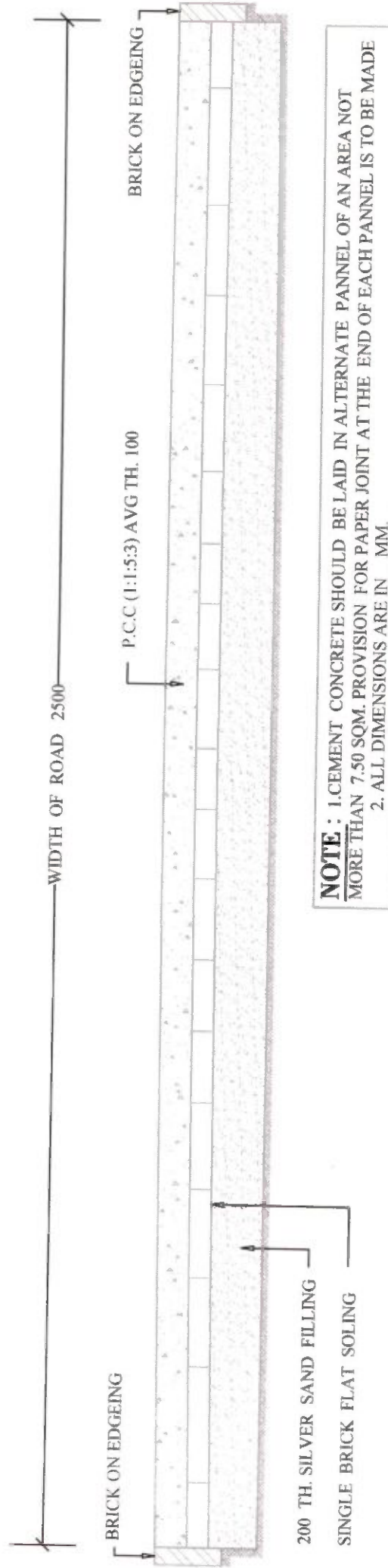
DWG. NO. 150 SCALE :- 1:50 & 1:25

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Baruipur Municipality

BARUIPUR MUNICIPALITY

Chairman
Baruipur Municipality

**BARUIPUR MUNICIPALITY
BARUIPUR, SOUTH 24 PARGANAS**



NOTE : 1.CEMENT CONCRETE SHOULD BE LAID IN ALTERNATE PANNEL OF AN AREA NOT MORE THAN 7.50 SQM. PROVISION FOR PAPER JOINT AT THE END OF EACH PANNEL IS TO BE MADE
2. ALL DIMENSIONS ARE IN MM.

TYPICAL CROSS SECTION OF CEMENT CONCRETE ROAD

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**PRADHAN MANTRI AWAS YOJANA
HOUSING FOR ALL (URBAN)**

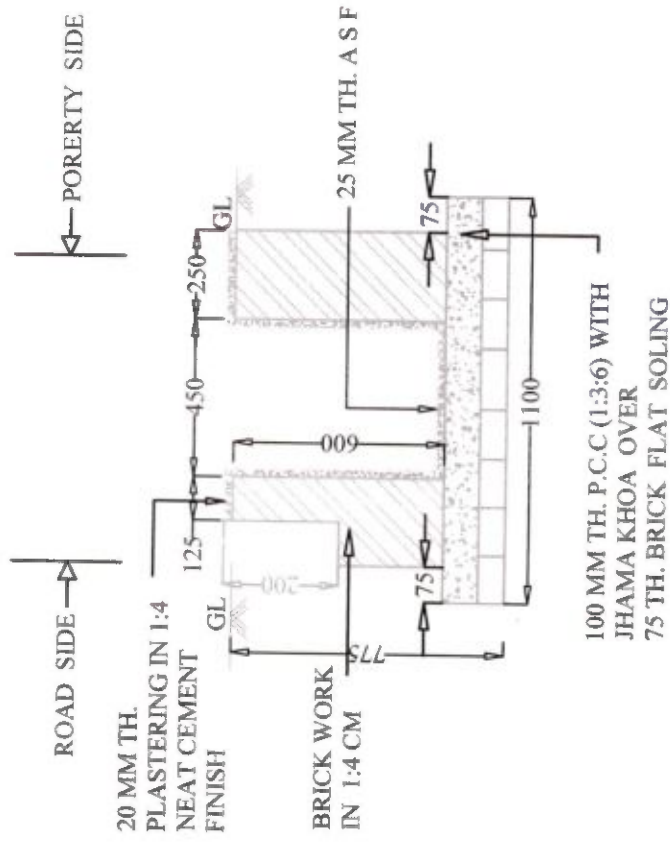
**OFFICE OF THE CHIEF ENGINEER
MUNICIPAL ENGINEERING DIRECTORATE
GOVT. OF WEST BENGAL**

DWG. NO.

BARUIPUR MUNICIPALITY

SOUTH 24 PARGANAS

CROSS SECTION OF DRAIN (450 x 600) (SCALE - 1:50)

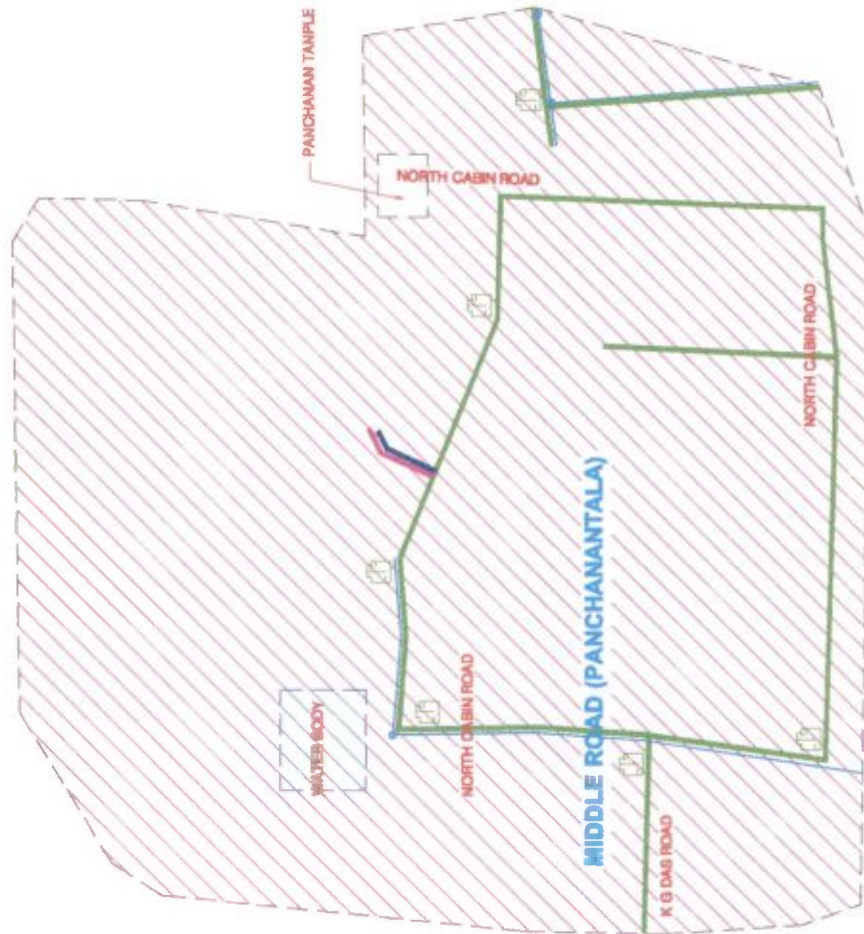


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Sub - Assistant Engineer
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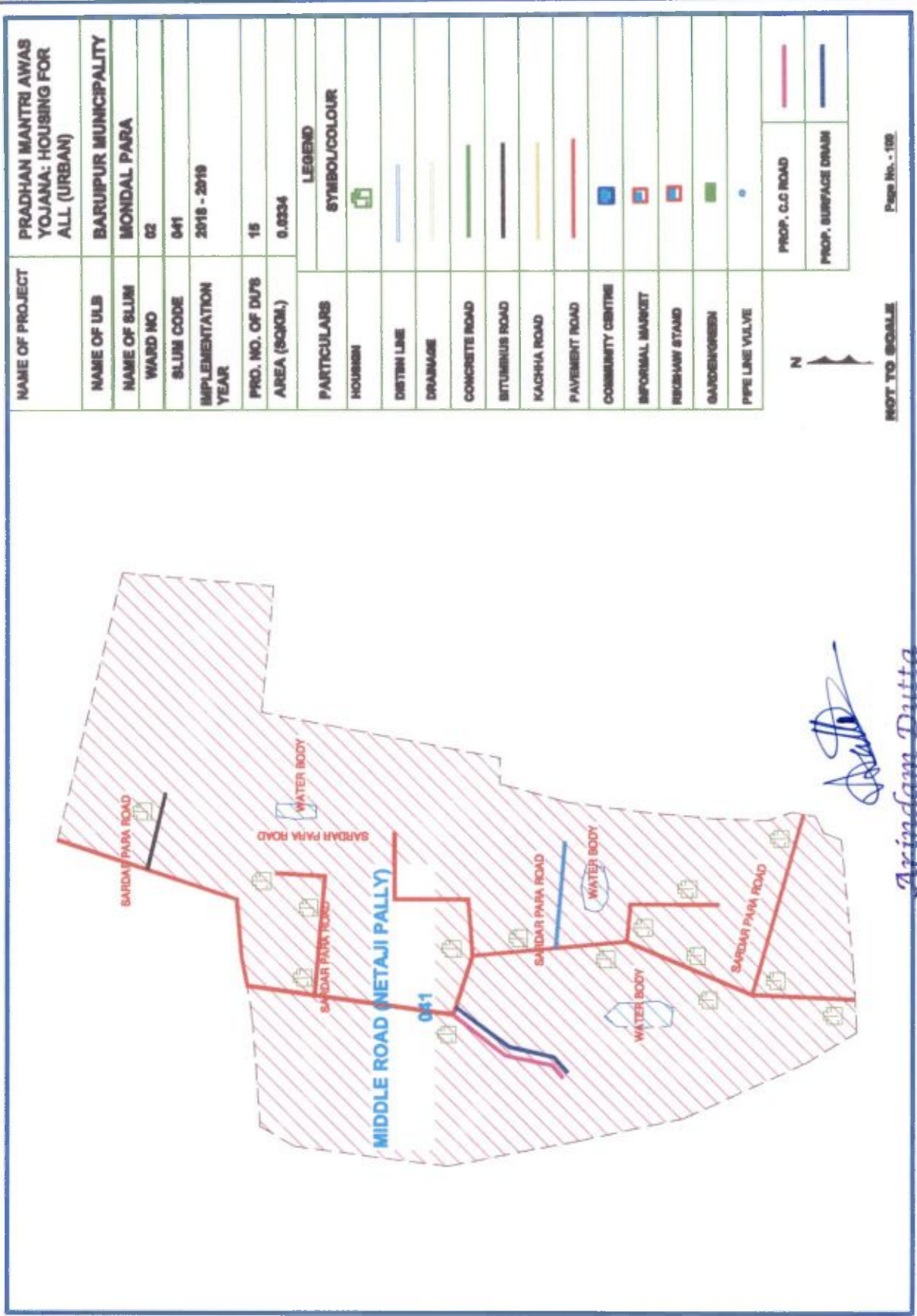


NAME OF PROJECT	PRADHAN MANTRI AWAS YOJANA: HOUSING FOR ALL (URBAN)			
NAME OF ULB	BARUEPUR MUNICIPALITY			
NAME OF SLIM	MIDDLE ROAD			
WARD NO	01			
SLIM CODE	003			
IMPLEMENTATION YEAR	2018 - 2019			
PRO. NO. OF DWG	6			
AREA (SQ.M)	0.0513			
PARTICULARS	LEGEND			
HOUSEHOLD	SYMBOL/COLOUR			
EXISTING LINE				
DRAINAGE				
CONCRETE ROAD				
BITUMENUS ROAD				
KACHHA ROAD				
PAVEMENT ROAD				
COMMUNITY CENTRE				
INFORMAL MARKET				
VEHICULAR STAND				
GARDEN/WATER				
PIPE LINE VALVE				
		PROP. OLD ROAD		
		PROP. SURFACE DRAIN		



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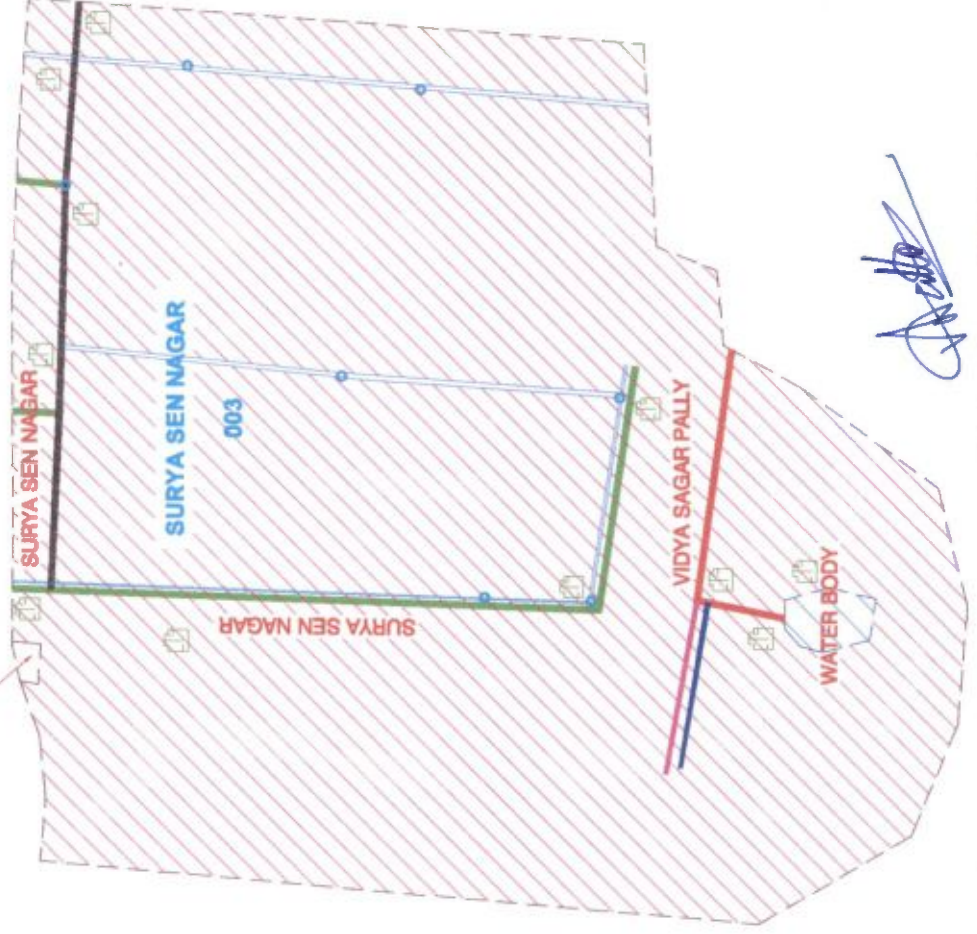
NAME OF PROJECT	PRADHAN MANTRI AWAS YOJANA: HOUSING FOR ALL (URBAN)	
NAME OF ULB	BARUIPUR MUNICIPALITY	
NAME OF SLUM	MONDAL PARA	
WARD NO	02	
SLUM CODE	041	
IMPLEMENTATION YEAR	2018 - 2019	
PRO. NO. OF DUTS	15	
AREA (SQKM.)	0.0334	
PARTICULARS	LEGEND	SYMBOL/COLOUR
HOUSE		
DISTIN LINE		
DRAINAGE		
CONCRETE ROAD		
BITUMENUS ROAD		
KACHHA ROAD		
PAVEMENT ROAD		
COMMUNITY CENTRE		
INFORMAL MARKET		
NEIGHAW STAND		
GARDEN/GREEN		
PIPE LINE VALVE		
	PROP. G.C ROAD	
	PROP. SURFACE DRAIN	

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BaruiPUR Municipality

YOUNG STAR CLUB



NAME OF PROJECT	PRADHAN MANTRI AWAS YOJANA: HOUSING FOR ALL (URBAN)		
NAME OF ULB	BARUPOUR MUNICIPALITY		
NAME OF SLUM	SURYA SEN NAGAR		
WARD NO	02		
SLUM CODE	003		
IMPLEMENTATION YEAR	2018 - 2019		
PRO. NO. OF DUWS	11		
AREA (BOKOL)	0.0279		
PARTICULARS	LEGEND	SYMBOL/COLOUR	
HOUSE			
EXISTING LANE			
DRAINAGE			
CONCRETE ROAD			
BITUMENUS ROAD			
KACHHA ROAD			
PAVEMENT ROAD			
COMMUNITY CENTRE			
FORMAL MARKET			
REGULATED STAND			
GARDEN/STAND			
PIPE LINE VALVE			
		PROP. G.C. ROAD	
		PROP. SURFACE DRAIN	



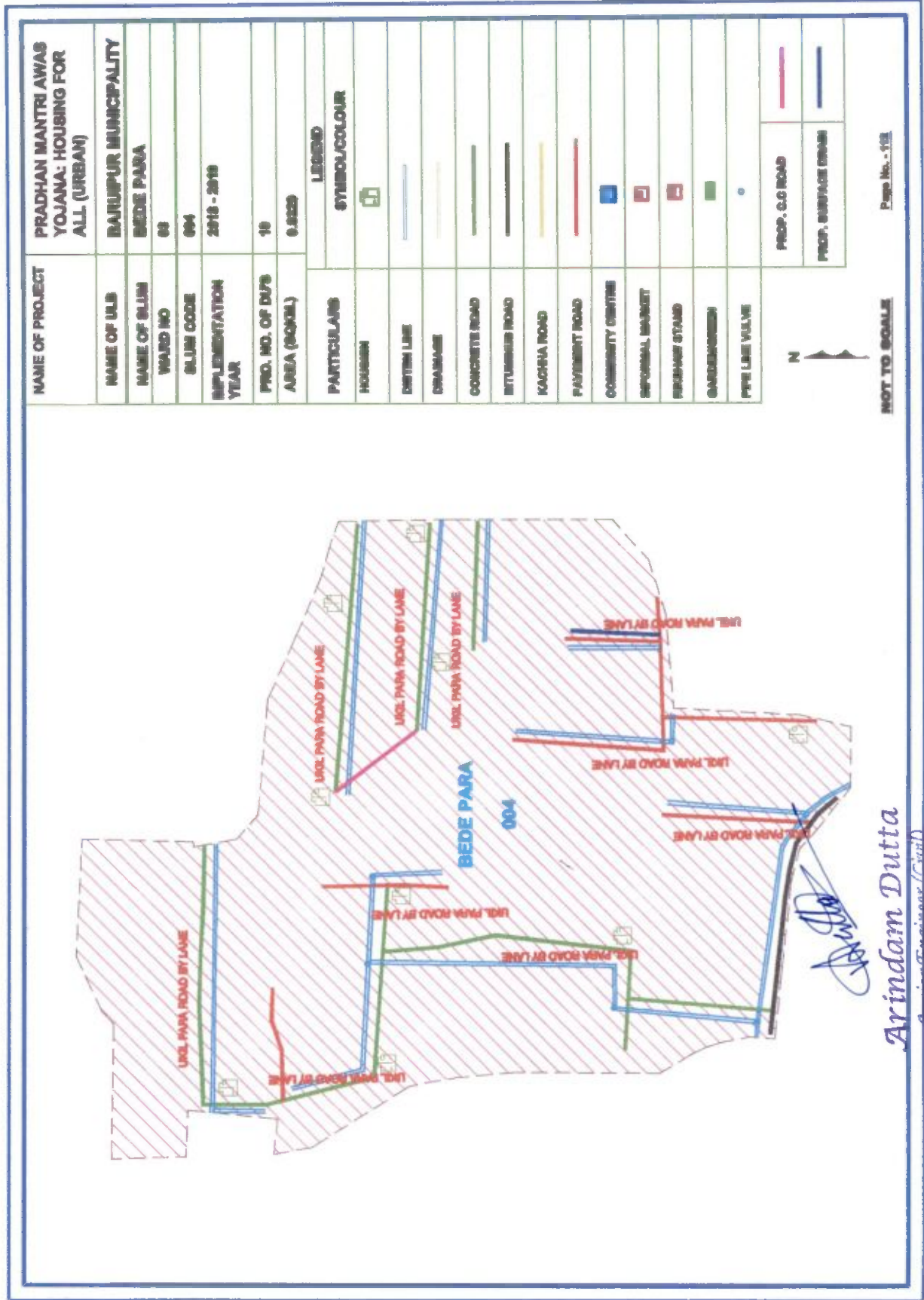
NAME OF PROJECT	PRADHAN MANTRI AWAS YOJANA: HOUSING FOR ALL (URBAN)
NAME OF ULB	BARUPUR MUNICIPALITY
NAME OF SLUM	SHAHJAHAN ROAD
WARD NO	05
SLUM CODE	005
IMPLEMENTATION YEAR	2019 - 2019
PRO. NO. OF DUTS	0
AREA (SQ.M)	0.0000
PARTICULARS	LEGEND
HOUSING	SYMBOL COLOUR
DRAIN LINE	
DRAINAGE	
CONCRETE ROAD	
BITUMENUS ROAD	
KACHHA ROAD	
PAVEMENT ROAD	
COMMUNITY CENTRE	
INFORMAL MARKET	
ROADWAY STAND	
SARANGHARIN	
PIPE LINE VALVE	
	PROP. G.D ROAD
	PROP. SURFACE DRAIN

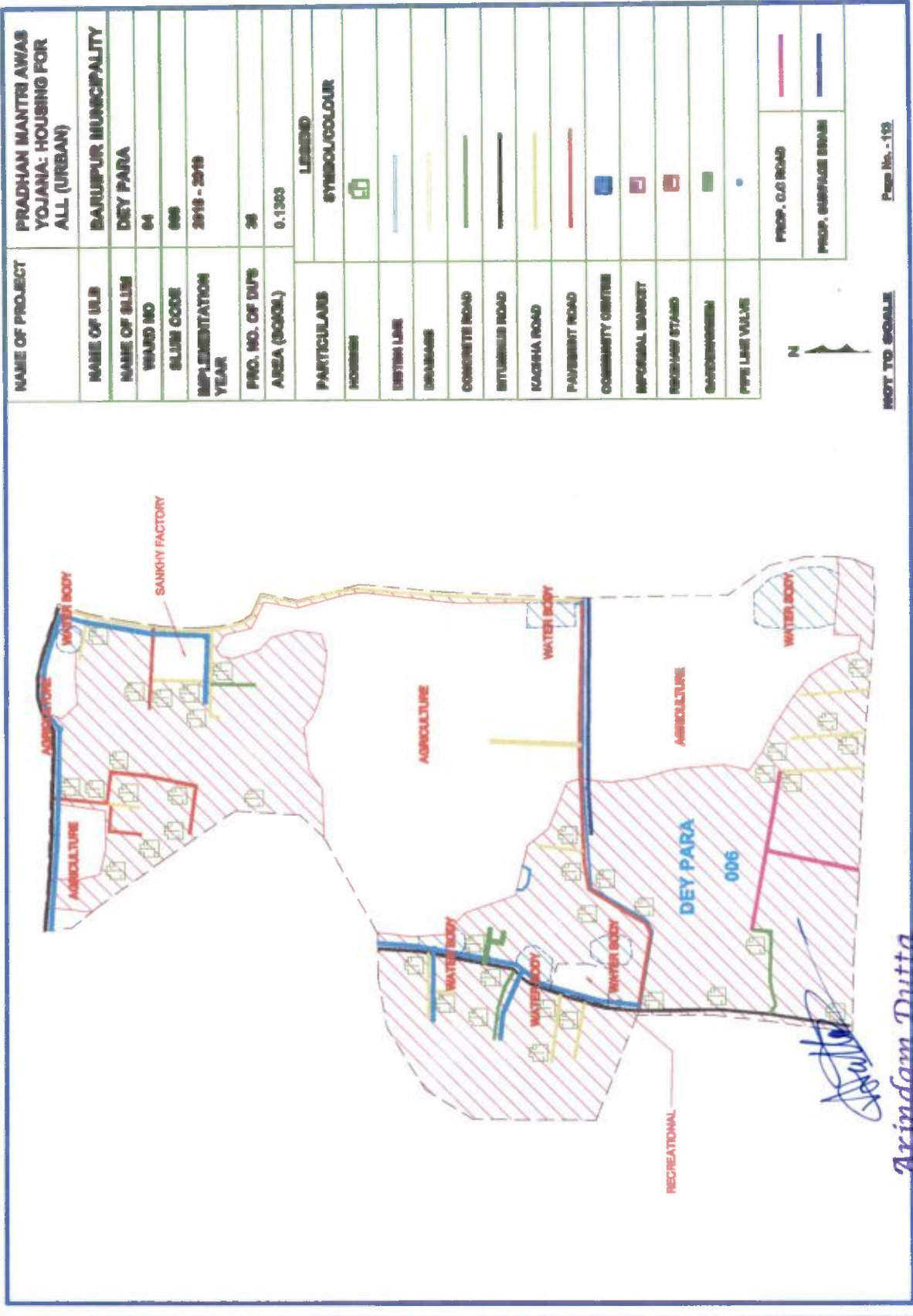
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NAME OF PROJECT		PRADHAN MANTRI AWAS YOJANA: HOUSING FOR ALL (URBAN)	
NAME OF URB	NAME OF SLUM	BARUPUR MUNICIPALITY	DEO PARA
WARD NO	SLUM CODE	04	006
IMPLEMENTATION YEAR	PRO. NO. OF DUP'S	2018 - 2019	36
AREA (BOGOL)	AREA (BOGOL)	0.1300	0.1300
PARTICULARS		LEGEND	
ROADS		SYMBOL/COLOUR	
EXISTING ROAD		[Symbol]	
DRAINAGE		[Symbol]	
CONCRETE ROAD		[Symbol]	
BITUMEN ROAD		[Symbol]	
KACHHA ROAD		[Symbol]	
PAVEMENT ROAD		[Symbol]	
COMMUNITY CENTRE		[Symbol]	
INFORMAL MARKET		[Symbol]	
RECREATION STADIUM		[Symbol]	
GARDENING		[Symbol]	
PIPE LINE VALUE		[Symbol]	
		PROP. G.O. ROAD	
		PROP. SURFACE DRAIN	

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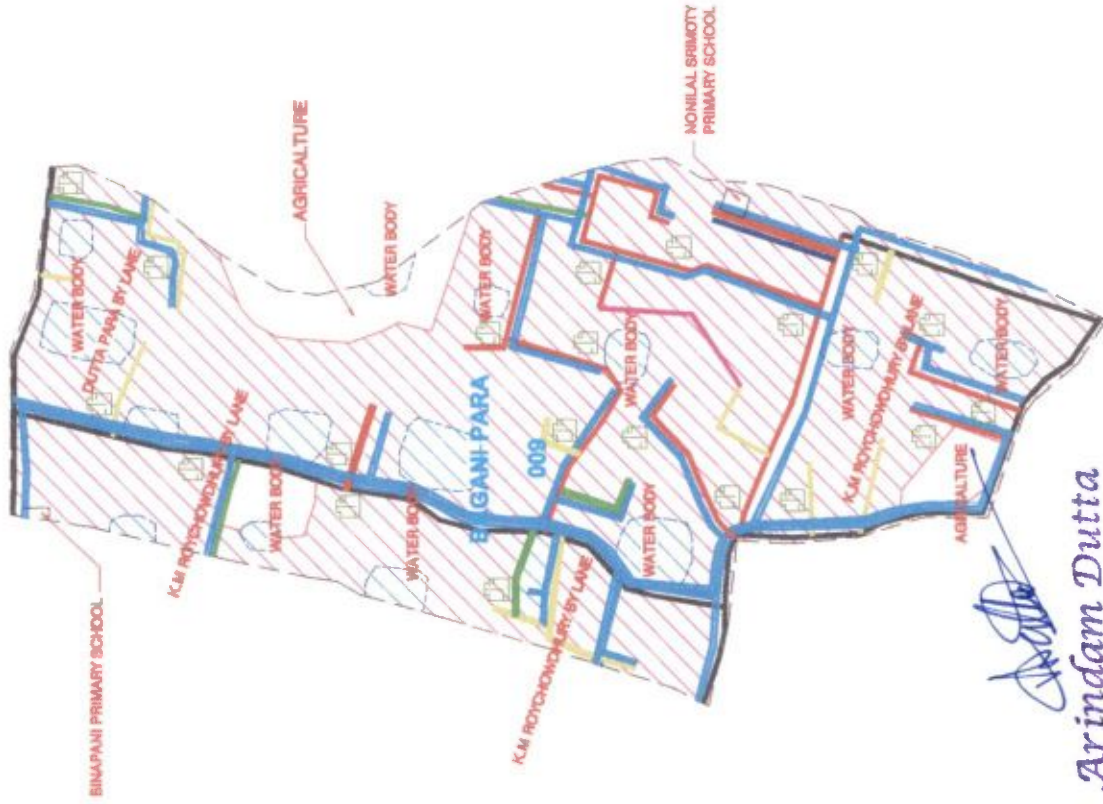
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PRADHAN MANTRI AWAS YOJANA: HOUSING FOR ALL (URBAN)	
NAME OF PROJECT	BARUPUR MUNICIPALITY
NAME OF ULB	BAGANI PARA
NAME OF SLUM	06
WARD NO	007
SLUM CODE	2018 - 2019
IMPLEMENTATION YEAR	
PRD. NO. OF DUB	20
AREA (BOKIL)	0.0433
PARTICULARS	LEGEND
HOUSE	SYMBOL/COLOUR
ENTRANCE LINE	
DRAINAGE	
CONCRETE ROAD	
BITUMENUS ROAD	
KACHHA ROAD	
PAVEMENT ROAD	
COMMUNITY CENTRE	
INFORMAL MARKET	
STANDSTAND	
GARDEN	
PPE LINE VALVE	
	PROP. C.D ROAD
	PROP. SURFACE ROAD

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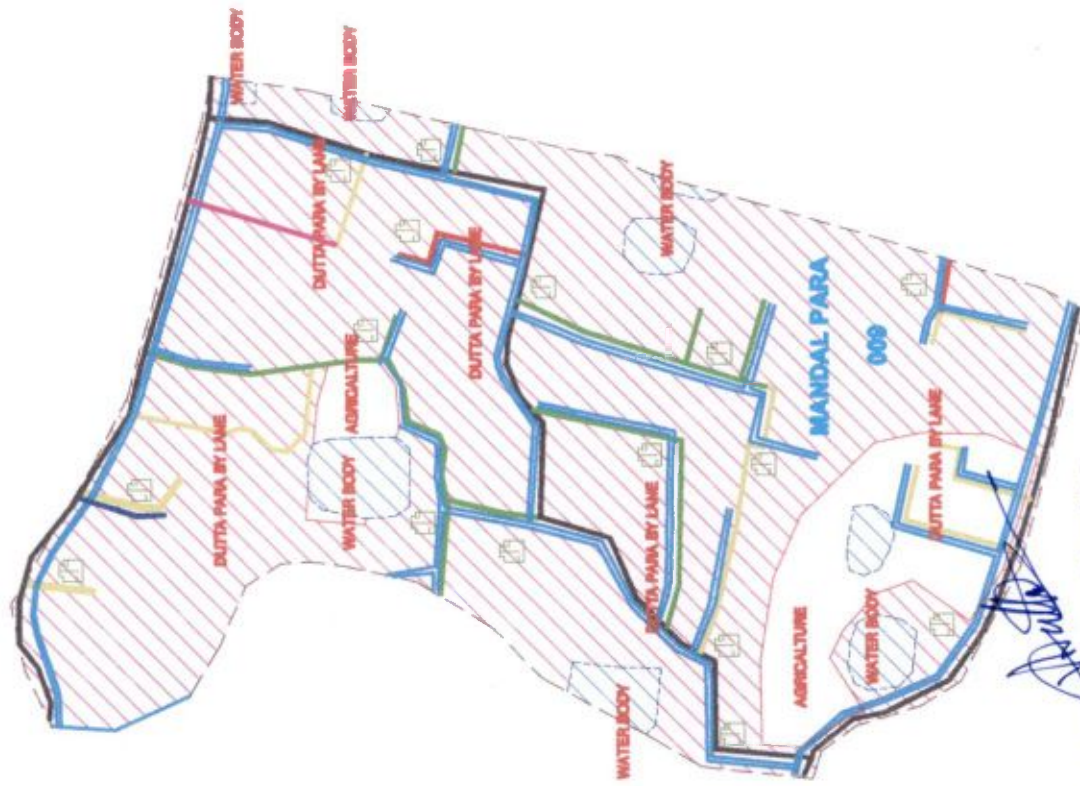
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NAME OF PROJECT	PRADHAN MANTRI AWAS YOJANA: HOUSING FOR ALL (URBAN)	
NAME OF ULB	BARUIPUR MUNICIPALITY	
NAME OF SLIM	KHAN PARA	
WAJID NO	08	
SLIM CODE	008	
IMPLEMENTATION YEAR	2018 - 2019	
PRO. NO. OF DUTS	18	
AREA (BOKOL)	0.8250	
PARTICULARS	LEGEND	
HOUSE	SYMBOL/COLOUR	
EXISTING LANE		
DRAINAGE		
CONCRETE ROAD		
BITUMENS ROAD		
KACHHA ROAD		
PAVEMENT ROAD		
COMMUNITY CENTRE		
REGIONAL MARKET		
POSHAW STAND		
BARBERSHOP		
PIPE LINE VALVE		
	PROP. O.G ROAD	
	PROP. SURFACE DRAIN	
NOT TO SCALE		PROP. No. - 1/18



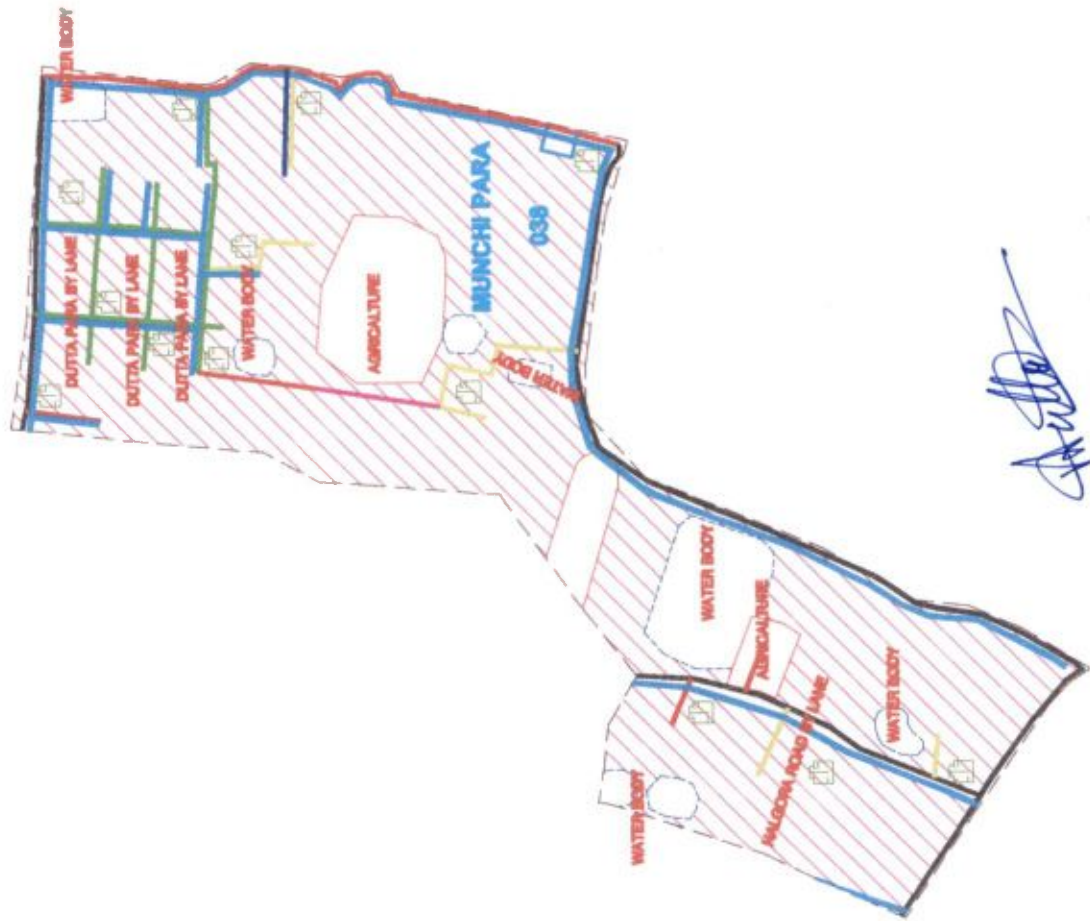
NAME OF PROJECT		PRADHAN MANTRI AWAS YOJANA: HOUSING FOR ALL (URBAN)
NAME OF ULB	BARUPUR MUNICIPALITY	
NAME OF SLIM	MANDAL PARA	
WARD NO	06	
SLIM CODE	008	
IMPLEMENTATION YEAR	2018 - 2019	
PRO. NO. OF DUTS	18	
AREA (SQ.M)	0.0000	
PARTICULARS	LEGEND	SYMBOL/COLOUR
HOUSE		
EXISTING LAKE		
DRAINAGE		
CONCRETE ROAD		
BITUMEN ROAD		
KACHHA ROAD		
PAVEMENT ROAD		
COMMUNITY CENTRE		
FORMAL MARKET		
POORMAN STAND		
GARDEN/GRASS		
PETE LINE VALVE		
	PROP. G.O ROAD	
	PROP. SURFACE DRAIN	



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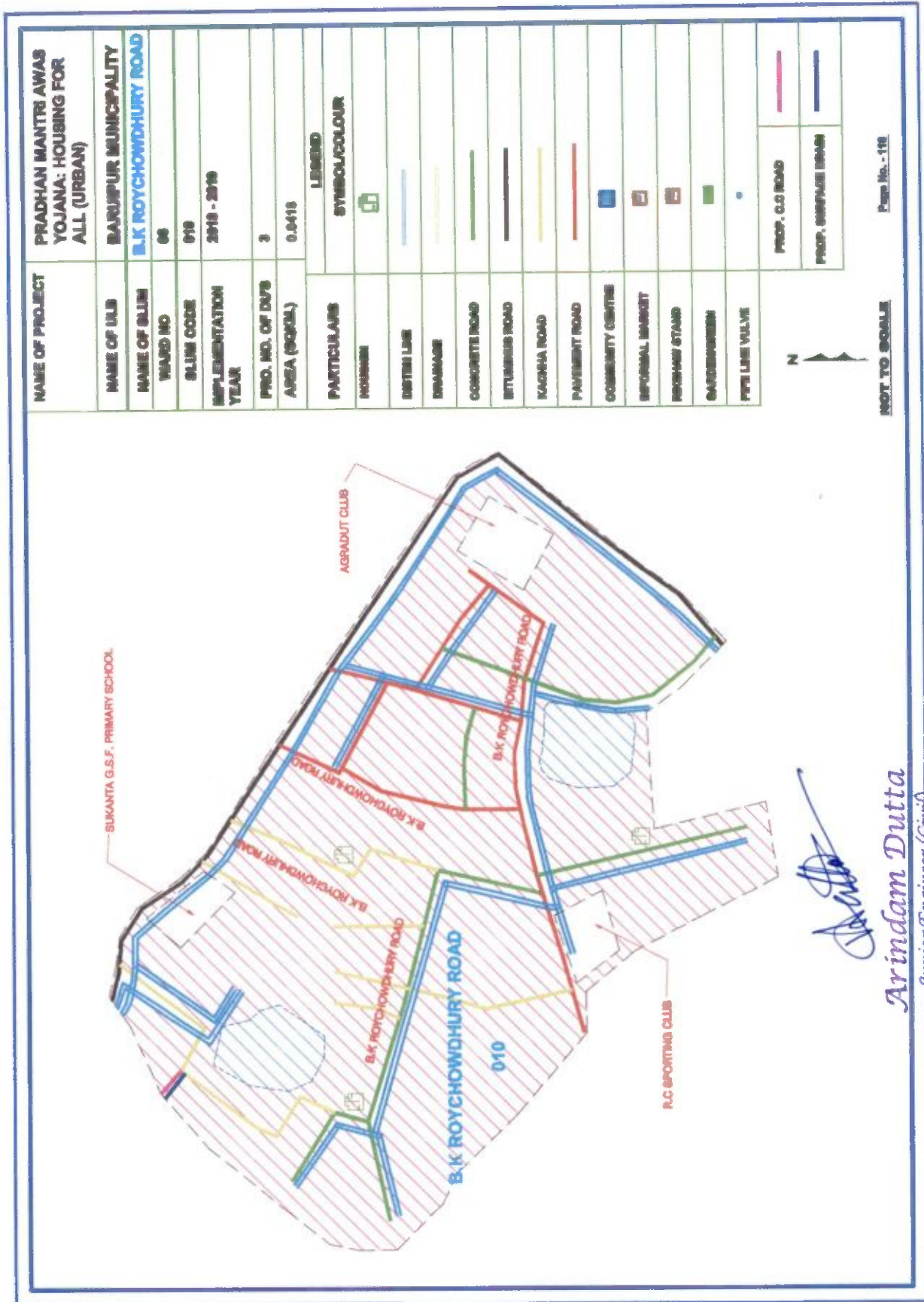
NAME OF PROJECT	PRADHAN MANTRI AWAS YOJANA: HOUSING FOR ALL (URBAN)	
NAME OF ULB	BARPUKUR MUNICIPALITY	
NAME OF SLIM	MUNCHI PARA	
WARD NO	04	
SLIM CODE	038	
IMPLEMENTATION YEAR	2018 - 2019	
PRO. NO. OF DUYS	13	
AREA (SQKM.)	0.0070	
PARTICULARS	LEGEND	
HOUSE	SYMBOL/COLOUR	
WATER LINE		
DRAINAGE		
CONCRETE ROAD		
BITUMENUS ROAD		
KACHHA ROAD		
PAVEMENT ROAD		
COMMUNITY CENTRE		
INFORMAL MARKET		
REVENUE STAND		
BARBERSHOP		
PIPE LINE VALVE		
	PROJ. C.G. ROAD	
	PROJ. SURFACE DRAIN	


















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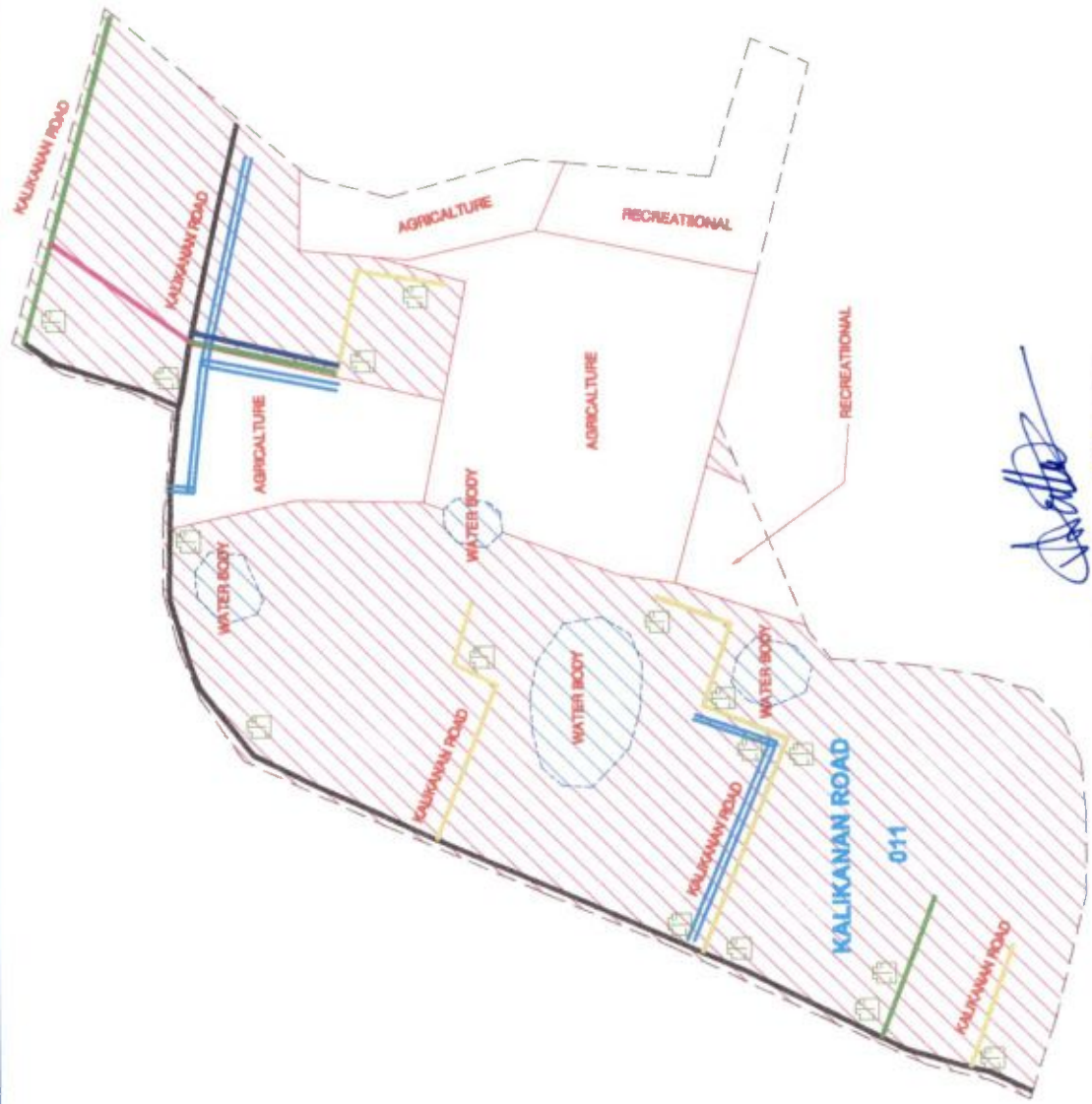
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NAME OF PROJECT		PRADHAN MANTRI AWAS YOJANA: HOUSING FOR ALL (URBAN)	
NAME OF ULB	BARUIPUR MUNICIPALITY		
NAME OF SLIM	KALIKANAN ROAD		
WARD NO	06		
SLIM CODE	011		
IMPLEMENTATION YEAR	2019 - 2019		
PRO. NO. OF DUPs	16		
AREA (SQKM)	0.0200		
PARTICULARS	LEGEND		
HOUSING	 SYMBOL/COLOUR		
DRAIN LINE			
SEWAGE			
CONCRETE ROAD			
BITUMENUS ROAD			
KACHHA ROAD			
PAVEMENT ROAD			
COMMUNITY CENTRE			
INFORMAL MARKET			
RECREAM STAND			
LANDSCAPING			
PIPE LINE VALVE			
 N		PROP. OLD ROAD	
		PROP. SURFACE DRAIN	



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