

# **BHATPARA MUNICIPALITY**

## **Detailed Project Report**

for Construction of 1575 EWS Houses under BLC mode  
of Pradhan Mantri Awas Yojana (PMAY)-HFA of

**Bhatpara Municipality**

**2019-20**



**Submitted By**

**Bhatpara Municipality**

**Dist: 24 Parganas(N), West Bengal**

**July, 2019**



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**July, 2019**



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## 1. Introductory Note by Chairman and brief History of Bhatpara Municipality.



On the outset I would like to take this privilege to let know you that Bhatpara Municipality has finished the preparation of **Housing for All Plan of Action for the time frame 2015-16 to 2021-22**. The municipality has conducted introductory workshop of the Housing for ALL among the members of Board of councillors. Thereafter the core team has been formed for the preparation of the Plan. The Core team has organized several workshops, Focus Group Discussions, Ward Level Consultations among the people across the sections of the citizens and the staff members of the municipality. Citizen, elected councillors and other stakeholders have had interactive sessions and opined about their need, demand, aspirations and the concerned personnel duly recorded those views. The **Housing for All Plan of Action** is the outcome of the series of Demand survey workshops, FGDs, Consultations and meetings. It has been compiled by the technical persons of Bhatpara Municipality which have eventually become the **Housing for All Plan of Action** of Bhatpara Municipality. The respected citizens expressed their valuable opinions and views. Again those views have been duly incorporated in the **Housing for All Plan of Action**.

The people of the municipality, the elected councillors, the staff members, the surveyors, the technical persons have extended their fullest cooperation in preparing the whole process of **Housing for All Plan of Action**. I must take the opportunity to acknowledge their endeavours and extend gratitude to the authorities of SUDA and MA Department of Govt. Of W.B. for extending their cooperation.

I wish that this **Housing for All Plan of Action** would enable the ULB to undertake comprehensive, sustainable development of its jurisdiction with the growing demand of 21<sup>st</sup> century's modernized society.

Chairman  
Bhatpara Municipality

  
Engineer  
Bhatpara Municipality

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Sowon Singh  
Chairman  
Bhatpara Municipality



**a. Planning Core Team:**

1. Mr. Sourav Singh, Chairman, Bhatpara Municipality
2. Mr. Bhaskar Chakraborty, E.O, Nodal Officer Bhatpara Municipality
3. Mr. Sohan Prasad Choudhary, C-In-C, (P.W.D), Bhatpara Municipality
4. Mr. D.N.Banerjee, Engineer, Bhatpara Municipality
5. Mr. Mithun Kumar Das, S.A.E, Bhatpara Municipality
6. Mr. Amit Thakur, S.A.E, Bhatpara Municipality
7. Mr. Surajit Das, Surveyor, Bhatpara Municipality
8. Mr. Dinesh Shaw, Clerk, Bhatpara Municipality

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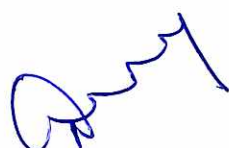
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<b>A&amp;OE</b>	<b>Administrative and Other</b>	<b>LIG</b>	<b>Low Income Group</b>
<b>AHP</b>	<b>Affordable Housing in Partnership</b>	<b>MD</b>	<b>Mission Directorate</b>
<b>AIP</b>	<b>Annual Implementation Plan</b>	<b>MoA</b>	<b>Memorandum of</b>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



Engineer  
Bhatpara Municipality

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Chairman  
Bhatpara Municipality



f.	<b>Working Definitions</b>
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	The quotient obtained by dividing the total covered area (plinth area) on all the floors by the area of the plot:
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.

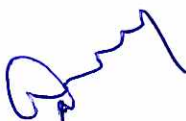
  
**Engineer**  
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**Chairman**  
 Bhatpara Municipality



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.

  
 Engineer  
 Bhatpara Municipality

  
 Chairman  
 Bhatpara Municipality



### Brief History Bhatpara Municipality.

Bhatpara Municipality is one of the 41 Urban Local Bodies in the Kolkata Metropolitan Area. Bhatpara Municipality is one of the largest Municipalities in West Bengal within Kolkata Metropolitan Area. In the British era and afterwards it had become an important industrial hub on Hooghly river bank mainly for the high density of jute processing plants. It is one of the oldest municipalities in West Bengal and it was constituted a municipality in 1899, when it was separated from the Naihati municipality. At the beginning of 20th century; the British had constructed mills, especially Jute mills on the riverfront of Hooghly and hired labour mainly from Bihar & Uttar Pradesh with the help of local Mukhias. In the British era and afterwards it had become an important industrial hub on Hooghly river bank mainly for the high density of jute processing plants. It is a town in the district of North 24 Parganas. It is bounded on south by South 24 Parganas, on west by Hooghly district, on north by Nadia district and on east by Bangladesh. The township covers an Area of 32.44 square km. The whole area is divided into 35 wards for the purpose of municipal administration. The main town is sandwiched between the Hooghly River in the west and railway track linking Sealdah and Krishnanagar in the east. It's located on the Northern side of KMA area about 36 Km from Kolkata.

As per provisional reports of Census India, population of Bhatpara in 2011 is 390,467; of which male and female are 207,876 and 182,591 respectively. The sex ratio of Bhatpara city is 878 per 1000 males. Bhatpara has a rail station named 'Kankinara' which connects it to Kolkata through Sealdah main line to Krishnanagar and Ranaghat. It also has boat services to the other bank of Hooghly River, connecting it to Chinsura and Chandannagar. The municipality is very thickly populated compared to other municipalities within North 24 Parganas district due to the existence of industries, Government establishments, Housing complex etc. The town is well connected by roads (Kalyani Barrackpore Expressway) and rail with the state capital. The distance between Kolkata and Bhatpara is 36 Kms Inclusion of four GPs including Madral-Panpur, Narayanpur, Rahuta II & I etc. in the year 1995 with total area further increased to 32 sq. km. The municipal town is characterized with rich historical footprints with the genesis of erstwhile village moujas like Bhatpara, Kankinara, Jagatdal Authpur and Shyamnagar can be traced back to the Mohammedans period. In the 17th & 18th century Jagatdal was an important commercial place where German capitalists had their Kutirs, known as Bankibazar. Bhatpara area was once abode of Sanakrit and Nayay Shastra learning.



Engineer  
Bhatpara Municipality

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Suman Singh  
Chairman  
Bhatpara Municipality



### 3) Project At a Glance (7C)

#### Annexure 7C

#### (Para 14.5 of the Guidelines)

#### Format for Project under Beneficiary Led Construction Or Enhancement

Name of the State:	:	West Bengal						
Name of the District:	:	North 24 Parganas						
Name of the City:	:	Bhatpara						
Project Name:	:	HFA - BHATPARA 2019-20						
Project Code:	:	19801695044N0						
State Level Nodal Agency:	:	State Urban Development Agency (SUDA)						
Implementing Agency/ ULB	:	Bhatpara Municipality						
Date of Approval by State Level Sanctioning and Monitoring Committee (SLSMC)	:							
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		
	:	Bhatpara Municipal Area	1575	Covering both Slum & Non-Slum area	Notified	No		
10 Project Cost (Rs. In Lakhs)	:	6375.6						
11 No. of beneficiaries covered in the project	:	GEN	SC	ST	OBC	Total	Minority	Person with Disability
	:	1380	110	36	49	1575	13	00
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			
	:	00	467	1108	00			
14 No. of beneficiaries covered in the project	:	Male	Female	Transgender				
	:	1108	467	00				
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						

  
Engineer  
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Executive Officer  
Bhatpara Municipality



i. Govt grant required (Rs. 1.5 lakh per eligible beneficiary) (Rs. in Lakhs)	:	2362.5
ii. State grant, (Rs. in Lakhs)	:	3329.55
iii. ULB grant (Rs. in Lakhs)	:	289.8
iv. Beneficiary Share (Rs. in Lakhs)	:	393.75
v. Total (Rs. in Lakhs)	:	6375.6
Whether technical specification / design for housing have been ensured as per Indian Standards / NBC/ State Norms?	:	Yes
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.	:	-
Whether disaster (earthquake, flood, cyclone, landslide etc.) resistant features have been adopted in concept, design and implementation of the project ?	:	Yes
Whether Demand Survey Completed for entire city ?	:	Yes
Whether City-wide integrated project have been formulated ? If not reasons thereof ?	:	Yes
Whether validation with SECC data for housing condition conducted ?	:	Yes
Whether Direct Benefit Transfer (DBT) of fund to individual bank account of beneficiary ensured in the project ?	:	Yes

  
 Engineer  
 Bhatpara Municipality

Sean  
  
 Executive Officer  
 Bhatpara Municipality



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 SLSMC	

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.



Signature of the  
Mayor/ Chairperson/Municipal Commissioner  
Chairman  
Bhatpara Municipality

Signature  
Chief Engineer  
M.E Dte,GoWB

Signature

Director,SUDA

Signature

Principal Secretary,  
UD & MA Department,GoWB



Engineer  
Bhatpara Municipality

Seen  
  
Executive Officer  
Bhatpara Municipality



## 4) Executive Summery

### Executive Summary

#### Project Details

1	Name of the State:	:	West Bengal
2	Name of the District:	:	North 24 Parganas
3	Name of the City:	:	Bhatpara
4	Project Name:	:	HFA - BHATPARA 2019-20
5	Project Cost (Rs. in Lakhs)	:	6375.60
6	Central Share (Rs. in Lakhs)	:	2362.50
7	State Share (Rs. in Lakhs)	:	3329.55
8	ULB Share (Rs. in Lakhs)	:	289.80
9	Beneficiary share (Rs. in Lakhs)	:	393.75
10	Total Infrastructure Cost (Rs. in Lakhs)	:	579.60
11	Percentage of Infrastructure Cost of Housing Cost	:	10%
12	Infrastructure Cost per Dwelling Unit (Rs. in Lakhs)	:	0.368
13	Year of Implementation	:	2019-20
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)
<b>A. HOUSING</b>											
1	New in-situ										
	Single Storied Units		1575	Nos	368000.00	5796.00	5796.00	2362.50	3039.75	0.00	393.75
<b>Total Housing Cost Sub Total (A)</b>						5796.00	5796.00	2362.50	3039.75	0.00	393.75
<b>B. INFRASTRUCTURE</b>											
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)
<b>1 ROADS</b>											
	C.C. Road	Cement Concrete	45310.985	Sqm	1279.16	579.6	579.6	00	289.8	289.8	00
<b>2. WATER SUPPLY</b>											
	N.A										

  
Engineer  
Bhatpara Municipality

  
Executive Officer  
Bhatpara Municipality



# FORM WATER DRAINS

<b>Tot Infrastructure Cost Sub Total (B)</b>				579.6	579.6	0.00	289.80	289.8	0.00	
<b>GRAND TOTAL (A+B)</b>				6375.60	6375.60	2362.50	3329.55	289.80	393.75	

Signature of the ULB level  
Competent Technical officer

Name & Designation:

Fax No:

Telephone No:

E-mail:

Signature of the State  
level Competent  
Technical Officer

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

Fax No: 033-23375474

Telephone No: 033-23371331

E-mail: ce\_medte@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 Mayor/  
Chairperson/ Municipal  
Commissioner/Administrator

Name & Designation:

Fax No:

Telephone No:

E-mail:

Engineer  
Bhatpara Municipality

Seen  
Executive Officer  
Bhatpara Municipality



## 5. SLUM WISE DETAILS OF FUND

SLUM WISE DETAILS OF DU AND INFRASTRUCTURE COST OF 2019-20										
Serial No.	Name of Slum	Slum Code	Area SqKm	Population	Dwelling Units (@ Rs. 3.67858 Lakh/ each)		Drainage (M) (Rs.2540.00/M) (Section - 400x400)		Pipe Line @ Rs.1066.00 /M	
					Qty.(Nos)	Amt. (in Lakh)	Qty.(M)	Amt. (in Lakh)	Qty.(M)	Amt. (in Lakh)
1	BABURANI PARA(S.C.-001)	1	0.07	1596	6	0.1524	0	0	0	0
2	BAZAR ROAD (S.C.-003)	3		2741	2	0.0508	0	0	0	0
3	Goyala Para- li(S.C.-004)	4	0.12	3050	5	0.127	0	0	0	0
4	Ambagan(S. C.-005)	5	0.31	1850	4	0.1016	0	0	0	0
5	Padma Pukur Road(S.C.-006)	6	0.27	3020	4	0.1016	0	0	0	0
6	Kantadanga Road(S.C.-007)	7	0.13	6550	3	0.0762	0	0	0	0
7	B.L.06(S.C.-012)	12	0.2	3020	3	0.0762	0	0	0	0
8	B.L.07(S.C.-013)	13	0.2	6550	2	0.0508	0	0	0	0
9	RAMNAGA R EAST(S.C.-016)	16	0.27	7697	10	0.254	0	0	0	0
10	Satyajit Pally(S.C.-017)	17	0.07	3020	10	0.254	0	0	0	0
11	Sundiya Para(S.C.-018)	18	0.08	3140	5	0.127	0	0	0	0
12	Adibasi Para(S.C.-019)	19	0.13	6550	8	0.2032	0	0	0	0
13	B.L.09(S.C.-021)	21	0.01	11432	2	0.0508	0	0	0	0
14	Panchanani ala(S.C.-029)	29	0.03	14300	1	0.0254	0	0	0	0
15	GOYALA PARA(S.C.-033)	33	0.03	10928	4	0.1016	0	0	0	0
16	Sugla Para- Ward(14)(S.C.-035)	35	0.05	11933	11	0.2794	0	0	0	0
17	SUORMARI(S.C.-036)	36	0.02	9300	10	0.254	0	0	0	0
18	1 NO. KEBIN ROAD(S.C.-37)	37	0.1	4056	20	0.508	0	0	0	0
19	Sugla Para - Ward (15) (S.C.-39)	39	0.01	4500	25	0.635	0	0	0	0
20	GUPTAR BAGAN(S.C.-046)	46	0.14	6944	2	0.0508	0	0	0	0
21	BANKIM NAGAR(S.C.-056)	56	0.12	9206	30	0.762	0	0	0	0
22	Surpara Road(S.C.-057)	57	0.08	10900	30	0.762	0	0	0	0
23	MULA ZORE(S.C.-058)	58	0.06	4500	10	0.254	0	0	0	0
24	Sundia(S.C.-059)	59	0.04	9500	9	0.2286	0	0	0	0

25	Pramod Nagar(S.C.-060)	60	0.29	6000	5	0.127	0	0	0	0
26	SASTRI NAGAR(S.C.-061)	61	0.07	5390	5	0.127	0	0	0	0
27	Santi Niwas Pally(S.C.-062)	62	0.02	5000	4	0.1016	0	0	0	0
28	Netaji Nagar Colony(S.C.-064)	64	0.04	3530	30	0.762	0	0	0	0
29	SATIN SEN NAGAR(S.C.-065)	65	0.2	4974	30	0.762	0	0	0	0
30	Purbasha(S.C.-066)	66	0.2	6000	22	0.5588	0	0	0	0
31	Battala Ramkrishna Pally(S.C.-067)	67	0.2	11933	10	0.254	0	0	0	0
32	RABINDRA PALLY(S.C.-068)	68	0.24	2911	15	0.381	0	0	0	0
33	Nag Bagan(S.C.-069)	69	0.11	4626	8	0.2032	0	0	0	0
34	Sarat Pally(S.C.-070)	70	0.11	8500	9	0.2286	0	0	0	0
35	CHAK GURADAH RAM MOHAN PALLY(S.C.-071)	71	0.10	1750	30	0.762	0	0	0	0
36	HOUSE KHANA(S.C.-072)	72	0.21	2569	30	0.762	0	0	0	0
37	Jana Para(S.C.-073)	73	0.22	7700	30	0.762	0	0	0	0
38	Chak Guradah C.M.D Bagan(S.C.-074)	74	0.06	11933	30	0.762	0	0	0	0
39	Palpara Deba Sree Pally(S.C.-075)	75	0.21	4720	30	0.762	0	0	0	0
40	Ukil Bagan(S.C.-076)	76	0.05	11933	38	0.9652	0	0	0	0
41	GURDAH(S.C.-077)	77	0.45	4350	29	0.7366	0	0	0	0
42	Malakarpara(S.C.-078)	78	0.12	4311	30	0.762	0	0	0	0
43	B.R.S.(S.C.-079)	79	0.21	6720	35	0.889	0	0	0	0
44	Rahuta Puiba Para(S.C.-080)	80	0.31	7400	35	0.889	0	0	0	0
45	Rahuta(S.C.-081)	81	0.21	4070	30	0.762	0	0	0	0
46	Hindustan Colony(S.C.-082)	82	0.12	4785	22	0.5588	0	0	0	0
47	Milangar Udayanagar(S.C.-083)	83	0.08	9530	25	0.635	0	0	0	0
48	Naba Pally(S.C.-084)	84	0.3	11933	26	0.6604	0	0	0	0
49	Mitrapara(S.C.-085)	85	0.32	6200	54	1.3716	0	0	0	0
50	Nayan Pally(S.C.-086)	86	0.18	4750	65	1.651	0	0	0	0



51	RAM KRISHNA PALLY(S.C.-087)	87	0.28	8254	65	1.651	0	0	0	0
52	Satadal Pally(S.C.-088)	88	0.37	6500	60	1.524	0	0	0	0
53	Uchhegarh Uttarpara(S.C.-089)	89	0.3	8844	65	1.651	0	0	0	0
54	Uchhegarh(S.C.-090)	90	0.2	3200	65	1.651	0	0	0	0
55	Balishkhana(S.C.-091)	91	0.13	1560	40	1.016	0	0	0	0
56	Fakir Para(North)(S.C.-092)	92	0.1	2800	40	1.016	0	0	0	0
57	SOUTH NARAYAN PUR(S.C.-093)	93	0.15	1720	40	1.016	0	0	0	0
58	Subhashpur(S.C.-094)	94	0.29	6000	40	1.016	0	0	0	0
59	KEWTIA PALPARA(S.C.-095)	95	0.29	2816	38	0.9652	0	0	0	0
60	Bijay Nagar(S.C.-096)	96	0.85	7200	22	0.5588	0	0	0	0
61	Chasipara(S.C.-097)	97	0.13	2200	21	0.5334	0	0	0	0
62	Dule Para(S.C.-098)	98	0.14	2350	21	0.5334	0	0	0	0
63	Mangal Pandey Pally(S.C.-099)	99	0.07	6400	21	0.5334	0	0	0	0
64	Kumar Pukur Dhar(S.C.-106)	100	0.06	4347	21	0.5334	0	0	0	0
65	Purba Para(S.C.-101)	101	0.09	2800	21	0.5334	0	0	0	0
66	Durga Nagar(S.C.-102)	102	0.03	3500	10	0.254	0	0	0	0
67	Jay Chandi Tala(S.C.-105)	105	0.08	4520	10	0.254	0	0	0	0
68	New Town(S.C.-107)	107	0.18	7250	10	0.254	0	0	0	0
69	Hatat Sukanta	113	0.11	2571	15	0.381	0	0	0	0
70	Manasha Colony(S.C.-114)	114	0.25	2780	15	0.381	0	0	0	0
71	64 PALLY(S.C.-115)	115	0.26	3371	14	0.3556	0	0	0	0
72	Sree Rampur(S.C.-119)	119	0.32	2530	14	0.3556	0	0	0	0
73	STHIRPARA(S.C.-120)	120	0.36	3628	14	0.3556	0	0	0	0
Total			12.22	415346	1575	40.01	0.00	0.00	0.00	0.00

**6. INFRASTRUCTURE COST**

SLUM WISE DETAILS OF INFRASTRUCTURE COST OF 2019-20										
Serial No.	Name of Slum	Slum Code	Area SqKm	Population	Drainage (M) (Rs.2540.00/M) (Section - 400x400)		Pipe Line @ Rs.1066.00 /M		Concrete Roads (@ Rs. 2605.01/Sq.M)	
					Qty.(M)	Amt. (in Lakh)	Qty.(M)	Amt. (in Lakh)	Qty.(M)	Amt. (in Lakh)
1	BABURANI PARA(S.C.-001)	1	0.07	1596		0	0	0	0.005	0.00
2	BAZAR ROAD (S.C.-003)	3	0.08	2741		0	0	0	0.005	0.00
3	Goyala Para-II(S.C.-004)	4	0.12	3050		0	0	0	0.013	0.00
4	Ambagan(S.C.-005)	5	0.31	1850		0	0	0	0.010	0.00
5	Padma Pukur Road(S.C.-006)	6	0.27	3020		0	0	0	0.010	0.00
6	Kantadanga Road(S.C.-007)	7	0.13	6550		0	0	0	0.010	0.00
7	B.L.06(S.C.-012)	12	0.2	3020		0	0	0	0.008	0.00
8	B.L.07(S.C.-013)	13	0.2	6550		0	0	0	0.008	0.00
9	RAMNAGAR EAST(S.C.-016)	16	0.27	7697		0	0	0	0.010	0.00
10	Satyajit Pally(S.C.-017)	17	0.07	3020		0	0	0	0.025	0.00
11	Sundiya Para(S.C.-018)	18	0.08	3140		0	0	0	0.013	0.00
12	Adibasi Para(S.C.-019)	19	0.13	6550		0	0	0	0.025	0.00
13	B.L.09(S.C.-021)	21	0.01	11432		0	0	0	0.008	0.00
14	Panchanantala(S.C.-029)	29	0.03	14300		0	0	0	0.008	0.00
15	GOYALA PARA(S.C.-033)	33	0.03	10928		0	0	0	0.005	0.00
16	Sugia Para-Ward(14)(S.C.-035)	35	0.05	11933		0	0	0	0.025	0.00
17	SUORMARI(S.C.-036)	36	0.02	9300		0	0	0	0.025	0.00
18	1 NO. KEBIN ROAD(S.C.-37)	37	0.1	4056		0	0	0	0.008	0.00
19	Sugia Para - Ward (15) (S.C.-39)	39	0.01	4500		0	0	0	0.020	0.00
20	GUPTAR BAGAN(S.C.-046)	46	0.14	6944		0	0	0	0.025	0.00
21	BANKIM NAGAR(S.C.-056)	56	0.12	9206		0	0	0	0.005	0.00
22	Surpara Road(S.C.-057)	57	0.08	10900		0	0	0	0.020	0.00
23	MULA ZORE(S.C.-058)	58	0.06	4500		0	0	0	0.003	0.00



24	Sundia(S.C.-059)	59	0.04	9500		0	0	0	0.025	0.00
25	Pramod Nagar(S.C.-060)	60	0.29	6000		0	0	0	0.051	0.00
26	SASTRI NAGAR(S.C.-061)	61	0.07	5390		0	0	0	0.010	0.00
27	Santi Niwas Pally(S.C.-062)	62	0.02	5000		0	0	0	0.005	0.00
28	Netaji Nagar Colony(S.C.-064)	64	0.04	3530		0	0	0	0.028	0.00
29	SATIN SEN NAGAR(S.C.-065)	65	0.2	4974		0	0	0	0.025	0.00
30	Purbasha(S.C.-066)	66	0.2	6000		0	0	0	0.025	0.00
31	Battala Ramkrishna Pally(S.C.-067)	67	0.2	11933		0	0	0	0.023	0.00
32	RABINDRA PALLY(S.C.-068)	68	0.24	2911		0	0	0	0.051	0.00
33	Nag Bagan(S.C.-069)	69	0.11	4626		0	0	0	0.064	0.00
34	Sarat Pally(S.C.-070)	70	0.11	8500		0	0	0	0.010	0.00
35	CHAK GURADAH RAM MOHAN PALLY(S.C.-071)	71	0.10	1750		0	0	0	0.005	0.00
36	HOUSE KHANA(S.C.-072)	72	0.21	2569		0	0	0	0.076	0.00
37	Jana Para(S.C.-073)	73	0.22	7700		0	0	0	0.076	0.00
38	Chak Guradah C.M.D Bagan(S.C.-074)	74	0.06	11933		0	0	0	0.076	0.00
39	Palpara Deba Sree Pally(S.C.-075)	75	0.21	4720		0	0	0	0.056	0.00
40	Ukai Bagan(S.C.-076)	76	0.05	11933		0	0	0	0.025	0.00
41	GURDAH(S.C.-077)	77	0.45	4350		0	0	0	0.076	0.00
42	Malakarpura(S.C.-078)	78	0.12	4311		0	0	0	0.076	0.00
43	B.R.S.(S.C.-079)	79	0.21	6720		0	0	0	0.025	0.00
44	Rahuta Purba Para(S.C.-080)	80	0.31	7400		0	0	0	0.025	0.00
45	Rahuta(S.C.-081)	81	0.21	4070		0	0	0	0.023	0.00
46	Hindustan Colony(S.C.-082)	82	0.12	4785		0	0	0	0.013	0.00
47	Milangar Udyanagar(S.C.-083)	83	0.08	9530		0	0	0	0.036	0.00
48	Naba Pally(S.C.-084)	84	0.3	11933		0	0	0	0.036	0.00
49	Mitrapara(S.C.-085)	85	0.32	6200		0	0	0	0.036	0.00

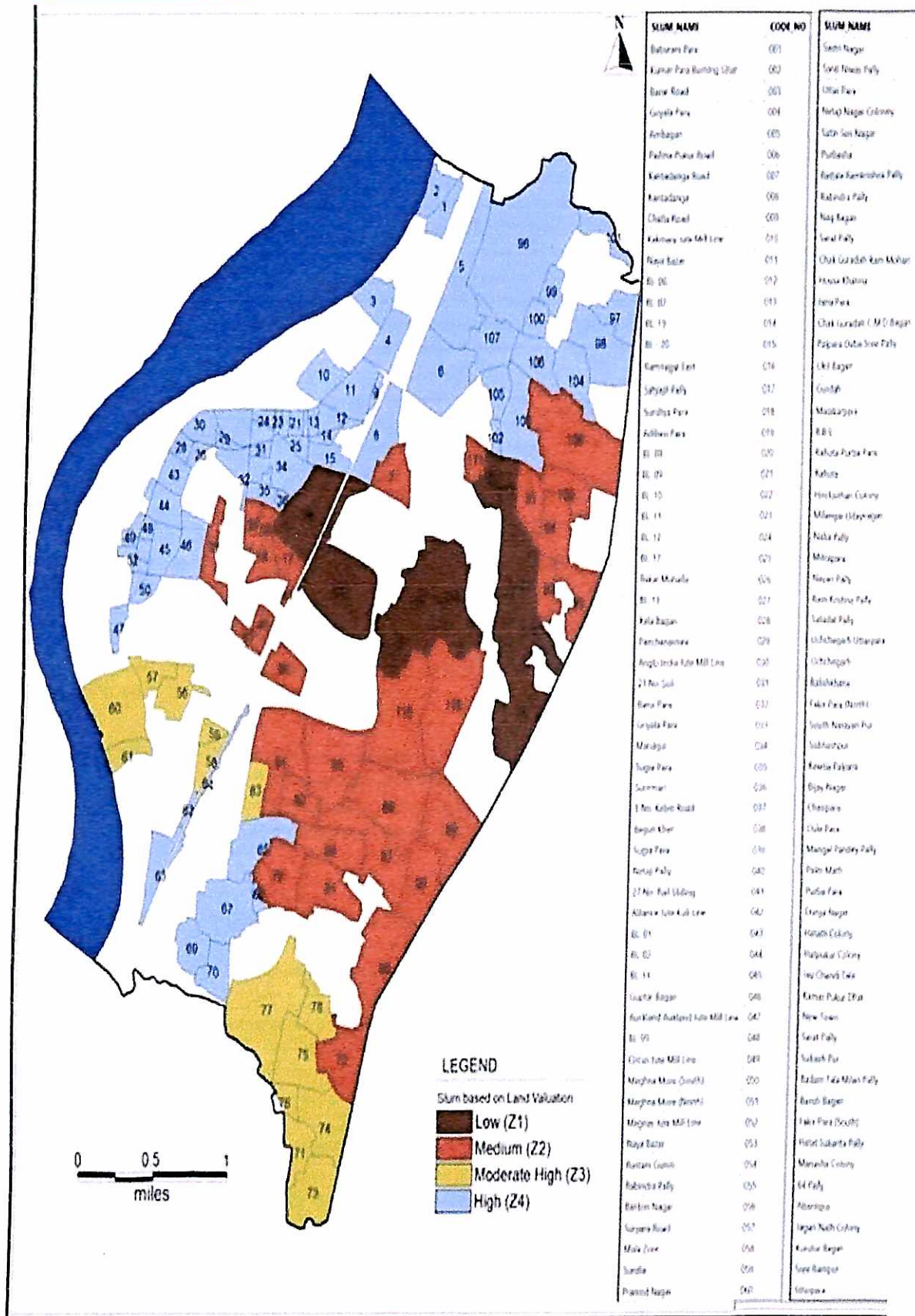
  
 Engineer  
 Bhatpara Municipality

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Soumen S. J.  
 Chairman  
 Bhatpara Municipality

50	Nayan Pally(S.C.-086)	86	0.18	4750		0	0	0	#REF!	#REF!
51	RAM KRISHNA PALLY(S.C.-087)	87	0.28	8254		0	0	0	0.013	0.00
52	Saladal Pally(S.C.-088)	88	0.37	6500		0	0	0	4.001	0.10
53	Uchhegarh Uttarpada(S.C.-089)	89	0.3	3844		0	0	0	0.000	0.00
54	Uchhegarh(S.C.-090)	90	0.2	3200		0	0	0	0.000	0.00
55	Balishkhana(S.C.-091)	91	0.13	1560		0	0	0	0.010	0.00
56	Fakir Para(North)(S.C.-092)	92	0.1	2800		0	0	0	0.000	0.00
57	SOUTH NARAYAN PUR(S.C.-093)	93	0.15	1720		0	0	0	0.076	0.00
58	Subhashpur(S.C.-094)	94	0.29	6000		0	0	0	0.000	0.00
59	KEWTIA PALPARA(S.C.-095)	95	0.29	2816		0	0	0	0.076	0.00
60	Bijay Nagar(S.C.-096)	96	0.85	7200		0	0	0	#VALUE!	#VALUE!
61	Chasipara(S.C.-097)	97	0.13	2200		0	0	0	0.520	0.01
62	Dule Para(S.C.-098)	98	0.14	2350		0	0	0	0.000	0.00
63	Mangal Pandey Pally(S.C.-099)	99	0.07	6400		0	0	0	0.000	0.00
64	Kumar Pukur Dhar(S.C.-106)	100	0.06	4347		0	0	0	0.056	0.00
65	Purba Para(S.C.-101)	101	0.09	2800		0	0	0	0.000	0.00
66	Durga Nagar(S.C.-102)	102	0.03	3500		0	0	0	0.000	0.00
67	Jay Chandi Tala(S.C.-105)	105	0.08	4520		0	0	0	0.000	0.00
68	New Town(S.C.-107)	107	0.18	7250		0	0	0	0.000	0.00
69	Halat Sukanta Pally(S.C.-113)	113	0.11	2571		0	0	0	0.025	0.00
70	Manasha Colony(S.C.-114)	114	0.25	2780		0	0	0	0.038	0.00
71	64 PALLY(S.C.-115)	115	0.26	3371		0	0	0	0.020	0.00
72	Sree Rampur(S.C.-119)	119	0.32	2530		0	0	0	0.025	0.00
73	STHIRPARA(S.C.-120)	120	0.36	3628		0	0	0	0.038	0.00
Total			0.78	418942	0	0.00	0	0	#REF!	#REF!



**7. MAP OF BHATPARA**

## 8.CITY PROFILE

### City Overview

Constituted in 1899 with the de-merger of part of municipal area (consisting of Bhatpara, Jagatdal, Authpur and Shyamnagar, together with the village Kankinara) falling under erstwhile Naihati Municipality, Bhatpara Municipality is one of the oldest municipalities in West Bengal. It is one of the northern most towns of North 24 Parganas District of West Bengal and Kolkata Metropolitan Area (KMA). The municipality falls under Jagatdal PS jurisdiction of Barrackpore subdivision. The name 'Bhatpara' originates from the ancient name "Bhatta-Palli", where "Bhatta" denotes the section of Brahmin Sanskrit pandits and "Palli" denotes locality or village.

Owing to strategic location of the town with bank of river Hooghly bordering the town along the western side of the town, Bhatpara Municipality is home to number of water intensive industries (mainly Jute milling units) all located along the river bank. These jute mills drew in large pool of labour forces mainly from the Bihar & Uttar Pradesh who gradually settled at Coolie lines just nearest to the mills or in the vicinity of the mills. Over the years, with the economic downturn coupled with stiff overseas competition some of Jute Mills discontinued their operations in Bhatpara leading to gradual transformation from an industrial hub to a city with mere existence of handful of jute mills.

### History and Evolution of Bhatpara

Since the incorporation of the municipality in 1899 slicing out the southern part of Naihati Municipality admeasuring an area of 11.65 Square Kms. Bhatpara Municipality is observed to have constantly evolved and grown in area with the inclusion of part or full adjacent village mouzas afterwards. Following are the additions to the jurisdiction of the municipality in a chronological order: Inclusion of whole village Sundia, a portion of Sthirpara Mouza and Chalkgurdah Mouza on 8th July 1924 leading to rise in municipal area to 14.24 Sq. km with effect from 1st April 1925. Inclusion of four GPs including Madral-Panpur, Narayanpur, Rahuta II & I etc. in the year 1995 with total area further increased to 32 sq. km.

The municipal town is characterized with rich historical footprints with the genesis of erstwhile village moujas like Bhatpara, Kankinara, Jagatdal Authpur and Shyamnagar can be traced back to the Mohammedans period. In the 17<sup>th</sup> & 18<sup>th</sup> century Jagatdal was an important commercial place where German capitalists had their Kutirs, known as Bankibazar. Bhatpara area was once abode of Sanakrit and Nayay Shastra learning.

### Location of Bhatpara

Bhatpara Municipality is located at the northern part of Kolkata Metropolitan Area with its i) latitude position being 22°53'00" latitude North, 22°48'34" latitude South and ii) longitude position at 88°26'00" longitude East and 88°22'08" longitude West. The Town has an average elevation of 12 metres (39 feet) from west to east direction.

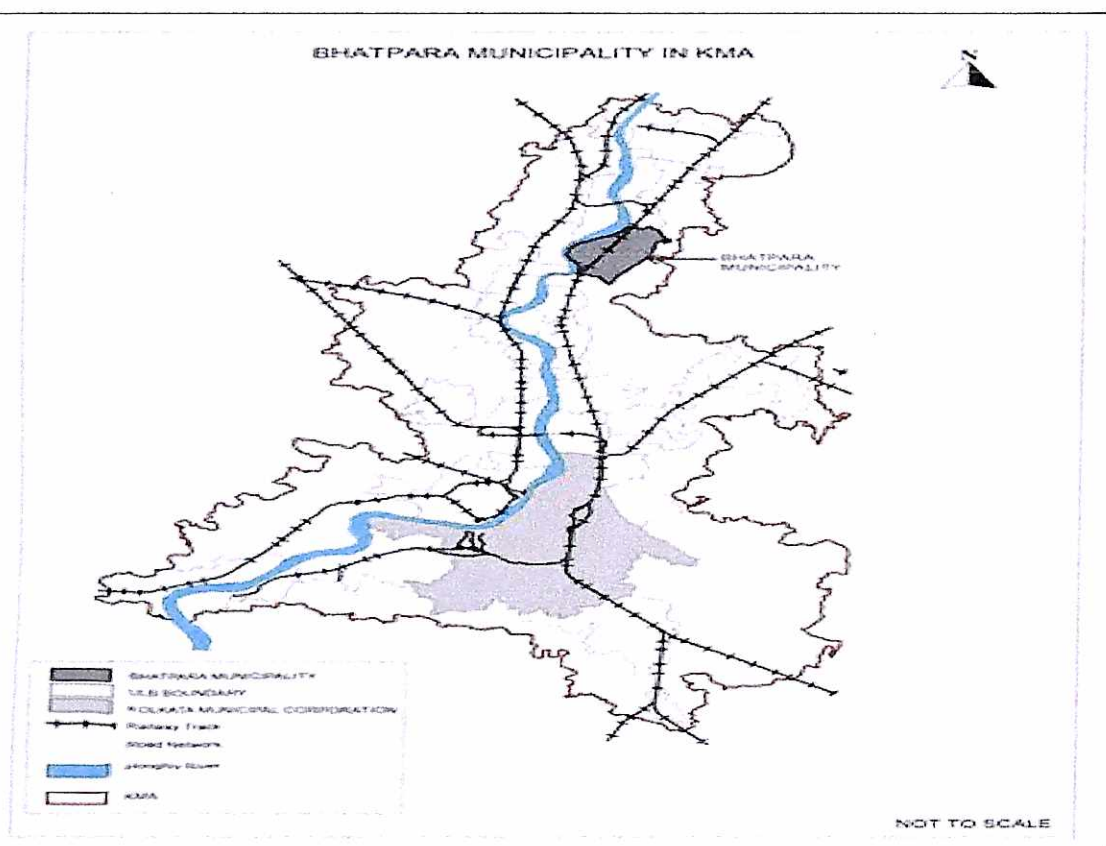
The municipality is bordered by the river Hooghly along the western side of the town, while the Barrackpore Kalyani Expressway defines the eastern boundary of the municipality. The municipality is surrounded by rural areas in the South and Eastern side with villages namely Kawgachi Gram panchayat located in the South and Panpur & Abhirampur Gram panchayat towards East. In terms of proximity to other major towns, the municipality is bounded by Naihati Municipality towards North and Garulia Municipality to the South. The city is connected with the railway line from Sealdah (Kolkata) and railway line cuts across the length of the city into eastern and western parts.



### Physical Linkages

Bhatpara is located 37 Km North of Kolkata-the state capital and it is linked by both modes of transportation viz. Road and Rail, state highway and a number of district Roads have linked the town with Kolkata, other important towns and places of North 24 Parganas and other district HQs mainly through Barrackpur Trunk Road and Barrackpore Kalyani Expressway. Other major roads including Ghosh Para main road, A.B Road, Basudevpur Road, Clarkghat Road etc. serve different parts of the town in connecting them with state highway and Barrackpur Trunk Road.

The town is well connected with remaining parts of the state by railway. There are 3 railway stations Kankinara, Shyamnagar, and Jagatdal within the municipality area and they connect the town.



through Sealdah (Kolkata) main line supporting movement of the daily passengers using a suburban railway services for coming down at Kolkata for work. It also caters for the daily movement of the majority of goods to Kolkata and other areas.

In addition, number of regular ferry services is operating on Hooghly River and the services connect the town to Hooghly-Chinsurah, Chandernagar, and Bhadreswar - towns on other bank of Hooghly river. The images below present transportation network of Bhatpara Municipality and entire Bhatpara Municipal area in Satellite Image



**BHATPARA MUNICIPALITY**



  
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Bhatpara Municipality

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**Chairman**  
Bhatpara Municipality



## 9. EXISTING CENTRAL GOVT. PROJECT OF BHATPARA MUNICIPALITY.

In the areas of slum development, housing and infrastructural development projects have been taken up in the last 7 years under BSUP. Projects have been undertaken in four phases in Bhatpara and a total of 4577 DUs have been allotted till December 2013. The following table presents the details of the 4 phases of BSUP scheme carried out in Bhatpara Municipality till March 2014.

**Table 2 Details of BSUP implemented in Bhatpara Municipality**

Sl. No.	Phase	Total Investment for Housing and Basic Amenities (in Lakhs)	Total no. of DUs allotted	Total No. of DUs occupied
1.	Phase I	1791.38	797	797
2.	Phase II	6955.58	1947	1947
3.	Phase III	4318.77	1034	1034
4	Phase IV	3811.26	799	799
	<b>Total</b>	<b>16876.99</b>	<b>4577</b>	<b>4577</b>
5	Rajiv Awash Yojana	849.98	198	96
6	Construction of Modern Abotoir	796		

Source: Bhatpara Municipality

Apart from this, drains, roads, pathways, street lights and community centres have also been commissioned under this scheme.

Recently a Pilot Project of PMAY at 1 No. Kebin Road, Kewtia Palpara & Sthirpara slum with a project cost of Rs. 9.18 Crores (target completion date March 2015) has been initiated and has reached an advanced stage of construction in a very short period of time.

## 10. Physical Infrastructure profile

From the very inception of Bhatpara as municipality, the main source for the supply of drinking water was from river Hooghly. Water was treated at vintage water treatment plants run by jute mills and distributed through pipeline network covering a small part of the town. Over the years, municipality has taken up number of water supply augmentation, including i) laying piped water supply distribution network by drawing funds from its own budget and other sources like CUDP III, 10<sup>th</sup> Finance commission etc., ii) rolling out 24x7 water supply scheme, a Rs. 250 crores project (2010-2014) implemented by KMDA under JNNURM, involving construction of a new 23 MGD Water Treatment Plant at Jagatdal, 18 overhead reservoirs and further spreading out of surface water pipeline network in other parts.

Currently, the town has a total of 330 km of surface water pipeline network catering to 96% of total population of the city and providing direct water connections to 31,000 households, of which 110 km runs within wards 1-22 and the remaining in the other 13 wards. Post the implementation of JNNURM project, daily piped water supply of the town has reached at 70 MLD.

Despite the existence of surface water supply network and coverage, municipality has to resort to ground water to meet the supply at some parts of the town. As per ULB records, 10% of the entire water supply is dependent on groundwater through deep tube wells and hand pumps, mainly in the ward nos. 06, 07, 25, 32 and 35.

The table below presents a service level standard of Bhatpara in terms of coverage of the city with respect to water supply.

  
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Chairman  
Bhatpara Municipality

**Table 3: Water Supply Benchmarks for Bhatpara Municipality**

S/No	Indicator	Central Level Benchmarks	State Level Benchmarks	Present Status 2013-14	Targeted status during 2019-20
1	Coverage of Water Supply Connection	100%	100%	82%	92%
2	Per Capita available of Water at consumer end	135 Lpcd	135 Lpcd	105 Lpcd	135 Lpcd
3	Extent of metering of Water Connections	100%	100%	0%	0%
4	Extent of Non-Revenue Water	20%	20%	20%	20%
5	Continuity of Water Supply	24/7 Hrs/Day	24/7 Hrs/Day	10 Hrs./Day	18 Hrs/Day
6	Efficiency in redressal of customer complaints	80%	80%	82%	90%
7	Quality of Water supplied	100%	100%	80%	95%
8	Cost recovery in water supply service	100%	100%	22%	35%
9	Efficiency in collection of water supply related charges	90%	90%	60%	70%

Source: MoUD, GoI and Bhatpara Municipality, 2014

**Storm water Drainage**

Mukterpur canal starting from Tinshukia to river Hoogli (5 km in length) is the main channel for waste water outlet of the town. Other two main drains, namely, Rishi Bankimkhal and Shyam Nagar Khal, run through the northern and southern boundary area feeding canals of Mukterpur and Barti Beel respectively. These channels now have been silted. The banks of the channel are fairly high with respect to the intermediate spread of land. Bhatpara has 107 km of pucca drains and 125kms of katcha drains.

Due to lack of maintenance and heavy siltation these channels are not adequate for drainage in current form. As a result, a large number of low lying pockets, which remains water logged in the rainy seasons, have been created. The land in the municipal area is generally flat and the slope is towards intermediate field from the riverbanks.

**Table 4: Storm water Drainage Benchmarks for Bhatpara Municipality**

Indicator	Central Level Benchmarks	State Level Benchmarks	Present Status 2013-14	Targeted status during 2019-20
1 Coverage of Storm Water Drainage	100%	100%	80%	85%

  
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## Sewerage & Sanitation

The sewerage network has only 15% coverage in the entire city. The network has primarily evolved in three stages, which are:

- **Stage I (1931-1973):** It started with laying of initial drainage network in 1931, which was further extended by the PHE in 1973. This led to laying of total 20.42 km of drainage network at this stage. Also a STP of capacity 10 MLD was constructed which is presently functional.
- **Stage II (1987-1993):** Bhatpara was brought under the purview of Ganga Action Plan (GAP) in the period 1987-1993, during which the old drains and outfall points were intercepted and 5 lifting stations and 2 pumping stations were constructed for better collection and transmission. A total of 15 km of pipeline was constructed during this phase in wards 1-22.
- **Stage III (2013- 2017 Projected):** Further improvement of the sewerage system is being implemented under NGRBA since 2013. Scheduled to be completed by 2017, this project is focused on eastern wards of the municipality, which has no sewerage system currently. As part of this Rs. 332 crores project, key envisaged outcomes include:
  - Laying of 125 km of Sewerage Pipeline
  - Setting up of 23 lifting stations
  - Setting up of 3 Pumping Stations
- Setting up of 3 STPs at a) Jagatdal ward No 15, b) Dipali Math ward No 23 and c) Rabindra Pally ward No 6 with a total capacity of 61 MLD

As on June, 2014 the project is running on time and 27% of the project work is already completed.

In addition to sewerage and sanitation works carried out in above three stages, municipality had undergone annual repair and maintenance work for the existing pipelines leveraging own fund of the municipality based on as-is-where-is basis.

The table below presents a service level standard of Bhatpara in terms of coverage of the city with respect to sanitation and sewerage. Table clearly shows though toilet coverage of the town is reasonably good, but lot of interventions are required to improve sanitation and sewerage facilities as there is no household level drainage facility leading to unhygienic environment in slums.

**Table 5: Sewerage and Sanitation Benchmarks for Bhatpara Municipality**

1	Coverage of Toilets	100%	100%	85%	90%
2	Coverage of wastewater network services	100%	100%	25%	45%
3	Collection Efficiency of Waste Water Networks	100%	100%	60%	65%
4	Adequacy of Waste water treatment capacity	100%	100%	45%	55%
5	Extent of Reuse and recycling of treated wastewater	20%	20%	3%	15%
6	Quality of Waste Water Treatment	100%	100%	94%	95%
7	Efficiency in redressal of customer complaints	80%	80%	60%	75%
8	Extent of cost recovery in Waste Water Management	100%	100%	4%	7%
9	Efficiency in collection of sewerage charges	90%	90%	0%	0%

Source: MoUD, GoI and Bhatpara Municipality 2014

## Solid Waste Management

Bhatpara Municipality generates approximately 6050 MT/month of solid waste. Presently there is no proper solid waste management in the municipality and it is dumped in open landfill sites. There are two spots which currently the municipality uses as dumping grounds. They are: i) Madral low cost treatment plant (in use for last 10 years) and ii) Fingapara Ward 29-35 border (in use for last 4 years). The waste is collected mostly by Handcarts and then dumped by tractors and trailers. Recently, a SWM pilot project (Rs. 28 Crore approx.) is being implemented under NGRBA.

The table below presents a service level standard of Bhatpara in terms of coverage of the city with respect to Solid Waste Management. In terms of household level coverage solid waste management and segregation of municipal solid waste, the municipality is not at a good stage.

Table 6: SWM Benchmarks for Bhatpara Municipality

S/NO	Indicators	Central Level Benchmarks	State Level Benchmarks	Present Status 2013-14	Targeted status during 2019-20
1	Household level coverage of solid waste management services	100%	100%	25%	45%
2	Efficiency of collection of municipal solid waste	100%	100%	90%	92%
3	Extent of segregation of municipal solid waste	100%	100%	15%	20%
4	Extent of municipal solid waste recovered	80%	80%	80%	85%
5	Extent of scientific disposal of municipal solid waste	100%	100%	15%	40%
6	Extent of cost recovery in solid waste management services	100%	100%	10%	15%
7	Efficiency in collection of solid waste management charges	90%	90%	10%	11%
8	Efficiency in redressal of customer complaints	80%	80%	85%	90%

Source: MoUD, Gol and Bhatpara Municipality 2014

**Road Coverage and Condition**

As per the Land Use map of Bhatpara, only 2.7% of the entire municipal area is dedicated to roads. This indicates a very high density of settlement and less developed vehicular network within the city. The settlement and concentration of the activities in this town was originally centered on the rail lines. B.K. Expressway and Ghoshpara Main Road both run along the length of Bhatpara Municipality Connecting Kolkata, Barrackpore, Barasat and Kalyani. A number of state Highways and District Roads link with the municipality, district head quarter and Kolkata, the state capital. Road network in Bhatpara has grown to a total of 1089.67 Km. While only 36% of roads are black topped and concrete, remaining 64% of the road network is still katcha. Most of the existing arterial roads are narrow with two lane carriageways and needs to be widened to cater for the increasing vehicular traffic. Due to lack of proper maintenance, the surface conditions of the roads are not good which in turn reduces the speed of moving traffic.

**11. The Project slums and existing scenario of Infrastructure**

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

**Indicators for assessing Infrastructure deficiency**

		1	2	3
1.	<b>Water:</b> Percentage of Households without Individual tap connection	0-30	30-60	60-100
2.	<b>Sanitation:</b> Percentage of Households without access to individual latrine	0-30	30-60	60-100
3.	<b>Drains:</b> Whether the slum is connected, not connected or partially connected to city wide storm water drainage system	Connected	Partially Connecte	Not Connected
4.	<b>Roads:</b> Percentage of Households with Non Motorable Katcha and Non Motorable Pucca Roads	0-30	30-60	60-100

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

Status of all the 120 slums in terms of infrastructure is listed in Annexure-B9 and the deficiency parameters are analysed as follows:

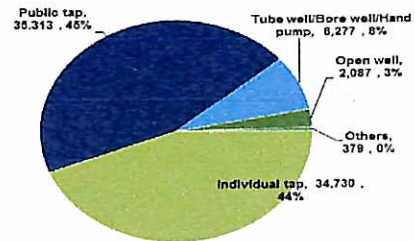


## Water

The slum households of Bhatpara have reasonably good access to drinking water, either from individual taps or from public taps. The figure alongside reveals that:

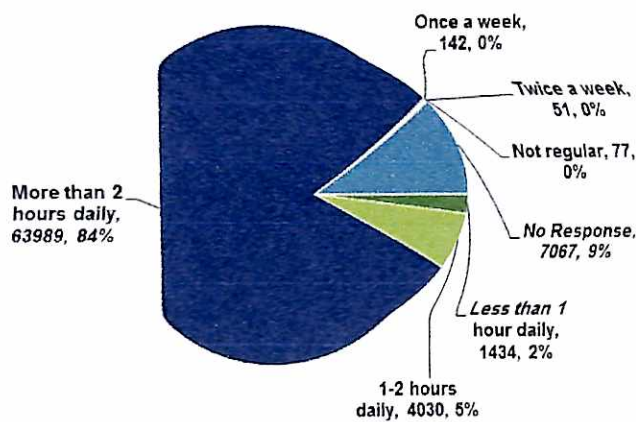
Around 44% of the total slum households (34,730 in number), have individual tap connection in their own premises. Out of these, majority of the households (30,000 in total) stay in notified slums,

Figure 3 Sources of Drinking water available in



Around 45% of slum households are dependent on public tap and about 8% in aggregate, resort to Tube well/Bore well/Hand pump for collection of drinking water.

Figure 4 Duration of Water Supply in Slums



Remaining 3% households (2450 in number) are dependent on open well, tank/pond, canal, water tanker etc. Majority of the slum households in Bhatpara have a decent duration of water supply with about 84% of the slum households having water supply for more than two hours. Only 2% of slum households, are reported to have access to drinking water for less than one hour daily. Only 193 HHs receive water only once or twice a week.

Sanitation

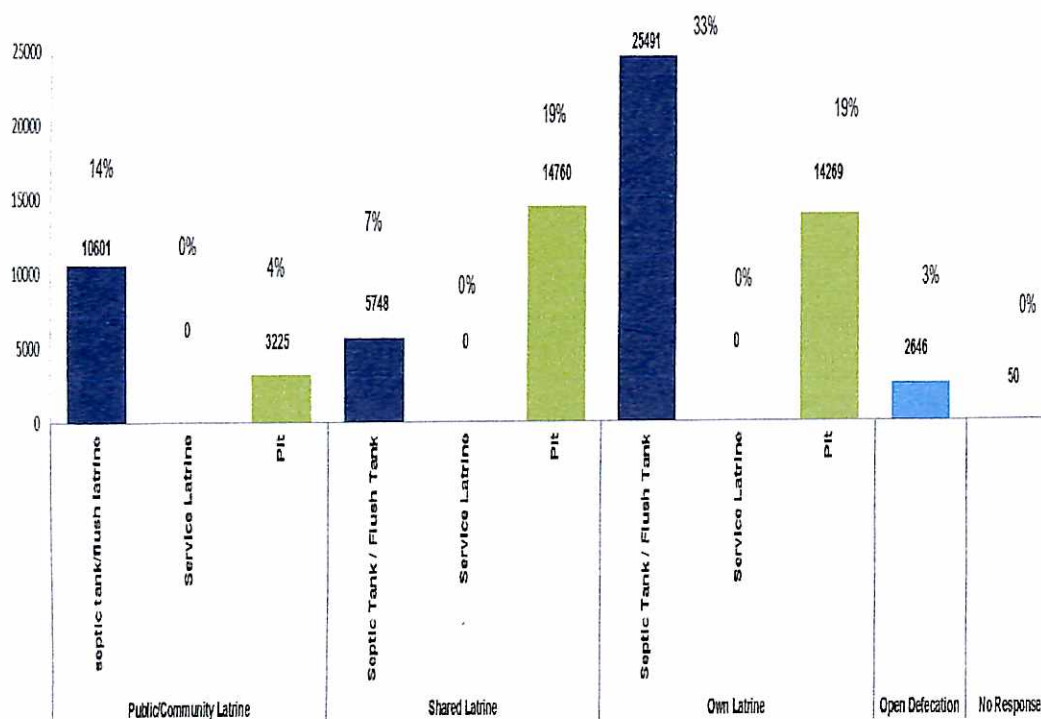
  
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 Chairman  
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## Sanitation

In terms of access to sanitation facilities, 33% of the households have their own latrines, 7% households have shared latrines and 14% avail community toilets. Figure below shows households living in slums of Bhatpara have a pit inside their premises with their share accounting for 19% of total slum households. A total of 42% of the population avail these pits. A small percentage of about 3% households resort to open defecation.

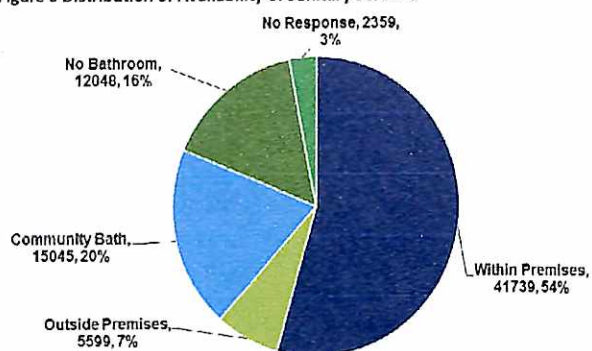


## Access to Bathroom facility

\* In terms of access to bathroom facilities, 54% of the households have bathrooms within their premises, of which more than 80% households are from notified slums

\* 16% households do not have bathrooms within their premises, of which 71% households are from notified slums. Significant slums coming under this category are Naya Bazar (S.C.-011), B L.06(S.C.-012), B L.11 (S.C.-045), Uttar Para(S.C.-063) etc.

Figure 6 Distribution of Availability of Sanitary Services



## Drains

The lack of proper drainage system is a critical issue in Bhatpara. The topography of the town varies mostly based on the proximity to the river and also the large number of ponds on the eastern part and a canal cutting across the town. All these above factors contribute to the drainage problems of Bhatpara. The following table shows status of storm water drainage connectivity of the slums.

  
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Table 7 Status Connectivity of Drains in Slums

Category	Notified Slums			Non-Notified Slums			% Slums	% total HHs
	No. of Slums	No. of HHs	Population	No. of Slums	No. of HHs	Population		
Fully Connected	1	428	1850	0	0	0	1%	1%
Partially	58	45,451	1,77,715	17	10,890	42,128	63%	73%
Not Connected	30	12,793	49,513	14	7,228	28,070	37%	26%
<b>TOTAL</b>	<b>89</b>	<b>58,672</b>	<b>2,29,078</b>	<b>31</b>	<b>18,118</b>	<b>70,198</b>	<b>100%</b>	<b>100%</b>

From the table above we can observe that:

Only 1% of the slums HHs are fully connected to the drainage system, while 37% slums with 20,000 households are not connected to drainage system at all. 63% slum are partially connected to the drainage system, covering more than 56,000 households

Most of the slums which are not connected to the drainage system are located on the Eastern Fringe of the municipality and are close to the Kalyani Expressway.

Fringe of the Municipality are close to Kalyani Express Way.

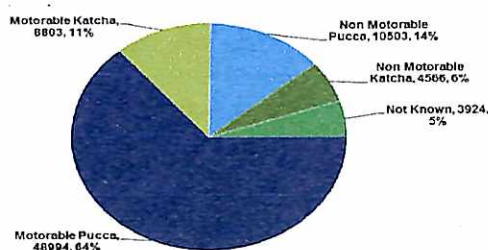
### Roads

One of the most important physical criteria that determine the condition of a slum is the condition of roads.

From the figure alongside, following key things can be ascer

About 64% households in slums have access to motorable pucca road and another 14% households have access to non-motorable pucca road

17% of the slum households have no direct access to pucca road.



37 slums have a score of "1", that is, slums with less than 30% households having individual tap connection. Number of slums getting scores of "2" and "3" are 37 and 46 respectively indicating around 38% slums have more than 60% households without individual tap connection.

### Vulnerability

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

#### Indicators for assessing vulnerability

		1	2	3
1.	<b>Housing:</b> Percentage of Households with Katcha and Semi Pucca Houses	0-30	30-60	60-100
2.	<b>Income Level:</b> Percentage of HH having income < Rs.3000/- per month	0-30	30-60	60-100
3.	<b>Caste Status:</b> Percentage of SC , ST and OBC in slum	0-30	30-60	60-100
4.	<b>Minority Population:</b> Percentage of Minority Population in a slum	0-30	30-60	60-100

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

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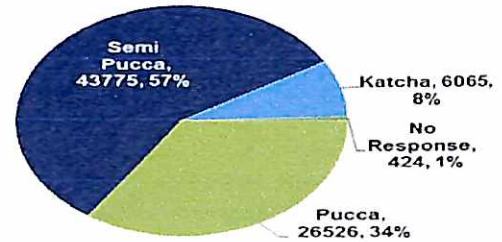
Status of all 120 slums in respect of the four vulnerability parameters is detailed below:

### Housing

The condition of housing in the slums is one of the key determinants of the condition of the slum and also one of the most compelling issues to be addressed. In Bhatpara, slums comprise mostly of semi-permanent structures or slums with permanent structures in dilapidated conditions. From the figure alongside, following observations can be derived:

Out of 76,790 households, majority of the households (57% of total HHs) stay in semi-pucca houses followed by households staying in pucca houses, which constitute another 34% of total households. (Refer Annexure B-6 for photographs of slum structures)

Figure 8 Distribution of Types of Housing in Slums



Katcha and semi pucca houses taken together accounts to about 65% of the total houses. Out of these total 49,840 houses[1], around 6,000 houses are katcha with four slums [Chalta Road (S.C No. 9), 27 No Railway Station Siding (S.C No. 41), B.R.S (S.C No. 79) and 1 No. Kebin Road, Kewtia Palpara & Sthirpara having more than 50% households staying in katcha houses. Moreover, maximum concentration of katcha houses is observed in ten slums, which accounts for 35% of total katcha houses in slums of Bhatpara

## 12.National poverty Alleviation Programmes and PMAY

[1] Total number of katcha and semi pucca houses shall be lower than 49,840 by 298 houses as slum development work has been initiated in 1 No. Kebin Road, Kewtia Palpara & Sthirpara slum (196 katcha and semi pucca houses) and hence, it should be excluded. DPR prepared of this slum has been sanctioned from MoHUPA, GoI in September, 2013.

## 12.National poverty Alleviation Programmes and PMAY

Slum: the focus Area

Under section-3 of the Slum Area Improvement and Clearance Act, 1956, slums have been defined as mainly those residential areas where dwellings are in any respect unfit for human habitation by reasons of dilapidation, overcrowding, faulty arrangements and designs of such buildings, narrowness and faulty arrangement of streets, lack ventilation, light or sanitation facilities or any combination of these factors which are detrimental to safety, health and morals. Thus, conceptually slums are compact overcrowded residential areas (and not isolated or scattered dwellings) unfit for habitation due to lack of one or more of the basic infrastructure like drinking water, sanitation, electricity, sewerage, streets etc.

  
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It is in this background that in the 2001 Census, an innovative attempt was made to collect demographic data slum areas across the country.

As per 2001 population census, the slum population is estimated to be 61.8 million, out of a total urban population of 285.35 million people reside in urban areas.

The analysis of the data in this report provided an overview of the population characteristics of slums and squatter settlements and is expected to serve as a benchmark for pragmatic and realistic town planning while dealing with the issue of slums and slum dwellers.

Figure 5: Distribution of Types of Sanitation Facilities

i.

ii. Urbanization is fast becoming the defining process in shaping the course of social transformation & ensuing development concerns in India. About 377 million persons or about 31% of India's population of 1.21 billion lived in urban areas in 2011, spread over 5161 towns. As per Report on Indian Urban Infrastructure and Services (NIUA) Report, the urban population is likely to grow to about 600 million by 2031. About one-fourth (24%) of the urban population of India is poor i.e. their expenditure on consumption goods is less than the poverty line benchmark. The benefits of urbanization have eluded this burgeoning 67 million urban poor population, most of who live in slums. An analysis of population growth trends between 1991 and 2001 shows that while India grew at an average annual growth rate of 2%, urban India grew at 3% mega cities at 4% and slum populations rose by 5%. This rapid and unplanned urbanization and simultaneous growth of urban population in the limited living spaces has a visible impact on the quality of life of the slum dwellers of the city.

iii. It is increasingly clear that sustainable growth can only take place when it is inclusive and when the entire population including the poor and marginalized need to have at the least access to decent shelter, basic amenities, livelihoods and a voice in governance.' Keeping this in mind the Government of India and the various State Governments have been taking up several schemes on partnership mode.

#### National Missions for Slum Development and Poverty Reduction

i. The Government of India is committed to creating a slum free India as part of the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) sub mission on Basic Services for the Urban Poor (BSUP & Rajiv Awas Yojana). More recently it has also launched the Pradhan Mantri Awas Yojana [PMAY] for affordable housing for the poor for inclusive, sustainable and equitable urban development and to address the 'problem of slums in a definitive manner' (PMAY guidelines).

ii. **Jawaharlal Nehru National Urban Renewal Mission (JNNURM)** : JNNURM is a reform-linked urban development and slum upgrading program. Under JNNURM, the Government of India has been providing central assistance to 65 metro and large cities to invest in infrastructure improvements with governance reforms under sub mission on Urban Development.

iii. **Basic Services for Urban Poor (BSUP)** : BSUP is focussed on slum upgradation and poverty reduction through creating access and networking slums to urban infrastructure improvements. BSUP also has a 7-Point Charter that envisages integration of urban slum upgrading activities with social development programs/missions such as for health, education, social welfare, etc. to ensure comprehensive development.

iv. **Swarna Jayanti Shahri Rozgar Yojana (SJSRY)** : SJSRY is a centrally sponsored program and it mainly emphasizes on the poverty reduction through employment generation. Main target groups of the program are: Urban poor, Women, SC/ST, Disabled etc.

  
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v. **National Slum Development Program (NSDP):** NSDP is a centrally assisted slum development program. NSDP is mainly for improvement in the environment in the slums as a broader objective through provision of infrastructure facilities and shelter for improving living conditions in the slums.

vi. **Valmiki Ambedkar Awas Yojana (VAMBAY):** VAMBAY is a central Government scheme to provide housing to the poor. Under VAMBAY scheme, an amount of Rs. 50,000 is extended to a beneficiary in a city with more than 10 lacs population while in the cities having population less than 10 lacs. each beneficiary gets Rs. 40,000/- fifty percent of the amount is central government grant while the rest could be taken as loan from HUDCO/ other nationalized banks/ state government/ urban local bodies.

vii. **Integrated housing and slum development program (IHSDP):** IHSDP was under Jawaharlal Nehru Urban Renewal Mission (JNNURM) beginning from the year 2005-2006. The major objectives for the IHSDP program are:-

- Focussed attention to integrated development of basic services to the poor. The basic services include security of tenure at affordable price, improving housing, water supply and sanitation.

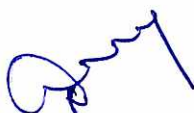
Secure effective linkages between asset creation and asset management so that the basic services to the urban poor created in the cities, are not only maintained efficiently but also become self sustaining over time.

### 13.HFAPoA and Pradhan Mantri Awas Yojana(PMAY)

On account of absence of household level details on connectivity status to the drainage system in

currently on the global agenda. One of the Millennium Development Goals (MDGs) is to 'achieve significant improvement in the lives of at least 100 million slum dwellers, by 2020 (UNDP, 2003). Similar goals are set forth by Pradhan Mantri Awas Yojana [PMAY] , to create a Slum-free India.

All urban development initiatives have an impact on the poor within the city. It is now recognised that the past process of urban development and city planning has not been sufficiently inclusive. The process of preparing and implementing Slum Free City Plan of Action will involve 'learning by doing' in partnership with slum communities themselves. The HFAPOA will contain a holistic and temporal view of how the city could develop planning processes and projects targeted at the urban poor and improving living conditions in slums. The plan while being developed with a 10-15 year perspective will need to be updated and modified at regular intervals so as to remain relevant. The slum free city planning exercise will help the city to take a holistic view of slum settlements and the urban poor, by systematic data gathering and analysis at zone, ward and slum level which would help it to address policy / regulatory constraints in the access to affordable shelter solutions for the urban poor in the city.



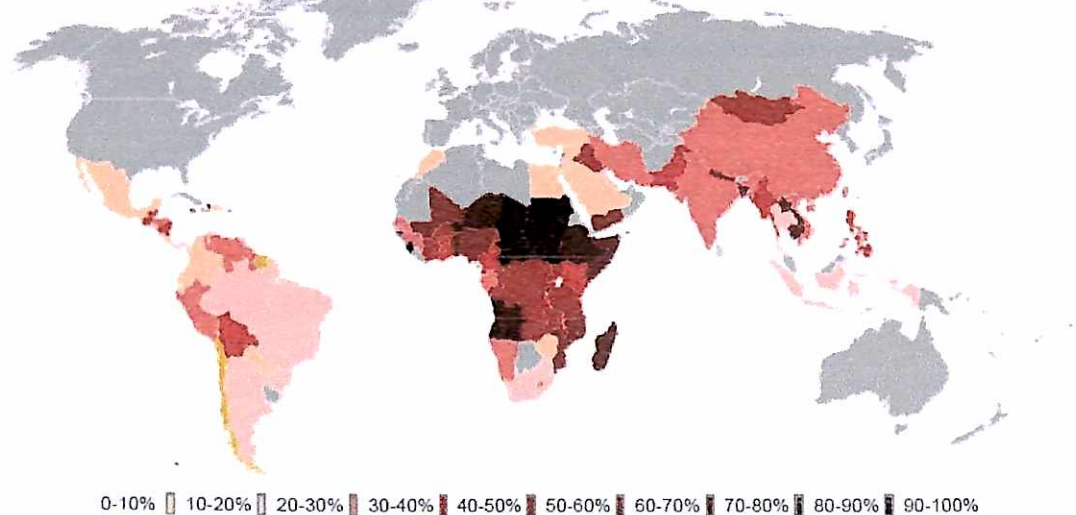
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Urban Population Living in Slums and the Indian Scenario (source: IIN-HABITAT)



The preparation of HFAPoA Plan will 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/agencies;

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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);
12. For each slum identified, Slum Development Plan to be decided based on models like PPP development, infrastructure provision only, community-based development through Rajiv Awas Housing Societies, etc. This decision-making should necessarily be done with the involvement of the community after community mobilization and dialogue for deciding the model to be adopted. Each slum development plan should have the timeline against each of the activities; and
13. Preparation of HFAPoA Plan should be based on the development plans for all slums and strategies for the prevention of future slums, including reservation of land and housing for the urban poor. The Plan should contain timeline of activities for achieving slum-free city, phasing information and financial estimates against each of the activities

#### 14. Introduction to Pradhan Mantri Awas Yojana (PMAY)

i. Pradhan Mantri Awas Yojana [PMAY] a path breaking scheme for the slum dwellers and urban poor envisages a 'Slum-free India' through encouraging States/Union Territories to tackle the problem of slums in a holistic manner. It calls for a multi-pronged approach focusing on:

- Bringing existing slums within the formal system and enabling them 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 that keep shelter out of reach of the urban poor and force them to resort to extra-legal solutions in a bid to retain their sources of livelihood and employment.



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*ii.* PMAY envisages the following

- Development of 'city-wide' slum free city plans that can then get integrated at the state level through a broad State wide slum free action plan
- 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.
- An integrated approach covering shelter, services and livelihoods for poor slum communities.

*iii.* The duration of Pradhan Mantri Awas Yojana [PMAY] will be in the following two phases:

- (2015-2022) – covering innovative and projects and initial set of cities ready with City –wide plans.

*iv.* Eligible Components of the PMAY: In each slum, an integrated approach will be taken, with provision of infrastructure, basic civic and social amenities and decent housing, with attention to planning the layout (after reconfiguration of plots, if possible), total sanitation (with provision of individual toilets and water supply to each household) and provision of adequate green spaces as per (modified, if necessary) town planning norms.

Projects pertaining to the following will not be considered for support under PMAY:

1. Power generation
2. Telecom
3. Employment generation programs and
4. Staffing

**15. The duration of Pradhan Mantri Awas Yojana [PMAY] 2015 TO 2022**

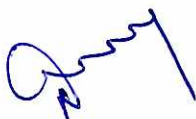
*ii.* The duration of **Pradhan Mantri Awas Yojana [PMAY]** will be in the following two phases:

- (2015-2022) – covering innovative and pilot projects and initial set of cities ready with City –wide plans.

**16. Need for Projects**

This projects are needed to fully understand and develop redevelopment models that can be replicated in the city with benefits. One of the key objectives of developing Projects is to incentivize innovation and encourage new approaches and solutions that

Such innovation could encompass:



- Projects with strong community participation i.e. Slum upgradation/ redevelopment projects initiated/spearheaded by the community; or with their demonstrable involvement and participation in design, planning and implementation
- Creation of fresh rental housing stock and transit shelters
- 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 ; 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

Pradhan Mantri Awas Yojana envisages a 'Housing For All' with inclusive and equitable cities in which every citizen has access to basic civic and social services and decent shelter. It aims to achieve this vision by encouraging States/Union Territories to tackle the problem of slums in a definitive manner, by a multi-pronged approach focusing on:

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

Thus, the main focus of Pradhan Mantri Awas Yojana [PMAY] is an integrated approach aimed at bringing within the formal system those who are forced to live in extra-formal spaces and in denial of right to services and amenities available to those with legal title to city spaces, and at correcting the deficiencies of the formal system of urban development and town planning that have failed to create conditions of inclusiveness and equity; so that, henceforth, new urban families, whether by way of migration or natural growth of population, have recourse to housing with municipal services, and are not forced to create encroachments and slums and live extralegal lives in conditions of deprivation of rights and amenities.

  
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## 17. Funding Pattern of PMAY

<b>FUND FLOW PATTERN</b>						
Rupees in lakhs						
NAME_OF THE SCHEME	ESTIMATED COST	YEAR 2019-20				TOTAL
		GOI	GOWB	ULB	Beneficiaries	
PMAY project - , Bhatpara Municipality	6375.60	2362.50	3329.55	289.80	393.75	6375.60

<b>PHASING OF FUND</b>					
Rupees in lakhs					
YEAR 2019-20	RELEASE OF FUND				
	GOI	GOWB	ULB	Beneficiaries	TOTAL
1st Installment @ 40%	945.00	1331.82	115.92	393.75	2786.49
2nd Installment @ 40%	945.00	1331.82	115.92	0	2392.74
3rd Installment @ 20%	472.50	665.91	57.96	0	1196.37
<b>TOTAL</b>	<b>2362.50</b>	<b>3329.55</b>	<b>289.80</b>	<b>393.75</b>	<b>6375.60</b>

<b>REQUIREMENT OF FUND</b>			
Rupees in lakhs			
SL. NO	NAME_OF THE SCHEME	YEAR 2019-20	TOTAL
1	PMAY project - , Bhatpara Municipality	6375.60	6375.60
	<b>Total</b>	<b>6375.60</b>	<b>6375.60</b>

  
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## 18. Demographic features of the Bhatpara Municipality

Social and demographic profile of Bhatpara Municipality builds upon analysis of recent and past Census data of the district of North 24 Parganas and Bhatpara Municipality. Census records show that district of North 24 Parganas has recorded a high growth of urban population recording around 18.2% during 2001-2011 period. This has led the district to become 2<sup>nd</sup> largest district of India and largest in state in terms of population size in 2011. It has rightly been represented by district wise number of municipalities as North 24 Parganas is highest among all districts with 27 municipalities in the district spread across five subdivisions. Bhatpara Municipality is one of the key municipalities in the North 24 Parganas district.

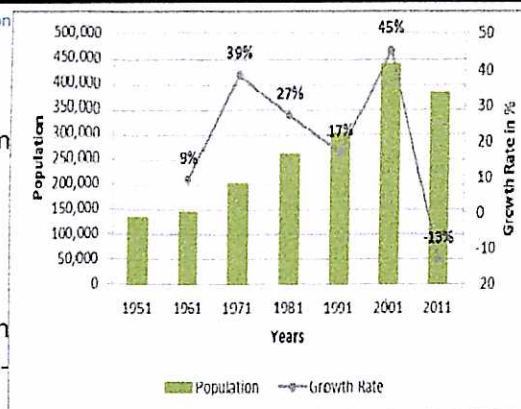
Population of Bhatpara constitutes only 4% of total district population and the total urban population of North 24 Parganas it comes around 57% of district's population. Bhatpara Municipality comes among the top three municipalities[1] of the district ranked in terms of population size with its population recording around 6.8% of the urban population of the North 24 Parganas. Demographic overview of the municipality over the decades has been presented in the table below.

**Table 8 Overview of the Bhatpara municipality**

No.	Indicators	2001	2011	2014 (P)
1.	Population (In Lakhs)	4.42	3.84	4.1
2.	Decadal Population Growth Rate	45.07%	-13.25%	5.11%
3.	No of HHs	80,005	87,076	91,700
4.	Average Household Size	5.53	4.41	4.41
5.	Population Density (Persons per Sq. Km)	16,556	14,362	15,097
6.	Overall Male-Female Ratio	65.65	63.47	63.47

Source: Census, DDP, USHA survey and validation under [PMAY]. Population  
Following observations can be inferred from the above table:

Bhatpara municipality witnessed a steep decline in population during 2001-2011 period with a negative growth rate at 13.25%, as compared to growth trend recorded in West Bengal and North 24 Parganas at 14% and 12% respectively during the same period. Growth rate of Urban Population of North 24 Parganas was about 18% during 2001-2011. .



  
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- After analysing population data of the previous census records, it reveals that population growth trend for Bhatpara was upward and consistent between 1961-2001 period with highest growth rate recorded during 1991-2001 at 45% (see Figure 6). Based on feedback received from Bhatpara Municipality we are given to understand that this sudden trend fluctuation coupled with increase in number of households during 2001-2011 period may be attributed to outmigration or temporary absence of house members during the period of enumeration.

• The projected population of Bhatpara as on 2014 is expected to be about 410809[2] with number of households estimated at 91700.

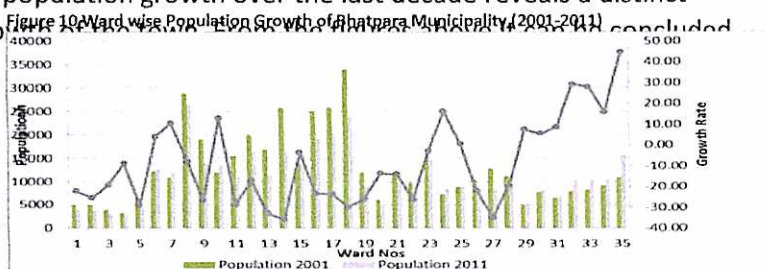
[1] Other densely populated Municipalities are South Dum Dum, Rajarhat Gopalpur with share of their population recording more than 7% of total urban population.

[2] The population for 2014 has been projected assuming an average annual growth rate based on the decadal growth rate observed since 1961-71.

The analysis of the ward wise population growth over the last decade reveals a distinct pattern of the direction of growth.

Wards located in the western side of the town are comparatively more populated with 8 wards appearing in top 10 wards of the town in terms of population size. On

the contrary, 9 wards located in eastern part of the town come in top 10 wards ranked in respect of population growth rate during 2001-2011. Ward no. 15 located in central-eastern part of the town is the only ward which comes in top 10 wards of the municipality with respect to population size and population growth

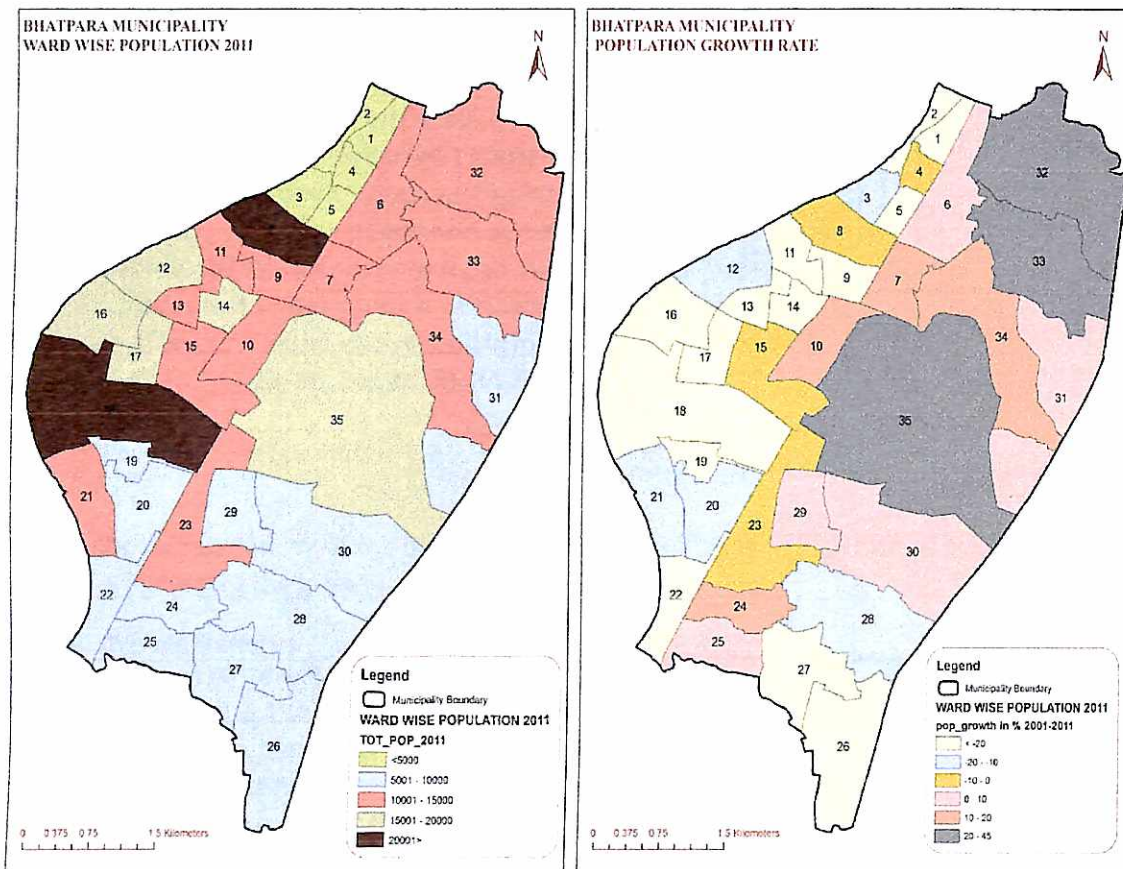


- Further analysis of the negative population growth of the town during 2001-2011 period reveals that 23 out of total 35 wards have recorded negative population growth rate during that period and except for ward no. 23 recording negative 2.9% growth, remaining 22 wards are located at the western side of the railway track. Further, around 98% of downfall in town population is observed to be driven by reduction of population in only 10 wards of which 5 wards (13, 14, 16, 17 and 18) account for 63% of total decline (around 37,000) and all these wards are jute mill zones.

- More specifically, all the 8 most densely populated wards located on western side of railway track have registered negative growth rate with growth rates of four of them (16, 17, 18 and 9) recording more than negative 20% growth during 2001-2011.

- In comparison, north western part of the Municipality (ward no. 32, 33 and 34) have registered substantial positive growth with growth rate more than 15%, since it is the newer region and has vacant land to offer for newer developments.

These are rightly represented in figures below showing ward wise population size and growth in Bhatpara municipality.



increased from 2,182 persons/sq. km in 2001 to 2,445 persons /sq. km in 2011. Ward wise analysis reveals following key observations:

Figure 11 Ward wise Population Density of Bhatpara 2011

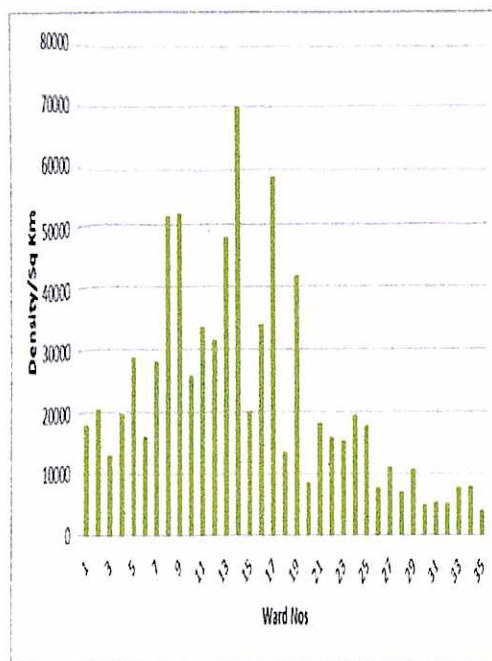
  
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Population density varies substantially across the wards with four wards (14,17,9 and 8) recording population and household densities recording of more than 50,000 persons/ sq. km and more than 9500 HHs/sq.km respectively. Wards ranked based on population density sizes reveal that all the top 10 wards are located on the western part of the town, Whereas all the thirteen (13) wards located in eastern part of the town are relatively lesser dense with average population and household densities recording around 9,600 persons/sq. km. and 2425 HHs/sq.km. Low population density of the wards located along the eastern part railway track vis-à-vis rest of the wards is attributed to presence of large chunk of vacant land in majority of these wards (26, 28, 30, 31, 32, 33, 34, 35 etc.).



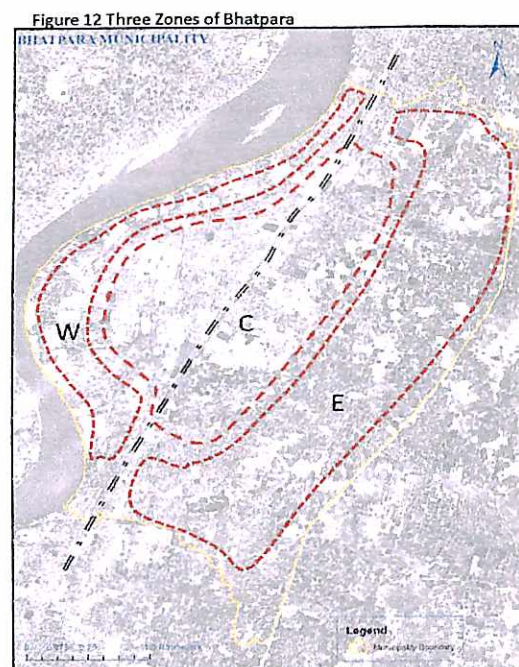
- Low population density of the eastern side wards coupled with high rate of population growth is leading to the growth in the eastern side.

#### Spatial Growth Patterns

##### Existing pattern of Development

Based on variation in intensities of growth across wards, development pattern of Bhatpara carves out into three distinct zones with varying intensities of growth as depicted in figure alongside. The zones are:

- **Western Periphery (W):** The older part of the city with the jute mills situated along the banks of river Hooghly. This zone lies between the banks of Hooghly River and the Ghoshpara Main Rd. This area is characterized with presence of number of industrial units leading to high rate of residential growth and population density..
- **Core (C):** The central core area of the city with dense built-up area and road network on the immediate east and west of the railway track.



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*[Signature]*  
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 Bhatpara Municipality

- **Eastern Periphery (E):** Most of it is newly added area comprising of settlements having low density and residential growth, large chunk of open land and a number of water bodies.

### Growth Direction of City

With the inclusion of the mouzas in the eastern periphery of town in 1995, trend towards sub urbanization and urban sprawl (low density, spatially dispersed and segregated land use) have gradually started to impact the mobility of the town and growth direction. This has further been compounded by enormous population pressure in the core and western periphery of town characterized with shrinking space for habitation. However, the growth movement was lopsided till Barrackpur Kalyani Expressway bordering the eastern part of the town was constructed. Barrackpur Kalyani Expressway has played a key role in shaping the growth pattern toward the eastern direction which is mainly in the ward nos. 23-35. A noticeable growth is visible in most of these wards driven by potential growth drivers like availability of vacant land, and road connectivity for real estate development

Table below presents the list of most promising wards in terms of growth as measured by the municipality along with the underlying reason behind the growth in these wards.

**Table 9 Growth Patterns in Bhatpara Municipality**

Ward No.	Nature of Growth			Growth Drivers		
	Residential	Commercial	Industrial	Population Growth	Road Connectivity	Vacant Land availability
25	√				√	√
26			√	√	√	√
28			√	√	√	√
30			√	√	√	√
32	√		√	√	√	√
33	√			√	√	√
34	√			√	√	√
35	√			√	√	√

**Source: Bhatpara Municipality**

From the above table it is clearly evident that ward nos. 32-35 and 25 have witnessed the significant real estate projects primarily on account of i) availability of large parcels of vacant land, ii) road-rail connectivity and iii) inward migration from adjacent rural areas leading to residential growth. In comparison, some north-western and western wards (Nos. 8, 9, 11, 12, 15-20) of the town witness limited but sporadic real estate developments over the years took place primarily on account of demolition of old structures thereby creating vacant space.

  
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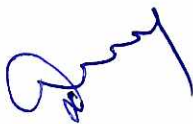
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**19. List of slums under Bhatpara Municipality****List of slums under Bhatpara Municipality**

Sl.No	Slum Code	Slum Name
1	191106850049.00	Naba Pally(S.C.-1)
2	191106850072.00	Kankinara Jute Mill Line(S.C.-1)
3	191106850086.00	Malakarpara(S.C.-002)
4	191106850106.00	Naya Bazar(S.C.-002)
5	191106850017.00	B L.11(S.C.-3)
6	191106850075.00	Gopi Krishna Goswami(S.C.-3)
7	191106850060.00	Rahuta(S.C.-4)
8	191106850073.00	East Ghosh Para Road(S.C.-4)
9	191106850061.00	Rahuta Purba Para(S.C.-5)
10	191106850047.00	Meghna More(S.C.-6)
11	191106850014.00	B L.01(S.C.-7)
12	191106850032.00	B L.11(S.C.-7)
13	191106850035.00	B L.09(S.C.-8)
14	191106850066.00	South Narayan Pur(S.C.-9)
15	191106850080.00	Sastri Nagar(S.C.-10)
16	191106850055.00	Pramod Nagar(S.C.-11)
17	191106850079.00	Alliance Jute Kuli Line(S.C.-11)
18	191106850051.00	Netaji Nagar Coloney(S.C.-12)
19	191106850076.00	Uttar Para(S.C.-12)
20	191106850074.00	Santi Niwas Pally(S.C.-13)
21	191106850081.00	Mitrapara(S.C.-013)
22	191106850040.00	Kela Bagan(S.C.-14)
23	191106850107.00	House Khana(S.C.-014)
24	191106850005.00	B.R.S.(S.C.-15)
25	191106850077.00	Jana Para(S.C.-15)
26	191106850089.00	Satyajit Pally(S.C.-016)
27	191106850109.00	Chak Guradah Ram Mohan
28	191106850083.00	Kewtia Palpara(S.C.-017)
29	191106850110.00	Chak Guradah C.M.D. Bagan(S.C.-
30	191106850053.00	Palpara Deba Sree Pally(S.C.-18)
31	191106850117.00	Chasipara(S.C.-018)
32	191106850057.00	Purbasha(S.C.-19)
33	191106850111.00	Milangar Udyanagar(S.C.-019)
34	191106850041.00	Hindustan Colony(S.C.-20)
35	191106850091.00	Ram Krishna Pally(S.C.-020)
36	191106850008.00	Bakar Muhalla(S.C.-21)
37	191106850108.00	Uchchegarh Uttarpara(S.C.-021)
38	191106850003.00	Abantipur(S.C.-22)
39	191106850118.00	Uchhegarh(S.C.-022)
40	191106850030.00	Hatat Sukanta Pally(S.C.-23)
41	191106850114.00	Balishkhana(S.C.-023)



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42	191106850031.00	Hatpukur Colony(S.C.-24)
43	191106850067.00	Subhashpur(S.C.-24)
44	191106850056.00	Purba Para(S.C.-25)
45	191106850063.00	Sarat Pally - Ward (33) (S.C.-25)
46	191106850028.00	Guptar Bagan(S.C.-26)
47	191106850078.00	New Town(S.C.-26)
48	191106850112.00	Manasha Colony(S.C.-027)
49	191106850122.00	Nayan Pally(S.C.-027)
50	191106850113.00	Sthirpara(S.C.-028)
51	191106850115.00	Kamar Pukur Dhar(S.C.-28)
52	191106850100.00	Jay Chandi Tala(S.C.-029)
53	191106850120.00	Auckland Jute Mill Line(S.C.-029)
54	191106850059.00	Rabindra Pally - Ward (15) (S.C.-
55	191106850119.00	Meghnas Jute Mill Line(S.C.-030)
56	191106850045.00	Mangal Pandey Pally(S.C.-31)
57	191106850121.00	Circus Jute Mill Line(S.C.-031)
58	191106850029.00	Gurdah(S.C.-32)
59	191106850046.00	Meghna More(S.C.-33)
60	191106850123.00	Nn(S.C.-033)
61	191106850094.00	Paler Math(S.C.-034)
62	191106850124.00	N.N(S.C.-034)
63	191106850064.00	Satadal Pally(S.C.-35)
64	191106850024.00	B L.08(S.C.-36)
65	191106850102.00	Dule Para(S.C.-037)
66	191106850044.00	Kundur Bagan(S.C.-38)
67	191106850105.00	Sree Rampur(S.C.-039)
68	191106850036.00	Goyala Para - Ward (13) (S.C.-40)
69	191106850027.00	Durga Nagar(S.C.-41)
70	191106850101.00	Bijay Nagar(S.C.-042)
71	191106850098.00	Rustam Gumti(S.C.-043)
72	191106850104.00	Badam Tala Milan Pally(S.C.-044)
73	191106850018.00	B L.12(S.C.-45)
74	191106850103.00	Fakir Para(S.C.-046)
75	191106850116.00	Manikpir(S.C.-047)
76	191106850082.00	Bansh Bagan(S.C.-048)
77	191106850068.00	Sugia Para - Ward (15) (S.C.-49)
78	191106850015.00	B L.02(S.C.-50)
79	191106850006.00	Baburani Para(S.C.-51)
80	191106850043.00	Kumar Para Burning Ghat(S.C.-
81	191106850097.00	Hatath Colony(S.C.-053)
82	191106850021.00	B L.19(S.C.-54)
83	191106850023.00	B L.07(S.C.-55)
84	191106850025.00	B L-20(S.C.-56)
85	191106850087.00	Ukil Bagan(S.C.-057)
86	191106850022.00	B L.06(S.C.-58)

  
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87	191106850099.00	64 Pally(S.C.-059)
88	191106850001.00	1 No. Kebin Road(S.C.-62)
89	191106850095.00	Fakir Para(S.C.-063)
90	191106850069.00	Sugia Para - Ward (14) (S.C.-64)
91	191106850004.00	Ambagan(S.C.-65)
92	191106850013.00	Begun Khet(S.C.-66)
93	191106850020.00	B L.13(S.C.-67)
94	191106850092.00	Ramnagar East(S.C.-068)
95	191106850090.00	Bl-17(S.C.-069)
96	191106850084.00	Kela Bagan(S.C.-070)
97	191106850062.00	Sarat Pally - Ward (25) (S.C.-71)
98	191106850039.00	Kantadanga Road(S.C.-73)
99	191106850037.00	Goyala Para - Ward (5) (S.C.-74)
100	191106850050.00	Naya Bazar(S.C.-75)
101	191106850016.00	B L.10(S.C.-76)
102	191106850052.00	Padma Pukur Road(S.C.-77)
103	191106850010.00	Barui Para(S.C.-78)
104	191106850054.00	Panchanantala(S.C.-79)
105	191106850088.00	Sundiya Para(S.C.-080)
106	191106850065.00	Satin Sen Nagar(S.C.-81)
107	191106850042.00	Jagan Nath Colony(S.C.-82)
108	191106850033.00	B L.09(S.C.-83)
109	191106850026.00	Chalta Road(S.C.-84)
110	191106850038.00	Kantadanga(S.C.-85)
111	191106850058.00	Rabindra Pally - Ward (24) (S.C.-
112	191106850071.00	Surpara Road(S.C.-87)
113	191106850048.00	Mula Zore(S.C.-88)
114	191106850012.00	Bazar Road(S.C.-89)
115	191106850085.00	21 No Goli(S.C.-090)
116	191106850093.00	Nag Bagan(S.C.-091)
117	191106850009.00	Bankim Nagar(S.C.-92)
118	191106850011.00	Battala Ramkrishna Pally(S.C.-94)
119	191106850070.00	Sundia(S.C.-95)
120	191106850125.00	Suormari(S.C.-096)

  
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## 20. List of Non slums under Bhatpara Municipality

List of Non-Slums under Bhatpara Municipality is given below:-

S/ No	Name of Non-Slum
1	Bhatpara Area from Ward No-01 to 05
2	Rathtala Fingapara Kantadanga Area from Ward No-06, 07 & 34
3	Kankinara Area from Ward No-08 to 14
3	Jagatdal Area from Ward No-15 to 18
4	Shyamnagar Area from Ward No-19 to 30
5	Madral Subashpur Area from Ward No-31 to 33
6	Sthirpara Area in Ward No-35

Land of total Non-Slum Area is 21.1 Sq.Km.

## 21. Project Justification

Bhatpara Municipality selected the slum 1 No. Kebin Road, Kewtia Palpara & Sthirpara slum for the following reasons as project for preparation of DPR under slum free city plan – PMAY/HFA.

1. The condition of living in the slum is unhygienic since majority of the slum dwellers rear pigs.
2. Land belongs to the Private Ownership..
3. 40 years old settlement
4. The State Highway - 1 is only 1.8kms away
5. Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof.
6. No sewerage system
7. Majority portion of roads are brick paved or Katcha roads.
8. Habitation pattern in the slums is congested with insufficient open space
9. Land belongs to Private Ownership.

The proposed HFA project would address the existing problems in the slum which includes lack of basic physical infrastructure and environmental betterment.

  
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## 22. Existing Slums Details

The environmental condition in the slums is poor. It lacks basic civic amenities mainly drainage, thereby leading to water logging, mainly during rainy season. Majority of the residents are involved daily labour in their rearing. This has led to an unhygienic living condition in the slum. Most of the roads within slums are brick paved or kutcha road. Though there are no streetlights available. Most of the population adopts unhygienic method for disposing their waste; thereby causing huge damage to health that ultimately leads to significant loss of man-days of work amongst others. Overall physical and social infrastructure is poor.

## Project Land Particulars

### Income and Expenditure Pattern of Households (HH)

The average monthly income of most of the Household varies between Rs 2000 – Rs 3000.

Average Monthly Income of Household(in Rs.)					
<2000	2000-3000	3000-4000	4000-6000	6000-9000	>9000
9	189	0	0	0	0

Average Monthly Expenditure of Household(in Rs.)					
<2000	2000-3000	3000-4000	4000-5000	5000-8000	>8000
10	187	1	0	0	0

  
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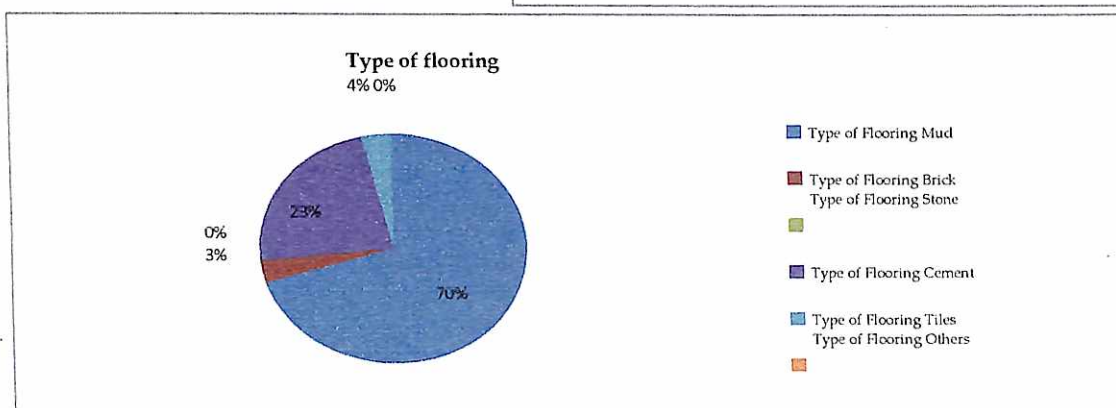
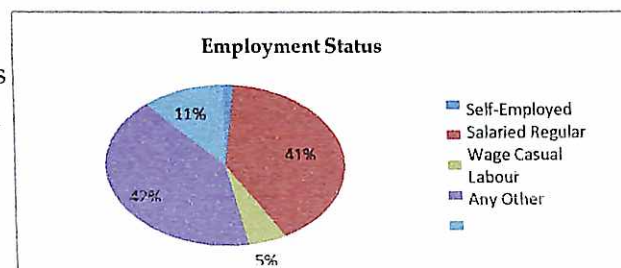
  
Chairman  
Bhatpara Municipality

### Employment Status

It is observed that only 25% of the total population constitute of earning family members and their employment status is as follows:

Self-Employed	Salaried	Regular Wage	Casual Labour	Any Other	
3	94	12	96	26	

41% of the people are salaried workers most of whom works under Bhatpara Municipality



### Migration

Maximum dwellers have migrated from rural areas due to lack of employment in agriculture sector. Out of 198 Household about 191 household had migrated from rural to urban area. Majority of the population of this slum is living for more than 40 years in this slum. Hence, dwellers are now permanently depending on 1 No. Kebin Road, Kewtia Palpara & Sthirpara slums. This justifies as a parameter on the importance of Slum for Insitu development.

### Housing Status

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.

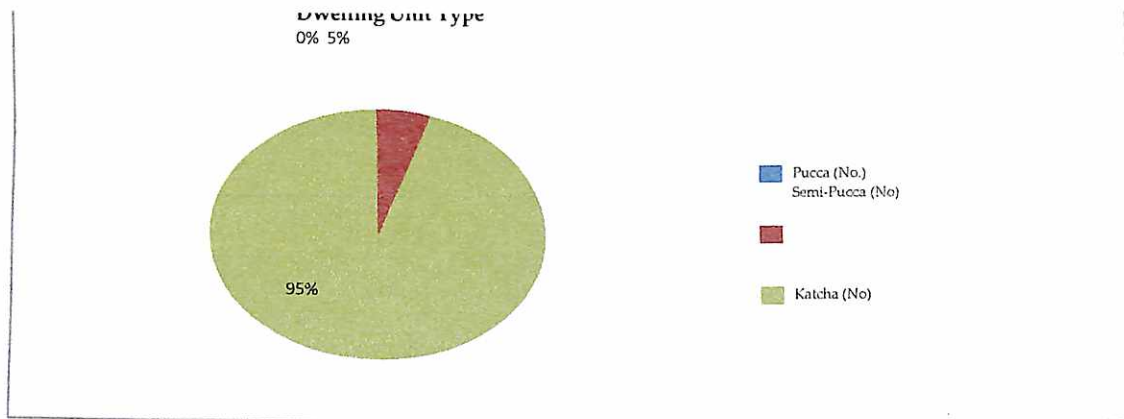
The total number of dwelling units in the slum is 196 of which 10 are semi-pucca houses and 186 kutcha houses. It is observed that some dwelling units have multiple partitions holding more than 1 family.

  
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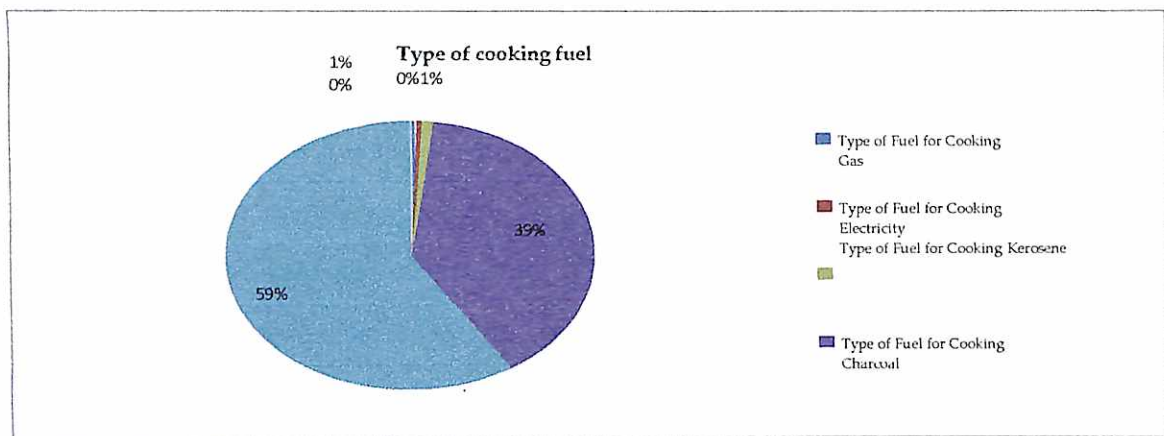




All 196 dwelling units have Raniganj tiles on roof

House by Type/Structure		
Pucca(Dilapidated)	Semi-Pucca	Katcha
0	10	186

Most of the dwelling units have mud flooring closely followed by cement flooring. Firewood is the major source of cooking fuel in majority of the slum household.

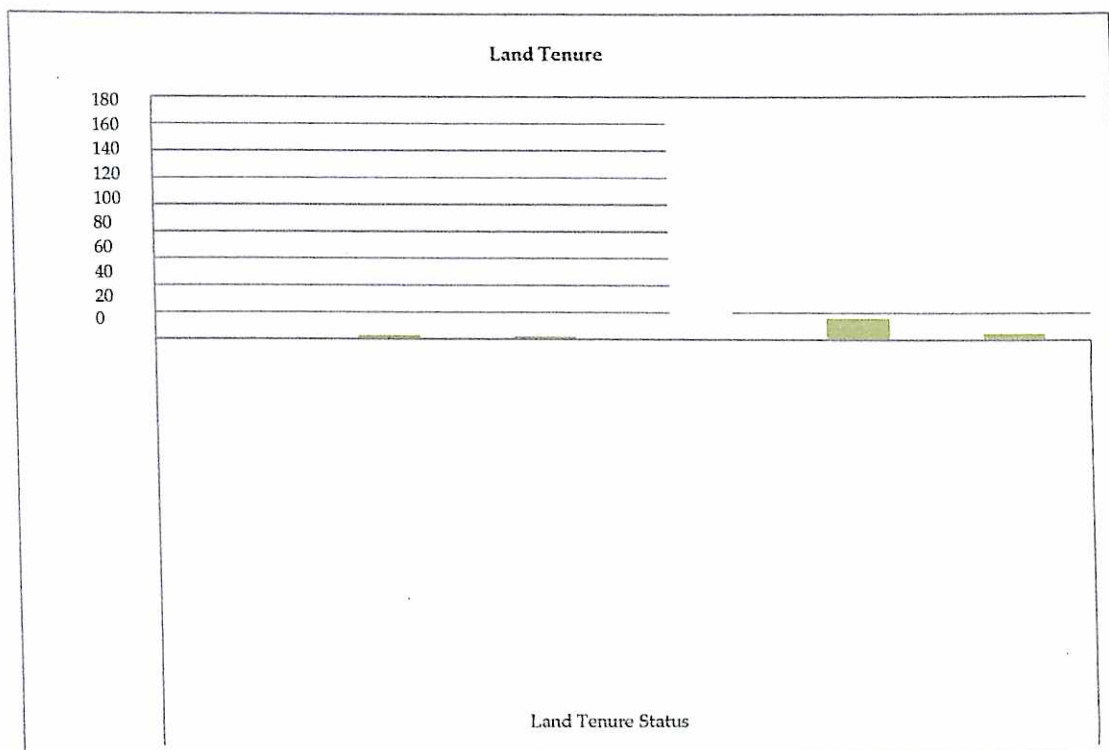


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**Land Tenure status**

Majority of the existing household are encroachment on public land.

**Physical Infrastructure**

Infrastructure is the basic requirement of urban life and its adequacy and accessibility are two important ingredients and key contributors in the up gradation and enrichment of quality of urban life which is the primary objective of any planned development effort. These infrastructure facilities are broadly classified into two aspects:

**Physical infrastructure:** Water supply, Sewerage and drainage, Solid waste, Roads, Electricity

**Social infrastructure:** Health, School, Community Hall, Post Office

  
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### Status of Physical Infrastructure Pucca(Dilapidated)

Sl. No.	Physical Infrastructure	Status
1	Connectivity to City-wide Water Supply System	Partially Connected
2	Connectivity to City-wide Storm-water Drainage System	Partially Connected
3	Connectivity to City-wide Sewerage System	Partially Connected
4	Whether the slum is prone to flooding due to rains	Not prone
5	Frequency of Garbage Disposal	Daily
6	Arrangement for Garbage Disposal	Municipal staff
7	Frequency of Clearance of Open Drains	Once in 2 days
8	Approach Road/Lane/Constructed Path to the slum	Motorable Kaccha
9	Distance from the nearest Motorable Road	Less than 0.5KM.
10	Internal Road	Non-Motorable Kaccha
11	Whether Street light facility is available in the slum	No

### Water Supply

#### Existing condition of water supply


1 No. Kebin Road, Kewtia Palpara & Sthirpara Slum is Partially Connected City-wide Water Supply System

Source of Drinking Water								
Within			Outside Premises					
Individual tap	Tube well/Bore well/Hand pump	Open well	Public tap	Tube well/Bore well/Hand pump	Open well	Tank/Pond	River/Canal/Lake/Spring	Water Tanker
2	0	2	193	0	0	0	0	0

Majority of the household uses public taps for water supply. The situation of water supply in the slum is poor. There is presently only one water tank (ESR) but the slum is not connected to its supply. 194 households replied that they receive water supply more than 2 hour while, 2 households replied they receive 1 to 2 hours daily.

### Sewerage and Storm Water Drains

Drains, sewerage system is available is poor. The slum dwellers are heavily into rearing of pigs as result of which the living condition is unhygienic. Disposal of storm water/ Sullage disposal drain/ culverts are not available. Stagnant water has been observed at many places in and around the slum. 66% of the household uses community septic tank/flush latrine, 24% uses community dry latrines, 9% use shared septic tank/flush latrine, and open defecation doesn't prevails. The existing toilet facilities in the slum are of poor condition.

  
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Own Septic Tank/Flush Latrine	Own Dry Latrine	Shared Septic tank/Flush Latrine	Shared Dry Latrine	Community Septic tank/Flush Latrine	Community dry Latrine	Open Defecation
0	1	18	0	127	46	0

Majority of the population (89%) use community bath while 10% household doesn't have bathroom.

Bath Room Facilities available			
Within Premises	Outside Premises	Community Bath	No Bathroom
2	1	172	19

### Solid waste

At Solid Waste Management system in the slum is mainly done by the ULB. The waste which is generated is collected daily. The drains are cleared by the local people once in 2 days.

### Roads

Approach road to the slum which is less than 0.5 KM far from the slum is a kaccha non-motorable road. 53% the existing roads in front of the houses are non-motorable pucca road,

1% the existing roads in front of the houses are motorable kaccha road, 37% of the existing roads in front of the houses are non motorable kaccha road and only 9% the existing roads in front of the houses are motorable pucca roads.

Roads in front of house			
Motorable Pucca	Motorable Katcha	Non Motorable Pucca	Non Motorable Katcha
16	2	95	65

### Electricity

Majority of the household (99%) have electricity connections, 1% of households are using kerosene for lighting their houses. The condition of street lighting is poor in the slum.

  
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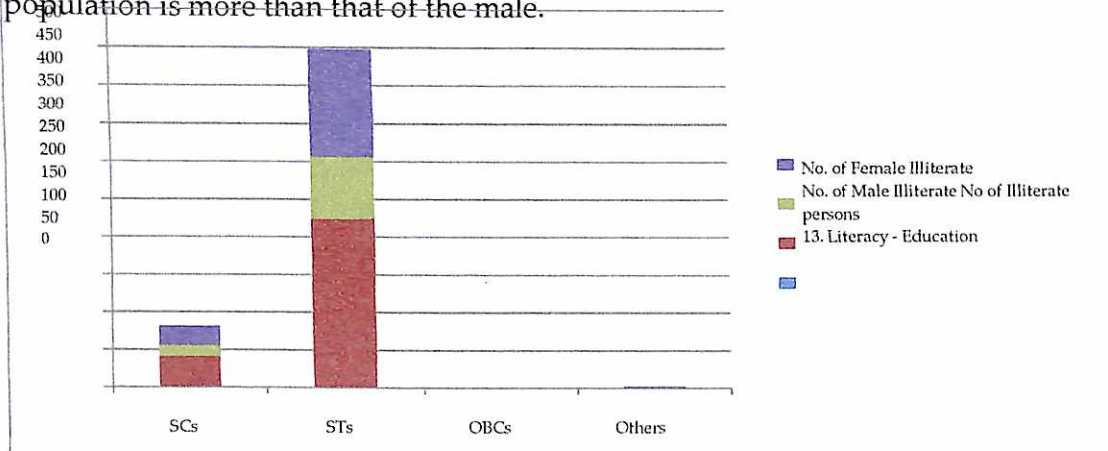
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## Literacy level

It is observed that majority of the population is illiterate. Literacy of the female population is more than that of the male.



## Details of Social Infrastructure at a glance:

Education Facilities	
Pre-primary School	NA
Anganwadi under ICDS	With distance less than 0.5 kms
Municipal pre-school	0
Private pre-school	0
Primary School	
Municipal	NA
State Government	With distance less than 0.5 kms
Private	NA
High School	
Municipal	NA
Private	NA
State Government	With distance less than 0.5 kms
Adult Education Centre	NA
Health Facilities	
Urban Health Post	NA
Primary Health Centre	With distance less than 0.5 kms
Government Hospital	1.0 to 2.0 kms
Maternity Centre	0.5 to 1.0 kms
Private Clinic	With distance less than 0.5 kms
Registered Medical	With distance less than 0.5 kms
Ayurvedic Doctor/Vaidya	1.0 to 2.0 kms
Social Development/Welfare	
Community Hall	NA
Livelihood/Production Centre	NA
Vocational training/Training-cum-	1.0 to 2.0 kms
Street Children Rehabilitation centre	0
Night Shelter	0
Old Age Home	2.0 to 5.0 kms
Self Help Groups/ DWCUA Groups	0

  
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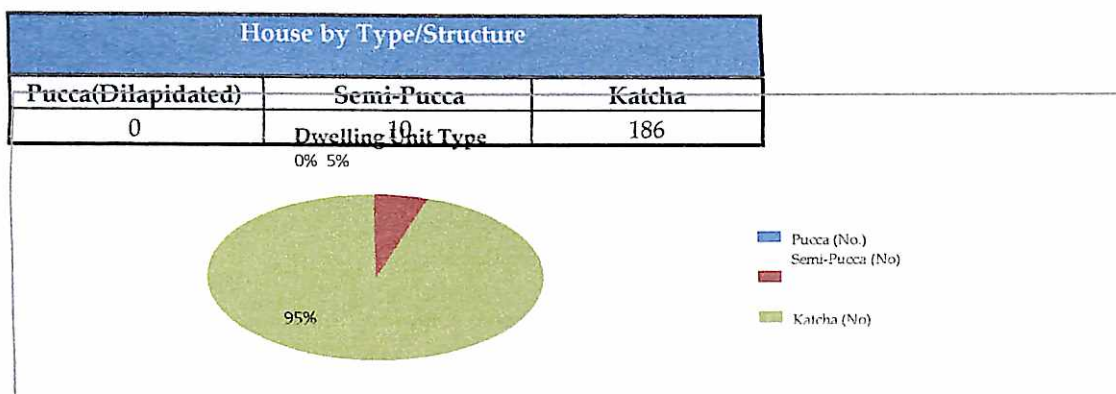
  
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No. of Neighbourhood	0
Slum-dwellers Association	0
Youth Associations	1
Women's Associations/Mahila	0

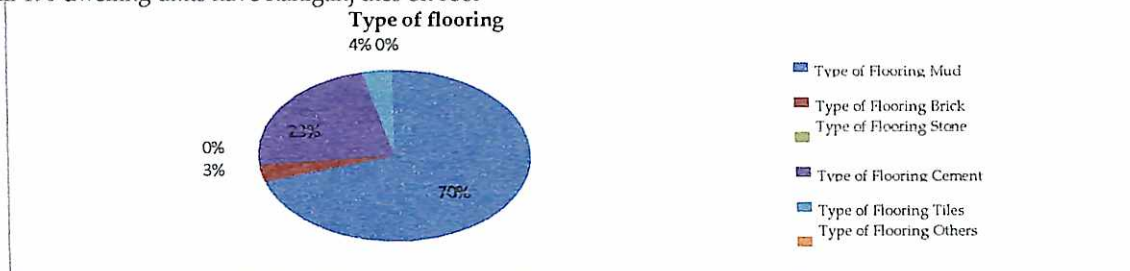
### 23. Housing Status

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.

The total number of dwelling units in the slum is 196 of which 10 are semi-pucca houses and 186 kutchha houses. It is observed that some dwelling units have multiple partitions holding more than 1 family.



All 196 dwelling units have Raniganj tiles on roof



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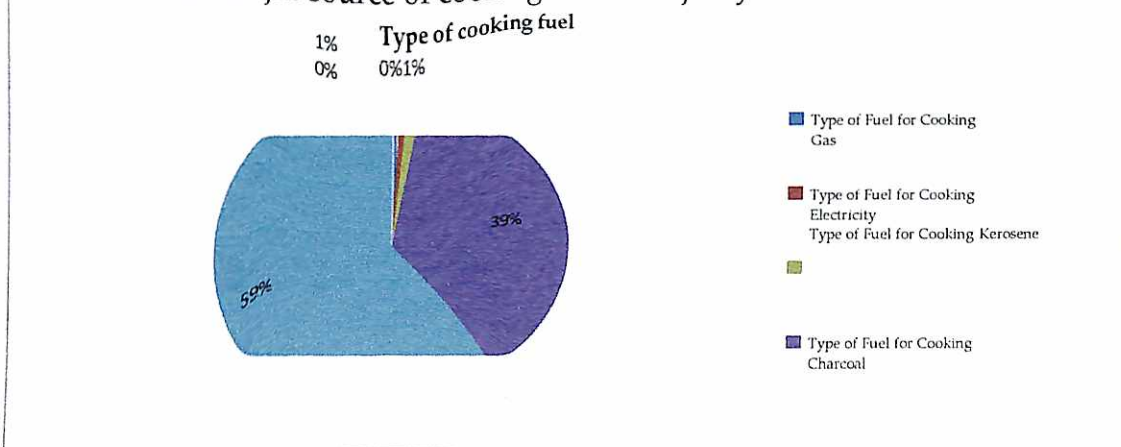
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Most of the dwelling units have mud flooring closely followed by cement flooring.

Firewood is the major source of cooking fuel in majority of the slum household.



## 24. Social infrastructure

Education Facilities	
Pre-primary School	NA
Anganwadi under ICDS	With distance less than 0.5 kms
Municipal pre-school	0
Private pre-school	0
Primary School	
Municipal	NA
State Government	With distance less than 0.5 kms
Private	NA
High School	
Municipal	NA
Private	NA
State Government	With distance less than 0.5 kms
Adult Education Centre	NA
Health Facilities	
Urban Health Post	NA
Primary Health Centre	With distance less than 0.5 kms
Government Hospital	1.0 to 2.0 kms
Maternity Centre	0.5 to 1.0 kms
Private Clinic	With distance less than 0.5 kms
Registered Medical Practitioner(RMP)	With distance less than 0.5 kms
Ayurvedic Doctor/Vaidya	1.0 to 2.0 kms
Social Development/Welfare	
Community Hall	NA
Livelihood/Production Centre	NA
Vocational training/Training-cum-production centre	1.0 to 2.0 kms
Street Children Rehabilitation centre	0
Night Shelter	0
Old Age Home	2.0 to 5.0 kms
Self Help Groups/ DWCUA Groups in Slum	0
No. of Neighbourhood Groups(NHGs) in slum	0
Slum-dwellers Association	0
Youth Associations	1
Women's Associations/Mahila Samithis	0

**25. The Supply Demand Gap and Requirements**

Particulars	Requirements
Housing:	Dwelling Unit provision for 198 Households with <ul style="list-style-type: none"> <li>• 1 Multipurpose Room</li> <li>• 1 Bed Room</li> <li>• 1 Kitchen</li> <li>• 1 Toilet</li> <li>• 1 W.C</li> <li>• 1 Balcony</li> </ul>

Physical Infrastructure Requirement:	Standard Infrastructure Provision for <ul style="list-style-type: none"> <li>• Water Supply</li> <li>• Sewerage &amp; Drainage</li> <li>• Electricity/ Power</li> <li>• Roads</li> </ul>
Requirement:	Provision for- <ul style="list-style-type: none"> <li>• Informal Market</li> <li>• Community centre</li> <li>• Piggery</li> </ul>

**Physical Infrastructure required**

Water supply, Sewerage, Drain, Electricity

**Social Infrastructure required**

Community centre, Informal market complex

**Project Development Option**

In-situ redevelopment and whole of the pilot project will be addressed in the project

**26. Financial Implementation**

The following models can be adopted:

**Community Partnership:** implies development of housing by involvement of community

**PPP:** the market existing can be redeveloped through PPP for providing livelihood means to the slum dwellers

**Beneficiary led Participation:** implies development of housing by involvement of Beneficiary



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## Public Consultations:

Public consultations play a key role in the success of project. To make the system transparent and to create awareness among the slum dwellers, consultations are required. Through the regular interaction with the slum dwellers, the following can be known in greater details which are the prime points for the success of the project.

- Composition of beneficiaries
  - Socio-economic profile
  - Benefits incurred viz., social, economic, etc.
  - Perception on the implementation of the Scheme
  - Knowledge of PMAY

This is an innovative technique which increases the success rate of the project, assess the appropriateness of the scheme concept and design and its effectiveness in meeting objectives and the extent to which it have contributed towards achieving the goal.

### 27. Post Project Monitoring

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

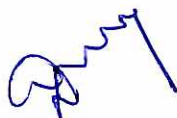
Accurate assessment of investment requirements and devising a suitable financing strategy are the key components of any sustainable slum rehabilitation program.

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, GIS, 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 handholding support to States/UTs.







### Participation through Ward committees

People's participation in municipal planning and development is critical and shall be ensured through of Ward Committees in each ward irrespective of their population and size.

The Ward Committee Rules have also been framed in such a way so as to ensure involvement of the members of the Ward Committees in the overall municipal administration and resource mobilization. The Ward Committee created especially for the purpose of PMAY will be headed by the Councillor of the Ward, who would in turn submit the report of progress to BWMC

Some of the responsibilities the Ward Committee will be:

- i. Supervision of the physical progress of the work under the project
- ii. Designating in-charge, who would be held responsible for individual scheme under the project
- iii. Collecting user charges for operation and maintenance (O&M) activities
- iv. Ensuring proper maintenance of each of the assets that is created under the project

### Participation through Community Based Organization

Participation of poor families in planning and implementation of slum level Basic Infrastructure Development as well as Socio-Economic Development has been ensured through formation of Community Based Organization. The Ward Committee will also have representative of weaker community. Similar structure have also been involved by the municipalities in providing civic services like conservancy services, maintenance of street light, etc. municipal administration and resource mobilization.

However, basic guidelines, which will be followed in implementation of the projects, are been laid down below:



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## 28. Water Supply, Drainage and Solid waste management

From the very inception of Bhatpara as municipality, the main source for the supply of drinking water was from river Hooghly. Water was treated at vintage water treatment plants run by jute mills and distributed through pipeline network covering a small part of the town. Over the years, municipality has taken up number of water supply augmentation , including i) laying piped water supply distribution network by drawing funds from its own budget and other sources like CUDP III, 10<sup>th</sup> Finance commission etc., ii) rolling out 24x7 water supply scheme, a Rs. 250 crores project (2010-2014) implemented by KMDA under JNNURM, involving construction of a new 23 MGD Water Treatment Plant at Jagatdal, 18 overhead reservoirs and further spreading out of surface water pipeline network in other parts.

Currently, the town has a total of 330 km of surface water pipeline network catering to 96% of total population of the city and providing direct water connections to 31,000 households, of which 110 km runs within wards 1-22 and the remaining in the other 13 wards. Post the implementation of JNNURM project, daily piped water supply of the town has reached at 70 MLD.

Despite the existence of surface water supply network and coverage, municipality has to resort to ground water to meet the supply at some parts of the town. As per ULB records, 10% of the entire water supply is dependent on groundwater through deep tube wells and hand pumps, mainly in the ward nos. 06, 07, 25, 32 and 35.

The table below presents a service level standard of Bhatpara in terms of coverage of the city with respect to water supply.

Table 10: Water Supply Benchmarks for Bhatpara Municipality

S/No	Indicator	Central Level Benchmarks	State Level Benchmarks	Present Status 2013-14	Targeted status during 2019-20
1	Coverage of Water Supply Connection	100%	100%	82%	92%
2	Per Capita available of Water at consumer end	135 Lpcd	135 Lpcd	105 Lpcd	135 Lpcd
3	Extent of metering of Water Connections	100%	100%	0%	0%
4	Extent of Non-Revenue Water	20%	20%	20%	20%
5	Continuity of Water Supply	24/7 Hrs/Day	24/7 Hrs/Day	10 Hrs./Day	18 Hrs/Day
6	Efficiency in redressal of customer complaints	80%	80%	82%	90%
7	Quality of Water supplied	100%	100%	80%	95%
8	Cost recovery in water supply service	100%	100%	22%	35%
9	Efficiency in collection of water supply related charges	90%	90%	60%	70%

Source: MoUD, GoI and Bhatpara Municipality, 2014



### Storm water Drainage

Mukterpur canal starting from Tinshukia to river Hoogli (5 km in length) is the main channel for waste water outlet of the town. Other two main drains, namely, Rishi Bankimkhal and Shyam Nagar Khal, run through the northern and southern boundary area feeding canals of Mukterpur and Barti Beel respectively. These channels now have been silted. The banks of the channel are fairly high with respect to the intermediate spread of land. Bhatpara has 107 km of pucca drains and 125kms of katcha drains.

Due to lack of maintenance and heavy siltation these channels are not adequate for drainage in current form. As a result, a large number of low lying pockets, which remains water logged in the rainy seasons, have been created. The land in the municipal area is generally flat and the slope is towards intermediate field from the riverbanks.

Table 11: Storm water Drainage Benchmarks for Bhatpara Municipality

S/No	Indicator	Central Level Benchmark s	State Level Benchmarks	Present Status 2013-14	Targeted status during 2019-20
1	Coverage of Storm Water Drainage Network	100%	100%	80%	85%

### Sewerage & Sanitation

The sewerage network has only 15% coverage in the entire city. The network has primarily evolved in three stages, which are:

- **Stage I (1931-1973):** It started with laying of initial drainage network in 1931, which was further extended by the PHE in 1973. This led to laying of total 20.42 km of drainage network at this stage. Also a STP of capacity 10 MLD was constructed which is presently functional.
- **Stage II (1987-1993):** Bhatpara was brought under the purview of Ganga Action Plan (GAP) in the period 1987-1993, during which the old drains and outfall points were intercepted and 5 lifting stations and 2 pumping stations were constructed for better collection and transmission. A total of 15 km of pipeline was constructed during this phase in wards 1-22.
- **Stage III (2013- 2017 Projected):** Further improvement of the sewerage system is being implemented under NGRBA since 2013. Scheduled to be completed by 2017, this project is focused on eastern wards of the municipality, which has no sewerage system currently. As
  - Laying of 125 km of Sewerage Pipeline
  - Setting up of 23 lifting stations
  - Setting up of 3 Pumping Stations
  - Setting up of 3 STPs at a) Jagatdal ward No 15, b) Dipali Math ward No 23 and c) Rabindra Pally ward No 6 with a total capacity of 61 MLD

As on June, 2014 the project is running on time and 27% of the project work is already

  
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In addition to sewerage and sanitation works carried out in above three stages, municipality had underwent annual repair and maintenance work for the existing pipelines leveraging own fund of the municipality based on as-is-where-is basis.

The table below presents a service level standard of Bhatpara in terms of coverage of the city with respect to sanitation and sewerage. Table clearly shows though toilet coverage of the town is reasonably good, but lot of interventions are required to improve sanitation and sewerage facilities as there is no household level drainage facility leading to unhygienic environment in slums.

**Table 12: Sewerage and Sanitation Benchmarks for Bhatpara Municipality**

	Indicator	Central Level Benchmarks	State Level Benchmarks	Present Status 2013-14	Targeted status during 2019-20
1	Coverage of Toilets	100%	100%	85%	90%
2	Coverage of wastewater network services	100%	100%	25%	45%
3	Collection Efficiency of Waste Water Networks	100%	100%	60%	65%
4	Adequacy of Waste water treatment capacity	100%	100%	45%	55%
5	Extent of Reuse and recycling of treated wastewater	20%	20%	3%	15%
6	Quality of Waste Water Treatment	100%	100%	94%	95%
7	Efficiency in redressal of customer complaints	80%	80%	60%	75%
8	Extent of cost recovery in Waste Water Management	100%	100%	4%	7%
9	Efficiency in collection of sewerage charges	90%	90%	0%	0%

Source: MoUD, GoI and Bhatpara Municipality 2014

### **Solid Waste Management**

Bhatpara Municipality generates approximately 6050 MT/month of solid waste. Presently there is no proper solid waste management in the municipality and it is dumped in open landfill sites. There are two spots which currently the municipality uses as dumping grounds. They are: i) Madral low cost treatment plant (in use for last 10 years) and ii) Fingapara Ward 29-35 border (in use for last 4 years). The waste is collected mostly by Handcarts and then dumped by tractors and trailers. Recently, a SWM pilot project (Rs. 28 Crore approx.) is being implemented under NGRBA.

The table below presents a service level standard of Bhatpara in terms of coverage of the city with respect to Solid Waste Management. In terms of household level coverage solid waste management and segregation of municipal solid waste, the municipality is not at a good stage.

  
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Table 13: SWM Benchmarks for Bhatpara Municipality

	Indicators	Central Level Benchmarks	State Level Benchmarks	Present Status 2013-14	Targeted status during 2019-20
1	Household level coverage of solid waste management services	100%	100%	25%	45%
2	Efficiency of collection of municipal solid waste	100%	100%	90%	92%
3	Extent of segregation of municipal solid waste	100%	100%	15%	20%
4	Extent of municipal solid waste recovered	80%	80%	80%	85%
5	Extent of scientific disposal of municipal solid waste	100%	100%	15%	40%
6	Extent of cost recovery in solid waste management services	100%	100%	10%	15%
7	Efficiency in collection of solid waste management charges	90%	90%	10%	11%
8	Efficiency in redressal of customer complaints	80%	80%	85%	90%

### 29. Definition of Slum for Housing

Different definitions of a slum exist in different statutes and in urban poverty literature. For the purpose of HOUSING SCHEME, it is proposed to adopt the definition given in the 2001 Census, which is as follows:

**‘Slum’ or ‘Slum Area’**– is a compact settlement of at least 20 households ( For NE & Special Category States it is 10-15 households) with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions.

### 30. Proposed Intervention & Building Plan

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. DUs have been designed after required calculations. The following table provides the breakup of the building units based on its type:

#### Building Plan

The buildings are proposed to cover an area of approximate 30 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.

  
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## Building material

- PCC (1:3:6) for foundation
- RCC M-25 for substructure & superstructure (Column, Beam, Slab)
- HYSD Steel
- 1st class Brick Masonry
- 1:6 (Cement: Sand) plaster – 10 mm on soffit of beam & slab, 15 mm on internal walls & 20 mm on external walls
- IPS flooring

## Structural Design

2

- For all structural elements, M20 grade concrete and Fe 415 grade of steel is used.
- Plinth beams passing through 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 225 mm and 125mm thick with 20 mm External plaster and 12 mm 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: 2.0 kN/m<sup>2</sup> at typical floor
- 1.5 kN/m<sup>2</sup> on terrace (With Access) : 0.75 kN/m<sup>2</sup> on terrace (without Access)
- Floor finish 50mm (0.05\*24) = : 1.2 kN/m<sup>2</sup>
- Ceiling plaster 12mm (0.012\*20.8) : 0.25 kN/m<sup>2</sup>
- Partition walls (Wherever Necessary) : 1.0 kN/m<sup>2</sup>

All the proposed roads are rigid pavement-cement concrete roads. Rigid pavements are those which possess noteworthy flexural strength. The concrete pavement slab can very well serve as a wearing surface as well as effective base course. Therefore usually rigid pavement structure consists of a cement concrete slab, below which a granular base or sub base course may be provided. Rigid pavements are generally designed and the stresses are analyzed using elastic theory, assuming pavement as an elastic plate resting over elastic or a viscous foundation.

Construction of granular sub-base (GSB) 200 mm thick. Construction of 150 mm thick cement concrete pavement, as per Clause 1501.2.2 M30 (Grade), as per drawing and Technical Specification Clause 1501.

The details of proposed roads provide are as follow:

  
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