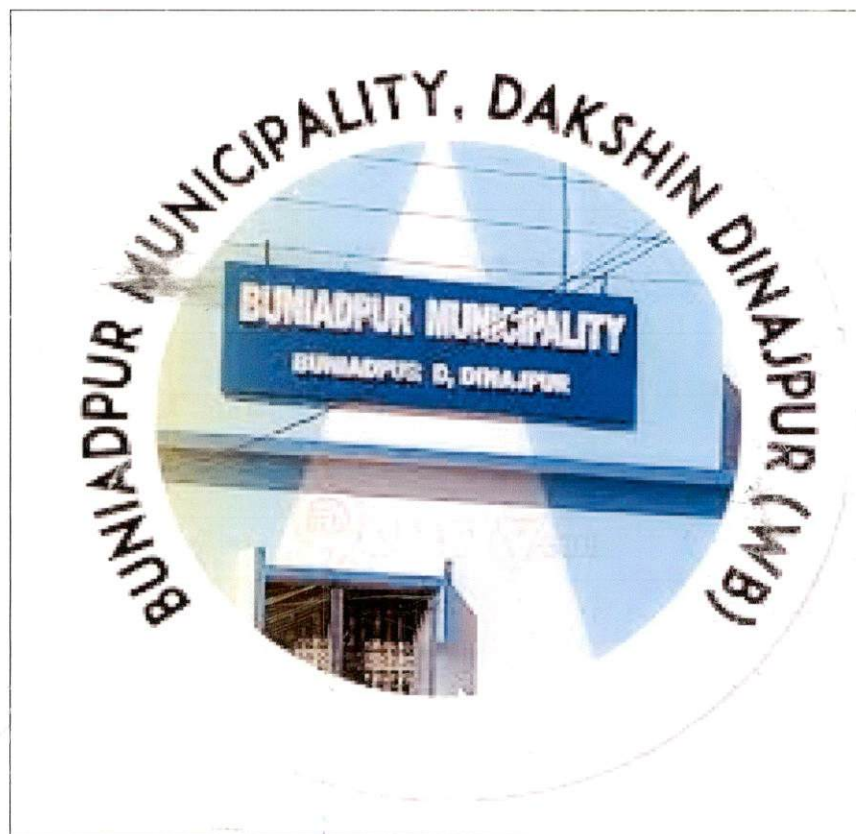


**Detailed Project Report for Construction of 458 EWS
Houses under
BLC mode of Pradhan Mantri Awas Yojana (PMAY)-HFA (U)
for Buniadpur Municipality for 2019-20**

2019-20



**MUNICIPAL ENGINEERING DIRECTORATE, GOVT. OF
WEST BENGAL BIKASH BHAVAN, SALT LAKE, KOLKATA-91**

PREFACE

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

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

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

Total beneficiaries of the scheme are 458 nos from slum and Non Slum projected for the year 2019-20.

Total cost of the project is **Rs. 1853.98 lakhs** as per relevant department & P.W.D. schedule of rates.

Executive Summary

Project Details			
1	Name of the State:	:	West Bengal
2	Name of the District:	:	Dakhin Dinajpur
3	Name of the City:	:	Buniyadpur Municipality
4	Project Name:	:	HFA-Buniyadpur -2019-20
5	Project Cost (Rs. in Lakhs)	:	1,853.98
6	Central Share (Rs. in Lakhs)	:	687.00
7	State Share (Rs. in Lakhs)	:	968.21
8	ULB Share (Rs. in Lakhs)	:	84.27
9	Beneficiary share (Rs. in Lakhs)	:	114.50
	Total Infrastructure Cost (Rs. in Lakhs)	:	168.54
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 1.11.17 with current corrigendum

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

Sl. No.	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.1.93 Lakh/DU)	ULB Share	Beneficiaries Share @ 0.25 Lakh/DU)
A. HOUSING											
1	New in-situ										
	Single Storied Units	BLC	458	NOs	368000.00	1685.44	1685.44	687.00	883.94		114.50
Total Housing Cost Sub Total (A)						1685.44	1685.44	687.00	883.94		114.50
B. INFRASTRUCTURE											
Sl	Scheme Component	Type	Qty	Unit	Rate (in Rs/Unit)	Proposed Project Cost (In Lakh)	Appraised Project Cost (In Lakh)	Central Share (Rs. in Lakh)	State Govt. Share (@50%) (in Lakh)	ULB Share (@50%) (in Lakh)	Beneficiaries Share (in Lakh)
1. ROADS											
1.	Roads	CC	3938	M	4097	161.34	161.34	0.00	80.67	80.67	0.00
2. WATER SUPPLY											
1	House Connection	Plumbing	458	Per Connection	1572	7.20	7.20	0.00	3.60	3.60	0.00


 Chairman
 Buniyadpur Municipality
 D/Dinajpur

	Total Infrastructure Cost Sub Total (B)	168.54	168.54	0.00	84.27	84.27	0.00
	GRAND TOTAL (A+B)	1853.98	1853.98	687.00	968.21	84.27	114.50

Signature of the ULB level
Competent Technical officer

Name & Designation: *Pipin Chandra Mahanta*
Nirman Sahayak
(on deputation)

Fax No:

Telephone No: *Nirman Sahayak*
(On Deputation)
Buniadpur Municipality

E-mail:

9434374529

Signature of the State level Competent Technical
Officer

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

Fax No:

Fax No.: 033-23375474

Telephone No.: 033-23371331

E-mail: ce_medte@yahoo.c

Signature
Director(SUDA)

Signature of the Mayor/Chairperson/Administrator
Buniadpur Municipality

Name & Designation: Debararati Duta Gupta
Director, SUDA

Fax No: 033-23585767

Telephone No: 033-23585767

E-mail: wbsudadir@gmail.com

Name & Designation: Chairman,

Fax No:

Telephone No:

E-mail:

Pipin Chandra Mahanta
Nirman Sahayak
(On Deputation)
Buniadpur Municipality

Chairman
Buniadpur Municipality
Buniadpur, D/Dinajpur

FUND FLOW PATTERN

Rupees in lakhs

NAME OF THE SCHEME	ESTIMATED COST	YEAR 2019-20				TOTAL
		GOI	GOWB	ULB	Beneficiaries	
PMAY project - Buniadpur Municipality	1853.98	687.00	968.21	84.27	114.50	1853.98

PHASING OF FUND

Rupees in lakhs

YEAR 2018-19	RELEASE OF FUND				TOTAL
	GOI	GOWB	ULB	Beneficiaries	
1st Installment @ 40%	274.80	387.28	33.71	114.50	810.29
2nd Installment @ 40%	274.80	387.28	33.71	0.00	695.79
3rd Installment @ 20%	137.40	193.64	16.85	0.00	347.90
TOTAL	687.00	968.21	84.27	114.50	1853.98

REQUIREMENT OF FUND

Rupees in lakhs

SL. NO	NAME OF THE SCHEME	YEAR 2019-20	TOTAL
1	PMAY project - Buniadpur Municipality	1853.98	1853.98
Total		1853.98	1853.98

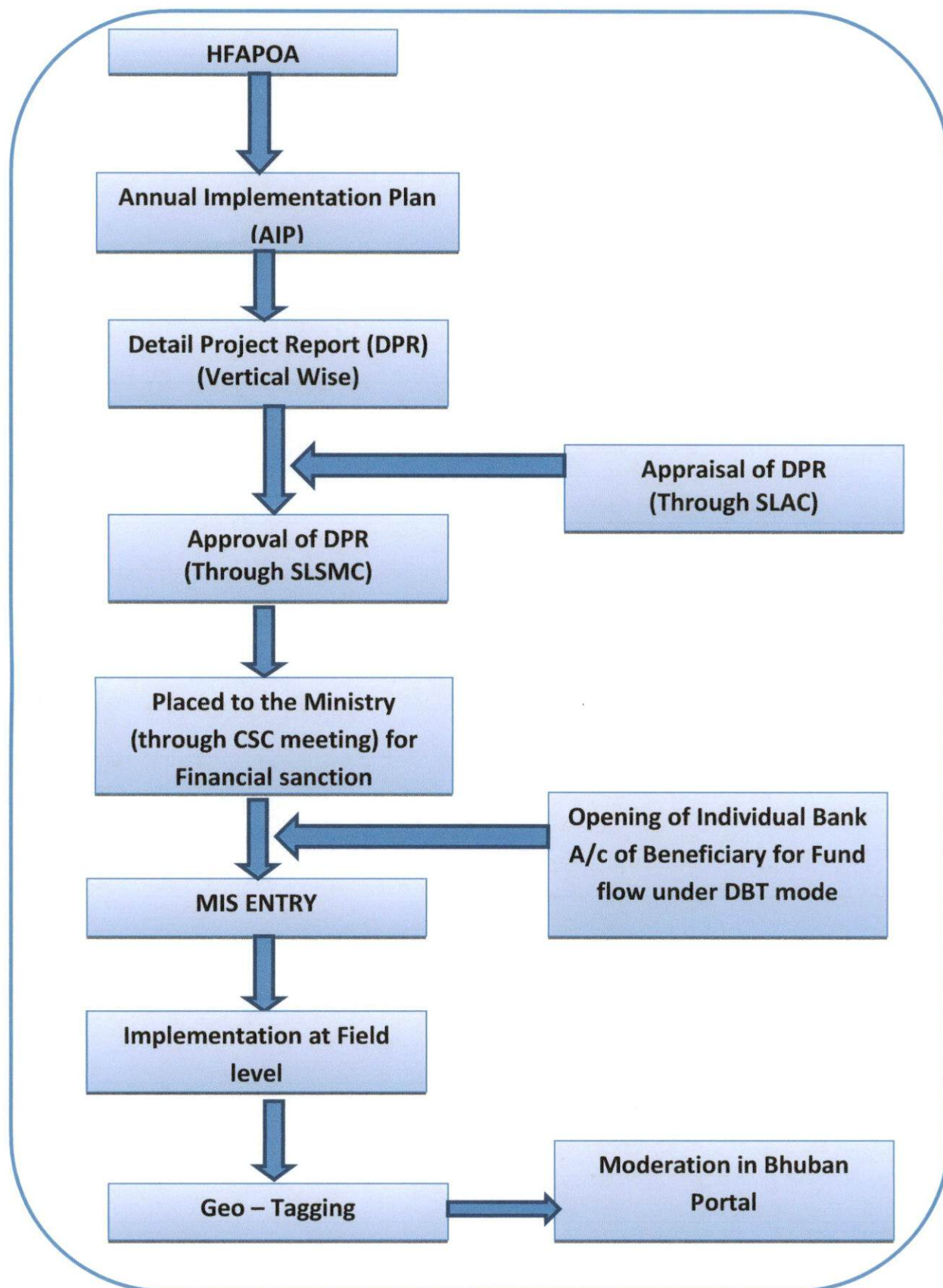

 Chairman
 Buniadpur Municipality
 Buniadpur, D/Dinajpur

Implementation Schedule August, 2019 to May, 2020

Sl. No.	Activity	2019-20																																
		July, 19			August, 19			Sept, 19			Oct, 19			19-Nov			Dec, 19			Jan, 20			Feb, 19			19-Mar			April, 19			May, 19		
		1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th					
1.0	Preparation of field works & MIS entry																																	
2.0	Construction of Single storied DU including S & P, Elec.																																	
3.0	Geo-tagging of DU																																	
4.0	Infrastructure Works/Tendering formalities and Implementation for field works																																	

Chairman
Buniadpur Municipality
Buniadpur, D/Dinajpur

Work flow of PMAY – HFA (U) for 2019-20



Chairman
Buniadpur Municipality
Buniadpur, D/Dinajpur

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Buniadpur Municipality
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Chairman
Buniadpur Municipality
Buniadpur, D/Dinajpur

Introductory Note by Chairman

I would like to take this privilege to inform you that the Buniadpur Municipality has finished the preparation of **DPR of BLC for 2019-20**. The information provided in the document is absolutely flawless and reliable.

In this regard I would like to thank all the municipal staff, ward committee members, respective ward councillors, TPO, who have rendered their valuable services towards the completion of this plan document. I would also take this opportunity to thank SUDA and MA Dept for their guidance as and when it was required.

I wish that this **DPR of BLC for 2019-20** will enable Buniadpur Municipality to design comprehensive development of its jurisdiction.

We are indebted to all of our Municipal Officials, local business persons for their continuing work and cooperation. We take this opportunity to express our deep sense of thankfulness to the people of our locality who, in spite of their limitations, took part with zeal in the awareness campaigns, meetings and workshops.



Chairman

Buniadpur Municipality
Buniadpur, D/2/1/3

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Abbreviation

A&OE	Administrative and Other Expenses	MoA	Memorandum of Agreement
AHP	Affordable Housing in Partnership	MoHUPA	Ministry of Housing and Urban Poverty Alleviation
AIP	Annual Implementation Plan	MoU	Memorandum of Understanding
CDP	City Development Plan	IIT	Indian Institute of Technology
CLS	Credit linked subsidy	NA	Non Agricultural (NA)
CNA	Central Nodal Agencies	NBC	National Building Code
CSMC	Central Sanctioning and Monitoring Committee	NHB	National Housing Bank
DIPP	Department of Industrial Policy and Promotion	NOC	No Objection Certificate
		NPV	Net Present Value
DPR	Detailed Project Report	PLI	Primary Lending Institution
EMI	Equated Monthly Instalment	SFCPoA	Slum Free City Plan of Action

EWS	Economically Weaker Section	SLAC	State Level Appraisal Committee
FAR	Floor Area Ratio	SLNA	State level Nodal Agencies
FSI	Floor Space Index	SLSMC	State Level Sanctioning and Monitoring Committee
HFA	Housing for All		
HFAPoA	Housing for All Plan of Action	TDR	Transfer of Development Rights
HUDCO	Housing and Urban Development Corporation	TPQMA	Third Party Quality Monitoring Agency
IEC	Information Education & Communication	ULB	Urban Local Body
IFD	Integrated Finance Division	UT	Union Territory
LIG	Low Income Group	MD	Mission Directorate

Working Definitions

Affordable Housing Project:	Housing projects where 35% of the houses are constructed for EWS category
Beneficiary	A beneficiary family will comprise husband, wife and unmarried children. The beneficiary family should not own a pucca house (an all weather dwelling unit) either in his/her name or in the name of any member of his/her family in any part of India.
Carpet Area	Area enclosed within the walls, actual area to lay the 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: $\text{FAR} = \frac{\text{Total covered area on all the floors} \times 100}{\text{Plot area}}$ <p>If States/Cities have some variations in this definition, State/City definitions will be</p>

	accepted under the mission
Implementing Agencies	Implementing agencies are the agencies such as Urban Local Bodies, Development Authorities, Housing Boards etc. which are selected by State Government/SLSMC for implementing Housing for All Mission.
Low Income Group (LIG):	LIG households are defined as households having an annual income between Rs.3,00,001 (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.



Chairman
Buniadpur Municipality
Buniadpur, D/Dinajpur

Brief Project Details

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

The urban homeless persons contribute to the economy of the cities and thus the Nation as cheap labour in the informal sector; yet they live with no shelter or social security. The urban homeless people are not getting service with many challenges like no access to elementary Public Services such as health, education, food, water and sanitation. Pradhan Mantri Awas Yojana (PMAY) also aims at providing a pucca house to every family with water connection, toilet facilities, 24 X 7 electricity supply and access.

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

Total beneficiaries of the scheme are 458 nos from slum and Non Slum projected for the year 2019-20.

Total cost of the project is **Rs. 1853.98 lakhs** as per relevant department & P.W.D. schedule of rates.



Chairman
Buniadpur Municipality
Buniadpur, D/Dinajpur

Annexure 7C

(Para 14.5 of the Guidelines)

Format for Project under Beneficiary Led Construction Or Enhancement

1	Name of the State:	:	West Bengal						
2	Name of the District:	:	Dakhin Dinajpur						
3	Name of the City:	:	Buniyadpur						
4	Project Name:	:	HFA-Buniyadpur -2019-20						
5	Project Code:	:	19311795034N0						
6	State Level Nodal Agency:	:	State Urban Development Agency (SUDA)						
7	Implementing Agency/ ULB	:	Buniyadpur Municipality						
8	Date of Approval by State Level Sanctioning and Monitoring Committee (SLSMC)	:							
9	No. of location covered in project: No of Slum Area Covered & No of Non Slum Area Covered	:	Name of Location	No. of beneficiaries	Whether Slum / Non-Slum	If Slum, then Slum type	If slum, whether it gets completely rehabilitated		
		:	Buniyadpur Municipal Area	458	Covering both Slum & Non-Slum area	Notified	No		
10	Project Cost (Rs. In Lakhs)	:							
11	No. of beneficiaries covered in the project	:	GEN	SC	ST	OBC	Total	Minority	Person with Disability
		:	311	83	33	31	458	69	Nil
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			
		:	Nil	66	392	Nil			
14	No. of beneficiaries covered in the project	:	Male	Female	Transgender				
		:	392	66	Nil				
15	Whether it has been ensured that selected beneficiaries have rightful ownership of the land ?	:	Yes						
16	Whether building plan for all houses have been Approved?	:	Yes						
17	i. GoI grant required (Rs. 1.5 lakh per eligible beneficiary) (Rs. in Lakhs)	:	687.00						
	ii. State grant, (Rs. in Lakhs)	:	968.21						

	iii. ULB grant (Rs. in Lakhs)	:	84.27
	iv. Beneficiary Share (Rs. in Lakhs)	:	114.50
	v. Total (Rs. in Lakhs)	:	1,853.98
18	Whether technical specification / design for housing have been ensured as per Indian Standards / NBC/ State Norms?	:	Yes
19	Whether it has been ensured that balance cost of construction is tied up with State Grant, ULB Grant & Beneficiary Share ?	:	Yes
	Whether trunk and line infrastructure is existing or being provisioned ?	:	
	i. Water Supply	:	Yes
	ii. Sewerage	:	No
	iii. Road	:	Yes
	iv. Storm Water Drain	:	Yes
	v. External Electrification	:	Yes
	vi. Solid Waste Management	:	Yes
	vii. Any Other	:	No
	viii. In case, any infrastructure has not been proposed, reason thereof.	:	Sewerage Scheme has not been proposed due to desired level of supply of water as CPHEEO norms has not been achieved.
20	Whether disaster (earthquake, flood, cyclone, landslide etc.) resistant features have been adopted in concept, design and implementation of the project ?	:	Yes
21	Whether Demand Survey Completed for entire city ?	:	Yes
22	Whether City-wide integrated project have been formulated ? If not reasons thereof ?	:	Yes
23	Whether validation with SECC data for housing condition conducted ?	:	Yes
24	Whether Direct Benefit Transfer (DBT) of fund to individual bank account of beneficiary ensured in the project ?	:	Yes
25	Whether there is provision in DPR for tracking/monitoring the progress of individual houses through geo-tagged photographs ?	:	Yes
26	Whether any innovation/cost effective / Green technology adopted in the project?	:	Yes

2 7	Comments of SLAC after techno economic appraisal of DPR	:	Project covers the most needy beneficiaries
2 8	Project brief including any other information ULB/State would like to furnish	:	The project covers all wards
2 9	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
Administrator / Mayor / Chairman,
Buniadpur Municipality

Signature

Chief Engineer
M.E Dte, GoWB

Signature

(Director, SUDA)

Signature

(Secretary, UD & MA Department, GoWB)

Nirman Sahayak
/ (On Deputation)
Buniadpur Municipality

DPR Main Report

City Profile and Overview

Year of Establishment of the Municipality

On 16th September 2017, Buniadpur Municipality was established.

Linkage

Buniadpur has a well-knit connection with the remaining parts of the country through rail, road & so also river. Calcutta is well connected by road network. Bagdogra Airport is connected by a very modern road & bridge network diminishing the travel time nearly to 3 hour.

Economic Base

Economic base of the K.M population is mainly on service sector. Some 10% to 15 % are dependent on industry within K.M and neighbourhood.

Demographic Growth

Total population growth is not matching the level, which is projected upto 2025 for Buniadpur Municipal area. It was projected upto 2025



Chairman
Buniadpur Municipality
Buniadpur, D/Dinajpur

Section I: Introduction

“Housing for All” Mission for urban area will be implemented during 2017-2022 and Mission will provide central assistance to implementing agencies through States and UTs for providing houses to all eligible families/beneficiaries by 2022. Mission will be implemented as Centrally Sponsored Scheme (CSS) except for the component 1.2 of credit linked subsidy which will be implemented as a Central Sector Scheme. A beneficiary family will comprise husband, wife, unmarried sons and/or unmarried daughters. The beneficiary family should not own a pucca house either in his/her name or in the name of any member of his/her family in any part of India to be eligible to receive central assistance under the mission. States/UTs, at their discretion, may decide a cut-off date on which beneficiaries need to be resident that urban area for being eligible to take benefits under the scheme. Mission with all its component has become effective from the date 17.06.2017 and will be implemented upto 31.03.2022. All 4041 statutory towns as per Census 2011 with focus on 500 Class I cities would be covered in three phases as follows:

- Phase I (April 2017 - March 2017) to cover 100 Cities selected from States/UTs as • per their willingness.
- Phase II (April 2017 - March 2019) to cover additional 200 Cities•
- Phase III (April 2019 - March 2022) to cover all other remaining Cities•

Ministry, however, will have flexibility regarding inclusion of additional cities in earlier phases in case there is a resource backed demand from States/UTs.

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

- well rounded stakeholder consultations,
- continuous community involvement,
- providing innovative solutions and
- coordination & validation.

Methodology adopted for preparation of HFAPoA is demonstrated in the below:

- 1) Taking Initiative for Demand Assessment Survey.
- 2) Conducting Orientation Programme with elected representative and officers of ULB.
- 3) Conducting Orientation programme with Supervisors and Enumerators.
- 4) Conducting Demand survey and complete the work.
- 5) Conducting Data Entry of the survey form and complete the work
- 6) Analysis of the data.
- 7) Filling up the requisite formats.
- 8) Planning of project with elected representatives and officers of ULB.

MED, Govt. of West Bengal

9) Preparing investment requirement and Financial plan

10) Finalization of HFAPoA.

In context of Buniadpur Municipality 76% of households live in pucca or partially pucca houses. Housing condition in its slums is not in good shape as 24% houses are either Katcha or semi-pucca. Considering the above, municipality has already initiated construction of affordable houses in 18 slums spread over 20 wards on a piecemeal basis leveraging IHSDP scheme in a phased manner. In the First phase (2008-2012) total 984 houses were constructed in 18 slums spread over 20 wards in IHSDP and SUHP. Infrastructure projects like Road, Drain and pipeline work were also targeted in some of the slums. Infrastructure projects like Road, Drain and pipeline work were also targeted in some of the slums.

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

Table-3: Housing constructed under the scheme of IHSDP

Summary list for Dwelling House completed in IHSDP PH-I,II & III					
Sl No	Ward No	PH-I	PH-II	PH-III	Total
1	1		7	5	12
2	2		28	11	39
3	3	32	3	2	37
4	4		39	13	52
5	5		34	15	49
6	6		4	7	11
7	7		6	6	12
8	8		10	11	21
9	9		14	21	35
10	10		2	2	4
11	11	72	9	45	126
12	12		2	71	73
13	13		7	7	14
14	14		7	7	14
15	15		6	9	15
16	16		14	34	48

Summary list for Dwelling House completed in IHSDP PH-I,II & III					
SI No	Ward No	PH-I	PH-II	PH-III	Total
17	17		12	38	50
18	18		27	43	70
19	19	24	72	27	123
20	20		61	38	99
Total		128	364	412	904

Table-4: Housing constructed under the scheme of SHUP

Summary list of Dwelling unit constructed under SHUP project Phase - I			
SI No	Ward No	PH-I	Total
1	1	2	2
2	2	4	4
3	3		
4	4	5	5
5	5	3	3
6	6	4	4
7	7	4	4
8	8	4	4
9	9	5	5
10	10	3	3
11	11	5	5
12	12	4	4
13	13	6	6
14	14	4	4
15	15	6	6
16	16	5	5
17	17	3	3
18	18	5	5

19	19	4	4
20	20	4	4
Total		80	80

Section: 2 Salient features of HFAPoA and its linkage with proposed project and its justification

2.1 General introduction on status and Prioritization for proposed project

In summarizing the HFAPoA of Buniadpur Municipality, Buniadpur Municipality takes one for implementation of the project i.e. "Beneficiary –led – construction". For this project, Buniadpur Municipality conducted Demand Assessment survey for getting total requirement of houses in the ULB. From this survey, the total survey form received 4020. Out of 3020 form received from 18 slums and 1000 forms received from non slums. 4020 houses will be constructed through "Beneficiary-led-Construction."

2.2. Summary of findings of HFAPoA. Physical infrastructure & Social infrastructure, Spatial, demographic and socio-economic profiles of slums/ Non slums;

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

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

In compliance with the objective and as per direction of the Ministry of Housing & Urban Poverty Alleviation (MoHUPA) and State Urban Development agency (SUDA), West Bengal was undertaken a demand survey through suitable means for accessing the actual demand of housing. For this mission Buniadpur Municipality undertook Demand survey on 18.10.2017 and completed the survey on 28.10.2017. From this survey, different information have been took off. Summary of findings of survey have been given below:

Table-5: Distribution of family heads of the slum

FAMILY HEAD				
WARD NO	MALE	FEMALE	OTHER	TOTAL
1	82	34		116
2	87	35		122
3	482	87	12	581
4	61	36		97
5	60	26		86
6	18	5		23
7	27	10		37
8	16	6	1	23
9	47	22	1	70
10	86	11		97
11	12	5		17
12	0	6		6
13	37	15		52
14	32	11		43
15	90	36		126
16	29	24		53
17	52	18		70
18	85	44	1	130
19	73	46		119
20	53	39		92
Total	1429	516	15	1960

Source; Demand survey,2017

From the above table, it is noticed that Municipality conducted of survey of 1960 household. Out of 1960 households, 1429 households headed by male member, 516 households headed by female member and 15 households headed by other. Ward-wise details are given in the table.

1960 households falls under Form –B (Slum – 1133 & Non- Slum – 827.

Table-06: Religion of the households

Religion								
WARD NO	HINDU	MUSLIM	CHRISTIAN	SIKH	OTHER	BUDDHISM	JAINISM	TOTAL
1	98	18						116
2	122							122
3	506	68	1		6			581
4	92	4		1				97
5	86	0						86
6	23							23
7	37							37
8	23							23
9	70							70
10	97							97
11	17							17
12	6							6
13	52							52
14	43							43
15	123	2		1				126
16	53							53
17	70							70
18	130							130
19	119							119
20	92							92
Total	1859	92	1	2	6	0	0	1960

Source; Demand survey,2017

From the above table, it is noticed that out of 1960 households, 1859 households falls under Hindu community, 92 households falls under Muslim Community, 1 household falls under Christian community and 2 households fall Sikh community and 6 households are under others. Ward-wise details are given in the table.

Table-7: Ownership details of the households

Ownership Details				
Ward No.	Own	Rented	Otherwise	TOTAL
1	116			116
2	121		1	122
3	561		20	581
4	97			97
5	86			86
6	23			23
7	37			37
8	23			23
9	70			70
10	97			97
11	17			17
12	6			6
13	52			52
14	43			43
15	126			126
16	53			53
17	70			70
18	130			130
19	119			119
20	92			92

Total	1939	0	21	1960
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Source ; Demand survey,2017 (Note – Only B format)

From the above mentioned table, it implies that Out of total 1960 households, 1939 households have own ownership, 21households lives in others house but they have own land.

Table-8: Housing structure details of the households

Type of house			
Ward No.	Semi pucca	Kucha	TOTAL
1	115	1	116
2	120	2	122
3	478	103	581
4	94	3	97
5	85	1	86
6	23		23
7	37		37
8	23		23
9	70		70
10	97		97
11	17		17
12	6		6
13	52		52
14	43		43
15	124	2	126
16	53		53
17	70		70
18	130		130
19	114	5	119
20	91	1	92

Total	1842	118	1960
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Source ; Demand survey,2017 (Note – Only B format)

From the above table, it shows that, out of total 1960 households, 1842 households lives in semi-pucca structure house and 118 households lives in kucha structure house. Ward-wise details are given in the table.

Table-9: Type of Housing requirement details of the households

TYPE OF HOUSING REQUIRMENT			
WARD NO	ENHANCMENT	NEW HOUSE	TOTAL
1	0	116	116
2	0	122	122
3	0	581	581
4	0	97	97
5	0	86	86
6	0	23	23
7	0	37	37
8	0	23	23
9	0	70	70
10	0	97	97
11	0	17	17
12	0	6	6
13	0	52	52
14	0	43	43
15	0	126	126
16	0	53	53
17	0	70	70
18	0	130	130
19	0	119	119

20	0	92	92
Total		1960	1960

Source ; Demand survey,2017

From the above table, it is noticed that out of total 1960 households falls under the scheme. From that 1960 household require new house construction. Ward-wise details are given in the table.

Table-10: Caste Details

Caste Details						
Ward No.	General	SC	ST	OBC	Minority	TOTAL
1	92	6			18	116
2	117	3		2		122
3	505	1			75	581
4	91	1			5	97
5	82	4				86
6	21	2				23
7	34	3				37
8	23					23
9	70					70
10	95	2				97
11	17					17
12	6					6
13	36	15		1		52
14	43					43
15	120	3			3	126
16	53					53
17	70					70
18	129	1				130
19	119					119

20	88	4				92
	1811	45	0	3	101	1960

Source ; Demand survey,2017

There are 1811 households belong to general caste out of 1960 households and 45 households are SC community, 3 households are in OBC and 26 nos households are minority.

In summarizing the HFAPoA of Buniadpur Municipality, Buniadpur Municipality takes one vertical for implementation of the project i.e. "Beneficiary –led – construction". For this project, Buniadpur Municipality conducted Demand Assessment survey for getting total requirement of houses in the ULB. From this survey, the total survey form received 4020. From 4020 forms, 4020 forms for Format B. Out of 3020 form received from 18 slums and 1000 from non slums. 4020 houses will be constructed through "Beneficiary-led-Construction".

Land use and Land availability

Total area of Buniadpur Municipality is 7.67 sq. km. Buniadpur is mainly a residential zone or area. Residential zone is near about 3 sq km where there is no agricultural zone at Buniadpur Municipality. Commercial land is .014 sq. km. and industrial area is .34 sq. km..From this numerical figures below it is easily seen that there is no specific mixed zone. Local economy is mainly service based and industrial based and many people depend on their small businesses. A big portion of ward no 09, 10,11and 13 are covering by commercial zone because the main Market is situated at ward no 10 and mini markets are at ward no. 09 and 13.

Table-11: Land Use Pattern

Sl. No.	Land Use	Area (In Sq. km.)
1	Agriculture	0
2	Residential	3
3	Industrial	0.34
4	Commercial	0.014
5	Mixed	0
6	Public/Semi Public	0.058
7	Recreational	0.006
8	Open, unused land/undeveloped land	0.95
9	Institutional	0.017
10	Roads	0.26
11	Wetlands/Lakes/Tanks	0.006
12	Public parks, squares and garden	0.0195
	Total	7.6705

Figure-2: Land Use Map

Water

The water supply facilities in the slum pockets are inadequate to meet the rising demand of water supply. In spite of number of spot tube wells the slum dwellers do not get sufficient water every day. They have to depend on polluted ponds or distant stand posts or tube wells. Water pipe line, septic tank etc are also needed for the infrastructure development of slums under Buniadpur Municipality.

Drainage

Haphazard growth and settlement in the slum area has blocked the natural drainage courses, which in turn causes water logging and stagnation in different parts of the town, this accumulated water are carrier of diseases and causes health hazards. The drainage system in the slums is not up to the mark. As a result the slums are worst affected in the rainy season.

Drainage network is a very much important portion of infrastructure. All slums are not covered by drainage at the same time many drains are kaccha and open

Road

The road network in the slums is inadequate to cater to the ever-increasing population of the slums. In order to bear the rising population, an increasing civic, economic and commercial activity in the slums, existing road network in several places need either immediate repair and up gradation and construction of new roads to connect very household.

When we consider infrastructure of the slums, it is seen that although the roads are not very much poor but need to construct new bituminous and concrete roads where necessary. So projects on roads have been taken by this way. Bituminous road of total length 6310m of total project cost 51.81 lakhs will be constructed. The demand of 5825m concrete road of width 2mm miters of project cost 136.19 lakhs.and the project cost of 2254m concrete road of width 3mm is Rs.77.30 lakhs.

Solid waste disposal

Overall management of solid waste is a serious problem to Buniadpur Municipality. Although the Municipality is committed to keep the city clean and healthy, by proper scientific disposal and treatment of solid waste generated the existing equipments, man power etc. engaged for this purpose is very much lacking. Efforts are being taken for collection of waste at source by the householders, traders and institutions, but due to lack of public awareness, wastes are thrown outside at random. Recyclable waste materials are also not segregated at source and are disposed off on the streets along with domestic, trade and other wastes. All wastes are being dumped into the municipal drain leading to blockages of the drains and as well as outfalls.

Street Light:

The light system in the slum pockets of Buniadpur Municipality is insufficient. With an aim to remove prevailing darkness in slum area at night and alleviate the quality of civic life street lights are very important. So installation of electrical posts with extension of line is required in the slum areas.

All slums are not covering by Streetlights. But Street lights are very much important for all people for safe and secured journey. So 311 no. of streetlight pulls will be commissioned of project cost Rs. 63.04 lakhs.

Latrine & Toilet:

There are some families in the slums who do not have any access to standard sanitary latrines. 1450 nos households as per Insanitary Latrine survey in 2017 use a dug well latrine enclosed by brick wall. Some use the railway track for defecation.

Project Justification

For the following reasons Buniadpur Municipality selected the slums namely mentioned below as first project for preparation of DPR under HFAPoA (PMAY):

Table-12: Justification of the Project

Sl.No	Name of the Slums	Status	Land	Age in years	National High Way	Status of Housings	Road Status	Habitation pattern
1	Divya Colony	The condition of living in the slum is unhygienic	Land belongs to the ULB	More than 10 years	The National Highway is 1-1.5 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
2	Ashrampur Bustee	The condition of living in the slum is unhygienic	Land belongs to the ULB	More than 10 years	The National Highway is 1-1.5 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
3	Nityananda Pally	The condition of living in the slum is unhygienic	Land belongs to the ULB	More than 10 years	The National Highway is 1-1.5 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

4	Amabagan Colony	The condition of living in the slum is unhygienic	Land belongs to the ULB	More than 10 years	The National Highway is 1-1.5 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
5	Non Slum	The condition of living in the slum is unhygienic	Land belongs to the ULB	More than 10 years	The National Highway is 1-1.5 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

2.3 Tenure Status

As per the demand survey and geographical location of the city out of four verticals municipality has taken only Beneficiary Lead Construction (BLC) for the year 2019-20. In the 3rd year of implementation of Housing for All, 458 beneficiaries have been identified for the construction of New House through BLC. The above beneficiaries have been selected only who have their own land required for the construction of new house under BLC.

2.4 Choice of Option/Vertical and its justification for housing and/or infrastructure

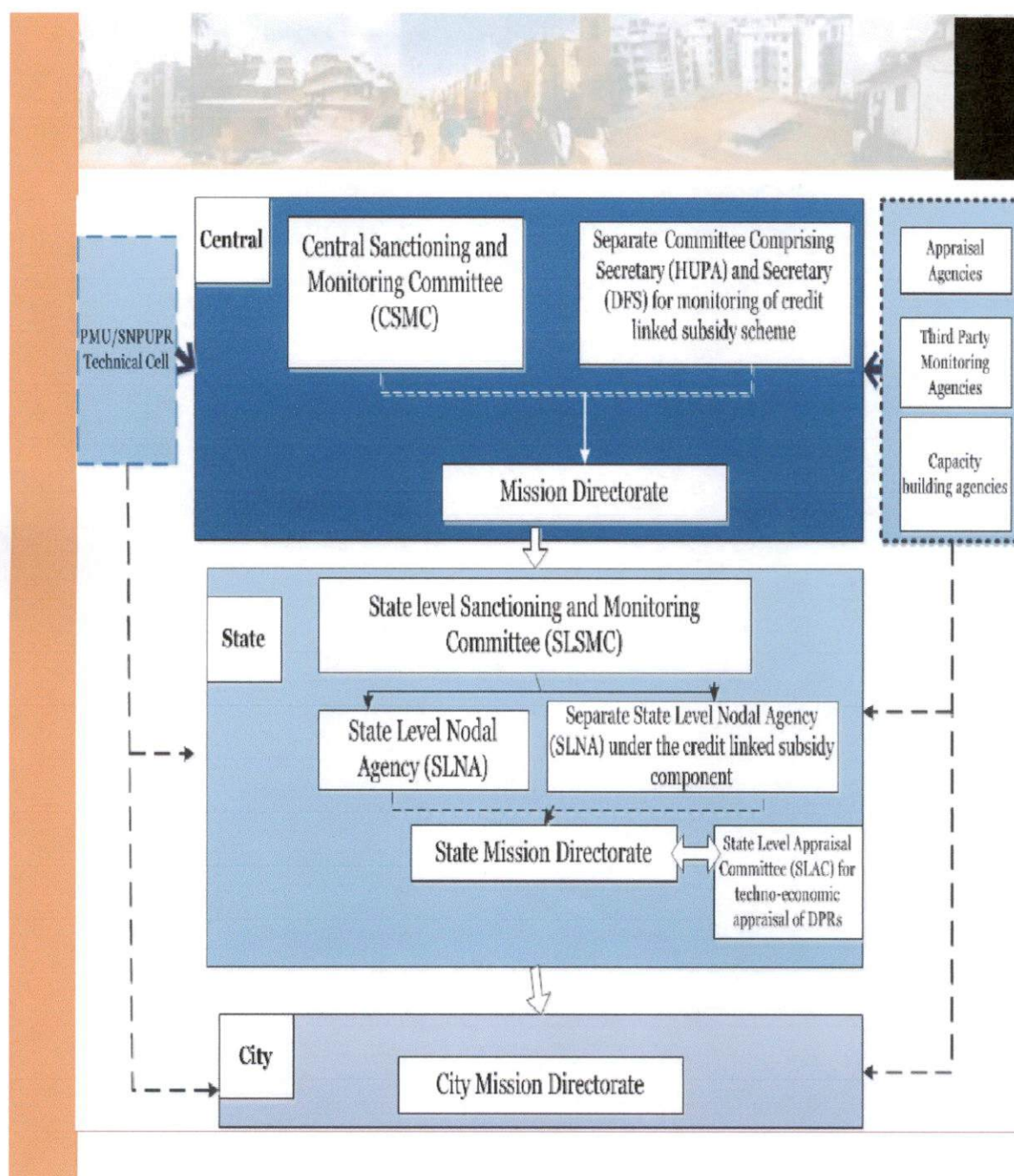
- "In-situ" Slum Redevelopment using land as Resource(include viability analysis)
- Credit-Linked Subsidy Scheme (CLSS)
- Affordable Housing in Partnership (AHP)
- Beneficiary-led individual house construction or enhancement

In the case of Buniadpur Municipality takes only one vertical i.e. is "Beneficiary led construction". From present Demand Assessment survey for Housing for all (HFA), it is noticed that 4020 household covering under this project. 4020 houses will be constructed through "Beneficiary-led-Construction" Under "Beneficiary-led-Construction" each beneficiary will get 1.5 lakh from central assistance.

2.5 Resource mobilization strategy and Implementation strategy

Physical and social infrastructure require to develop in slum and non slum area to be covered another central and state schemes like 13th FC, 4th SFC, and UWES etc. Beneficiaries belong to pro poor families, unable to contribute the beneficiary contribution under HFA project should be cover under project of SUHP funded by State Government.

Figure-3: Resource mobilization strategy and Implementation strategy



Roles and responsibilities of the Institutions:**Central Sanctioning and Monitoring Committee (CSMC)**

- An inter-ministerial committee under Chairpersonship of Secretary (HUPA) for implementation of the Mission, approvals there under and monitoring.

Indicative Functions of CSMC

- Overall review and Monitoring of the Mission
- Assessing resource requirement based on HFAPoA and AIP submitted by States/UTs
- Approval of central releases under various components of the Mission
- Approval of Capacity Building Plans of States/UTs
- Devising financial and other norms for various activities undertaken as part of the Mission
- Approval of Annual Quality Monitoring Plans, Social Audit plans etc.
- Any other important issues required for implementation of the Mission.

State Level Sanctioning and Monitoring Committee (SLSMC)**Indicative functions of SLSMC**

- Approval of Housing for All Plan of Action (HFAPoA)
- Approval of Annual Implementation Plan
- Approval of DPRs under various components of the Mission
- Approval of Annual Quality Monitoring Plans
- Reviewing progress of approved projects in the State and cities
- Monitoring of implementation of Mission
- Any other issues required for effective implementation of the Mission.

Section 3: Project Concept and Scope

3.1 Introduction of slum(s)/non Slum 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.

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.

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.

It is increasing 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.

Slum Map



Non Slum Map

3.2. Location of slum(s) / non Slum Area, Tenure Status, Land use and Land Possession status**Table-17: Location of slum(s) / non Slum Area, Tenure Status, Land use and Land Possession status**

Slum Name	Slum Location	Age of Slum	Ownership of Land	Tenability (Yes/no)	Land Value (Z1 is high and Z4 is low)
Divvya Colony	Fringe area	More than 15	Private Land	Yes	Z4
Ashrampur Bustee	Core Area	More than 15	Private Land	Yes	Z5
Nityananda Pally	Fringe area	More than 15	Private Land	Yes	Z6
Amabagan Colony	Fringe area	More than 15	Private Land	Yes	Z7

a) Spatial coverage and adequacy of Water supply

From analysis of the feedback received from individual wards it is generally found that all households have not yet been connected with the pipe water supply; water pressure in many places is inadequate; turbidity in water observed in few places where the original pipeline laying was made in late 50s. From the municipal record it is seen that house water connection has increased year to year. So new projects on water supply have been considered by this way so that the uncovered area may be covered by water supply. Demand for further quantity of water supply is proposed to be made by installation of few Deep tube wells and boosting pumps with provision of reservoir.

Table-18: Present status of water supply is as follows:

Water Supply (Water Department)		2010-11
	Service Levels	
1.	Total water supplied per day (MLD)	
	Ground water (MLD)	6
	Surface water (MLD)	3.4
2	% of population covered	94
3	% of area covered	98
	Service Coverage	98
1	No. of stand posts (Cumulative figure per year)	

	In slum areas	358
	In non- slum areas	190
2	No. of hand pumps (Cumulative figure per year)	
	In slum areas	160
	In non slum areas	140
3	Per capita supply(in liters) (per day)	0
	Slum	120
	Non slum	116
	Service Cost and Efficiency	
1.	Total no. of connections (Cumulative figure per year)	12840
2.	No. of connections metered (Cumulative figure per year)	

It is seen that total no. of connection is increasing year by year. So our aim is to connect 100% population by water connection. Already 98% area has been covered by water supply. Only 2% has remained uncover.

b) solid waste management

As it is normal in urban area, Buniadpur Municipality produces great quantity of solid waste which includes biodegradable, non-biodegradable including medical waste. This is very problematic subject and in the past these were utilized in filling low areas of the Municipality, resulting sanitation and health hazards. At present Buniadpur Municipality is showing great interest in collecting solid waste through door to door collection.

c) Sewerage

It is generally seen that there remains a good length of semi pucca drain requiring conversion to pucca drain. Water logging occurs many areas at different wards due to absence of drainage system or poor drainage system. Following the contour of Buniadpur Municipality all the drainage lines were laid irrespective of freefall, resulting water logging in places. To rectify this defect, depths of the drainage channel are to be resection from place to place. Two underground sewerage lines have been installed in C.S Mukherjee Street and part of S.C Chaterjee Street crossing Criper Road and Haran Banerjee Lane.

Performances of these two sewerage lines have not yet been properly judged. It is however, to be stressed that underground sewerage line throughout the Municipality is a necessity both for sanitation and environmental ground.

Due to open drainage system in vogue, mosquito breeding is unbearable. Covered sewerage should be attempted in for main roads. The tanks and ponds in Buniadpur Municipality area kept clean. Daily spreading of bleaching powder/mosquito oil is considered.

d) storm water drainage

Providing safe sanitary system for all inhabitants. Ensuring that the entire existing main channel drain and all other connecting (pucca/katcha) drains are renovated with proper width and slope for disposal of drain water into existing main outfall drains and canals. Conversion of the existing open drains to closed drainage system within the Buniadpur area. Special emphasis is to be given on the areas which become under logged during rainy season.

3.3. Existing basic infrastructure and its coverage

The project slums and existing scenario of infrastructure:

4 nos Slums have been selected as a First Project under PMAY scheme by Buniadpur Municipality in consultation with the state level Nodal Agency - The State Urban Development Agency (SUDA) under M.A. Department, GoWB.

Divvya Colony

The project slum site is at the core area of the Municipality at Ward no-01. Metal road is running in front of the slums connects it to major areas of Buniadpur Municipality. The nearest railway station at a distance is 2.0Km. The slums are 15 years old with a total site area is 19064 square metres. The ownership of land lies with ULB. The existing number of households is 337 with a total population of 1163. Most of the slum dwellers works as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipal area and as vegetable sellers in nearby areas.

The environmental condition in the slum is little bit poor. The slum is partially covered with surface drains but drains are tilted and broken condition resulting clogging. Most of the roads within slums are semi metallic or kuchha road. There is 100% street lights present in the slum. Most of the population adopts unhygienic method for disposing their waste; thereby causing huge damage to health. The site visit has revealed unhygienic condition prevailing there at present due to absence of any organized structures and infrastructure for keeping them. Most of the dwelling units are kaccha or dilapidated. There is need of water connection in this slum.

Ashrampur Bustee

The project slum site is at the core area of the Municipality at Ward no-03. Metal road is running in front of the slums connects it to major areas of Buniadpur Municipality. The nearest railway station at a distance is

MED, Govt. of West Bengal

3.0Km. The slums are 10 years old with a total site area is 67110 square metres. The ownership of land lies with ULB. The existing number of households is 467 with a total population of 1254. Most of the slum dwellers works as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipal area and as vegetable sellers in nearby areas.

The environmental condition in the slum is little bit poor. The slum is partially covered with surface drains but drains are tilted and broken condition resulting clogging. Most of the roads within slums are semi metallic or kuchha road. There is 100% street lights present in the slum. Most of the population adopts unhygienic method for disposing their waste; thereby causing huge damage to health. The site visit has revealed unhygienic condition prevailing there at present due to absence of any organized structures and infrastructure for keeping them. Most of the dwelling units are kaccha or dilapidated. There is need of water connection in this slum.

Nityananda Pally

The project slum site is at the core area of the Municipality at Ward no-18. Metal road is running in front of the slums connects it to major areas of Buniadpur Municipality. The nearest railway station at a distance is 3.0Km. The slums are 15 years old with a total site area is 38433 square metres. The ownership of land lies with ULB. The existing number of households is 85 with a total population of 295. Most of the slum dwellers works as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipal area and as vegetable sellers in nearby areas.

The environmental condition in the slum is little bit poor. The slum is partially covered with surface drains but drains are tilted and broken condition resulting clogging. Most of the roads within slums are semi metallic or kuchha road. There is 100% street lights present in the slum. Most of the population adopts unhygienic method for disposing their waste; thereby causing huge damage to health. The site visit has revealed unhygienic condition prevailing there at present due to absence of any organized structures and infrastructure for keeping them. Most of the dwelling units are kaccha or dilapidated. There is need of water connection in this slum.

Amabagan Colony

The project slum site is at the core area of the Municipality at Ward no-19. Metal road is running in front of the slums connects it to major areas of Buniadpur Municipality. The nearest railway station at a distance is 3.0Km. The slums are 10 years old with a total site area is 22053 square metres. The ownership of land lies with ULB. The existing number of households is 235 with a total population of 811. Most of the slum dwellers works as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipal area and as vegetable sellers in nearby areas.

The environmental condition in the slum is little bit poor. The slum is partially covered with surface drains but drains are tilted and broken condition resulting clogging. Most of the roads within slums are semi metallic or kuchha road. There is 100% street lights present in the slum. Most of the population adopts unhygienic method for disposing their waste; thereby causing huge damage to health. The site visit has revealed unhygienic condition prevailing there at present due to absence of any organized structures and infrastructure for keeping them. Most of the dwelling units are kaccha or dilapidated. There is need of water connection in this slum.

Non Slum

The project slum site is at the core area of the Municipality at Ward no-1,2,4,5,7,8,12, 13, 14, 15, 16 and 17. Metal road is running in front of the non slums connects it to major areas of Buniadpur Municipality. The nearest railway station at a distance is 2.0Km. Most of the slum dwellers works as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipal area and as vegetable sellers in nearby areas.

The environmental condition in the slum is little bit poor. The slum is partially covered with surface drains but drains are tilted and broken condition resulting clogging. Most of the roads within slums are semi metallic or kuchha road. There is 100% street lights present in the slum. Most of the population adopts unhygienic method for disposing their waste; thereby causing huge damage to health. The site visit has revealed unhygienic condition prevailing there at present due to absence of any organized structures and infrastructure for keeping them. Most of the dwelling units are kaccha or dilapidated. There is need of water connection in this slum.

Details of Social Infrastructure at a Glance:

Table-19: Details of Social Infrastructure at a Glance

Divvy Colony

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA

Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

Ashrampur Bustee

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA

State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

Nityananda Pally

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA

High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

Amabagan Colony

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	

Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

Non Slum

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km

Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

Section 4 – Description of Proposed Project and Planning

4.1 Provision of Housing

The Supply Demand Gap and Requirements

Particulars	Requirements
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Housing: Dwelling Unit provision for Households with standard provisions:

- ☐ 1 Multipurpose Room
- ☐ 1 Bed Room
- ☐ 1 Kitchen
- ☐ 1 Toilet
- ☐ 1 W.C

Physical Infrastructure Requirement:

Standard Infrastructure Provision for

- ☐ Water Supply
- ☐ Drainage
- ☐ Roads
- ☐ Electricity

Project Development Option

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

Proposed Development

Based on preliminary understanding, the following components are being proposed

- ☐ Housing Units [Single storied in situ].
- ☐ Standard Physical Infrastructure to be provided in the form of Circulation of Water Supply Drainage, Roads and Electricity

Innovations proposed in Project Planning

Background

Housing activities are known to have the capacity to play a significant role in social-economic development, because they help not only in creation of shelter for the people by also in generating employment opportunities for a large variety skilled and unskilled work force which is a prerequisite for growth and development of settlement. A considerable section of the people without land are in a still worse position as housing schemes for the poor have hither to been targeted on paper but not applied in practice. Both the serviced land and shelter have become beyond the reach for half of the population-hence formation of slums, encroachments, informal colonies and unauthorized constructions. No land is earmarked for

Economically Weaker Sections and Low Income Groups in Master Plan. The population density norms are required to re-look to enable better utilization of valuable land, as certain areas in the city. This growing slum population and the lack of basic facilities like water and sanitation will badly impact on overall development and prosperity of urban centres like Municipality.

- To overcome the existing situation and to promote planned development the following innovative strategies can be adopted for the improvement of the city.
- To ensure that housing, along with the supporting services is treated as a priority and at par with the infrastructure sector.
- Forging strong partnerships between private, public, and cooperative sectors to enhance the capacity of the construction industry.
- Organizing public consultations to meet the special needs of slum dwellers.
- Promotion of livelihood for the slum dwellers.

Financial Implementation:**Beneficiary led Participation:**

Implies development of housing by involvement of Beneficiary

Tasks:

- Composition of beneficiaries and organizing the area meetings.
- Involvement of community and sustainable livelihood framework (SLF) in decision making and prioritization of needs of the slum.
- Understating of Social-economic profile

Post Project Monitoring

A Monitoring & Evaluation team has to be formed to know the post project impact on the slums and to document the best practices.

Physical Infrastructure**Background**

The National Sample Survey Organization (NSSO) in the Ministry of Statistics and Programme Implementation, Government of India has released the report of a nation-wide survey carried out by it during July 2008 to June 2009 (65th round) on the condition of urban slums.

The aim of the survey was to collect information on the present condition of the slums and on recent

changes, if any, in the condition of facilities available therein. Both 'notified slums' – areas notified as slums by the municipalities, corporations, local bodies or development authorities – and non-notified slums were surveyed – a non-notified slum being any compact urban area with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions. The present report gives the condition of urban slums, covering ownership, area type, structure, road within and approaching the slum, living facilities like electricity, drinking water, latrine, sewerage, drainage, garbage disposal, and distance of slums from the nearest primary school and government hospital/health centre. It also estimates the proportion of slums where certain specific facilities have improved/ deteriorated over the five years preceding the date of survey.

Comprehensive data on this subject was last collected by NSSO in its 58th round (July - December 2002). The present report provides key indicators from the 58th round as well, for comparison. Some important findings of the survey are given below.

- About 49 thousand slums were estimated to be in existence in urban India in 2008-09, 24% of them were located along *nallahs* and drains and 12% along railway lines.
- About 57% of slums were built on public land, owned mostly by local bodies, state government, etc.
- In 64% of notified slums, a majority of the dwellings were pucca, the corresponding percentage for the non-notified ones being 50%.
- For 95% slums, the major source of drinking water was either tap or tube wells.
- Only 1% notified and 7% non-notified slums did not have electricity connection.
- About 78% of notified slums and 57% of the non-notified slums had a pucca road inside the slum.
- About 73% notified and 58% non-notified slums had a motorable approach road.
- About 48% of the slums were usually affected by water logging during monsoon – 32% with inside of slum waterlogged as well as approach road to the slum, 7% where the slum was waterlogged but not the approach road, and 9% where only the approach road was waterlogged in the monsoon.
- The sanitary conditions in the slums in terms of latrine facility during 2008-09 showed considerable improvement since 2002. Latrines with septic tanks (or similar facility) were available in 68% notified and 47% non-notified slums (up from 66% and 35% respectively in 2002). At the other extreme, 10% notified and 20% non-notified slums (down from 17% and 51% in 2002) did not have any latrine facility at all.
- About 10% notified and 23% non-notified slums did not have any drainage facility. The corresponding proportions in 2002 had been 15% for notified and 44% for non-notified slums. Underground drainage systems or drainage systems constructed of pucca materials existed in about 39% notified slums (25% in 2002) and 24% non-notified slums (13% in 2002).
- Underground sewerage existed in about 33% notified slums (30% in 2002) and 19% non-

notified slums (15% in 2002).

- Government agencies were collecting garbage from 75% notified and 55% non-notified slums.
- Among these slums, garbage was collected at least once in 7 days in 93% notified and 92% non-notified slums. About 10% notified and 23% non-notified slums did not have any regular mechanism for garbage disposal.
- Over the last five years, facilities had improved in about 50% of notified slums in terms of roads (both within-slum road and approach road) and water supply. The incidence of deterioration of any of the existing facilities in notified slums during the last five years was quite low (about 6% or below).
- In case of most slum facilities – sewerage and medical facilities being exceptions – the facility was reported to have improved during the last five years in more than 20% of non-notified slums. Deterioration of any of the existing facilities in non-notified slums, like notified slums, was rare (about 9% or below).
- Facilities such as street light, latrine, drainage, sewerage and medical facilities were each reported by more than 10% of notified slums to be non-existent both at the time of survey and five years earlier. In case of non-notified slums, facilities like street light, latrine, drainage, sewerage and garbage disposal were each reported by more than 20% of the slums to be non-existent, both during the survey and five years earlier. Where improvement had been brought about during the last 5 years, it was due to the
- Government's efforts in about 80-90% of slums, both notified as well as non-notified and for all the facilities. Improvement in educational facilities at primary level was attributed to NGOs in 13% of the notified slums where such improvement was reported. NGOs were also found to have played a role in the improvement of latrine and sewerage system in non-notified slums.

Topographical survey and GIS mapping

The preparation of base map of Wood Industries slum has been prepared with Global Positioning Stations (GPS) and temporary Benchmarks (TBM) for Georeferencing and accurately locating the slum. These points have been selected and located at well defined locations on the ground after discussion with the ULB officials. The existing topographical features have been represented to the actual terrestrial position.

Based on the Total Station survey and Socio-economic survey GIS based thematic maps were generated. This helped in accurate representation of the ground scenario with that of the socio-economic conditions of the people. The following GIS maps were generated for inclusive planning:

- ☐ Map showing existing Land use Map
- ☐ Map showing Household Size
- ☐ Map showing House Type/Structure, Flooring, Cooking

- ☐ Map showing Minority Status
- ☐ Map showing existing toilet facility
- ☐ Map showing existing road type in front of house
- ☐ Map showing existing source of drinking water
- ☐ Map showing existing source of house lighting

Water Supply

Proposal Rationale

Water and poverty are inextricably linked. Poor access to water and insufficient sanitation affect the health of the poor, their food security, and their prospects for making a living especially for vulnerable groups, such as children, the elderly, and women in general. Safe and adequate quantities of water and food security are recognized as preconditions for an acceptable development standard.

In almost whole of Asia and the Pacific region - home to nearly 900 million of the world's poorest people - one in three people does not have safe drinking water and one in two lacks adequate sanitation. Water is a critical resource for the poor and plays a key role in many aspects of their livelihoods.

Poor people depend on or are affected by water resources in four key ways:

- ☐ **As direct inputs into production**
- ☐ **For health, welfare, and food security**
- ☐ **For ecosystems viability**
- ☐ **For combating water-related hazards**

Keeping the above in mind, a water scheme for the urban poor needs to be drawn up which shall **Improved Access to Quality Water Services and also** build up institutions accessible to the poor that can efficiently manage water resources. These institutions need to be responsive to the poor and should have an adequate opportunity for the poor to raise their views.

The management of water resources must take place within the wider ecosystems context, and all actions should be based on an understanding of the flows of water resources within river basins and how they affect the poor.

In view of this, the water scheme needs to take into account the following broad objectives:

- ☐ **To provide adequate Treated Water**
- ☐ **To ensure access for the Urban poor**
- ☐ **To develop institutional framework taking into account the requirements of the Urban Poor**

Outcome

Water is a basic requirement of life. Absence of adequate water is a major issue for health as well as



comfort for the poor. With the implementation of the project, the slum dwellers will have access to safe drinking water, which will greatly help their personal health, and hygiene. Quality of life would improve significantly and the multiplier effect due to this investment would reap significant benefit to the economy of this region within a considerable short period of time.

Water supply includes sources of supply, features of collection and distribution system, water demand and availability, quality of surface and groundwater source, reuse and recycling of water including conservation of water at the household level. The endeavour for all the proposals is to optimize the total cost of the system.

Assessment of Overall State of Infrastructure

In line with the City Development Plan for Kolkata Metropolitan Area (Pg 11-28), it has been resolved that the entire KMA are will be switched over to surface water.

The following norms have been fixed for the region:

<input type="checkbox"/>	Kolkata Municipal Corporation Area	200 lpcd
<input type="checkbox"/>	Howrah Municipal Corporation Area	150 lpcd
<input type="checkbox"/>	Municipal & Non-Municipal Area	135 lpcd

Previously the area was largely dependent on ground water. The status of ground water availability is as follows:

Keeping in mind the reduced rate of aquifer, traces of Arsenic Contamination and presence of Iron on the water, it has been decided to switch over to surface water from River Damodar.

Accordingly, the plant design is adequate to cater to the future requirement of the entire region and no augmentation of supply is required for the present project

Situation Appraisal & Key Intervention for Identified Slum

Presently accessibility to water supply facilities in the slum pocket is inadequate. The major source of water is from the common tap water available in the slums. The slum is partially connected to the municipal water supply main.

It is now proposed that water pipeline shall be provided in each household with requisite number of taps, as computed during the survey as felt needs shall be provided under this Project. However, considering that the houses are being provided with water, the provisions of multiple taps have not been encouraged and kept to the minimal level.

Design of distribution system was carried out on the following basis:

- ☐ Population projection

MED, Govt. of West Bengal

- ☐ Project horizon years
- ☐ Design period for various project components
- ☐ Per capita water supply
- ☐ Factors affecting consumption
- ☐ Existing water supplies
- ☐ Pipeline pressure requirement
- ☐ Supply of water on 24 x 7 basis
- ☐ Economical size of conveying main
- ☐ Choice of pipe materials
- ☐ Peak factor
- ☐ Residual pressure
- ☐ Hydraulic zoning

Design Period for various Project Components

Water supply projects are designed normally to meet the requirements over a period of 30 years after their completion. The time lag between design and completion of the project should also be taken into account which should not exceed two to five years depending on the size of the project. CPHEEO guidelines have been followed has suggested the design period for various water supply components.

Service Plan

The pipelines needs to be regularly and kept in full working conditions. It is proposed that operation and maintenance of these pipelines and other assets be done in conjunction with the maintenance programme of the Municipal Corporation. The Bustee Working Committee shall be the first level of responsibility for ensuring that the pipelines etc are kept in good order. The overall operation and maintenance shall be carried out by the project cell of the Municipal Corporation.

Proposed Interventions

According to the above, the water supply design requirement for Municipality has been fixed at 135 lpcd (Domestic Requirement) + 15% (head loss) + $100 \times (p^{0.5}) = 163.25$ lpcd (approx).

There is existing water supply scheme which has the capacity for meeting the requirement. Thus there is no additional requirement of any reservoir. There are street stand posts for the slum proposed. But to achieve house connection at slum 100 mm dia. DI pipes are proposed.

The details of water supply lines provide are as follow:

Transmission of Water

Buniadpur Municipality has water supply through ESR having (24x7) water supply. For the proposed multi-storied buildings sump and pump with OHR is provided for each building. The water supply network for

this slum will be connected to the citywide water supply network.

Water supply system broadly involves transmission of water from the water supply main to the area of consumption normally through pipelines. Pipelines normally follow the profile of the ground surface quite closely, normally at 1 metre below ground.

Following design criteria are adopted for this Project:

- ☐ Gravity pipelines have to be laid below the hydraulic gradient.
- ☐ Pipes are of Ductile Iron, Mild steel, GRP, HDPE, PVC, Plastic etc.
- ☐ The design of water supply conduits is dependent on pipe friction, available head, velocity allowable, etc.
- ☐ Minimum sizes of 100mm for towns having population up to 50,000 and 150mm for those above 50,000 are recommended.
- ☐ There are a number of formulae available for use in calculating the velocity of flow. However,
- ☐ Hazen William's formula for pressure conduits and Manning's formula for free flow conduits are popularly used.

Drainage and Solid waste management

Proposal Rationale

The status of adequate Drainage has a close and direct link with environment, water supply and its cleanliness, health and hygiene. The problem of adequate drainage associated with steep influx of population in urban areas, therefore needs to be addressed forth with, debated and deliberated at length, by the policy planners for the development of urban/city areas. Inadequate Drainage results in accumulation of stagnant water and is a major health hazard for the people living in the region.

In the slums there is no proper drainage system and hence stagnation of water is a common occurrence for the slums. In order to improve the situation, there is a need for constructing pucca drains, which will dispose of the stagnant water to the main drains.

Outcome

The proposed drainage system by means of construction of new drains and improvement of existing will help to provide relief to the slum dwellers by means of efficient and effective disposal of storm water through the outfall channels. The outcome of this scheme will by and large enhance the quality of civic life by way of promotion and safeguarding the public health and environmental pollution.

Assessment Overall State of Infrastructure

One of the priority area identified for Wood Industries slum has been absence of adequate drainage. Most of the drainage is kutcha and inadequate for covering the slums which had led to water logging which in turn affected the environment and health of the people on an overall basis.

As mentioned above poor drainage system and consequently chronic water logging are the major issues of concern. There is hardly any pucca drain. The state of drain also affects the condition of the road.

Though there are storm water drains on the main road around the slums, but there is no systematic connection with the internal areas of the slum, thereby leading to acute water logging within the slum. It is worth mentioning that apart from lack of drainage network in several slum pockets, major challenge lies with its maintenance. In numerous cases drains in slums gets choked due to improper disposing of solid waste and other hazardous materials into the existing drains.

Situation gets beyond control particularly during monsoon season like July and August. Accumulated water causes to generate public health problems. Haphazard growth and settlement in the slum area has blocked the natural drainage courses, which in turn causes water logging and stagnation in different parts of the slum.

Proposed Interventions

It is thus proposed to have an integrated drainage programme covering the slum pocket. The programme shall envisage construction of pucca drain throughout the road length and installing a maintenance programme to ensure that the drains are kept free from clogging from plastics and other materials. Depending on the availability of space and requirement, a sections have been designed, Designs of which have been provided in the relevant sections.

Road Infrastructure

Proposal Rationale

A key component of the Proposal is a focused initiative to provide strong connectivity and provision of movement in the slums. This will enable the poor people to benefit from greater mobility and would increase their employment opportunities, open up trading and marketing of products, and important improve access to health, education, and other social services.

Roads in the slum are highly undeveloped and ill maintained. Poor roads are strong barrier to the development of the slums. Poor road condition and absence of road facility in several slums makes life difficult for all slum dwellers, especially, women and children. It also hampers prompt movement of sick; particularly those who require urgent medical attention. Lack of maintenance, coupled with poor drainage makes life even worse during monsoon season. Road are rarely re-built or re-paired periodically due to several reason. Provision of basic quality road is thus an important element of slum development. The existing road network system of the slum has become inadequate to cope up with the present and ever increasing needs. In order to bear the additional pressure due to enhanced civic, economic and commercial activities of the slum, existing road network system in several places are required either to be up-graded or winded and new roads are also be constructed in a number of places where the network is inadequate.

Proposed status and strategy

The existing condition of the road is poor and cause great hardship to the slum dwellers particularly women and children. The existing roads in the slum areas are predominantly made of brick pavement. These roads are substantially worn out. The lane roads are Kutchra roads. These roads are highly vulnerable and are in a poor condition particularly in rainy season

One of the major issues is absence of proper maintenance. In view of this it is proposed that the entire road network is to be converted to concrete pavement as concrete pavements are durable and easy to maintain.

The Road needs to be maintained. It is proposed that operation and maintenance and servicing of these roads be done by the Municipality. The Bustee Working Committee shall be the first level of responsibility for ensuring that the pipelines etc. are kept in good order. The project cell of the Municipal Corporation shall carry out the overall operation and maintenance.

Proposed Intervention

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.

Outcome

After successful implementation of the scheme the slum dwellers will have facilities like pre-school education, adult education, non-formal education and social, recreational activities in the slum area. The community centres would provide the people to gather in, to meet and discuss their problems. It is not just a physical location but a space; where poor people could own, develop their thoughts and also could contribute their own skill and labour to make their dream come true. It will also provide the Municipal Corporation in networking with the urban poor communities in order to exchange information and views.

Proposed Intervention

In view of the above, it is proposed that a Community Centre is established to cater the slum population. For community development a community centre is proposed. The one storied community centre has total plinth area of 223.4 sq m.

There will be Multipurpose hall which may be used as skill development centres or livelihood centre, health centres and Crèche are provided.

The Community Centres act mainly as a supporting unit for livelihood and for revenue generation for

O&M.

Materials of construction:

- ☐ PCC (1:3:6) for foundation
- ☐ RCC M-20 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

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:

- a. All areas notified as 'Slum' by State/Local Government and UT Administration under any Act;
- b. All areas recognized as 'Slum' by State/Local Government and UT Administration, which have not been formally notified as slum under any Act;

'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.

Situation Appraisal

The people living in the slums mostly have kutcha (10) and semi-pucca (186) housing. In certain cases where pucca housing is available, they are usually in dilapidated condition. The kutcha houses are in very poor condition and require extensive repairs. Most of the houses have tiles on roof. While during the survey some of the houses have been noted to be in average condition, the quality of these houses is also speedily deteriorating.

Proposed Intervention

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

Table-22: Dwelling units

Building type	Number of DU
In situ single Unit	458 within slums and non slums

Building Plan

The buildings are proposed to cover an area of approximate 32 Sq.mt along with provision of 2 rooms, kitchen and sanitation facility. The layout, size and type design of housing dwelling units depends on the local conditions and the preferences of the beneficiary. The houses, has been designed in accordance with the desire of the beneficiaries, keeping in view the climatic conditions and the need to provide ample space, kitchen, ventilation, sanitary facilities, etc. and the community perceptions, preferences and cultural attitudes. In line with the scheme, carpet area of the house will be not less than 25 sq. mts and preferably two room accommodation plus kitchen and toilet should be constructed.

Building material

- ☐ PCC (1:3:6) for foundation
- ☐ RCC M-20 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

- ☐ Following are the general considerations in the analysis/design.
- ☐ For all structural elements, M20 grade concrete and Fe 415 grade of steel is used.
- ☐ Plinth beams passing through columns are provided as tie beams.
- ☐ Pedestals are proposed up to ground level.
- ☐ Beam Centre-line dimensions are followed for analysis and design.
- ☐ For all the building, walls of 250 mm and 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/m² at typical floor
- ☐ 1.5 kN/m² on terrace (With Access) : 0.75 kN/m² on terrace (without Access)
- ☐ Floor finish 50mm (0.05*24) = : 1.2 kN/m²
- ☐ Ceiling plaster 12mm (0.012*20.8) : 0.25 kN/m²
- ☐ Partition walls (Wherever Necessary) : 1.0 kN/m²
- ☐ Terrace finish: 1.5 kN/m²
- ☐ Earthquake load: As per IS-1893 (Part 1) - 2002
- ☐ Depth of foundation below ground: ,0.7 m

- ☐ Walls: 250 mm thick brick masonry walls at external and 125mm walls internal.

Reference codes:

- IS 456: 2000 - Code of practice -Plain and Reinforced concrete.
- IS :1893 :2002 - Criteria for Earthquake resistant design of structures(Part-1)
- IS: 13920: 1993 - Ductile detailing of Reinforced concrete structures subjected to seismic forces.
- SP: 34 - Hand Book on Concrete Reinforcement and Detailing.
- S: 875: 1987 - Code of practice for design loads (other than earthquake) for buildings and structures. (Part-2)
- NBC:2005

Identification of Beneficiaries

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

Allotment of Houses

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

Town Planning Norms

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

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

Compliance with Municipal Bye laws

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

Tenure

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

MED, Govt. of West Bengal

Summary of Investment

Project Costing

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

The cost components include:

Infrastructure: Cost of infrastructure development/up-gradation including water supply, sewerage, storm water drainage, solid waste management, roads & drainage, street lights, etc.

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

GOI Contribution:

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

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

Beneficiary Contribution:

In order to ensure beneficiaries interest, financial contribution by the beneficiaries is critical.. The share of beneficiary contribution in housing is proposed to be a minimum of 25000/-. As per PMAY guidelines no contribution from the beneficiaries is expected in infrastructure improvements

State Contribution:

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

ULB Contribution:

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

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

Table-23: Share of Fund

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

4.2. Disaster Management and Mitigation

Most of the citizens admit the necessity of elimination of hazards arising out of collapse of ill maintained buildings of temporary nature during periods of heavy rains and storms and immediate renovation of drainage system by construction of drains of adequate size and re-sectioning of the channels for increasing their carrying capacities by following appropriate design for the same. The structural design of the building is made by the MED, Govt. of West Bengal considering the norms of disaster management.

4.3. Statutory approval including environmental clearance (as applicable)

Table-22: Statutory approval including environmental clearance

IMPACT & REMEDIES		
1.	Utilization of alternative material Characteristics and availability of alternative material	Locally available bricks etc. will be used.
2.	Rehabilitation of water bodies & measures for maintaining surface runoff smoothly	No water body is affected by the alignment of road. The road side open C. C. / Brick masonry drains have been provided for free flow of storm water.
3.	Measures for Erosion Control	Not applicable for the slum area.
4.	Conservation of Topsoil a. Extent of loss of topsoil b. Area requirement for topsoil conservation c. Inclusion of conservation of topsoil d.	Not applicable for the slum area.
5.	Impact on Heritage & Culture a. Identification of locally significant cultural properties b. Assessment of likely impacts on each cultural property due to project implementation c. Possible measures for avoidance i) Identification of alternative routes ii) Relocation of Culture property in consultation with the local community iii) Common Property	Question does not arise.
6.	Location of Natural Habitants	It will not be disturbed
7.	Construction of site office / Camp	Temporary construction of camp / office shall be established by contractor and since the project is small and scattered, the temporary impact on environment for Construction Camp / office at the time of execution of work is negligible.
8.	Quarrying of Materials	
	a. Sourcing of materials from quarries b. Lead from various existing quarries	The construction materials require for the project shall be procured from :