

# CONTENTS

SL	PARTICULARS	PAGE
1	PREFACE	
2	INTRDUCTORY NOTE BY CHAIRMAN	
3	DEFINATION	
4	TOWN FEATURS	
5	WORK FLOW OF PMAY-HFA(U) FOR 2019-20	
6	PROJECT AT A GLANCE (7C)	
7	EXECUTIVE SUMMERY	
8	SLUM/NON SLUM WISE DETAILS OF FUND	
9	MAP OF TAMRALIPTA MUNICIPALITY	
10	LAND USE MAP	
11	CITY PROFILE	
12	PHYSICAL INFRASTRUCTURE PROFILE	
13	NOTIFIED & NON-NOTIFIED SLUM	
14	NATIONAL POVERTY ALLEVIATION PROGRAMME & PMAY	
15	ANNUAL IMPLEMENTATION PLAN FY(2019-20)	
16	HFAPOA& PRADHAN MANTRI AWAS YOJANA	
17	INTRODUCTION TO PRADHAN MANTRI AWAS YOJANA	
18	THE DURATION OF PRADHAN MANTRI AWAS YOJANA(PMAY) 2019-20	
19	FUNDING PATTERN OF PMAY	
20	LIST OF SLUMS& NON SLUMS UNDER TAMRALIPTA MUNICIPALITY	
21	PROJECT JUSTIFICATION	
22	HOUSING STATUS	
23	FINANCIAL IMPLEMENTATION	
24	POST PROJECT MONITORING	
25	DEFINATION OF SLUM FOR HOUSING	
26	PROPOSED INTERVENTION & BUILDING PLAN	
27	SUMMARY OF INVESTMENT	
28	OPERATION& MAINTENCE	
29	INSTITUTIONAL CAPACITY	
30	ESTIMATE& DRAWING	
31	WARD WISE SLUM MAPS	
32	DETAILS BENEFICIARY LIST (2019-20) WITH PHOTO	

## PREFACE

**Pradhan Mantri AwasYojana (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 have 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.

We are hopeful that this ULB will be able to utilize the success of this Program for further Municipal developmental works & for upgrading the quality of civic life. It will facilitate this ULB to be self-reliant son that this town can be a potential generator of economic momentum in the desired direction. The town has 33 Nos.Slums. FY 2019-20 DPR has been prepared on 33 Nos. Slums and 6 Nos. Non Slum Pockets to minimize the deficiencies in civic amenities after carrying out necessary field survey work, the Slums.

This project report for FY 2019-20 has been prepared for total outlay of **Rs. 3,242.45 lakhs for 801 nos. of** beneficiaries and the physical schemes for this town have been identified on the basis of preliminary assessment befitting with the final and comprehensive development project plan for the entire town.



  
Chairman, Tamralipta ULB  
**Chairman**  
**Tamralipta Municipality**



# DETAILS PROJECT REPORT(DPR)2019-20

## Abbreviations

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



## Working Definitions with Planning Team

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





## Planning & Monitoring Team

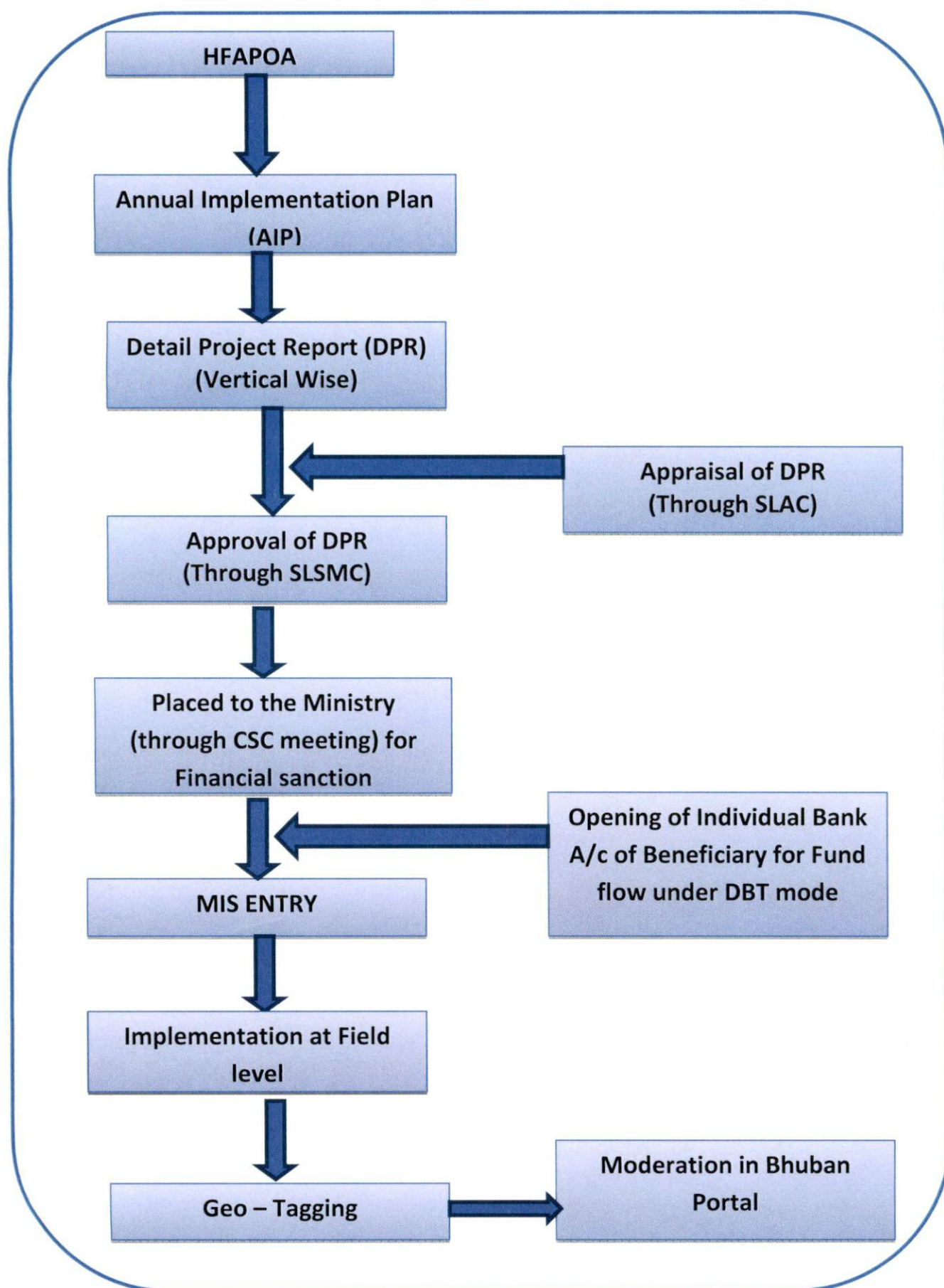
1. Sri Rabindranath Sen, Chairman, Tamralipta Municipality
2. Sri Chandan Pradhan, In-charge Councillor PMAY-HFA, Tamralipta Municipality
3. Sri Narayan Chandra Dandapath, EO and Nodal Officer-HFA, Tamralipta Municipality
4. Sri Alok Bhowmik, Engineer, Tamralipta Municipality
5. Sri Debashis Ghosh, Engineer, Tamralipta Municipality
6. Sri Kabisekhar Panja, Engineer, Tamralipta Municipality
7. Sri Surjapada Mondal, Urban Planner, Tamralipta Municipality
8. Sri Kartick Sau, A&FC, Tamralipta Municipality



  
**Chairman**  
**Tamralipta Municipality**

  
**Councillor**  
**Tamralipta Municipality**

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





**Annexure 7C**  
**(Para 14.5 of the Guidelines)**

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

1	Name of the State:	:	<b>West Bengal</b>						
2	Name of the District:	:	<b>Purba Medinipur</b>						
3	Name of the City:	:	<b>Tamralipta</b>						
4	Project Name:	:	<b>Hfa-Tamralipta -2019-20</b>						
5	Project Code:	:	<b>19801759044N0</b>						
6	State Level Nodal Agency:	:	<b>State Urban Development Agency</b>						
7	Implementing Agency/ ULB	:	<b>Tamralipta Municipality</b>						
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		
		:	TAMRALIP TA MUNICIPAL AREA	801	Covering both Slum & Non-Slum area	Notified	No		
10	Project Cost (Rs. In Lakhs)	:	<b>3,242.45</b>						
11	No. of beneficiaries covered in the project	:	GEN	SC	ST	OBC	Total	Minority	Person with Disability
		:	689	26	0	86	801	178	0
12	Whether beneficiary have been selected as PMAY Guidelines?	:	<b>Yes</b>						
13	No. of Houses constructed / acquired. Please specify ownership (Any of these)	:	Joint	Female	Male	Transgender			
		:	380	201	220	0			
14	No. of beneficiaries covered in the project	:	Male	Female	Transgender				
		:	600	201	0				
15	Whether it has been ensured that selected beneficiaries have rightful ownership of the land ?	:	<b>Yes</b>						
16	Whether building plan for all houses have been Approved?	:	<b>Yes</b>						
17	i. GoI grant required (Rs. 1.5 lakh per eligible beneficiary)	:	<b>1,201.50</b>						

	(Rs. in Lakhs)		
	ii. State grant, (Rs. in Lakhs)	:	<b>1,693.31</b>
	iii. ULB grant (Rs. in Lakhs)	:	<b>147.38</b>
	iv. Beneficiary Share (Rs. in Lakhs)	:	<b>200.25</b>
	v. Total (Rs. in Lakhs)	:	<b>3,242.45</b>
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	:	No
	vi. Solid Waste Management	:	No
	vii. Any Other	:	No
	viii. In case, any infrastructure has not been proposed, reason thereof.	:	No
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 havebeen formulated ? If not reasons thereof ?	:	Yes
23	Whether validation with SECC data for housing condition conducted ?	:	Yes
24	Whether Direct Benefit Transfer (DBT) of fund to individual bank account of beneficiary ensured in the project ?	:	Yes



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

**Signature**

**Chief Engineer**  
**M.E Dte, GoWB**

**Signature**  
**(Director, SUDA)**

**Signature**  
**(Secretary, UD & MA**  
**Department, GoWB)**

## Executive Summary

### Project Details

1	Name of the State:	:	West Bengal
2	Name of the District:	:	Purba Medinipur
3	Name of the City:	:	Tamralipta
4	Project Name:	:	Hfa-Tamralipta -2019-20
5	Project Cost (Rs. In Lakhs)	:	3,242.45
6	Central Share (Rs. In Lakhs)	:	1,201.50
7	State Share (Rs. In Lakhs)	:	1,693.31
8	ULB Share (Rs. In Lakhs)	:	147.38
9	Beneficiary share (Rs. In Lakhs)	:	200.25
10	Total Infrastructure Cost (Rs. In Lakhs)	:	294.77
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	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	Beneficiaries Share @ 0.25 Lakh/DU)
<b>A. HOUSING</b>											
1	New in-situ										
	Single Storied Units	BLC	801	Nos	368000.00	2,947.68	2,947.68	1,201.50	1,545.93	0.00	200.25
Total Housing Cost Sub Total (A)						2,947.68	2,947.68	1,201.50	1,545.93	0.00	200.25
<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>IROADS</b>											
1.1	Concrete road	Mett aled	13399	Sqm	0.011	147.38	147.38	0.00	73.692	73.692	0.00



2. WATER SUPPLY (Proposed)											
2.1	Installation of house connection & line fittings	PVC	10129.48	Rmt	0.003	29.48	29.48	0.00	14.738	14.738	0.00
3 STORM WATER DRAINS											
3.1	Drain	B&W	4037.92	Rmt	0.029	117.91	117.91	0.00	58.95	58.95	0.00
	Total Infrastructure Cost Sub Total (B)					294.77	294.77	0.00	147.38	147.38	0.00
	GRAND TOTAL (A+B)					3242.45	3242.45	1,201.50	1,693.31	147.38	200.25

  
**Sub-Assistant Engineer**  
**Tamralipta Municipality**

Signature of the ULB level  
Competent Technical officer  
Tamralipta Municipality

Name & Designation: Kabisekhari  
panja, Engineer, Tamralipta ULB  
Fax No: 03228-266007

Telephone No: 9474057408

E-mail: panja.kabisekhar@gmail.com

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: Debarati Dutta Gupta  
Director, SUDA  
Fax No: 033-23585767

Telephone No: 033-23585767

E-mail: wbsudadir@gmail.com



  
Signature of the Chairman  
Tamralipta Municipality

Name & Designation: Rabindranath Sen

Fax No: 03228-266007

Telephone No: 9434320353

E-mail: chairman@tamlukmunicipality.org



# SLUM & NON SLUM WISE DETAILS OF DU AND INFRASTRUCTURE COST OF 2019-20

Slum No.	Name of Slum	Slum Code	Area Sqkm	POPULATION	Dwelling Units (@ Rs. 3.67858 Lakh/ each)		Drainage (M)		Pipe Line (M)		Bituminous Roads (@ Rs. 612.00/Sq.M)		Concrete Roads (Sq.M)		Total cost of Infrastructure @ 10% of D.U. cost Rs. In Lac	Grand Total (Rs. In lakh)
					Qty.	Amt. (in Lakh)	Qty.	Amt. (in Lakh)	Qty.	Amt. (in Lakh)	Qty.	Amt. (in Lakh)	Qty.	Amt. (in Lakh)		
1	Gangakhali slum(Paria tungi char)1	10002	0.08	1168	21	77.28	105.86	3.09	265.6	0.77	NA	0.00	351.27	3.86	7.73	85.01
2	Muslim para and jale para basti2	10003	0.25	768	70	257.60	352.88	10.30	885.2	2.58	NA	0.00	1170.91	12.88	25.76	283.36
3	Matangini west para Bastee4	10004	0.14	1320	34	125.12	171.40	5.00	430.0	1.25	NA	0.00	568.73	6.26	12.51	137.63
4	Barpadumbasan Bara bakulpara4	10006	0.11	972	30	110.40	151.23	4.42	379.4	1.10	NA	0.00	501.82	5.52	11.04	121.44
5	Laldighi Basti5	10005	0.01	660	51	187.68	257.10	7.51	644.9	1.88	NA	0.00	853.09	9.38	18.77	206.45
6	Maniktala pir Mandir para5	10007	0.26	612	19	69.92	95.78	2.80	240.3	0.70	NA	0.00	317.82	3.50	6.99	76.91
7	Ramsagar Bastee7	10008	0.87	324	7	25.76	35.29	1.03	88.5	0.26	NA	0.00	117.09	1.29	2.58	28.34
8	kathuria para basti9	10009	0.29	1266	10	36.80	50.41	1.47	126.5	0.37	NA	0.00	167.27	1.84	3.68	40.48
9	Balbal para basti9	10010	0.0123	750	24	88.32	120.99	3.53	303.5	0.88	NA	0.00	401.45	4.42	8.83	97.15
10	Chapder para bastee9	10011	0.21	864	8	29.44	40.33	1.18	101.2	0.29	NA	0.00	133.82	1.47	2.94	32.38
11	Dakshinpara and Mirpara Bastee9	10012	0.033	900	7	25.76	35.29	1.03	88.5	0.26	NA	0.00	117.09	1.29	2.58	28.34
12	Kha para Bastee10	10013	0.019	150	50	184.00	252.05	7.36	632.3	1.84	NA	0.00	836.36	9.20	18.40	202.40
13	Railcolony para11	10014	0.22	906	18	66.24	90.74	2.65	227.6	0.66	NA	0.00	301.09	3.31	6.62	72.86
14	Indira colony12	10015	0.061	502	36	132.48	181.48	5.30	455.3	1.32	NA	0.00	602.18	6.62	13.25	145.73
15	Town school colony para12	10016	0.101	765	3	11.04	15.12	0.44	37.9	0.11	NA	0.00	50.18	0.55	1.10	12.14
16	Gangaghat para13	10017	0.31	895	6	22.08	30.25	0.88	75.9	0.22	NA	0.00	100.36	1.10	2.21	24.29
17	Bara bandh slum14	10018	0.091	754	70	257.60	352.88	10.30	885.2	2.58	NA	0.00	1170.91	12.88	25.76	283.36
18	Sweeper colony para15	10019	0.06	897	0	0.00	0.00	0.00	0.0	0.00	NA	0.00	0.00	0.00	0.00	0.00
19	Iswar colony bastee15	10020	0.0162	678	10	36.80	50.41	1.47	126.5	0.37	NA	0.00	167.27	1.84	3.68	40.48
20	Nimtola more basti15	10021	0.05	568	2	7.36	10.08	0.29	25.3	0.07	NA	0.00	33.45	0.37	0.74	8.10
21	Das para bastee16	10023	0.16	987	18	66.24	90.74	2.65	227.6	0.66	NA	0.00	301.09	3.31	6.62	72.86
22	Dulia para16	10024	0.025	897	50	184.00	252.05	7.36	632.3	1.84	NA	0.00	836.36	9.20	18.40	202.40
23	Rail Colony para17	10033	0.045	985	27	99.36	136.11	3.97	341.4	0.99	NA	0.00	451.64	4.97	9.94	109.30
24	Shitala Mandir para Bastee17	10001	0.012	987	5	18.40	25.21	0.74	63.2	0.18	NA	0.00	83.64	0.92	1.84	20.24
25	Nimtola more basti17	10022	0.013	985	3	11.04	15.12	0.44	37.9	0.11	NA	0.00	50.18	0.55	1.10	12.14
26	Taltolla Bastee18	10025	0.0201	654	40	147.20	201.64	5.89	505.8	1.47	NA	0.00	669.09	7.36	14.72	161.92
27	subhaspalli bastee18	10026	0.151	30	30	110.40	151.23	4.42	379.4	1.10	NA	0.00	501.82	5.52	11.04	121.44
28	kapasberia Mandalpara bastee19	10027	0.019	85	85	128.80	176.44	5.15	442.6	1.29	NA	0.00	585.45	6.44	12.88	141.68





29	chandkhua betal para bastee19	10028	0.0112	960	20	73.60	100.82	2.94	252.9	0.74	NA	0.00	334.55	3.68	7.36	80.96
30	khalpar colony sankarara char20	10029	0.146	1250	16	58.88	80.66	2.36	202.3	0.59	NA	0.00	267.64	2.94	5.89	64.77
31	Telipara bastee3	20030	0.0147	650	60	220.80	302.47	8.83	758.8	2.21	NA	0.00	1003.64	11.04	22.08	242.88
32	Khal parh bastee6	20031	0.0121	754	7	25.76	35.29	1.03	88.5	0.26	NA	0.00	117.09	1.29	2.58	28.34
33	Harijan para Bastee8	20032	0.089	456	14	51.52	70.58	2.06	177.0	0.52	NA	0.00	234.18	2.58	5.15	56.67
Total			3.91		801	2947.68	4037.92	117.91	10129.48	29.48	NA	0.00	13398.55	147.38	294.77	3242.45

*Bam*  
**Sub-Assistant Engineer**  
**Tamralipta Municipality**

*Signature*  
**Executive Officer**  
**Signature of EO**  
**Tamralipta Municipality**

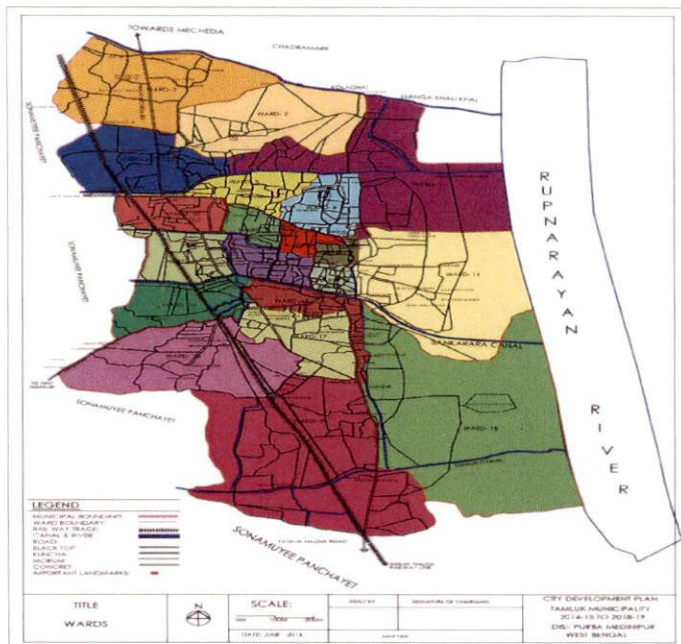


*Signature*  
**Signature of Chairman**  
**Chairman**  
**Tamralipta Municipality**

**History:** Tamralipta, an ancient Indian seaport, now buried under river silt is found mentioned in ancient Pali and Sanskrit literatures in different names such as Tamralipta, Damalipta, Tamralipi, Tamraliptika or Velakula. It functioned as an important port where from Indian sea vessels sailed to distant lands. Tamralipta is found as a place of mention in the works of Pliny and the great geographer Ptolemy as Taluctae and Tamalites respectively. Renowned Chinese pilgrims like Fahien, Hiuen Tsang and Itsing who visited this place have left vivid accounts of the flourishing port city as a prosperous commercial city with great religious centre. The antiquity and importance of the site have been established through excavation from time to time. Assessing the importance of the site, Archaeological Survey of India in the year 1954-55 undertook systematic excavation to reveal its cultural sequence. The excavation revealed the earliest occupation from Neolithic up to modern times.

**Year of Establishment:** Tamralipta Municipality which was constituted on 01.04.1864 (Bengal Municipal Act 1866) is one of the oldest urban local bodies of the state and now becomes the district headquarters of the district of Purba Medinipur since 2002.

**Administrative Boundaries:** Tamralipta, the head quarter of the subdivision of the same name is situated in the South-Eastern part of the district on the banks of **the Runarayan River**. In  $22^{\circ}17'50''$  North latitude & in  $87^{\circ}57'30''$  east longitude, 10-12 meter in altitude which is higher than its soil level. In the northern part of the town, Gangakhali Khal at Ratnali, Sayedpur mouza & in southern kapasberia where as in eastern side Rupnarayan River & in western Radhaballavpur & Dharinda mouza.



**Map 1. Administrative Boundaries**

**Linkages of Rail, Road, Port and Air:** Tamralipta is well linked by road and rail. Tamralipta is a major roadway junction with six bus-routes originating from it: There are two railway station named as Matangini Rail Station, at ward 17 & Tamralipta Rail Station at ward 10.



- Tamralipta to [Srirampur](#) and [Moyna](#)
- Tamralipta to [Mecheda](#), [Kolaghat](#), and [Kolkata](#)
- Tamralipta to [Panskura](#), [Kharagpur](#) and [Ghatal](#)
- Tamralipta to [Haldia](#), [Durgachowk](#)
- Tamralipta to [Digha](#), [Contai](#), and [Egra](#)

Tamralipta is a railway junction; routes are given below: Howrah to Haldia, via Tamralipta

- Howrah to Digha, via Tamralipta and Contai
- Haldia to Kharagpur via Tamralipta

**Economic Activity:** Once Tamralipta was famous for its trading when it was a seaport in past. Currently it also a place of Rich people. It is the One of the highest "Premium Collecting Area" of LIC in pan India basis. Main trades are of "Pan Leaf", "Gold Jewellery" & Gahana Bari. The body building of bus, taxi etc is another important business.

**Demographic Growth and Population Projection:** In Tamralipta Municipality, the below six year year of age in 2011 is constituting of the total population is 65312. Census figure from 1991 to 2011 for Tamralipta Municipality general literacy & female literacy have been improved but female literacy is 78.81% is comparatively lower than the males literacy rate that is 85.72%. according to 2011 census males constitute 50.97% of the total population & female constitute 49.02%. On average literacy rate is 82.34% which is higher than the national average rate 61% where as both in case of this Municipality is staying is utmost upper than male & female. According to the projected pollution & current growth, the population of the city would be rise to 88171 in 2021 & one lakh above in 2031.

Population & Decadal growth		
Year	Population	Decadal Growth Rate (%)
1971 (Base Year)	22000	
1981	29000	31.82
1991	38688	33.41
2001	59109	52.78
2011	65312	10.49
2021	88171	35
2031	119031	35

Population Distribution (1991-2011)								
Year	T. Population	Male	Male lite	Female	Female lite	SC	ST	Lit
1991	38688	20423	15621(76.49)	18265	12603(69.00)	2400(6.20)	69(0.18)	28224(72.95)
2001	59109	30387	25113(82.64)	28725	20927(72.85)	3710(6.27)	161(0.27)	46040(77.89)
2011	65312	33291	28536(85.72)	32020	25236(78.81)	4459(6.82)	197(0.30)	53772(82.33)

**Table No.4. Population Distribution**

**Places of Interest:** The principal object of interest at this Municipality is a temple sacred to the goddess. Following are the special religious places of interest of Tamralipta:

- Barghobhima Mandir
- Harir Mandir & Mahaprabhur Dalan ( Near Jelkhanar More )
- Jishnu-Hari Mandir
- Radhamadhav & Radharaman Mandir ( at Rajbari )
- Ramkrishna Mission Sevashram
- Manikpir –er-Dorga
- The Tamralipta RajBari
- Hamilton High school
- Idga Masjid

**Festivals:** Following are the Special religious festivals of Tamralipta:

- Charak Mela
- Makar Sankrant Barunir Mela ( Very famous )
- Bhim Mela ( On 11th day of Bengali month Magha )
- Kali Mela(at RAJARAMPUR in the bengali month of Chaitra)
- Ratha Jatra(at Harir Hat in the bengali month of Ashar)

**Traditional Arts/Crafts:**Tamralipta is always praised for its reach cultural activities. There are lots of Arts schools, Dance Schools and Drama groups. Tamralipta which is also an important craft center is located just 85 km south-west of Kolkata. People of Tamralipta are sober, cultured and rich.

**Climate:**The climate is as that tropical in characterized. Mainly three seasons are visible in the town namely summer, winter, monsoon It is a low lying areas situated on the sea coast with a wet soil & hot climate .Being situated at the north western angle of Rupnarayan River the jurisdiction of this Municipality becomes to confess to cyclone storms, which are often accompanied by heavy rainfall& sometimes by storm waves. The water poured in irresistible volume over the embankment, which is more topped, sweeping away a row of masonry houses insides &scooping out the foundation. Annual rainfall remains 150-160cm on an average& temperature in winter 12°C-25°C& in summer 30°C-40°C on an average.

Sector	Direction
Longitude	87 .9°E,22.3°N
Latitude	22°17'50"
Altitude	10-12 Meter above from sea level
Annual Rainfall	150-160C.M
Temperature in Winter	12°C-15°C
Temperature in Summer	30°C-40°C

**Soil and Ground Water Scenario:** Tamralipta town is mainly alluvium & a little part comprising newer alluvium. The eastern half of the town which is alluvial is thickly populated, while the western part of the town, where there is laterite soil covered here & there with bamboo trees, is sparsely in habited. source of water is underground sources obtained from deep tube well (which is 300\*200mm) to CWR to OHR to the Distribution centre through piped water for providing to the consumers where as ph-7.5,dissolved solid (p.p.m) -610, iron.0.89, chloride150.50 reported as per physiochemical test as on 12.10.2004.Agriculture cultivation through River Water.

**Land & Agriculture:** Tamralipta is mainly an agricultural area. About 60% of the land is under cultivation. Tamralipta is one of the largest producer and exporter of the Pan Leaf. Once fishing was an important occupation of the local residents. Hilsa (Ilish Mach) of the River Rupnarayan is very famous for its taste.

**Main crops are:**

1. Rice
2. Bananas
3. Coconut
4. Potatoes
5. Cotton
6. Fresh Vegetables

**Agricultural Products of the Region:**

1. Pan Leaf
2. Paddy
3. Flowers



### Town Features

**History:** The antiquity and importance of the site have been established through excavation from time to time. Assessing the importance of the site, Archaeological Survey of India in the year 1954-55 undertook systematic excavation to reveal its cultural sequence. The excavation revealed the earliest occupation from Neolithic up to modern times. Tamluk Municipality which was constituted in 1864 is one of the oldest urban local bodies of the state. Tamluk (22° 22' N 87° 55' E) is in the police station of the same name and now becomes the district headquarters of the district of Purba Medinipur since 2002 and located on the bank of the turbulent Rupnarayan at a distance of 85 km from Kolkata with the National Highway-41 passing along the western side of the town and connecting it with places within and outside the state. The municipality comprises of 17.86 sq.km area including 20 nos. wards with 65312 populations as per census 2011 & of 33 no. slum pockets. Tamluk Municipality since its establishment in 1864 has been making earnest endeavor to provide quality civic amenities to its citizens, Although more than a century-half old urban local body, it has taken big strides towards providing quality urban services to its residents. It has introduced the system of water supply since 1989 and has made necessary arrangement for the extension of the piped water supply network to the added areas also & set up pay and use toilets in different corner of the town. The Municipality has been constantly exploring new avenues for nontax revenue generation and has constructed market complexes, auditoriums, guest houses and community halls. It has totally eradicated the service latrine system from the municipal area. Its performance in respect of urban poverty alleviation is also noteworthy. Electric supply covers all the wards and all the important roads have street lighting facility. The Municipality has been able to upgrade all the important roads and improve the surface drainage system in the municipal area in an attempt to forestall water logging of the town during the rainy season. Presently Tamluk/Tamralipta has been trying valiantly to rise to the level of its past glory. Tamralipta Municipality which was constituted on 01.04.1864 (Bengal Municipal Act 1866) is one of the oldest urban local bodies of the state and now becomes the district headquarters of the district of Purba Medinipur since 2002. Tamralipta, the head quarter of the subdivision of the same name is situated in the South-Eastern part of the district on the banks of the Runarayan River. In 22°17'50" North latitude & in 87° 57'30" east longitude, 10-12 meter in altitude which is higher than its soil level. In the northern part of the town, Gangakhali Khal at Ratnali, Sayedpur mouza & in outhern kapasberia where as in eastern side Rupnarayan River & in western Radhaballavpur & Dharinda mouza.

Sector	Direction
Longitude	87 .9°E,22.3°N

## Detailed Project Report (DPR\_ 2019-20)

Latitude	22°17'50"
Altitude	10-12 Meter above from sea level
Annual Rainfall	150-160C.M
Temperature in Winter	12°C-15°C
Temperature in Summer	30°C-40°C

<b>1</b>	<b>Name of the District :</b>	PURBA MEDINIPUR
<b>2</b>	<b>Year of establishment :</b>	01.04.1864
<b>3</b>	<b>Area (in sq. Km) :</b>	17.86
<b>4</b>	<b>No. of wards :</b>	20
<b>5</b>	<b>Distance from District Headquarter :</b>	0.00
<b>6</b>	<b>Population (census 2011) :</b>	65312
6.1	Male	33291
6.2	Female	32020
6.3	Total	65311
<b>7</b>	<b>Density of Population (Per sq. km.) :</b>	3656
<b>8</b>	<b>Break up of Population (2011) :</b>	
8.1	Scheduled Caste	4459
8.2	Scheduled Tribe	197
8.3	Minorities	9047
10	Total holdings	14476
<b>11</b>	<b>Literacy :</b>	
11.1	Male	28536
11.2	Female	25236
11.3	Total	53772
11.4	Percentage of Literate Population(2011)	82.33
<b>12</b>	<b>Number of BPL Household (as per SUDA Survey) :</b>	5481
<b>13</b>	<b>Scenario of Slum :</b>	
13.1	Total No. of Slum	33
13.2	Total Slum Population (as per USHA survey)	21111
13.3	Percentage of Slum Population to the total population	32.33
13.4	No. of Slum where Slum Infrastructure Improvement sanctioned under IHSDP	16
13.5	No. of Slum where Slum Infrastructure Improvement already done under IHSDP-	16
<b>14</b>	<b>Housing status for Urban Poor :( as on 31.07.2019)</b>	
14.1	No. of dwelling units targeted to be provided under IHSDP	456
14.2	No. of beneficiaries already provided with Houses under HUP	109
14.3	No. of beneficiaries provided with Houses under " Housing for Urban Allr "	2139
<b>15</b>	<b>Road :</b>	
15.1	Length of Metalled Road (in km.)	106.433
15.2	Length of Non-Metalled Road (in km.)	61.380
15.3	Length of other Roads (in km.)	41.937
15.4	Total length of Road (in km.)	209.750



## Detailed Project Report (DPR\_ 2019-20)

15.5	Total no. of wards fully covered with Metal / Cement Concrete Road	4 wards
<b>16</b>	<b>Drainage :</b>	
16.1	Length of Kutcha Drain (in km.)	39.230
16.2	Length of Pucca Drain (in km.)	89.750
16.4	Total length of Drain (in km.)	128.980
16.5	No. of wards fully covered with Pucca Drain	20 wards
<b>17</b>	<b>Water Supply : -</b>	
17.1	No. of Water Treatment Plant	TO be started very soon
17.2	No. of Deep Tube well	37
17.3	No. of Hand Tube well	125
17.4	No. of Street Stand post	774
17.5	Length of Water pipeline (in kilometer)	112.9
17.6	No. of Underground Reservoir	03
17.7	No. of Overhead Reservoir	04
17.9	No. of houses connected with Water Supply Network	11065
17.1	Who is maintaining water supply – Municipality / PHE Dept./ KMDA / KMWSA	municipality
<b>18</b>	<b>Sewerage and Sanitation :</b>	
18.1	No. of sanitary latrine constructed (ILCS+SBM/MNB)	2547
18.3	No. of Community Latrine /Public Toilet	16
<b>19</b>	<b>Solid Waste Management :</b>	
19.1	No. of Dumping Ground, if any	01(new land to be identified )
19.2	No. of Landfill site , if any	01
19.3	No of Mechanical Sweeper, if any	Nil
19.4	No. of Compactors, if any	01
<b>20</b>	<b>Street Light :</b>	
20.1	No. of Light Post	3637
20.2	No. of High Mast Light Post	18
20.3	No. of Trident Light Post	NA
20.4	No. of other Ornamental Light Post	NA
20.5	No. of Wards covered with light posts	20

## PHYSICAL INFRASTRUCTURE PROFILE

### Road Network and Traffic Management

The total road network is 210.63 kms of which 106.43 kms is metalled road and 61.34 kms of Non-metalled road and 21.937 kutchha roads. The State Highway No.41' passed out of the town by the north to west side to Haldia-Kolkata. The important roads within the town are mostly bituminous. The road network in the Municipality does not provide complete coverage of all the wards especially in the newly added areas 14, 19, 18. Over the years due to unplanned development and pressure of population the road condition has deteriorated and has become narrower and congested.

**Table 10: shows existing road network availability of Tamralipta Municipality**

Sl.no	Type of Road	Length(Km)
1	Bituminous Road	24.413
2	Concrete Road	86.97
3	Water Bounded Macadam Road	68.38
4	Kutchha Road	23.937
5	Others	6.937
Total		210.637



**Fig 8: shows existing road network availability**



**Drainage System** - The town Tamralipta is depend on insufficient surface drainage system for both storm water drainage and sewerage water. There are three natural drainage outlets in the town namely (i) SANKARARA KHAL, (2) NARAYANPUR KHAL, (3) PAIRATUNGA KHAL, these three main outlet of the town has become silted due to encroachment for inhabited settlement and dumping of garbage. There is need of improvement of the existing drainage system by excavating new drains including conversion of existing 39.23Kutcha drain and renovation of several nasha KHAL.

**Solid waste Management-** The town has become almost free from the service privy. One dumping ground is located at ward 18 U.C sankarara. The Municipality has truck of its own for clearance of garbage (Total garbage per day = 30 to 35 Ton). The garbage is mainly brought and accumulated in selected dustbin by push-trolley wheelbarrow and then it is finally disposed off by 3 nos. truck and 2 numbers Tractors of the Municipality (Total garbage remove per day 20 to 25 Ton). The dustbin/vats are also not made in proper scientific and hygienic manner (Total no. of vat = 250). Also with the rapid growth of habitation the Municipality is being compelled to remove the existing dustbin/vats, which created a severe problem in accumulation and clearance of day-to-day garbage of town. Refer to map showing the Solid waste management Condition.

**Water supply system** - Municipal piped water system was initiated in the year 1989 and the entire water is being obtained through deep tube wells. However some interior measures has been taken up from time to time to meet up the requirement of the habitants. Present water supply position of the town is 7.08 lakh gallons against the demand of 10.10 lakh gallons daily as such there is acute deficit of supply. The water supply has been derives by the direct pumping from the 4 nos. of deep tubewells situated at — (1) Maniktala, (2) New Bakery, (3) Abasbari and (4) Municipality Office Building, as well as through one no. elevated reservoirs of 60,000 Gallons capacity fed by 3 (three) nos. deep tubewells situated at (i) Santanamoyee Girls High School, (ii) Baikuntha Sarobar & (iii) Chalantika Cinema. 9 nos. of Wards (Ward Nos. – 3, 4, 5, 6, 7, 9, 10, 15, & 17) are entirely covered by this existing water supply network (Map showing the area of coverage under the existing network is attached). There are 112.9 KM (approx) of pipeline including the raising main line, feeders' line and the distribution line. Outside the core area there are 110 nos. hand operated tube well in different pockets for meeting the need of the locality. There are also 774 nos. of stand post that is meeting the need of the people at different places. 7065 nos. of holdings are provided with water connection against the total holding of 14,450nos.

## Slum Household by Structure of Shelter

### Existing Slums Details

The environmental condition in the slums is poor. The slums lack basic civic amenities mainly drainage, thereby leading to water logging, mainly during rainy season. This has led to an unhygienic living condition in the slums. Most of the roads within slums are brick paved or kutcha road. Though there are sufficient 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.

### Slum Household by Security of Land Tenure:

Ownership of houses is very much prominent from the below table. Majority of them have legal papers, which shows that they can very well draw a demarcation between legal and illegal things. There are few who do not have any legal papers to prove their ownership. People staying at rented house are very less. Clearly we find from the below table out of 4754 house hold having With Patta-(9.8%)and,Possession Certificate/Occupancy Right(2.7%),Encroached-Private Land (7.05),Encroached-Public Land (10.83),On Rent (4.12)& those who have their own land i.e(65.39). government land are available in ward18,2,16,19,20,14,3 which need to transfer to the ULB foe effectively implementation of the HFA.

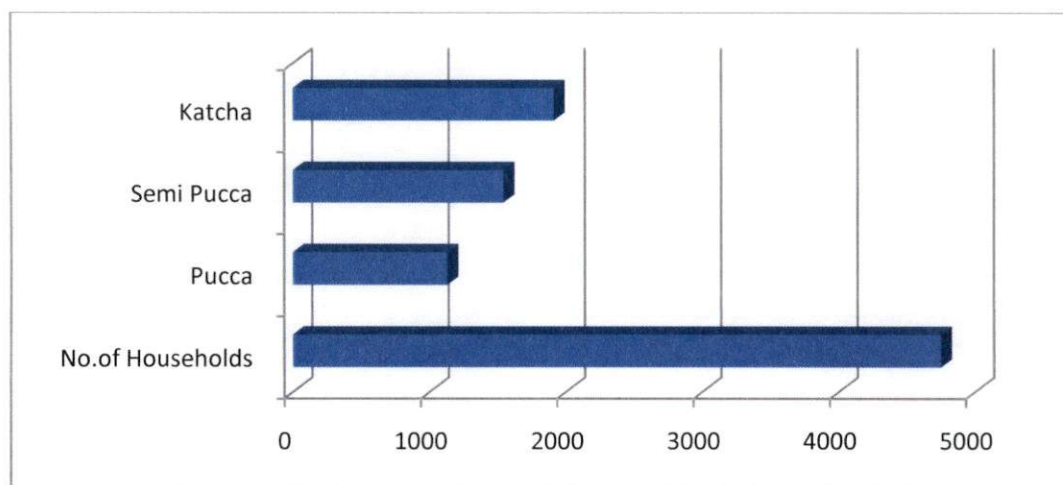


Table 1: Slum Household by Security of Land Tenure



**Tenable Slums:**

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

**Semi Tenable Slums**

- All slum pockets located on sites which are earmarked for non-residential uses as per Master Plan are categorized as semi-tenable for further analysis and review. Finally, the semi tenable slums are either is categorized as Tenable or Untenable.
- **Untenable Slums**
- (i) As per NBO format, slum pockets in the following locations may be considered as untenable
  - Major storm water drains, Other drains, Railway line, Major transport alignment, River or water bodies Bank , River or water bodies Bed and others (hazardous or objectionable) including high tension lines.
- However, slums on other drains may be examined for being included in the category of semi tenable or tenable
- Slums depending on the exact location of the slum and the possibility of in---situ development through sustainable engineering solutions
- (ii) As per "Model Property Rights to Slum Dwellers Act, 2011"
- Those settlements which are on environmentally hazardous sites, ecologically sensitive areas, prohibited areas around heritage sites and land marked for public spaces, utilities, services and infrastructure.

**Tenable slums**

All slums under Tamralipta area are fulfilling the criterion of tenability. The details are expressed here under:

### Land Values:

Based on information on land values at different areas of Tamralipta Municipal area received from West Bengal Valuation Board (WBVB), all the slums have been categorised into four zones in order of increasing market value. The zones are: i) Z1 (High), ii) Z2 (Moderately High), iii) Z3 (medium) and iv) Z4 (Low).

Land value of different slums is given below:

**Table 2: Land value of different slums**

Ward Number	Slum Code	Slum Name	Tenability (Yes/no)	Land Value (Z1 is high and Z4 is low)
1	OO1	Gangakhali slum(Paria tungi char)	Yes	Z4
2	OO2	Muslim para and jale para basti	Yes	Z4
4	OO3	Matangini west para Bastee	Yes	Z4
4	OO4	Barpadumbasan Bara bakulpara	Yes	Z3
5	OO5	Laldighi Basti	Yes	Z3
5	OO6	Maniktala pir Mandir para	Yes	Z3
7	OO7	Ramsagar Bastee	Yes	Z1
9	OO8	kathuria para basti	Yes	Z2
9	OO9	Balbal para basti	Yes	Z3
9	O10	Chapder para bastee	Yes	Z4
9	O11	Dakshinpara and Mirpara Bastee	Yes	Z2
10	O12	Kha para Bastee	Yes	Z3
11	O13	Railcolony para	Yes	Z3
12	O14	Indira colony	Yes	Z2
12	O15	Town school colony para	Yes	Z1



13	O16	Gangaghat para	Yes	Z1
14	O17	Bara bandh slum	Yes	Z3
15	O18	Sweeper colony para	Yes	Z2
15	O19	Isvar colony bastee	Yes	Z3
15	O20	Nimtola more basti	Yes	Z2
15	O21	Das para bastee	Yes	Z2
16	O22	Dulia para	Yes	Z4
16	O23	Rail Colony para	Yes	Z4
17	O24	Shitala Mandir para Bastee	Yes	Z2
17	O25	Nimtola more basti	Yes	Z2
18	O26	Taltolla Bastee	Yes	Z4
18	O27	subhaspalli bastee	Yes	Z4
19	O28	kapasberia Mandalpara bastee	Yes	Z2
19	O29	chandkhua betal para bastee	Yes	Z3
20	O30	khalpar colony sankarara char	Yes	Z2
3	O31	Telipara bastee	Yes	Z4
6	O32	Khal parh bastee	Yes	Z1
8	O33	Harijan para Bastee	Yes	Z1

Land demarcation	Nos. of slum	Diagramme 23:Graphical representation of Slums land value	
Land ValueZ1	5	<div>Nos. of slum</div>	
Land ValueZ2	10		

Land ValueZ3	9	
Land ValueZ4	9	
<b>Total</b>	<b>33</b>	

From the above pie chart it is seen the 27.7% of the slums belong to Z4 i.e low land value category, 27.7% under Z3 category where only 45.30% of the total are counted under Z2&Z1 i.e moderately high To upgrade the standard of life of slum dwellers, proper housing with sanitation facility is the crying needs of the present days. Development of this basic infrastructure is the first and foremost need for up-gradation of the living standard of slum population. A detailed survey regarding Pocket-wise identification of existing houses in the slum areas have been carried out and total of 4754 nos. of holding have been found in all the slums, out of which 1141 nos(24%). of holdings are good and 3613 Nos.(76.13%) houses have been proposed to attention for construction under PMAYProgramme intervention.

### **Status of Slums under Municipality**

1. As per the available data, the total number of people living in slums amounts to 25637 covering an area of 3.67 sq.km. Thus over two-third of Municipality's population resides in slums, squatters and other poor settlements. Their contribution to city's economy has been also been growing over the period.
2. In the absence of a focused program and in a background of ever-increasing urbanisation, the slum dwellers continue to be deprived of access to basic services, socio- economic needs. The problems are multiplied by increasing migration. It is necessary, therefore, to develop clear-cut strategies, Programmes and action plans to provide the basic Services to the Urban Poor.
3. Municipality is basically a town and has been having substantial industrial and economic growth over the years. This has resulted in substantial growth in population triggered of by permanent migration. Continued influxes of migrants have resulted in mushrooming of slums and squatter settlements. Quality of life has thus suffered and the gaps between the demand and supply of essential services and other infrastructures have widened many fold.
4. Slum settlements have multiplied over decades and the living conditions of the poor have not



improved. Environmental decline, vehicular pollution, inadequate basic services and infrastructure in the poor settlements hit the poor hardest. Slums are scattered across the city occupying both private land and lands belonging to various public entities. However, they were neither adequate nor did they have proper ventilation or hygiene.

5. Lack of sufficient ventilation in the rooms, low and damp floor levels, congestion, want of proper drainage, and general unhygienic conditions from the characteristics common feature of these bustees. Privy accommodation in many cases is far too inadequate considering the number of the inmates. Through the service privies have been converted, but the numbers are not increased. In fact the slums found in this Municipal area.
6. Firstly slums that grew up in the own lands of the dwellers but have no civic amenities, which are basically found in the listed 33 slums.

## Slum Infrastructure Improvement Plan

The development objectives are:

1. Ensure basic infrastructure services to all slums to provide better quality of life by giving emphasis on water supply and sanitation.
2. Ensure maintenance of the asset created locally by ensuring collection of user charges locally and to enhance community participation.
3. Ensure regular water supply and safe drinking water.
4. To improve drainage system removing water logging in the slum.
5. To ensure timely disposal of garbage of the slum.
6. To provide housing for the dwellers of the slum.
7. To provide streetlight facilities in the slum area.
8. To provide road, community bathroom, community toilet and community seva kendra.
9. To ensure economic upliftment

City Level Number of notified and non-notified slums			
Name of City	No of Notified Slum	No of Non Notified Slum	% of population of Slum
TAMRALIPTA	30	3	32.34%

## Key Findings – Slums under Municipality:

### **Water Supply:**

The main source of water supply in Municipality Municipal area is Ground, which is used for different purposes including drinking purpose. Like other areas slum dwellers also use the ground water through street tap, municipal pipeline.

### **Sanitation:**

This is one of the most important services to be provided in the slum. Most of slum dwellers use ILCS and SBMMNB latrine.

### **Drainage system:**

In this slum there is insufficient drainage network. These areas are generally low and having water logging problems. Drainage network within the slum is to be designed. This system is to be connected to the main drain network of the ULB. Thus in most cases drainage system will not be effective without this development.

Most households, mainly in the added areas, have made kaccha outlets from their premises that permit wastewater to flow out in to the street. All the kaccha and pucca drains are connected with approach drain. Most of the drains are filled with waste materials of the slum. As a result, the situation becomes even worse during the monsoons. Most of the drains are in overflow and water logged in slum areas.

Slums of Municipality have both type of drainage system i. e. kaccha and pucca.

### **Solid waste management:**

There is door to door waste collection running in all wards. Once in 3 days waste collect from slum and fringe area.

### **Housing Status (For 2019-20)**

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.



Ward	Final Allocation(2019-20)
ward 1	21
ward 2	70
ward 3	60
ward 4	64
ward 5	70
ward 6	7
ward 7	7
ward 8	14
ward 9	49
ward 10	50
ward 11	18
ward 12	36
ward 13	5
ward 14	70
ward 15	12
ward 16	68
ward 17	37
ward 18	70
ward 19	58
ward 20	16
<b>Total</b>	<b>801</b>

Year wise breakup with key finding of remaining demand of house in future

Ward	Total House hold surveyed demanded as on BOC meeting 17.10.2015	FY 2015-16	FY 2017-18	FY 2018-19	Final Allocation(2019-20)	Remaining For 2years
ward 1	210	36	34	58	21	61
ward 2	394	28	35	66	70	195
ward 3	389	18	24	64	60	223
ward 4	409	34	41	75	64	195
ward 5	363	40	43	54	70	156
ward 6	91	18	17	20	7	29
ward 7	120	13	11	15	6	75
ward 8	148	15	16	23	14	80
ward 9	307	36	43	60	49	119

ward 10	221	43	39	37	50	52
ward 11	273	11	20	43	18	181
ward 12	475	36	33	45	36	325
ward 13	92	16	15	9	5	47
ward 14	340	46	42	81	70	101
ward 15	285	27	16	22	12	208
ward 16	305	23	34	50	67	131
ward 17	216	23	42	65	39	47
ward 18	546	20	31	80	70	345
ward 19	449	34	36	71	58	250
ward 20	236	30	28	59	15	104
Total	5869	547	600	997	801	2924

  
**Sub-Assistant Engineer**  
 Tamralipta Municipality

  
**Councillor**  
 Tamralipta Municipality

  
**Executive Officer**  
 Tamralipta Municipality

  
**Chairman**  
 Tamralipta Municipality

  
 Proprietor



## Operation & Maintenance

### **Formulation and Implementation of "Operation and Maintenance Plan for Slum Level Infrastructure work"**

#### Background

It is recognized that the assets created in slums are required to be properly used and maintained. For this purpose, 'Operation and Maintenance Plan' for the slum is being prepared.

#### Formulation and implementation of O & M Plan

1. The assets created in project area are required to be properly used and maintained.
2. The following steps will be taken prior to preparation of the 'Operation and Maintenance Plan' for each slum:
  - i. The ULB along with the CDS working in the Slum where infrastructure works were performed will arrange a meeting (1st) with all slum dwellers of that particular slum.
  - ii. At this meeting the Local Councillor, Chairman-in-Council or Chairman-in-Council of slum development work, Municipal Engineers, Town Project Officer, Community Organiser, CDS members and RCV so that particular slum will be present. Other members/ officials as the necessary may also be present.
  - iii. At this meeting the need for formation of Bustee Works Management Committee (BWMC) for looking after, Operation and Maintenance Plan for Slum Level Infrastructure work 'will be explained to the slum dwellers.
  - iv. The stock of work done and assets created under slum level infrastructure works of that particular slum will be listed at this meeting.
  - v. At this meeting the ULB will brief the slum dwellers about the constitution, role and functions of the BWMC.
  - vi. A similar next meeting (2nd) will be held at which the BWMC will be elected as per constitution through informal election. If one meeting is not sufficient more such meetings may be arranged.
  - vii. Minute of each meeting with signature of the participants should be maintained.

#### Constitution & functions of the Bustee Works Management Committee (BWMC):

- i. The BWMC will consist of minimum 5 members, all of whom will be resident of that particular

slum.

- ii. In addition, one RCV from that slum will be member.
- iii. There will be at least two female members in the BWMC.
- iv. The members of the BWMC may be from BPL/ APL or both.
- v. At least one member will belong to a Neighbourhood Group (NHG) from that slum.
- vi. The BWMC will be elected through an informal process of election.
- vii. There must be good publicity to ensure wide attendance.
- viii. Atleast 40% of slum dwellers must be present in the meeting during election of BWMC.
- ix. The BWMC will be an independent body. The ULB will be responsible for overseeing the work of BWMC.
- x. The BWMC will hold office for a period of two years, after which a new committee will be elected. If any member resigns or moves out of the slums or is incapable of functioning for any reason, an other member will be elected in his/her place within one month.
- xi. Each BWMC will open and operate a separate bank account. This bank account will function as the O & M fund for that slum.
- xii. The BWMC will be authorized by the ULB to raise funds for O & M as is elaborated under item no.13.
- xiii. The ULB will make matching contribution against the fund raised by the BWMC through user charges to encourage the process.
- xiv. The BWMC will report to the slum dwellers in a meeting held once in six months on revenue, expenditure and maintenance issues. This meeting will be attended by Local Councillors, ULB Officials & Engineers, Community Organizer, Town Project Officer, CDS member.
- xv. There must be an agreed upon O & M Plan between the ULB, CDS and BWMC for the assets created in that particular slum under IHSDP as listed in 1st meeting.
- xvi. They will need interim hand holding which will be extended by the ULB by providing their technical person and accounts person for technical and accounts support. Otherwise the ULB can take help of local NGOs/ CSOs for providing support to BWMC.
- xvii. Chairman, Secretary and Cashier will be selected within the BWMC. Bank account will be operated by any two of them jointly.
- xviii. The existing Beneficiary Committee will cease after the BWMC is formed.

**Maintenance: Water Supply:** Routine maintenance

- a) Daily cleaning
- b) Petty repair
- c) Periodical testing of water

Petty repair involves mainly replacement of street stand posts, repairing of hand pump and platform. It is to be ascertained by the ULB/ Bustee Works Management Committee (BWMC) how



much money is roughly required per month for meeting the cost of this petty repair, daily cleaning and periodical testing of water. The cost of petty repair works and daily cleaning is to be met from collection of fund from the Beneficiaries.

The Bustee Works Management Committee (BWMC) will supervise this, Daily clearing and petty repair work`.

#### Sanitation: Community latrine

Daily cleaning and petty repair work:

- It requires daily cleaning (once, twice or more) by engaging a sweeper on contract.
- Replacement of Bibcock and other petty repairing work

It is to be ascertained by the ULB/BWMC as to how much money is required per month for carrying out the work of item ( i & ii ). The cost of item ( i & ii ) is to be met from ULB fund/Beneficiary Contribution / or a combination of both in every month. This decision may be taken. The BWMC is required to collect the contribution from Beneficiaries every month and supervise the work.

#### Major repair and maintenance work:

Periodical maintenance of latrine structure by way of plastering, colour washing ,door, window, floor repairing, replacement of broken(W.C.) pan, cleaning of septic tank etc

Major repair and maintenance work will be implemented by the ULBs from their fund by engaging CDS / contractor or ULB staff.

#### Drainage:

Petty repair, operation and maintenance:

It requires cleaning at least once or twice in a week and occasional petty repair. This work should be executed by the BWMC, for which the BWMC will first decide how much money will be required in every month for getting this work done. Once the amount is ascertained, the ULBs will decide whether this expenditure may be fully met from the contribution of the Beneficiaries only or proportionately shared by ULB and Beneficiaries. The BWMC will collect the contribution from Beneficiaries. It is to be decided how the contribution be collected. The BWMC will supervise the work.

Major maintenance and repairing work like plastering, reconstruction of damaged portion and other works may be needed from time to time.

Major maintenance and repairing work will be executed by the ULBs from their fund by engaging CDS / contractor or ULB staff.

#### Road:

Maintenance of Concrete paved road: Sweeping, petty repair and maintenance will be implemented by the BWMC for which they will collect contribution from Beneficiaries.

#### Solid waste management:

1. Daily door to door collection and depositing to the nearby container/ trailer
2. Will be done by the ULB with existing staff. The staff engaged for this work will report to the BWMC who will supervise their work. The BWMC will maintain the attendance of the staff attending the work and report on weekly basis to the ULB regarding their attendance and performance. BWMC will first assess how much money will be required every month. The BWMC will collect the contribution from Beneficiaries every month. BWMC will supervise the work.
3. Transporting from container/ trailer to dumping/ composting ground
4. The ULBs will execute the work from their fund.

#### Duties of BWMC

1. They will maintain a register showing the existing services/ structures under their control:

##### **i. Water supply**

- i. What is the length of waterline
- ii. What is the diameter and material of water line
- iii. How many stand posts are there
- iv. How many small dia-deep tube wells are there and their status(functioning/ defunct)
- v. How many big dia deep tube wells are there and their status(functioning/ defunct)

They will maintain a register for keeping stock of materials which are often required for day to day maintenance work like bibcock, short pipe for stand posts etc.



## **Institutional Capacity**

**Municipality** with its elected local body in place, has developed institutional strength to implement, operate & maintain proposed infrastructure. The Municipality spreading over an area of 17.86 square kilometres is comprised of 20 wards. With efficient and trained manpower, the Municipal Corporation has developed both technical and administrative skills. The development of appropriate municipal organizational structures with qualified staff is essential if municipalities are to provide cost effective services to citizens. With local government reform municipalities are required to take on new tasks, and provide new services. This will only be possible if municipalities have cost-effective and appropriate structures and staff that are well qualified and highly motivated. The municipalities should plan in such a way so as to ensure that they can meet the needs of citizens effectively and efficiently and infrastructural facilities to the citizens:

- **Solid Waste Management**
- **Birth and Death Registration**
- **Crematoria and burial ground**
- **Prevention of food adulteration**
- **Preventive Health Care and Health Care**
- **Services**
- **Roads and its development**
- **Widening & improvement to roads**
- **Street Lighting**
- **Bus Stands, Public Urinals**
- **Markets**
- **Storm Water Drainage and Flood Control.**
- **Parks and Playgrounds**
- **Plantations**
- **Town Planning**
- **Slum Improvement and Urban Community**
- **Education Water, Beautification**

## **HFAPoA and Pradhan Mantri Awas Yojana (Housing for All)**

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

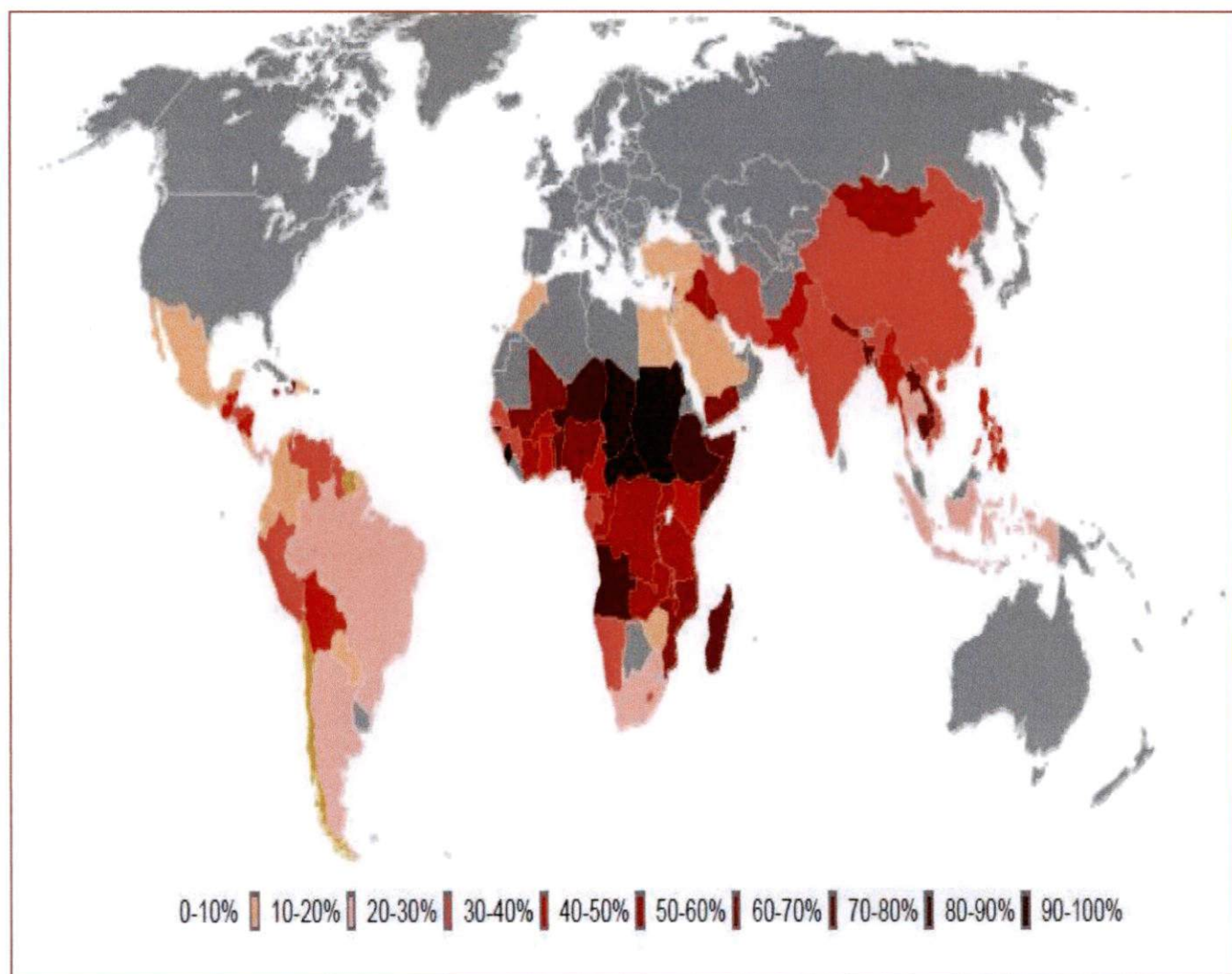
ULB undertake a demand survey through suitable means for assessing the actual demand of housing. While validating demand survey, Cities consider possible temporary migration from rural areas to the city just to take advantage of housing scheme and exclude such migrants from list of beneficiaries. On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

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

On the basis of HFAPoA, States/Cities subsequently prepare the Annual Implementation Plans (AIPs) dividing the task upto 2022 in view of the availability of resources and priority. For larger cities, HFAPoA and AIPs is prepared at sub-city (ward/zone etc.) level with the approval of concerned State/UT Government. The result of demand survey, draft HFAPoA and draft AIP is discussed with the local representatives including MLAs and MPs of that area so that their views are adequately factored in while finalizing the plans and beneficiary list. Cities which have already prepared Slum Free City Plan of Action (SFCCPoA) or any other housing plan with data on housing, utilise the existing plan and data for preparing "Housing for All Plan of Action" (HFAPoA). Houses constructed under various schemes should be accounted for while preparing HFAPoA



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



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

- a. Survey of all slums – notified and non-notified;
- b. Mapping of slums using the state-of-art technology;
- c. Integration of geo-spatial and socio-economic data; and
- d. Identification of development model proposed for each slum.

1. Base maps to an appropriate scale would be a pre-requisite for the preparation of Slum Development Plan/Slum-free City Plan. States/UTs may need to proceed in the following steps for the preparation of Slum-free City Plans.
2. Securing CARTOSAT II/latest satellite images from NRSC/ISRO and preparation of base maps for the whole city and its fringes using the images;
3. Identification and inventory of all slum clusters of all descriptions in the urban agglomeration with the help of satellite image and other available data;
4. Inventory of all possible vacant lands in each zone of the urban agglomeration that could be used for slum development/ rehabilitation development purposes;
5. Development of Slum Map of every slum within the city and its fringes using GIS with CARTOSAT II images, ground level spatial data collected through total station survey, collating spatial information with respect to plot boundaries, network of basic infrastructure like roads, sewerage, storm drainage and water lines, etc and superimposing this on the satellite image and importing them into GIS platform as the first step towards the preparation of Slum Development Plans and Slum Free City Plan.
6. This may be undertaken with the help of technical partners of NRSC/ ISRO/other technical institutions.
7. Identification and engagement of Lead NGO/CBO to guide and anchor community mobilization for the purpose of slum survey, (May be more than one NGO/CBO in different slum zones) of the city. These Lead NGOs/CBOs should also be associated in slum survey operations and dialogues for preparation of slum level development plans;
8. Conduct of Slum Survey based on the detailed formats (with or without changes) prepared by the Ministry of Housing & Urban Poverty Alleviation with the help of National Buildings Organization (NBO) - after due training of trainers, training



of survey personnel /canvassers and canvassing. It would be helpful for community mobilization to pick as many canvassers from the sourced slum or nearby slum pockets;

9. Collection of bio-metric identification data of slum dwellers based on the above survey (subject to guidelines issued by Unique Identity Authority of India (UIDAI));

10. Entry of data from Slum Surveys in the web-enabled MIS application (to be provided by Ministry of HUPA), compilation and collation of data, preparation of Slum-wise, City and State Slum Survey Database and Baseline Reports. The MIS will assist in developing a robust Slum and Slum Households Information System. (Guidelines and software for development of the MIS will be issued by the Ministry of HUPA);

11. Integration of Slum MIS with GIS Maps to enable the preparation of GIS-enabled Slum Information System that is to be used for the preparation of meaningful Slum Development Plans and Slum-free City Plan using a city-wide/zone-based approach.(Guidelines and software for development of GIS platform and its integration with the MIS will be issued by the Ministry of HUPA);

### **Introduction to Pradhan Mantri Awas Yojana (PMAY)**

Pradhan Mantri Awas Yojana (PMAY), a path breaking scheme for the slum dwellers and urban poor envisages a 'Pucca house to every family' through encouraging States to tackle the problem of 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.
- ☐ 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.



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

### ***Eligible Components of the PMAY:***

#### **Allotment of Houses**

Allotment of dwelling units will be in the name of the female member of the Alternatively, it can be allotted in the name of husband and wife jointly. Ownership of land required for every Beneficiary. A EWS beneficiary family will comprise husband, wife and unmarried children. The beneficiary family should not own a pucca house (an all weather dwelling unit) either in his/her name or in the name of any member of his/her family in any part of India to be eligible to receive central assistance under the mission.

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

Following infrastructure will be considered for support under PMAY:

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

#### **Need for Projects**

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

Such innovation could encompass:

?

- ☐ New models of public-private partnerships whereby the private sector can be encouraged to take up affordable housing for the EWS/LIG.
- ☐ Innovations in planning, demonstrating integrated livelihoods, shelter and services; or convergence.
- ☐ Innovative or cost effective and green building design and technologies.
- ☐ Financial innovations in delivering the city/state wide programme.

## Aims and Objectives

### Vision

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

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

### Objectives

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

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

### State PMAY Mission Director

The Nodal Ministry and National Mission Directorate is Ministry of Housing & Urban Poverty Alleviation, Government of India.

The Nodal Department for West Bengal is Municipal Affairs Dept. (M.A. Department), Government of West Bengal. The state level Nodal Agency is State Urban Development Agency (SUDA) under M.A. Department. State Urban Development Agency was set up in 1991 with a view to ensuring proper implementation and monitoring of the centrally assisted programmes for generating employment opportunities and alleviation of poverty throughout the State. SUDA is a Society registered under the West Bengal Societies Registration Act, 1961.

### Funding Pattern of PMAY

#### Funding pattern for PMAY (Housing for all)

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

#### Approvals & Release of Funds

- ☐ Releases and approvals to be on the basis of DPRs which need to be submitted with approval of State Level Sanctioning and Monitoring Committee
- ☐ Innovative projects to be considered for sanction even in the preparatory stage.
- ☐ Central Funds to be released in three installments to the State Governments/SLNA; central assistance under different components will be released to the state / UTs after the approval of CSMC and with concurrence of the integrated Financial Division of the Ministry. Central share would be released in three installments of 40%, 40% and 20% each.

#### Project Cost and Financing Strategy for Dwelling Unit

Total no of Dwelling unit = 801 Nos

Rate per Dwelling unit = 3.68 Lakhs

Total Cost of Dwelling unit =  $801 \times 3.68 = 2947.68$  Lakhs

Central Share =  $801 \times 1.5$  Lakhs = 1201.50 Lakhs

State Share =  $801 \times 1.93$  Lakhs = 1545.93 Lakhs

Beneficiary Share =  $801 \times 0.25$  Lakhs = 200.25 Lakhs

ULB Share = NIL

#### For Infrastructure

10 % of total Dwelling unit cost =  $2947.68 \text{ Lakhs} \times 10\% = 294.768$  Lakhs

Central Share = NIL

State Share =  $50\% \times 294.768 \text{ Lakhs} = 147.384$  Lakhs

Beneficiary Share = NIL

ULB Share =  $50\% \times 294.768 \text{ Lakhs} = 147.384$  Lakhs

#### The total project cost will be 32.42 crores

Out of these 32.42 Crores is the cost of Housing Infrastructure. The following table shows the share of cost between housing infrastructure & Physical Infrastructure

MED, GoWB

PMAY (Housing for All)

*[Signature]*  
Sub-Assistant Engineer  
Tamralipta Municipality

*[Signature]*  
Executive Officer  
Tamralipta Municipality

*[Signature]*  
Chairman  
Tamralipta Municipality



**Table: Cost Break up between Housing & Infrastructure**

SlNo.	Component	Cost on Lakhs
1.	Housing Cost-801 Dwelling Units	2947.68
2.	Infrastructure Cost	294.76
	<b>Total</b>	<b>3242.45</b>

**Materials of construction:**

- ☐ PCC (1:3:6) for foundation
- ☐ RCC M-20 for substructure & superstructure (Column, Beam, Slab)
- ☐ HYSD Steel
- ☐ 1<sup>st</sup> 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 kutchha (10) and semi-pucca (186) housing. In certain cases where pucca housing is available, they are usually in dilapidated condition. The kutchha 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 /Non Slum dwellers in the pocket.

## 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.

## Compliance with Municipal Bye laws

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

## Building material

- ☐ PCC (1:3:6) for foundation
- ☐ RCC M-20 for substructure & superstructure (Column, Beam, Slab)
- ☐ HYSD Steel
- ☐ 1<sup>st</sup> 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/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>
- ☐ Terrace finish: 1.5 kN/m<sup>2</sup>
- ☐ 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:**

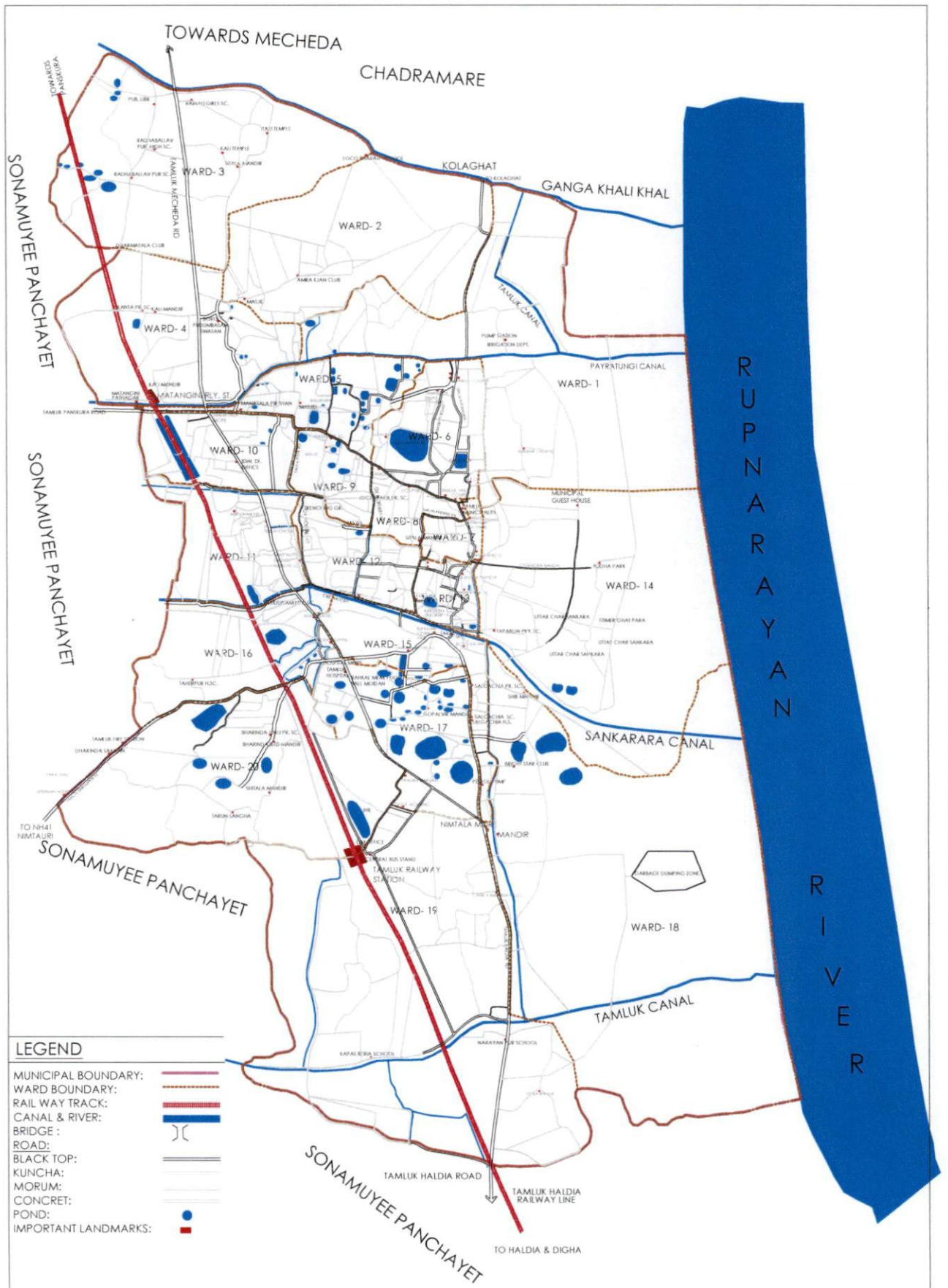
- ☐ IS 456: 2000 - Code of practice -Plain and Reinforced concrete.
- ☐ IS :1893 :2002 - Criteria for Earthquake resistant design of structures(Part-1)
- ☐ IS: 13920: 1993 - Ductile detailing of Reinforced concrete structures subjected to seismic forces.
- ☐ SP: 34 - Hand Book on Concrete Reinforcement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

  
**Sub-Assistant Engineer**  
**Tamralipta Municipality**

  
**Executive Officer**  
**Tamralipta Municipality**

  
**Chairman**  
**Tamralipta Municipality**






TITLE BASE MAP		SCALE: 0M 100M 200M	DEALT BY:	SIGNATURE OF CHAIRMAN:	CITY DEVELOPMENT PLAN TAMLUK MUNICIPALITY 2014-15 TO 2018-19 DIS:- PURBA MEDINIPUR WEST BENGAL
			DATE: 12/01/2014	MAP NO:	

Sub-Assistant Engineer  
Tamralipta Municipality

Chairman  
Tamralipta Municipality

AIP Tables											
Annexure 6											
(Para 8.6 & Para 14.4 of the Guidelines)											
Summary Sheet for Annual Implementation Plan (AIP) for the Year 2019-20											
District:	Purba Medinipur										
Name of the ULB:	Tamlralipta										
Admissible Component	Target for the Year 2015-16	Achievement for the Year 2015-16	Target for the Year 2016-17	Achievement for the Year 2016-17	Target for the Year 2017-18	Achievement for the Year 2017-18	Target for the Year 2018-19	Achievement for the Year 2018-19	Target for the Year 2019-20	Remaining Target as per HFAPoA	
A. Beneficiary Led Construction											
• New Houses	547	547	0	0	600	600	997	997	801	2943	
• Enhancement	Nil	Nil	NIL	Nil	Nil	Nil	Nil	nil	nil	Nil	
• Sub Total (A)	547	547	NIL	0	600	600	997	997	801	2943	
B. In-situ Slum Rehabilitation with participation of Private Sector											
• Number of Slums	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
• Number of Households (B)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
C. Affordable Housing in Partnership (EWS Category) (C)	Nil	Nil	Nil	Nil	Nil	Ni	NIL	NIL	NIL	248	
D. Credit Linked Subsidy											
• EWS Households	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	

  
**Sub-Assistant Engineer**  
Tamlralipta Municipality

  
**Executive Officer**  
Tamlralipta Municipality

  
**Chairman**  
Tamlralipta Municipality




• LIG Households	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
• Sub Total (D)												
E. TOTAL (A+B+C+D)	547	547	0	0	Nil	Nil	Nil	600	600	997	801	3191

Note: \* Cost of each DU: 3.68 Lakh

### I. Subsidy for Beneficiary-led Individual House Construction or Enhancement

Beneficiary-led Individual House Construction or Enhancement in Slums & Non-Slum Areas												
Year *	No. of Beneficiaries			Resource Mobilization (Rs. in Crore)								
	New Housing	Enhancement of Existing House	New Housing	Enhancement of Existing House	Total Cost	Central Share	State Share	Beneficiary Share	ULB Share (if applicable)			
2015-16	547	Nil	22.14	0.00	22.14	8.205	11.55	1.37	1.02			
2016-17	0	Nil	0.00	0.00	0.00	0	0	0.00	0.00			
2017-18	600	Nil	24.29	0.00	24.29	9.00	12.67	1.50	1.12			
2018-19	997	Nil	40.36	0.00	40.36	14.955	21.06	2.49	1.85			
2019-20	801	Nil	32.42	0.00	32.42	12.015	16.92	2.00	1.49			
2020-21	1775	Nil	71.85	0.00	71.85	26.625	37.49	4.44	3.30			
2021-22	1168	Nil	47.28	0.00	47.28	17.52	24.67	2.92	2.17			
Total	5888	NIL	238.34	0.00	238.35	88.32	124.35	14.72	10.95			

  
Sub-Assistant Engineer  
Tamilralipta Municipality

  
Executive Officer  
Tamilralipta Municipality

  
Chairman  
Tamilralipta Municipality



## II. Slum Rehabilitation of Slum Dwellers with Participation of Private Sector

Year *	Slum Rehabilitation through Participation of Private Sector					
	No. of Slums	No. of Beneficiaries	Resource Mobilisation (Rs. in Crore)			
			Total Cost	Central Share	State Share	Beneficiary Share
						ULB Share (if applicable)
2015-16	Nil	Nil	Nil	Nil	Nil	Nil
2016-17	Nil	Nil	Nil	Nil	Nil	Nil
2017-18	Nil	Nil	Nil	Nil	Nil	Nil
2018-19	Nil	Nil	Nil	Nil	Nil	Nil
2019-20	Nil	Nil	Nil	Nil	Nil	Nil
2020-21	Nil	Nil	Nil	Nil	Nil	Nil
2021-22	Nil	Nil	Nil	Nil	Nil	Nil
Total	Nil	Nil	Nil	Nil	Nil	Nil

## III. Affordable Housing in Partnership with Public & Private Sectors

Year *	Affordable Housing in Participation with Public & Private Sectors				
	No. of Projects	No. of Beneficiaries	Resource Mobilization (Rs. in Crore)		
			Total Project Cost (AHP)	Central Share	State Share
					ULB Share (if applicable)
2015-16	Nil	Nil	Nil	Nil	Nil
2016-17	Nil	Nil	Nil	Nil	Nil

Sub-Assistant Engineer  
Tamil Nadu Municipality

Executive Officer  
Tamil Nadu Municipality

Chairman  
Tamil Nadu Municipality

2017-18	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2018-19	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2019-20	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2020-21	15	250			3.75				0.625
2021-22									
Total		250	Nil		3.75	Nil		Nil	0.625

IV. Affordable Housing for Weaker Section through Credit Linked Subsidy

Year *	Affordable Housing through Credit Linked Subsidy					
	No. of Slums	No. of Beneficiaries availed Loan		Resource Mobilization (Rs in Crores)		Estimated Interest Subsidy Availed
		EWS	LIG	EWS	LIG	EWS
						LIG

  
Executive Officer  
Tamaralipita Municipality

  
Sub-Assistant Engineer  
Tamaralipita Municipality

  
Chairman  
Tamaralipita Municipality





I. Slum-wise Intervention strategies for Tenable Slums (PPP)

Ward Number	Slum Code	Name of the Slum	Tenability	Area of the Slum in sq.mts	Total No. of Slum Households	Eligible Slum Households	Whether 'in-situ' redevelopment with Private Participation	Required Area for in-situ Redevelopment in Sq.mts	FSI/FAR		Name of other slum if proposed for resettlement in this slum	Additional Households Accomodated	Total Households Accomodated	Proposed Year of Intervention
									Existing	Proposed				
1	10002	GANGA KHALI SLUM(S.C.-001)	Tenable	85263	195	195	NO	6240	1.25	NA	NA	NA	0	2015-22
2	10003	MUSLIM PARA & JALE PARA(S.C.-002)	Tenable	93000	128	128	NO	4096	1.25	NA	NA	NA	0	NA
3	20030	KHAL PAR COLONY PARA(TELI PARA)(S.C.-031)	Tenable	145868	160	160	NO	5120	1.25	NA	NA	NA	0	NA
4	10004	MATANGINI WEST PARA SLUM(S.C.-003)	Tenable	148000	220	210	NO	6720	1.25	NA	NA	NA	0	NA
4	10006	BARPADUMBASAN BERA BAKUL PARA(S.C.-004)	Tenable	115000	201	185	NO	5920	1.25	NA	NA	NA	0	NA
5	10005	LALDIGHI BASTI(S.C.-005)	Tenable	106000	195	180	NO	5760	1.25	NA	NA	NA	0	NA
5	10007	MANIKTALLA PIR MANDIR PARA(S.C.-006)	Tenable	261000	110	95	NO	3040	1.25	NA	NA	NA	0	NA
6	20031	KHAL PARA(S.C.-032)	Tenable	122760	126	103	NO	3296	1.25	NA	NA	NA	0	NA
7	10008	RAMSAGAR BASTI(S.C.-007)	Tenable	86130	106	63	NO	2016	1.25	NA	NA	NA	0	NA
8	20032	HARIJAN PARA COLONY(S.C.-033)	Tenable	76950	209	189	NO	6048	1.25	NA	NA	NA	0	NA
9	10009	KATHURIA PARA(S.C.-008)	Tenable	59000	54	26	NO	832	1.25	NA	NA	NA	0	NA
9	10010	BALBAL PARA(S.C.-009)	Tenable	126000	210	191	NO	6112	1.25	NA	NA	NA	0	NA
9	10011	CHAPDAR PARA(S.C.-010)	Tenable	8000	126	58	NO	1856	1.25	NA	NA	NA	0	NA
9	10012	DAKHILPARA & MIRPARA(S.C.-011)	Tenable	33000	111	111	NO	3552	1.25	NA	NA	NA	0	NA
10	10013	KHA PARA(S.C.-012)	Tenable	19000	150	111	NO	3552	1.25	NA	NA	NA	0	NA
11	10014	RAIL COLONY PARA(S.C.-013)	Tenable	21560	202	195	NO	6240	1.25	NA	NA	NA	0	NA
12	10015	INDIRA COLONY(S.C.-014)	Tenable	57950	203	171	NO	5472	1.25	NA	NA	NA	0	NA
12	10016	TOWN SCHOOL COLONY PARA(S.C.-015)	Tenable	201000	145	117	NO	3744	1.25	NA	NA	NA	0	NA
13	10017	GANGA GHAT PARA(S.C.-016)	Tenable	61000	161	145	NO	4640	1.25	NA	NA	NA	0	NA
14	10018	BARA BANDH SLUM(S.C.-017)	Tenable	92150	163	153	NO	4896	1.25	NA	NA	NA	0	NA
15	10019	SWEEPER COLONY BASTEE(S.C.-018)	Tenable	65280	47	47	NO	1504	1.25	NA	NA	NA	0	NA
15	10020	ISWAR COLONY PARA(S.C.-019)	Tenable	154560	78	78	NO	2496	1.25	NA	NA	NA	0	NA
15	10021	DAS PARA(S.C.-021)	Tenable	87000	126	115	NO	3680	1.25	NA	NA	NA	0	NA



15	10033	Nimtala More Bustee(S.C-020)	Tenable	94080	73	63	NO		2016	1.25	NA	NA	0	NA
16	10023	DULIA PARA(S.C.-022)	Tenable	25650	143	130	NO		4160	1.25	NA	NA	0	NA
16	10024	RAIL COLONY PARA(S.C.-023)	Tenable	43200	157	131	NO		4192	1.25	NA	NA	0	NA
17	10001	SHITLA MANDIR PARA(S.C.-024)	Tenable	72000	114	96	NO		3072	1.25	NA	NA	0	NA
17	10022	NIMTALLA MORE BASTEE(S.C.-025)	Tenable	43000	120	107	NO		3424	1.25	NA	NA	0	NA
18	10025	NIMTALLA MORE BASTEE(TALTALLA BASTEE)(S.C.-026)	Tenable	201000	118	118	NO		3776	1.25	NA	NA	0	NA
18	10026	SUBHASPALLI BASTEE(S.C.-027)	Tenable	151000	149	149	NO		4768	1.25	NA	NA	0	NA
19	10027	MONDAL PARA(KAPASBERIA)(S.C.-028)	Tenable	191000	134	125	NO		4000	1.25	NA	NA	0	NA
19	10028	BETAL PARA(CHANDKHUA)(S.C.-029)	Tenable	117000	167	167	NO		5344	1.25	NA	NA	0	NA
20	10029	COLONY PARA(NEAR SANKARYARA KHAL PARH)(S.C.-030)	Tenable	146000	153	92	NO		2944	1.25	NA	NA	0	NA
		<b>Total</b>		<b>3309401</b>	<b>4754</b>	<b>4204</b>	<b>0</b>	<b>134528</b>				<b>0</b>	<b>0</b>	

## II. Slum-wise Intervention strategies for Untenable/Unviable Slums

Ward Number	Slum Code	Name of the Slum	Tenability	Area of the Slum in sq. mtrs	Total No. of Slum Households	Proposed Development Strategy				Proposed Year of Intervention
						i. Affordable Housing Project (AHP)	ii. Credit Linked Subsidy Scheme (CLSS)	iii. Beneficiary Led Construction	iv. Clubbing with other Tenable Slums**	
1	10002	GANGA KHALI SLUM(S.C.-001)	Tenable	88000	195	5	0	190	0	2015-22
2	10003	MUSLIM PARA & JALE PARA(S.C.-002)	Tenable	93000	128	0	0	128	0	2015-22
3	20030	KHAL PAR COLONY PARA(TELI PARA)(S.C.-031)	Tenable	147000	160	0	0	160	0	2015-22
4	10004	MATANGINI WEST PARA SLUM(S.C.-003)	Tenable	148000	220	0	0	210	0	2015-22
4	10006	BARPADUMBASAN BERA BAKUL PARA(S.C.-004)	Tenable	115000	201	0	0	185	0	2015-22
5	10005	LALDIGHI BASTI(S.C.-005)	Tenable	106000	195	0	0	180	0	2015-22



5	10007	MANIKTALLA PIR MANDIR PARA(S.C.-006)	Tenable	261000	110	0	0	0	95	0	2015-22
6	20031	KHAL PARA(S.C.-032)	Tenable	124000	126	0	0	0	103	0	2015-22
7	10008	RAMSAGAR BASTI(S.C.-007)	Tenable	87000	106	0	0	0	63	0	2015-22
8	20032	HARIJAN PARA COLONY(S.C.-033)	Tenable	81000	209	9	0	0	180	0	2015-22
9	10009	KATHURIA PARA(S.C.-008)	Tenable	59000	54	0	0	0	26	0	2015-22
9	10010	BALBAL PARA(S.C.-009)	Tenable	126000	210	0	0	0	191	0	2015-22
9	10011	CHAPDAR PARA(S.C.-010)	Tenable	8000	126	0	0	0	58	0	2015-22
9	10012	DAKHILPARA & MIRPARA(S.C.-011)	Tenable	33000	111	0	0	0	111	0	2015-22
10	10013	KHA PARA(S.C.-012)	Tenable	19000	150	1	0	0	110	0	2015-22
11	10014	RAIL COLONY PARA(S.C.-013)	Tenable	22000	202	5	0	0	190	0	2015-22
12	10015	INDIRA COLONY(S.C.-014)	Tenable	61000	203	82	0	0	89	0	2015-22
12	10016	TOWN SCHOOL COLONY PARA(S.C.-015)	Tenable	201000	145	0	0	0	117	0	2015-22
13	10017	GANGA GHAT PARA(S.C.-016)	Tenable	61000	161	0	0	0	145	0	2015-22
14	10018	BARA BANDH SLUM(S.C.-017)	Tenable	95000	163	9	0	0	144	0	2015-22
15	10019	SWEEPER COLONY BASTEE(S.C.-018)	Tenable	68000	47	2	0	0	45	0	2015-22
15	10020	ISWAR COLONY PARA(S.C.-019)	Tenable	161000	78	3	0	0	75	0	2015-22
15	10021	DAS PARA(S.C.-021)	Tenable	87000	126	5	0	0	110	0	2015-22
15	10033	Nimtala More Bustee(S.C.-020)	Tenable	96000	73	3	0	0	60	0	2015-22
16	10023	DULIA PARA(S.C.-022)	Tenable	27000	143	5	0	0	125	0	2015-22
16	10024	RAIL COLONY PARA(S.C.-023)	Tenable	45000	157	6	0	0	125	0	2015-22
17	10001	SHITLA MANDIR PARA(S.C.-024)	Tenable	72000	114	7	0	0	89	0	2015-22
17	10022	NIMTALLA MORE BASTEE(S.C.-025)	Tenable	43000	120	6	0	0	101	0	2015-22
18	10025	NIMTALLA MORE BASTEE(TALTALLA BASTEE)(S.C.-026)	Tenable	201000	118	0	0	0	118	0	2015-22
18	10026	SUBHASPALLI BASTEE(S.C.-027)	Tenable	151000	149	0	0	0	149	0	2015-22
19	10027	MONDAL PARA(KAPASBERIA)(S.C.-028)	Tenable	191000	134	0	0	0	125	0	2015-22
19	10028	BETAL PARA(CHANDKHUA)(S.C.-029)	Tenable	117000	167	2	0	0	165	0	2015-22
20	10029	COLONY PARA(NEAR SANKARYARA KHAL PARH)(S.C.-030)	Tenable	146000	153	0	0	0	92	0	2015-22



Year	Slum														Non Slum			
	ISSR						BLC				AHP				CLSS			
	No. of Slums	No.	Amount (Rs. In Lakh)	No. of Slums	Amount (Rs. In Lakh)	No. of Slums	No.	Amount (Rs. In Lakh)	No. of Slums	Amount (Rs. In Lakh)	No. of Slums	No.	Amount (Rs. In Lakh)	No. of Slums	Amount (Rs. In Lakh)	No.	Amount (Rs. In Lakh)	No. of Slums
2015-16		0	0.00	33	637.50		425	637.50		0.00			122	183.00		0	0.00	
2016-17		0	0.00	33	0.00		0	0.00		0.00			0	0.00		0	0.00	
2017-18		0	0.00	33	649.50		433	649.50		0.00			256	384.00		0	0.00	
2018-19		0	0.00	33	1458.00		972	1458.00		0.00			114	171.00		0	0.00	
2019-20		0	0.00	33	1201.50		801	1201.50		0.00			0	0.00		0	0.00	
2020-21		0	0.00	33	2458.50	15	150	225.00		0.00			1126	1689.00	98	147.00	0	0.00
2021-22		0	0.00		0.00		0	0.00		0.00			0	0.00	0	0.00	0	0.00
Total	0	0	0.00	198	6405.00	15	150	225.00	0	0.00	4420	6630.00	1618	2427.00	98	147.00	0	0.00

### III. Year-wise Proposed Interventions in Slums

Year	Number of Beneficiaries and Central Assistance Required (Rs. in Crores)											Total			
	Redevelopment thru Private Partner Participation (ISSR)			Beneficiary-led Construction (BLC)			Credit Linked Subsidy (CLS)***			Affordable Housing in Partnership (AHP)			Total		
	No. of Slums	No. of Beneficiaries	Amount	No. of Slums	No. of Beneficiaries	Amount	No. of Slums	No. of Beneficiaries	Amount	No. of Slums	No. of Beneficiaries	Amount	No. of Beneficiaries	Amount	
2015-16	0	0	0.00	33	425	637.50	0	0	0.00	0	0	0.00	425	637.50	
2016-17	0	0	0.00	33	0	0.00	0	0	0.00	0	0	0.00	0	0.00	
2017-	0	0	0.00	33	433	649.50	0	0	0.00	0	0	0.00	433	649.50	







Total	1618	2427.00	0	0.00	98	147.00	1716	2574.00
-------	------	---------	---	------	----	--------	------	---------

### V. Year-wise targets under different components

Interventions		Number of Beneficiaries and Central Assistance Required (Rs. in Crores)												Total			
		2015-16		2016-17		2017-18		2018-19		2019-20		2020-21				2021-22	
		No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount			No.	Amount
Redevelopment through Private Participation (ISSR)	Slums	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Subsidy for beneficiary-led/ improvement of existing house (BLC)	Slums	425	637.50	0	0.00	433	649.50	972	1458.00	801	1201.50	1639	2458.50	0	0.00	4270	6405.00
	Non-Slums	122	183.00	0	0.00	256	384.00	114	171.00	0	0.00	1126	1689.00	0	0.00	1618	2427.00
Credit linked subsidy to individual beneficiaries (CLSS)	Slums	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	Non-Slums	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Affordable Housing in Partnership (AHP)	Slums	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	150	225.00	0	0.00	150	225.00
	Non-Slums	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	98	147.00	0	0.00	98	147.00
Total		547	820.50	0	0.00	689	1033.50	1086	1629.00	801	1201.50	3013	4519.50	0	0.00	6136	9204.00

Signature  
(State Level Nodal Officer)  
concerned Department)

Signature  
(Secretary/Principal Secretary)

# FUND FLOW PATTERN

Rupees in lakhs

NAME OF THE SCHEME	ESTIMATED COST	YEAR 2019-20				TOTAL
		GOI	GOWB	ULB	Beneficiaries	
PMAY project - TAMRALIPTA Municipality	3242.45	1201.50	1693.31	147.38	200.25	3242.45

## PHASING OF FUND

Rupees in lakhs

YEAR 2019-20	RELEASE OF FUND					TOTAL
	GOI	GOWB	ULB	Beneficiaries		
1st Installment @ 40%	480.60	677.33	58.95	200.25	1417.13	
2nd Installment @ 40%	480.60	677.33	58.95	0.00	1216.88	
3rd Installment @ 20%	240.30	338.66	29.48	0.00	608.44	
TOTAL	1201.50	1693.31	147.38	200.25	3242.45	

801

## REQUIREMENT OF FUND

Rupees in lakhs

SL. NO	NAME OF THE SCHEME	YEAR 2019-20	TOTAL
1	PMAY project - TAMRALIPTA Municipality	3242.45	3242.45
<b>Total</b>		<b>3242.45</b>	<b>3242.45</b>

Sub-Assistant Engineer  
Tamralipta Municipality

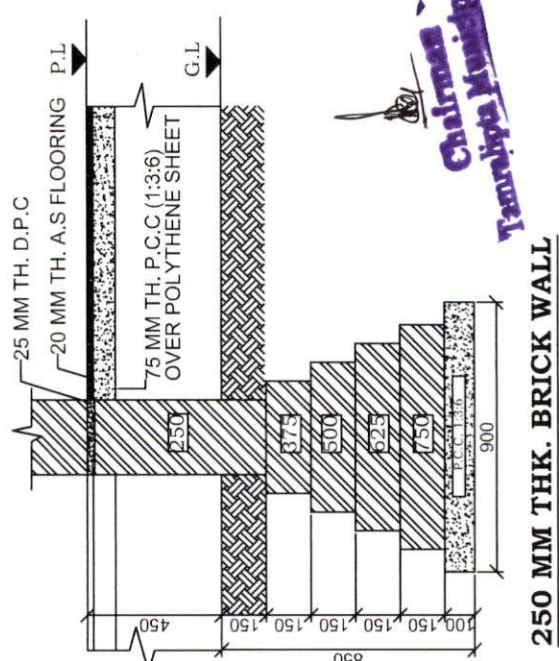
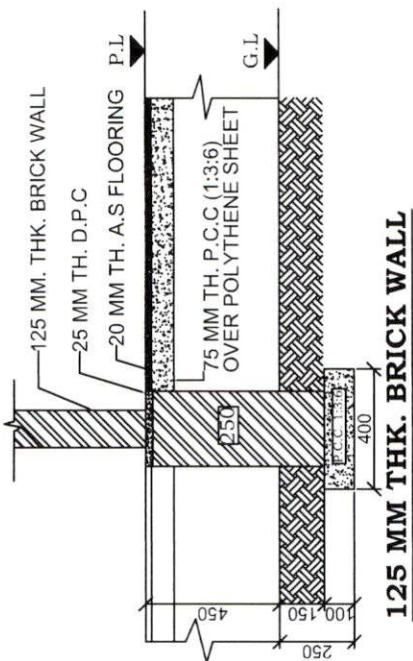
Signature of EO  
Executive Officer  
Tamralipta Municipality

Signature of Chairman

Chairman  
Tamralipta Municipality



## 1



*[Signature]*  
Sub-Assistant Engineer  
Tamilpattinam Municipality

**NOTE:-**

1. ALL WINDOW OPENINGS (W1&W2) WILL BE PROVIDED WITH Z-BATTEN SHUTTERS.
2. ALL DOORS (D1&D2) -25TH Z-BATTEN SHUTTERS, SINGLE LEAF.

### 3. WO2 - OPENING PROVIDE

4. PLINTH HEIGHT - 450 TH.

5. CEILING HEIGHT - 2/50

7. PARTITION WALL - 125 TH.

8. ROOF SLAB, BEAM, LINTEL, ETC. WITH REINFORCED CEMENT CONCRETE M20 GRADE;  
9. FLOOR OF VERANDAH, WC, BATH, & KITCHEN ROOM TO BE KEPT 15 MM BELOW THE FLOOR LEVEL OF ROOM & PASSAGE.

10. 100 MM TH. PIECE LINTEL OVER OPENING HAVE BEEN PROVIDED.

11. ALL DIMENSION ARE IN MM.

DOORS & WINDOWS SCHEDULE	MARKING	DIMENSION
	W1	900 X 900
	W2	750 X 900
	W02	750 X 750
	D1	900 X 2100
	D2	750 X 2100

**FLOOR AREA - 25.77 SQM.**

**BUILT UP AREA - 32.58 SQM.**

**Executive Officer**  
**Tamralipta Municipality**

**PRADHAN MANTRI AWAS YOJANA**

HOUSING FOR ALL (URBAN)

OFFICE OF THE CHIEF ENGINEER

MUNICIPAL ENGINEERING DIRECTORATE

GOVT. OF WEST BENGAL

**DWG. NO.**

SCALE :- 1:50 & 1:25



# DETAILED ESTIMATE FOR THE CONSTRUCTION OF SINGLE UNIT DWELLING HOUSE

## Pradhan Mantri Awas Yojana Housing For All (Urban)

Total Covered Area- 32.18 sq.m (With Electrical Works)

Reference of Schedule of Rates : PWD (W.B.), Schedule of Rates Building & Sanitary w.e.f-01.07.2014 & Corrigenda  
Kolkata /24 Pgs (N & S)/ Kalyani Sub Div.)

Floor Area 25.37 sqm

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



SL No.	Description of Works	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
10	Hire and labour charges for shuttering with centreing and necessary staging upto 4 m. using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams, columns, lintels curved or straight including fitting, fixing and striking out after completion of works. (upto roof of ground floor). (When the height of a particular floor is more than 4 m. the equivalent floor ht. shall be taken as 4 m. and extra for works beyond the initial 4 m. ht. shall be allowed under 12(e) for every 4 m. or part thereof.) <b>SOR, PWD, P-66, T -12(a)</b> 25 mm. to 30 mm. thick wooden shuttering as per decision & direction of Engineer-in-charge. Ground Floor	37.063	M <sup>2</sup>	360.00	13342.68
11	Plaster ( to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints or roughening of concrete surface, including throating, nosing and drip course where necessary . In ground floor. A) With 6:1 cement mortar. a) Inside wall 20 mm thick plaster <b>SOR, PWD, P-151, T -2 (i)(b)</b> b) Out side Wall, 15mm th. <b>SOR, PWD, P-151, I -2 (i)(c)</b> B)10mm th ceiling plaster (4:1) <b>SOR, PWD, P-151, I -2 (i)(c)</b>	116.940 111.950 23.330	sq.m. sq.m. sq.m.	181.00 156.00 140.00	21166.14 17464.20 3266.20
12	Neat cement punning about 1.5mm thick in wall, dado, window, sills, floor, drain etc. <b>SOR, PWD, P-152, I -8</b>	26.700	sq.m.	38.00	1014.60
13	Artificial stone in floor,dado, staircase etc. with cement concrete (4:2:1) with stone chips laid in panels as directed with topping made with ordinary or white cement (as necessary) and marble dust in proportion (2:1) including smooth finishing and rounding off corners and including application of cement slurry before flooring works, using cement @ 1.75 kg./sq.m. all complete including all materials and labour. In ground floor. 3 mm. thick topping (High polishing grinding on this item is not permitted) with ordinary cement. 20mm thick <b>SOR, PWD, P-40, I -3 (i)</b>	26.490	sq.m.	265.00	7019.85
14	Supplying, fitting & fixing MS clamp for fixing door and window frame made of flat bent bar, end bifurcated, fixed in cement concrete with stone chips (4:2:1)a fitted and fixed complete as per direction. 40mm x 6mm x 125 mm length. (Cost of cement concrete will be paid separately) <b>SOR, PWD, P-90, I -18 (c)</b>	34	each	22.00	748.00
15	Wood work in door and window frame fitted and fixed complete including a protective coat of painting at the contact surface of the frame other Local wood <b>SOR, PWD, P-85, T -1(i)</b>	0.213	cu.m.	46171.00	9834.42
16	Panel Shutter of door & Window (each Panal Consisting Of single Plan without Join) 25 mm thick shutter with 12 mm thick Panal of size 30 to 45 cm. Other Local wood <b>SOR, PWD, P-105, I -84 (iv)c</b>	8.520	sq.m.	1567.00	13350.84
17	Iron butt hinges of approved quality fitted and fixed with steel screws, with ISI mark. a)75mm x 47mm x 1.70mm <b>SOR, PWD, P-91, T -20(iv)</b>	32.000	each	34.00	1088.00
18	Iron Socket Bolt of approved quality fitted and fixed complete. i) 150 mm long x 10 mm dia <b>SOR, PWD P-93, I-25,c</b>	11.000	each	71.00	781.00
19	White washing including cleaning and smoothening surface thoroughly (5 parts of stone lime and 1 part of shell lime should be used in the finishing coat). Two Coats <b>SOR, PWD, P-155, I -3 (b)</b>	124.960	%sq.m	1887.00	2358.00
20	Colour washing with ella with a coat of white wash priming including cleaning and smoothening surface thoroughly external surface One Coat <b>SOR, PWD, P-155, I -4(ii)(a)</b>	100.560	%sq.m	1514.00	1522.48



SL No.	Description of Works	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
21	Priming one coat on timber, plastered or on steel or other metal surface with synthetic enamel/oil bound primer of approved quality including smoothening surfaces by sand papering etc. 1) On timber surface <b>SOR, PWD, P - 162, I - 7(a)</b> 2) On Steel Surface <b>SOR, PWD, P - 162, I - 7(b)</b>	21.690 2.700	sq.m. sq.m.	41.00 31.00	889.29 83.70
22	Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary : With super gloss (hi-gloss)-With any shade except white. a) On timber or plastered surface Two Coats b) On Steel surface Two Coats <b>SOR, PWD, P - 162, - 8A(aii),(bii)</b>	21.690 2.700	sq.m. sq.m.	89.00 86.00	1930.41 232.20
23	Iron hasp bolt of approved quality fitted and fixed complete (oxidised) with 16 mm dia with center bolt and round fitting. 300 mm long <b>SOR, PWD, P-93, I - 27c</b>	2.000	each	193.00	386.00
24	Precast piered concrete jally work as per design and manufacture's specification including moulding etc. with stone chips and necessary reinforcement shuttering complete including fitting, fixing in position in all floors. (a) 37.5 mm th. panels Cement & steel required for this item <b>will not be</b> issued by deptt. <b>SOR, PWD, P-32, I - 38 (b)</b>	1.690	sq.m.	351.00	593.19
25	Supplying, fitting and fixing UPVC down pipes A type and fittings conforming to IS 13592-1992 with necessary clamps nails including making holes in walls, etc. and cutting trenches in any soil, through masonry concrete structure etc. if necessary and mending good damages including jointing with jointing materials ( Spun yarn, valamoid / bitumen / M. seal etc.) complete. <b>P-173, I-21 A (ii), C(ii), D(ii)</b> <b>SOR, PWD, P173, I - 21 A (ii), C(ii), D(ii)</b> i) UPVC Pipe 110 mm dia ii) UPVC Bend 87.5 degree 110 mm dia iii) UPVC Shoe 110 mm	3.000 2.000 1.000	Mtr. each each	291.00 162.00 128.00	873.00 324.00 128.00
26	M.S.or W.I. Ornamental grill of approved design joints continuously welded with M.S, W.I. Flats and bars of windows, railing etc. fitted and fixed with necessary screws and lugs in ground floor. Grill weighing 10 kg/sq m to 16 kg/m <sup>2</sup> <b>SOR, PWD, P - 76, I - 10 (i)</b> <b>(2.70sqm @ 10.5kg per sqm = 28.35 kg)</b>	0.284	Qntl	8247.00	2342.15
27	Shallow water closet Indian pattern(I.P.W.C.) of approved make in white vitreous chinaware supplied ,fitted and fixed in position (excluding cost of concrete for fixing). 450 mm long <b>SOR, PWD, (Sanitary) P - 65, I - 1 (iii)</b>	1.000	each	1062.00	1062.00
28	Foot rest for water closet of size 275 mm X 125 mm with Artificial stone(4:2:1) with 6 mm stone chips and chequered including adding colour as necessary. <b>SOR, PWD, (Sanitary) P - 66, I - 9</b>	1.000	Pair	70.00	70.00
29	Supplying,fitting and fixing cast iron 'P' or 'S' trap conforming to I.S. 3989 / 1970 and 1729 / 1964 including lead caulked joints and painting two coats to the exposed surface. S Trap 100 mm <b>SOR, PWD, (Sanitary) P - 54, I - 14(B-iii)</b>	1.000	each	923.00	923.00
30	Supplying, fitting fixing CI Round Gratings 150mm dia <b>SOR, PWD, (Sanitary) P - 55, I - 18(ii)</b>	1.000	Each	100.00	100.00



SL No.	Description of Works	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
	Construction of 2 circular leach pit of inside diameter 1000 mm. & a depth of 1000 mm. With a layer of 250 mm. Thick brick work with cement mortar (6:1) & honeycombed brick wall (4:1) at every alternate layer upto a height of 925 mm. From bottom and then 125 mm. thick brick wall (4:1) for a height of 300 mm. and covered with 75m. RCC slab (4:2:1) with 8mm tor steel @ 150 mm. centre to centre both ways including plustering and neat cement punning on top of the slab and making hooking arrangment on slab for lifting of the slab if require as well as jointing the connection with the inspection pit (450 x 450) covered with 50mm thick RCC slab (4:2:1) with stone chips and necessary reinforcement and connected with 100 mm dia PVC pipe laid over rammed earth and then covered the pipe properly with powder earth including supplying fitting fixing fibre glass pan P-tap & polythene pipe as per requirement to connect with the inspection pit complete with all respect as per direction of EIC.(ANNEXURE-II)	1	Item	7544.00	7544.00
	TOTAL AMOUNT	Rs.			350000.36
	Say	Rs.			350000.00
	Add for Electrical Works (ANNEXURE-I)	Rs.			17858.00
	TOTAL AMOUNT	Rs.			367858.00
(Rupees Three lakh Sixty seven thousand Eight hundred & Fifty eight only)					

  
**Sub-Assistant Engineer**  
**Tamralipta Municipality**



  
**Executive Officer**  
**Tamralipta Municipality**

  
**Chairman**  
**Tamralipta Municipality**

ESTIMATE FOR ELECTRICAL WORKS FOR ONE DWELLING UNIT UNDER RAY					
(ANNEXURE-I)					
Sl.No	Item of works	Unit	Rate	Quantity	Amount
1	Supplying & fitting polythene pipe complete with fittings as necessary. Under celing /beam/bound with 22SWG GI wire inclusive S & Drawing 1x18 SWG GI wire as fish wire inside the pipe & fittings and providing 55 mm dia disc of MS sheet (20SWG) having colour paint at one face first ended at the load point end of the polythene pipe with fish wire (synchronizing with roof/beam casting work of building construction) 19 mm dia 3 mm thick polythene pipe	RM	39.00	25.00	975.00
2	Powerckt wiring supplying and drawing 1 ; 1KV grade single core stranded FR PVC insulated & unseathed single core stranded Copper wire (Finolex make) 2 x 2.5 sqmm (PH & N) +1x1.5 sqmm (ECC) per laid polythene pipe and by the prelaid GI fish wire & making necessary connections as required.	RM	76.00	50.00	3800.00
3	Concealed Distribution wiring in in 2x1.5 sqmm single core standard *FR* insulated and unseathed cop per wire Finolex make & 1x1.5 sq mm single core stranded PVC cinsulated and unseathed cop per (Finolex make) wire used as ECC in 19 mm bore 3 mm thk. polythene pipe complete with all accessries embedded in wall smooth run to light / fan/call bell point with pino key type switchb (6 Amps) (Anchor make) fixed on sheet metal (16 SWG) Switch Board with bakelite/ perspex (wall maching colour) Top cover (3 mm thick) flushed in wall including mending all good damages to original finish Average per point 6.00 mt.	points	828.00	10.00	8280.00
4	Deistribution concealed wiring with 2x1.5 sq mm (PH & N ) single core stranded FR PVC insulated & unsheathed single core strtranded 1.1 KV grade Copper Wire (finolex) & 1x1.5 sq mm (ECC) single core stranded (PH & N ) 1.1 KV grade cu wire (finolex) & 1 x 1.5 sq mm single core stranded PVC insulted & unsheathed cu wire (finolex) used as ECC in 19 mm bore, 3 mm thick polythene pipe complete with all accessories embedded in wall 250 volt 5 amp 3 pin plug point including S & F 250 Volt 5 amp 3 pin flush type plug socket & piano key type swich (Anchor make) on existing switch board as mentioned sl. no.3	points	76.00	2.00	152.00
5	Supplying & drawing 1.1 KV grade single core strtanded FR PVC insulated & unseathed single core stranded cu Wire 3x2.5 sq mm (finolex make) in the prelaid polythene pipe & by the prelaid GI fishwire & making necessary connection as required (CESC supply to consumer DP near to CESC & inside the room another DP near CESC & inside the room another DP of dwelling units)	RM	86.00	15.00	1290.00



Sl.No	Item of works	Unit	Rate	Quantity	Amount
Sl.No	Item of works	Unit	Rate	Quantity	Amount
6	Supplying Delivery & instalation on wall of 30/32 amp DP MCBof Havel's make with enclosed box along with all its necessary 1 connection complete.(Anchor)	nos	808.00	2	1616.00
7	Earthing in soft soil with 50 mm dia GI pipe (TATA make Medium ) 3.64 mm th. X 3.04 Mtr long and 1 x 4 SWG GI ( hot dip) wire (4 m long) 13 mmdia x 80 mm long GI bolts, double nuts, double washer including S & F 15 mm dia GI protection (1 mtr long) to be filled with bitumen partlyunder the ground level & partly above GL driven to an average depth of 3.65 m below the GL & restoring surface duly rammed.	each	1715.00	1	1715.00
8	Connecting the equipment to earth BUSbar inclusive S&F 10 SWG (Hot Dip) GI wire on wall /floor with a staples buried inside wall /floor as required & making connection to equipments with bolt, nut, washer, cable lugs etc. as required & mending good damages.	M	6.00	5	30.00
			TOTAL		17858.00
	Rupees Thirteen Thousand Eight Hundred Seventy Eight Only				17858.00

  
**Sub-Assistant Engineer**  
 Tamralipta Municipality

  
**Executive Officer**  
 Tamralipta Municipality

  
**Councillor**  
 Tamralipta Municipality

  
**Chairman**  
 Tamralipta Municipality

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

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



6	B.W (6:1) in Foundation of plinth							
		23.5	0.625	14.6875				
		23.5	0.5	11.75				
		23.5	0.375	8.8125				
				35.25	0.15	5.288		
		23.5	0.25		0.525	3.084		
	X wall	0.938	0.625	0.586				
		1	0.5	0.5				
		1.063	0.375	0.399				
				1.485	0.15	0.223		
		1.125	0.25		0.525	0.148		
	125mm	3.125	0.25		0.525	0.41		
	Bath&WC	2	0.9	0.25	0.523	0.235		
	Kit	5.224	0.25		0.525	0.686		
	Vard	1.925	0.25		0.525	0.253		
	Steps		0.5	0.9		0.15	0.068	
			0.25	0.9		0.15	0.034	
						10.427	m <sup>3</sup>	
7	DPC	23.5						
		1.125						
		24.625		0.25		6.156		
		3.125						
		1.8						
		5.224						
		10.149		0.125		1.269		
						7.425		
	Less		0.9	0.25	0.225			
			0.9	0.125	0.113			
	3		0.75	0.125	0.281			
						0.619		
						6.806	sqm	
8	BW in super structure (6:1)							
		23.5						
		1.125						
		24.625	2.75	0.25	16.93			
	Parapet	23.8	0.075	0.25	0.446			
						17.376		
	Less opens							
	1	0.9	2.1	1.89				
	4	0.9	0.9	3.24				
	1	0.75	0.9	0.675				
	3	0.75	0.75	1.688				
				7.493	0.25	1.873		
	Lintel							
	1	1.525	1.525					
	4	1.2	4.8					
	1	1.05	1.05					
			7.375	0.25	0.1	0.184		
	Wo2							
	1	3.05	3.05	0.25	0.1	0.076		

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



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

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