

PREFACE

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

The urban homeless persons contribute to the economy of the cities and thus the Nation as cheap labour in the informal sector; yet they live with no shelter or social security. The urban homeless service with many challenges like no access to elementary Public Services such as health, education, food, water and sanitation.

Pradhan Mantri Awas Yojana (PMAY) also aims at providing a pucca house to every family with water connection, toilet facilities, 24 X 7 electricity supply and access.

The Mission seeks to address the housing requirement of urban poor including slum dwellers through "In Situ" Slum Redevelopment, Affordable Housing through credit linked subsidy, Affordable Housing on, beneficiaries can take advantage under one component only.

Total beneficiaries of the scheme are **837** nos from 537 nos. of 18 slum and 300 nos of 28 Non Slum projected for the year 2017-18.

Total cost of the project is **Rs. 3388.18 lakhs** as per relevant department & P.W.D. schedule of rates.

Introductory Note by Chairman

Berhampore Municipality is one of the oldest municipalities in West Bengal. Municipality was originated in the year of 1876. The administrative boundary of this municipality spreaded across 31.42 Sq. km. Area. There are 28 number of wards accommodating a population size of 1,95,223 of which 1,00,247 are males while 94,976 are females as per census 2011. Municipal area which has its three side boundaries with different panchayats. The river Bhagirathi is flown through the western side of Berhampore, it has always been a potential regional growth centre for economic growth and employment with a vast rural area surrounding it.



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

Today Berhampore is in the process of preparing the Detailed Project Report (DPR). In the last 5 years, with the help of the people, we have tried to address the problems of urban poor & slums keeping the aspirations of people and development objectives and targets in mind. At some point we have been successful in realizing the dreams of the people while in others we were not. Preparation of **Detailed Project Report for the year 2017-18 of Pradhan Mantri Awas Yojana (PMAY)** along with, its implementation and monitoring opened a new challenge to us – the challenge of providing all basic services to all poor people and ensuring equitable socio-economic development of the people of Berhampore.

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

It is an honour and privilege to present before the people of Berhampore, the 1st **Detailed Project Report for the year 2017-18** which offers to provide development of all slums and ensure that new address the housing requirement of urban poor including slum dwellers. Learning from the past we look forward towards achieving long term benefits, perspectives and convergences rather than short term goals. **Detailed Project Report (DPR)** has been prepared and we look forward for a great future.


Chairman

Berhampore Municipality

Chairman
Berhampore Municipality

Introduction to Berhampur Municipality:

Berhampore is a very old historical town which has a rich heritage of preserving historical monuments and sculptures. In this town one can found specimens of old European trends and ancient Bengali sculpture together .Tombs of Dutch Traders, Tombs of English Traders, heritage churches are the examples of Old European art and sculptures, on the other hand this town preserves the Terracotta temples as specimens of old Bengali heritage. Old Mosques at Gorabazar and Khagra areas tell the stories of Nawabi reign. Maharajas of Cossimbazar made this town proud for their heart and soul participation in social services and India's freedom movement. Their Royal palaces at Cossimbazar and Saidabad tell the story of their glory. Unfortunately many of these heritage buildings and sculptures are being damaged because of lack of proper maintenance. Berhampore Municipality is trying their level best to preserve these specimens of rich history and heritage

Berhampore Municipality is a seventh largest city in West Bengal and is situated in the central part of West Bengal. In earliar days it was known as Brahmapur because many of the Brahmin families settled here. Berhampore is the administrative headquarters of the Murshidabad district.

It was located about 200 K.m. from Kolkata, it has always been a potential regional growth centre for economic growth and employment with a vast rural area surrounding it.

In an effort to decentralize the economic growth and employment opportunities and promoting depressed urbanization, Berhampore had been included in the programme of Integrated Development of Big & Major towns by Govt. of West Bengal.

Berhampore is located at 24.1°North 88.25° East. It has an average elevation of 18 Metres(59 feet) and is situated on the eastern side of the Bhagirathi River, a major distributor of the Ganges.

The town covers an area of 31.42 sq. km. It comprises of 28 administrative wards.

Map No. 2.3.1 LOCATION MAP OF BERHAMPUR MUNICIPALITY AREA



Map of India



Map of West Bengal



Map of Berhampur Municipality



Map of Murshidabad district

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Physical Features:

(i) Location

Berhampore Municipality is a seventh largest city in West Bengal and is situated in the central part of West Bengal. In earlier days it was known as Brahmapur because many of the Brahmin families settled here. Berhampore is the administrative headquarters of the Murshidabad district. It was located about 200 K.m. from Kolkata, it has always been a potential regional growth centre for economic growth and employment with a vast rural area surrounding it.

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The town covers an area of 31.42 sq. km. It comprises of 28 administrative wards.

(ii) Climate

The climate is characterized by a moderate hot summer and high humidity. The seasons are not very well defined as compared to the other parts of the state. The dry winter and early spring is pleasant. Detailed is given below:

Maximum Temperature	38.6 °C
Minimum Temperature	7.8 °C
Annual average rainfall	1500mm
Height over mean sea level	19m (Approx)

(iii) Rainfall

Maximum rainfall occurs during the monsoon in August (980 mm) and the average annual total is 1,500 mm. Total duration of sunshine is 2125 hours per annum with maximum rainfall occurring in mid July/August.

(iv) Temperature

Early morning mists are common in winter. The annual mean temperature is 22.4 °C. The maximum temperature often exceeds 38.6° C. The minimum temperature does not fall below 7.8° C.

(v) Geology

Berhampore is located at 24.1° North 88.25° East. It has an average elevation of 18 Metres (59 feet) and is situated on the eastern side of the Bhagirathi River formed by

Gangetic alluvial deposit, The area is low, and therefore,exposed to annual inundations resulting in fresh silt deposits,and hence it is very fertile.

slope of the area is very gentle varying from 1:100000 to 1:150000.It is height over the mean sea level of 19m(approx.)

The town covers an area of 31.42sq. km.

(vii) Wind

In the summer season winds are mostly North Easterly or easterly but in afternoon Westerly winds blow which are absorbed frequently. During the monsoons the winds blow from the Northeast and Southern direction.

(viii) Enviornment:

Berhampore Municipality is a seventh largest city in West Bengal and is situated in the central part of West Bengal.In earliar days it was known as Brahmapur because many of the Brahmin families settled here.Berhampore is the administrative headquarters of the Murshidabad district.It was located about 200 K.m. from Kolkata, it has always been a potential regional growth centre for economic growth and employment with a vast rural area surrounding it.

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Social and Demographic profile

I. Population Trend

Population trend and the growth pattern are the most important demographic aspects to be considered in the integrated and holistic plan for a Municipality for a period of 5 years.Berhampore Municipality has given this aspect also a prime importance. At this juncture it is worth mentioning that the urban population of Murshidabad has risen 48.14%over the last decade. Being the districts headquarter, this Municipality has also felt the great impact of such huge increase in population. Berhampore Municipal area itself shares the 2.75% of the total urban population of the District .Therefore it can be easily stated that the pressure of population over Berhampore is undoughtedly high and it will grow in the same manner in future.

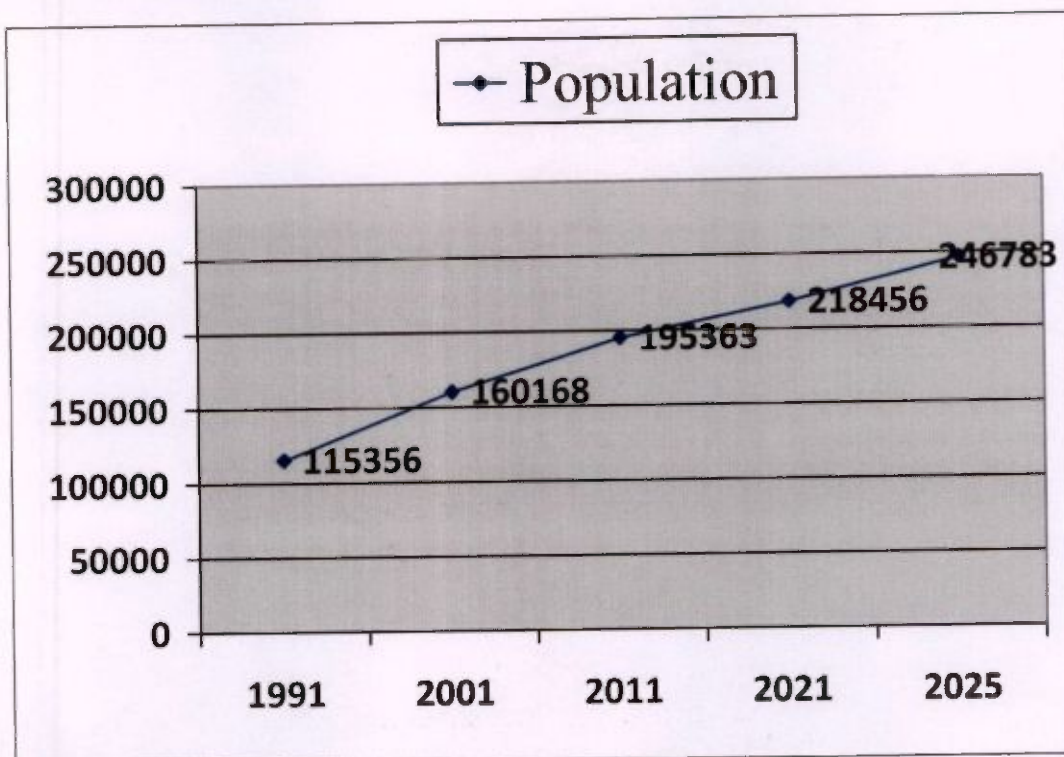
Estimated Population during 2011 – 2025

Table 1 : Overview Of Berhampore Municipality

No.	Indicators	1991	2001	2011	2021(Projected)	2025(Projected)
1.	Population	1,15,365	1,60,168	1,95,363	2,18,456	2,46,783
2.	Population Decadel Growth Rate		3.88%	2.20%	1.18%	1.30%
3.	No of HHs	24,345	35,624	43,075	45,229	48,395

4.	Population Density (Persons per Sq. Km)	3452	5324	6231	7234	8102
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Source: Census Database; Population Projection



This graph helps to understand that during each of the last 3 census year the population of Berhampore Municipality area has been grown up drastically which indicates during the coming years Berhampore Municipal area will face a huge population pressure which needs a well planned and integrated municipal operation in future.

As Berhampore is the district headquarters of Murshidabad, therefore it shares a large part of the total urban population of the district. Berhampore Municipal area itself shares the 2.75% of the total urban population of the District (according to 2011 census).

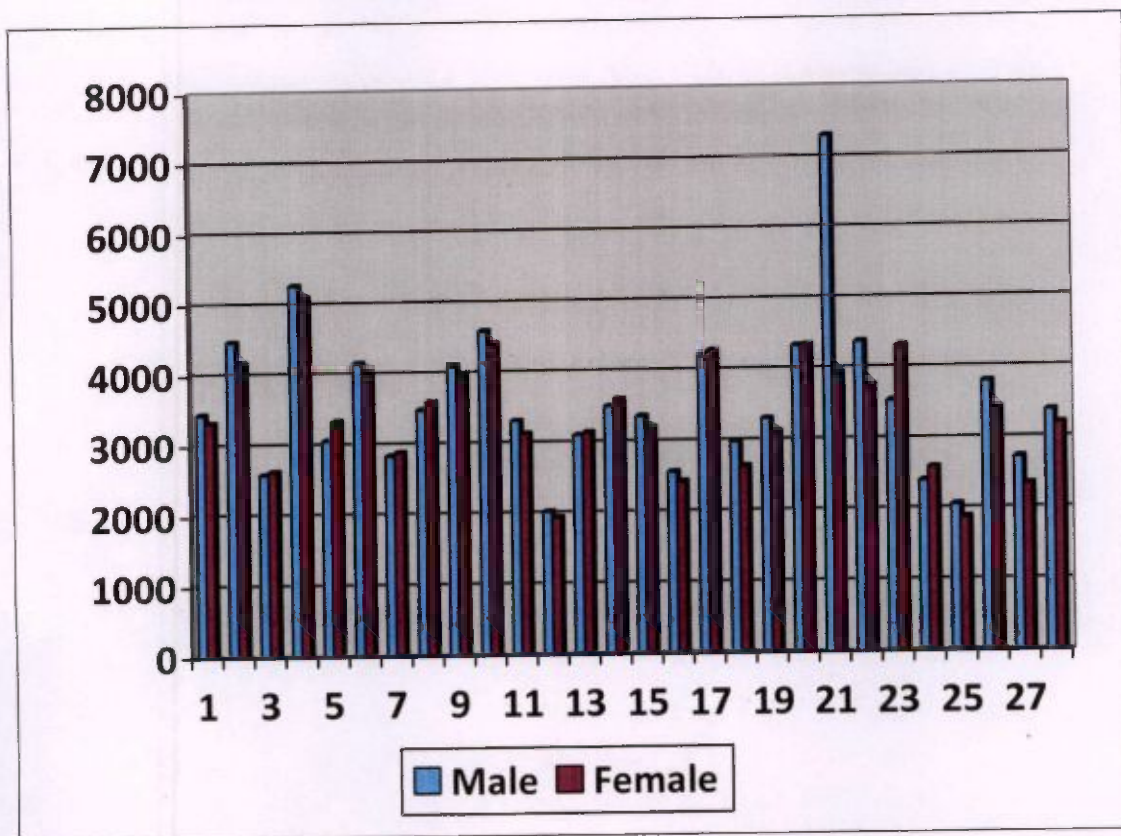
Berhampore's Share of total urban population of Murshidabad District

Urban Population of District Murshidabad 2011	Population of Berhampore 2011	Percentage of Population
71,02,430	1,95,363	2.75%

From the above table it can be easily understood that 2.75% of total urban population of Murshidabad district depends upon Berhampore. Being the district headquarter and nearer to Kolkata here are improved Health care, educational and commercial opportunities as a result of which a huge migration trend, from the surrounding villages, towns and even from the surrounding Districts can be observed every year. So the population pressure over Berhampore Municipal area is being increased regularly.

To understand the growth pattern of population of Berhampore Municipality it is needed to have a clear idea about the detail population distribution of Berhampore during the past census years.

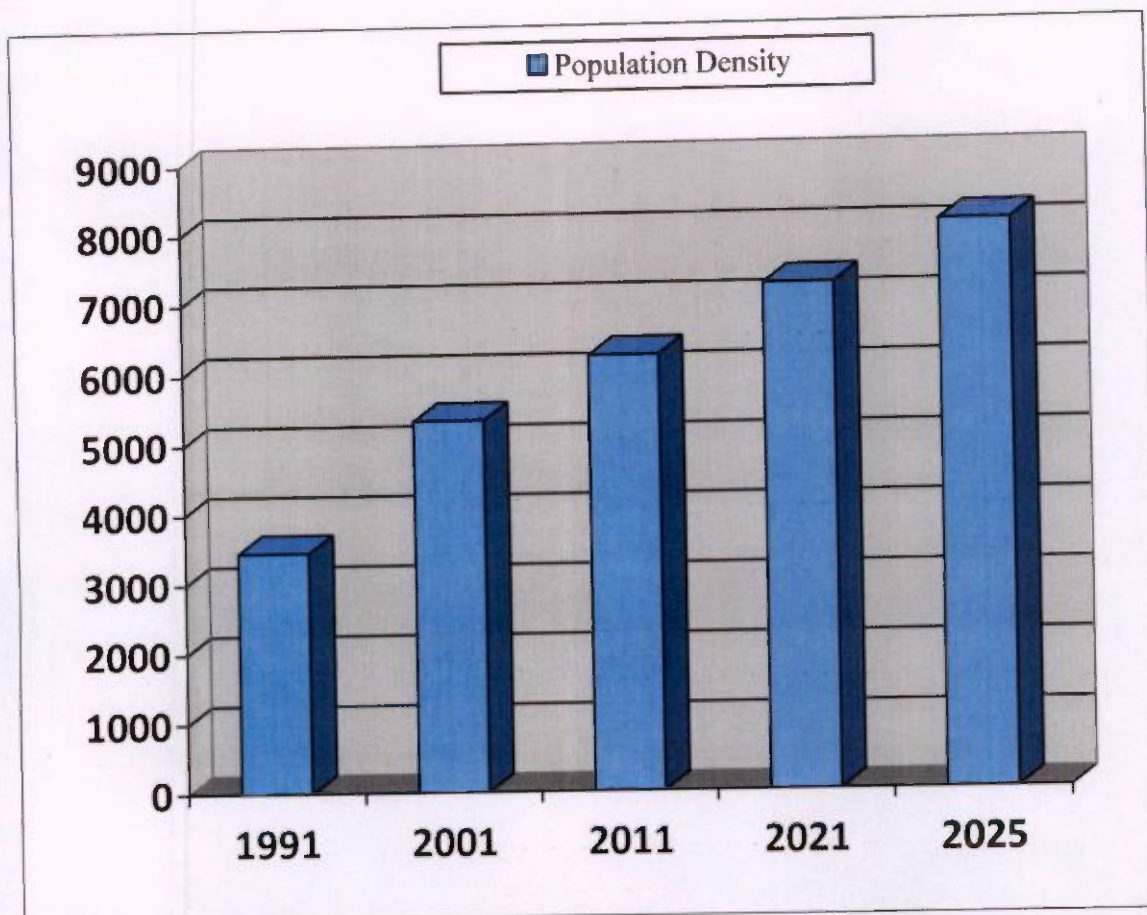
Ward wise population Comparison between Male & Female Population graph



Grwoth rate Of Berhampore Municipality indicates increasing increasing trends rapidly.

II. Population Density

Berhampore Municipality is 31.42 SqKm and it is the biggest city by area in the Murshidabad district. Population density of the city is 6213 person per km². There are 28 wards in the city, among them Berhampore ward no.16 is most populous ward with population of about 14 thousands and Berhampore ward no.21 is least populous ward with population of 3988 as per 2011 census.

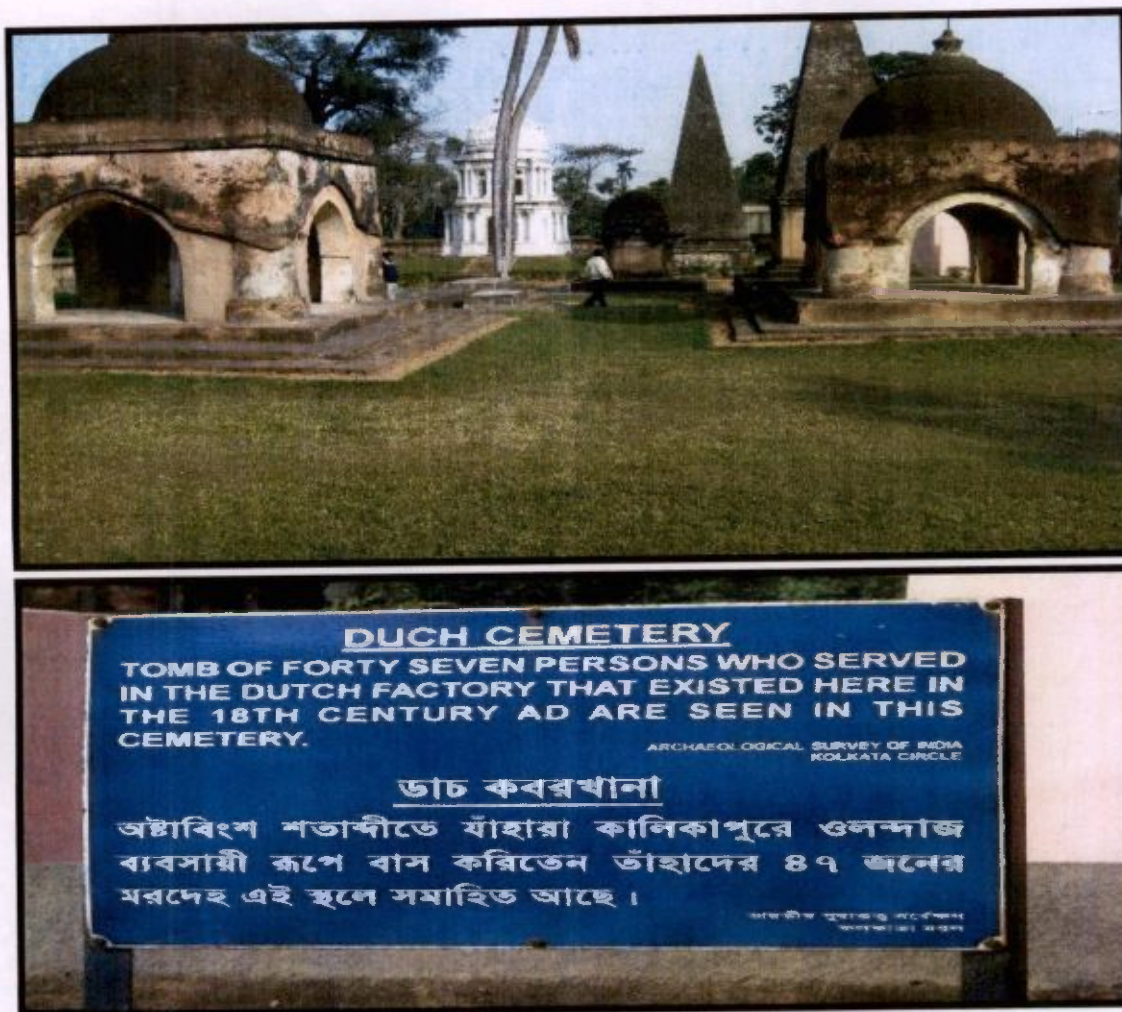


Historical Places:

Berhampore is a very old historical town which has a rich heritage of preserving historical monuments and sculptures. In this town one can find specimens of old European trends and ancient Bengali sculpture together. Tombs of Dutch Traders, Tombs of English Traders, heritage churches are the examples of Old European art and sculptures, on the other hand this town preserves the Terracotta temples as specimens of old Bengali heritage. Old Mosques at Gorabazar and Khagra areas tell the stories of Nawabi reign. Maharajas of Cossimbazar made this town proud for their heart and soul participation in social services and India's freedom movement. Their Royal palaces at Cossimbazar and Saidabad tell the story of their glory. Unfortunately many of these heritage buildings and sculptures are being damaged because of lack of proper maintenance. Berhampore Municipality is trying their level best to preserve these specimens of rich history and heritage

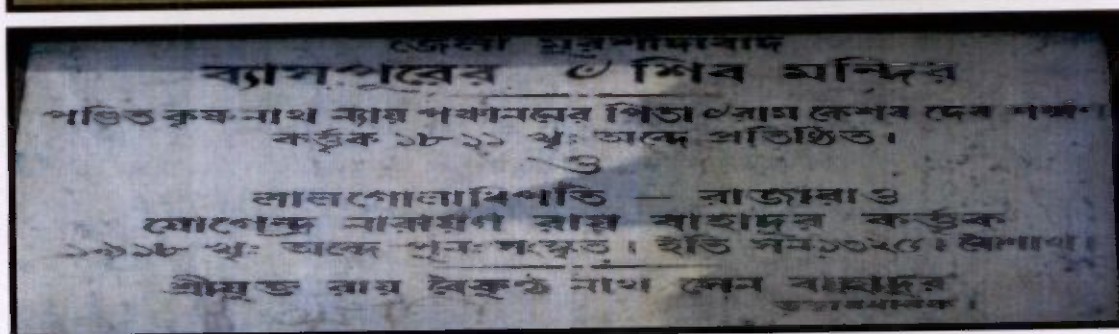
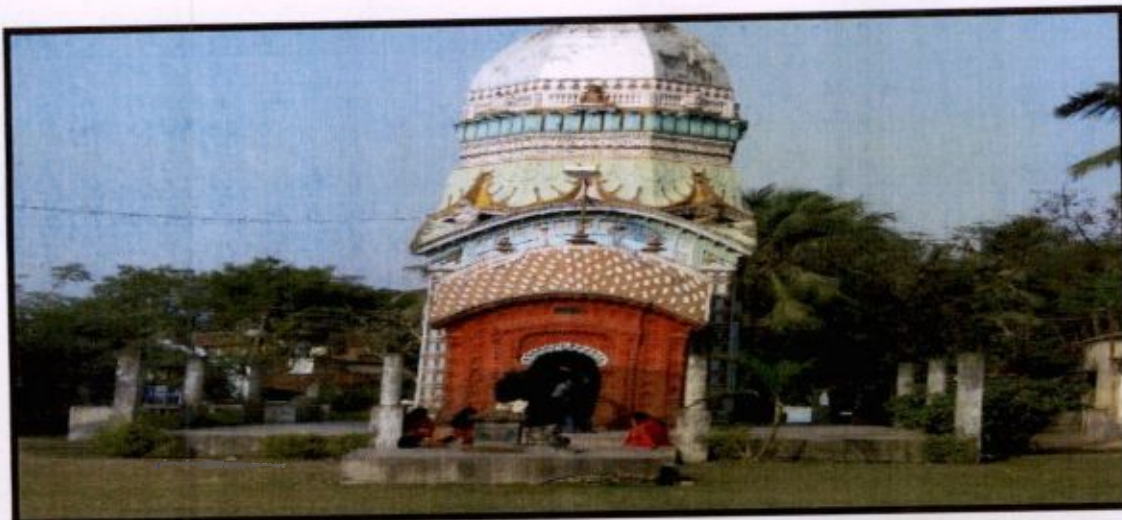
Photos of historical places of Berhampore

Dutch Cemetery at Cossimbazar



This cemetery is near about 200 years of age. Here we can find 47 tombs of Dutch traders and their family members. This cemetery is undertaken by Archaeological Survey of India.

Byaspur Temple of Lord Shiva, Cossimbazar



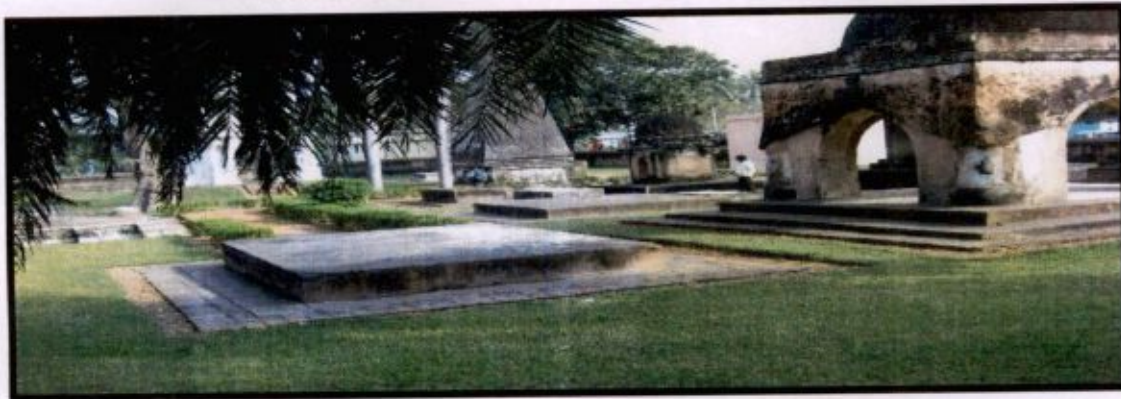
TERRACOTTA SCULPTURES ON THE WALLS OF THE TEMPLE

This cemetery is almost 150 years old. Wife of Warren Hastings and her daughter was buried here. The sculptural pattern of the tombs over here are beautiful specimen of old European Art. Archaeological Survey of India has now undertaken this cemetery.

ENGLISH CEMETRY at COSSIMBAZAR

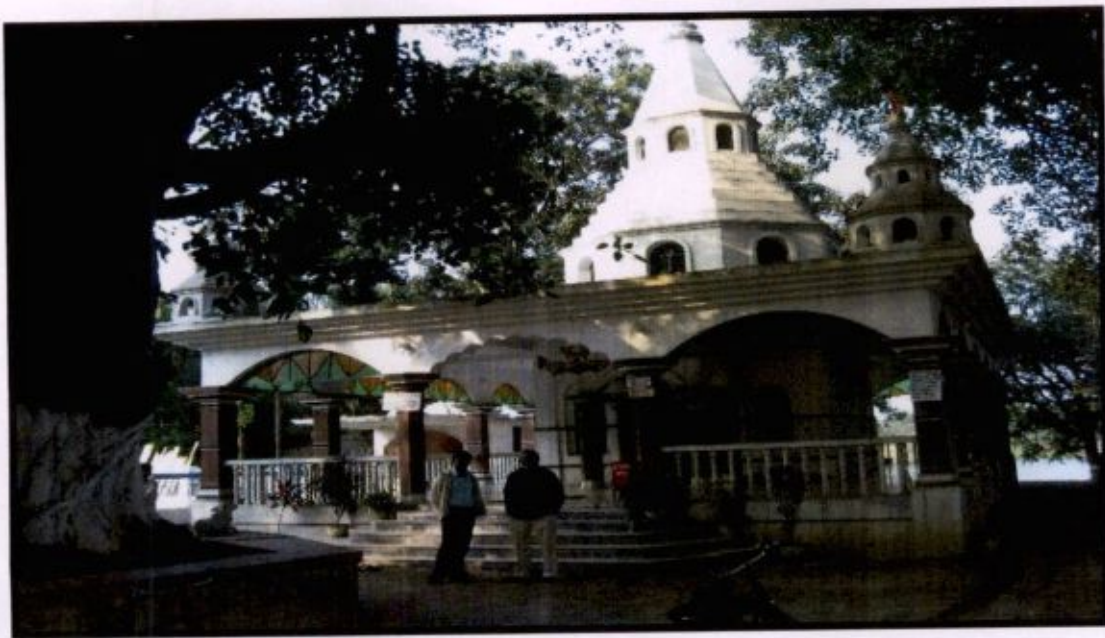


TOMBS OF MRS WARREN HASTINGS AND HER DAUGHTER



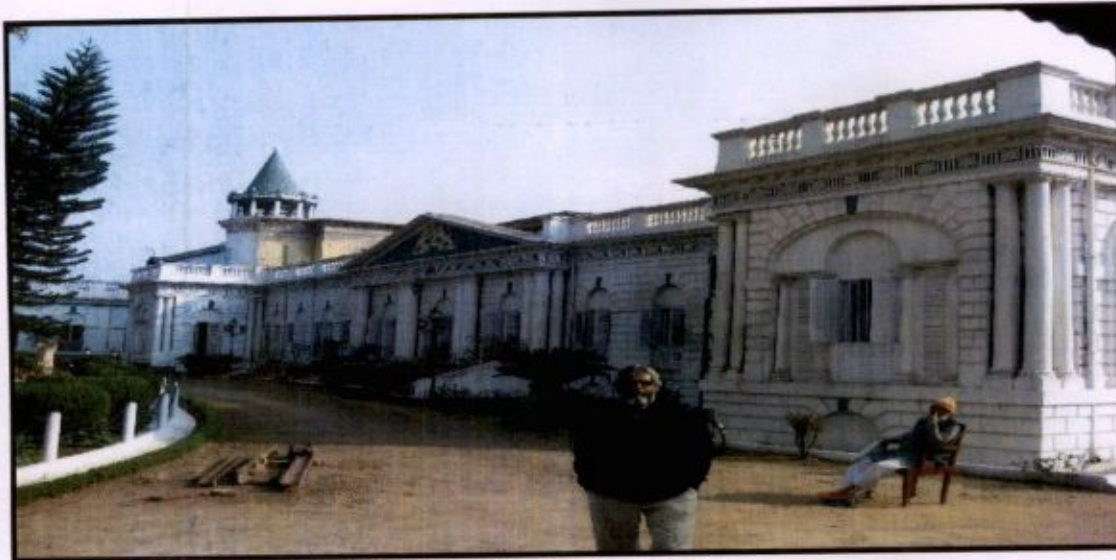
This above projected temple is nearly 200 years old .This temple was renovated in the year of 1918.The first chairman of Berhampore Municipality Roybahadur Baikunthanath Sen belonged to the trusty committee as Executive member.The terracotta sculptures projected below we can found on the walls of the temple and these are the examples of wonderful old Bengali form Art..

SATI-DAHA GHAT & PATALESWAR SHIVA MANDIR



Left above, is the Sati daha Ghat which had a dark history of Sati Burning. The ghat is situated beside Kati Ganga which was previously connected with the Bhagirathi in 18 th century. Below is Pataleswar Shiv temple. It is also a century old temple and now being maintained by a trust. The Shiva linga in this temple is situated almost 3 ft down the floor.

COSSIMBAZAR CHOTO RAJBARI



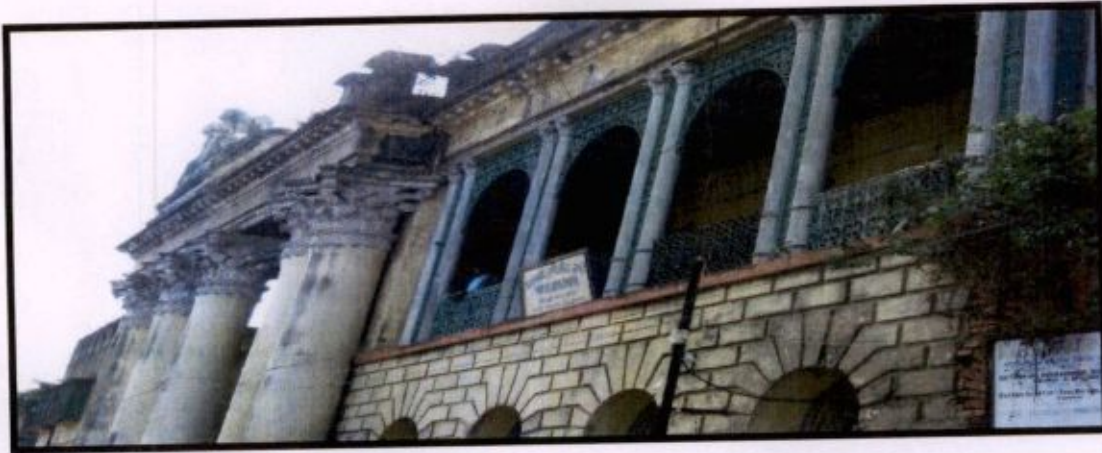
This Palace was constructed by the Royal Roy family of Cossimbazar. It is more than 150 years of age. The palace has wonderful Italic architectural pattern. The exhibits inside the palace are wonderful specimens of Art and sculpture of 18th and early nineteenth century.

KRIPAMAYEE KALI BARI



This temple is more than 150 years old and a very renowned hindu religious place of Berhampore.

PALACE OF MAHARAJA MANINDRA CHANDRA NANDI at SAIDABAD



This palace is situated at Saidabad, the oldest area of Berhampore Municipality. This palace is more than 150 years old and it was the residential palace of Maharaja Manindra Chandra Nandi. It is now being used as the Town Library.

Krishnath Collage



This collage is very old and heritage one. This is the pride of Berhampore. It is almost 150 years old. This is a replica of Oxford University. It has also a highly rich educational history.

Arts and Crafts

Ivory Craft:

Once the Ivory craft was the valuable and expensive craft of Berhampore during the reign of Nawabs and then during the British era. . As this industry was fully dependent for its prosperity on the support of a luxurious court and wealthy noblemen, it had to face a crisis when the Nawabs lost their power and their court disappeared. During the early period of the British rule, the performance of the ivory carvers of Murshidabad including Berhampore town was also praised by foreigners. During the Exhibition of 1851 in London, a variety of specimens of carving in ivory were sent to different parts of India and these were much admired for their minuteness and elaborate of details. In 1888 again, the Murshidabad carvers were declared to be perhaps the best in India, fully displaying the finish, minuteness and ingenuity characteristic of all true Indian art. When Berhampore rose into importance as chief military station in the province, the art flourished there for a time but began to wane with the decline of the military importance of the town. If not for the trade depending on the railway communication, this art would have died out long ago. Earlier the ivory carvers used to get large orders from Government for supplying specimens of their work for various exhibitions in England and other European countries, as also in India. But this was later discontinued when arrangements were made to collect the exhibits on loan from noblemen and zamindars, like the Nawab of Murshidabad and the Maharaja of Cossimbazar who were in a position to supply the best specimens under their possession.



Indian Cork (Shola craft)

Shola pith is a milky-white sponge-wood which is carved into delicate and beautiful objects of art. Sola is a plant which grow wild in marshy waterlogged areas.. The shola pith is the cortex or core of the plant and is 1 ½ inch in diameter. The outer harder brown skin is removed by expert hands to reveal the inner soft milky-white and spongy material, almost similar to "Thermocol", artificially produced in a laboratory. However, sholapith is much superior to thermocol in terms of malleability, texture and sponginess. Artisans use it for making artifacts used for decoration and ornate head-wears of bridal couple. The finest examples of craftsmanship are however seen on images of "Gods and Goddesses" on festivals, especially the massive decorative backdrops made for "Durga Puja" celebrations. Craftsmen spend months working on each piece and every details is meticulously worked out.



Bell Metal (Kansa):

Berhampore is best known for the shoal craft. Shola craft products from Berhampore are till being praised in different portions of the state and different states of India and even throughout the World. These products are exported to other states and out side the country .It is also an expensive craft and it needs dedication and hard work.The Shola artisans are concentrated in Khagra and Saidabad areas of Berhampore which areas are the older portion of this town.



Murshidabad silk:

Bengal had a nourishing silk industry in the past and Murshidabad long enjoyed a special reputation in this respect. The Bengal silk manufactures formed one of the important exports of the English East India Company to England, and these were exported also to the markets in the Asiatic countries. When the British East India Company established the factory at Cossimbazar, Berhampore, the silk trade in Bengal began to increase and their use became common among the people in England because of their good quality and cheapness. About 1663 AD in the Cossimbazar factory, around 700 silk weavers were employed. They used to furnish 22,000 bales of silk, a year, each bale weighing 100 lbs. The Total was equivalent to 30,078 mounds (1 maund = 40 Kg i.e. 12,03,120 Kg). The silk thread was thus distributed: the Dutch took for Japan or Holland 6,000 to 7,000 bales, the merchants of Tartary and the Mughal Empire about the same quantity, and the remainder (about 9,000 bales) were consumed by the people of the country for manufacturing their own stuff.

This silk was brought to Ahmedabad and Surat and was woven into fabrics. Berhampore is till known for this Beautiful and cheap silk garments. Surrounding the town the silk weavers produce Sarees and other garments and they have a big market in the town from where the silk is sold to the local consumers and exported to other parts of Bengal and India and outside the country

**Location of Berhampur Municipality**

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The town covers an area of 31.42sq. km. It comprises of 28 administrative wards.

Linkage of Rail, Road, Port & Air

Berhampur was located about 200 K.m. from Kolkata. Berhampore Court and Cossimbazar. (Khagra Ghat Road is Another station, nearer to Berhampore Municipal area, which is in the Howrah-Azimganj railway route.) and National Highway 34 (Kolkata—Siliguri, over Berhampore). This is such a Municipal area which has its three side boundaries with different panchayats. The river Bhagirathi is flown through the western side of Berhampore.

Others:-

OTHER MUNICIPAL SERVICES		
Crematoria	Number	Condition
	2	Good
OTHER ASSETS	NUMBER	Condition
Ambulance	2	Good
Graveyard	2	Useable
Community latrine	12	Useable
Market Complex	12	Good
Road Roller	4	Good
Bier	1	Good
Computers	22	All are working properly

Infrastructure Status

i) Water Supply:

Water supply is one of the most addressed issue in Berhampore Municipal area. The water supply system of Berhampore is more than 100 years of age. The water supply system of Berhampore Municipality was actually constructed in the year 1894. It was a century old system and definitely a wonderful example of engineering. Maharani Swarnamoyee donated 2 lacs rupees for the construction of this Water works system. This system is still working today but it needs proper reconstruction for more improved and wide water supply according to the growing population pressure on the town. At present this water supply system has capacity to cover only 40% of total area. As the system is very old so it has a wide chance to break down at any moment which will definitely hamper the water supply of Berhampore.

ii) Sewerage and sanitation:

At present, there is no underground sewerage system in Berhampore Municipal area. The type of latrines used here are mainly of two types,

1. Sanitary Latrine with Septic Tank
2. Two-Pit Flush Latrine

The effluent is then discharged into the open drain nearest to the residence. There is one cesspool of the Municipality. With the growing population of the Municipality, there is an immediate need for appropriate sewerage system covering the whole of the Municipal area based on scientific study.

iii) Storm water drainage and Water logging :

Just after the establishment of Berhampore Municipality, it undertook a systematic plan for the drainage of this cantonment town. The then Executive Engineer designed the whole system. main objective of this drainage system was not only for flowing the polluted water out of the town but also using the water for irrigation and 'Pisces Culture'. Laxmijola drainage, Osmankhali Drainage, Khagra sluice and Bibiganj Sluice were constructed under this scheme. The plan was to flow the dirty, polluted water through those drains and sluices and fall into water bodies outside Berhampore. It was thought that total drainage system would be flashed into the River Bhagirathi. This 100 years old system is now almost abandoned. Thereafter from the till date Berhampore Municipality has constructed and renovate many main drains and sub drains throughout the town but the efforts were piece meal and could not be able to solve the water logging problem up to the mark. Another main problem is, the outfalls of main drainage of Berhampore Municipality, are in the surrounding panchayats so these are beyond the jurisdiction of Berhampore Municipality as a result though Berhampore Municipality took constructive measures, regarding the improvement of drains it went in vain for the indifference and non co-operation from the side of panchayats.

iv) Solid Waste Management :

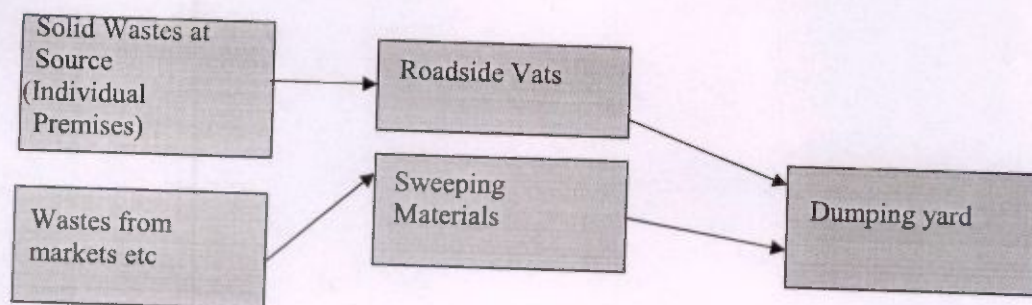
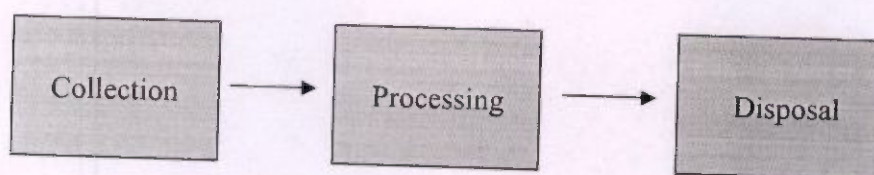
Throughout the town the solid waste collection is more or less regular. The sweepers and the harijans regularly clean the drains and sweep the roads. The solid wastes are collected regularly from garbage bins of different localities of the town and dump in the dumping ground outside the town. Municipality has a large dumping ground. Recently in some of the wards two plastic baskets have been given to each household to put their bio degradable and non bio degradable wastes regularly which is collected by the municipal sweepers regularly. This practice add a new colour to the SWM machinery of this Municipality. But because of non availability of fund this practice could not be extended in the larger area of the town. Berhampore

municipality does not have proper Solid waste treatment plant and bio medical waste treatment plan which the municipality thinks most necessary to set up to control pollution and for assuring better public health.

Table:Details of SWM

Solid Waste Management			
	Type	Number	Capacity
Collection vehicles	Tractor with Trailer	14	4 tons
	Lorry	1	8tons
	Covered tripping trailer (Hydraulic system)	10	4 tons
	Covered trailer (Non Hydraulic)	2	1 tons
	Try cycle van	50	40 lits.
	Double wheel barrow	300	25 kgs
Land fill site	Location, size		
One	Kalikapur Kadamkhandi Ward No 23. Size: 2.19 acres.		

The system of Solid Waste Management in general is based on the three consecutive systems of:



The wastes from individual premises and also from the vats are collected once daily

v) Road Network:

Berhampore Municipality has a network of 305.50 k.m. of pitch road, 369.50 k.m of concrete road and 175 km. of Brick Soling Road. The pitch road throughout the whole town has been repaired recently but as the town is very old and road network is almost unplanned in those old areas and many small lanes are there which need reconstruction or repair. Beside this there are some roads which are adjacent to the NH 34 and have high pressure of vehicles and problems of traffic jams. Conditions of these roads are not at all satisfactory and need repair. Berhampore Municipality needs to have a planned network of roads to avoid traffic jam and for better connectivity as the population and the vehicle pressures as well are growing up day to day.

Jawaharlal Nehru Nation Urban Renewal Mission (Jnnurm)

Government of India has decided to launch Jawaharlal Nehru Nation Urban Renewal Mission (JNNURM) with an aim to encourage reforms and fast-track planned development of identified cities. The focus is majorly on efficiency in urban infrastructure and service delivery mechanisms, community participation and accountability of ULBs / parastatal agencies towards citizens. Solid Waste Management Best performing city.

Overview:

It would be worthwhile to note that there are two submissions under JNNURM, Sub-Mission-I, titled Urban Infrastructure and Governance (UIG), will be administered by the Ministry of Urban Development through the Sub-Mission Directorate to deal with up-gradation/renewal of basic infrastructure in the selected cities and towns and implementation of various reforms pertaining to improved Municipality governance including sustenance of development activities.

The Sub-Mission-II, titled Basic Services for Urban Poor (BSUP), will be administered by the Ministry of Urban Employment and Poverty Alleviation through the Sub-Mission Directorate to deal exclusively for urban poor living in slum/squatter settlements in cities and towns. The focus of BSUP is to improve the living conditions of the urban poor by way of providing housing along with infrastructure, with a view to gradually removing slums/squatter settlement from cities and towns.

The Government of India has identified 63 cities from India based on population which will get the benefit of JNNURM. From West Bengal two cities have been identified namely Kolkata and Asansol. In Kolkata there are 42 ULBs including 3 Municipal Corporations and in Asansol there are 5 ULBs including 2 Municipal Corporations. Kolkata Metropolitan Development Authority has been selected as State Level Nodal Agency (SLNA) to monitor JNNURM projects both for UIG and BSUP.

The project slums and existing scenario of infrastructure:

28 nos Slums have been selected as a Project for the year 2017-18 under PMAY scheme by Berhampur Municipality in consultation with the state level Nodal Agency - The State Urban Development Agency (SUDA) under M.A. Department, GoWB.

1. BISHNUPUR BILLDHAR BASTI (Slum Code- 20066)

The project slum site is at the core area of the Municipality at Ward no-09. Road condition is very poor in this slum and most of roads are Kutchha and Bitumious. The slums is 31 years old with a total site area is 7000 square metres. The ownership of land lies with ULB. The existing number of households is 125 .Proposal for Beneficiary Led Construction are 39 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

The environmental condition in the slums is little bit poor. The slum is partially covered with surface drains but drains are tilted and broken condition resulting clogging. Most of the roads within slums are semi metallic or kuchha road. There is 89% street lights present in the slum. Most of the population adopts unhygienic method for disposing their waste; thereby causing huge damage to health. The site visit has revealed a unhygienic condition prevailing there at present due to absence of any organized structures and infrastructure for keeping them. Most of the dwelling units are kaccha or dilapidated.

2. CHANDAR BAGAN(S.C-7) (Slum Code-20015)

The project slum site is at the core area of the Municipality at Ward no-01. Road condition is very poor in this slum and most of roads are Kutchha and Bitumious. The slums is 31 years old with a total site area is 5000 square metres. The ownership of land lies with ULB. The existing number of households is 30. Proposal for Beneficiary Led Construction are 15 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

3. COSSIMBAZAR NATUN PARA(S.C-003) (Slum Code:- 20058)

The project slum site is at the core area of the Municipality at Ward no-02. Road condition is very poor in this slum and most of roads are Kutchha and Bitumious. The slums is 31 years old with a total site area is 2000 square metres. The ownership of land lies with ULB. The existing number of households is 84. Proposal for Beneficiary Led Construction are 20 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

The environmental condition in the slums is little bit poor. The slum is partially covered with surface drains but drains are tilted and broken condition resulting clogging. Most of the roads within slums are semi metallic or kuchha road. There is 100% street lights present in the slum.

Most of the population adopts unhygienic method for disposing their waste; thereby causing huge damage to health. The site visit has revealed a unhygienic condition prevailing there at present due to absence of any organized structures and infrastructure for keeping them. Most of the dwelling units are kaccha or dilapidated.

4. GIRJAPARA BASTEE(S.C-46) (Slum Code:-20016)

The project slum site is at the core area of the Municipality at Ward no-03. Road condition is very poor in this slum and most of roads are Kutchha and Bitumious. The slums is 35 years old with a total site area is 9200 square metres. The ownership of land lies with ULB. The existing number of households is 58. Proposal for Beneficiary Led Construction are 15 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

5. JOYCHANDRA ROAD BASTEE(S.C-36) (Slum Code:- 20021)

The project slum site is at the core area of the Municipality at Ward no-10. Road condition is very poor in this slum and most of roads are Kutchha and Bitumious. The Slum is 35 years old with a total site area is 3000 square metres. The ownership of land lies with ULB. The existing number of households is 148. Proposal for Beneficiary Led Construction are 52 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

6. KANTANAGAR(S.C-38) (Slum Code:- 2004)

The project slum site is at the core area of the Municipality at Ward no-08. Road condition is very poor in this slum and most of roads are Kutchha and Bitumious. The Slum is 38 years old with a total site area is 2000 square metres. The ownership of land lies with ULB. The existing number of households is 207. Proposal for Beneficiary Led Construction are 60 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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7. KEDAR MAHATO LANE BASTEE(S.C.-49) (Slum Code:-20048)

The project slum site is at the core area of the Municipality at Ward no-04. Road condition

is very poor in this slum and most of roads are Kutcha and Bitumious. The Slum is 36 years old with a total site area is 4,300 square metres. The ownership of land lies with ULB. The existing number of households is 69. Proposal for Beneficiary Led Construction are 21 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

8. KONAIPARA BASTEE(S.C.-54) (Slum Code:- 20013)

The project slum site is at the core area of the Municipality at Ward no-01. Road condition is very poor in this slum and most of roads are Kutcha and Bitumious. The Slum is 40 years old with a total site area is 2500 square metres. The ownership of land lies with ULB. The existing number of households is 147. Proposal for Beneficiary Led Construction are 47 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

9. KUMAR DURGANATH BASTEE(S.C.-50) (Slum Code:-20009)

The project slum site is at the core area of the Municipality at Ward no-04. Road condition is very poor in this slum and most of roads are Kutcha and Bitumious. The Slum is 40 years old with a total site area is 7268 square metres. The ownership of land lies with ULB. The existing number of households is 189. Proposal for Beneficiary Led Construction are 35 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

10. LICHU BAGAN BASTEE(S.C.-39) (Slum Code:- 20005)

The project slum site is at the core area of the Municipality at Ward no-08. Road condition is very poor in this slum and most of roads are Kutcha and Bitumious. The Slum is 40 years old with a total site area is 9000 square metres. The ownership of land lies with ULB. The existing number of households is 251. Proposal for Beneficiary Led Construction are 27 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

11. MUCHI PARA BASTEE(S.C.-37) (Slum Code:- 20023)

The project slum site is at the core area of the Municipality at Ward no-11. Road condition is very poor in this slum and most of roads are Kutcha and Bitumious. The Slum is 40 years old with a total site area is 1500 square metres. The ownership of land lies with ULB. The existing number of households is 77. Proposal for Beneficiary Led Construction are 27 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

12. SHARMA PARA BASTEE(S.C.-5) (Slum Code:- 20020)

The project slum site is at the core area of the Municipality at Ward no-01. Road condition is very poor in this slum and most of roads are Kutcha and Bitumious. The Slum is 40 years old with a total site area is 4000 square metres. The ownership of land lies with ULB. The existing number of households is 95. Proposal for Beneficiary Led Construction are 25 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

13. ABDUS SAMAD RD BASTEE(S.C.-17) (Slum Code:- 20041)

The project slum site is at the core area of the Municipality at Ward no-28. Road condition is very poor in this slum and most of roads are Kutcha and Bitumious. The Slum is 40 years old with a total site area is 1300 square metres. The ownership of land lies with ULB. The existing number of households is 33. Proposal for Beneficiary Led Construction are 30 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

The environmental condition in the slums is little bit poor. The slum is partially covered with surface drains but drains are tilted and broken condition resulting clogging. Most of the roads within slums are semi metallic or kuchha road. There is 100% street lights present in the slum. Most of the population adopts unhygienic method for disposing their waste; thereby causing huge damage to health. The site visit has revealed a unhygienic condition prevailing there at

present due to absence of any organized structures and infrastructure for keeping them. Most of the dwelling units are kaccha or dilapidated.

14. BROJA SAHA LANE BASTI(S.C.-29) (Slum Code:- 20052)

The project slum site is at the core area of the Municipality at Ward no-19. Road condition is very poor in this slum and most of roads are Kutcha and Bitumious. The Slum is 40 years old with a total site area is 4750 square metres. The ownership of land lies with ULB. The existing number of households is 25. Proposal for Beneficiary Led Construction are 10 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

15. GAROWAN PARA(S.C.-24) (Slum Code:- 20049)

The project slum site is at the core area of the Municipality at Ward no-18. Road condition is very poor in this slum and most of roads are Kutcha and Bitumious. The Slum is 40 years old with a total site area is 1000 square metres. The ownership of land lies with ULB. The existing number of households is 51. Proposal for Beneficiary Led Construction are 15 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

16. GHOSHPARA BASTI(S.C.-9) (Slum Code:- 20033)

The project slum site is at the core area of the Municipality at Ward no-09. Road condition is very poor in this slum and most of roads are Kutcha and Bitumious. The Slum is 40 years old with a total site area is 6000 square metres. The ownership of land lies with ULB. The existing number of households is 75. Proposal for Beneficiary Led Construction are 40 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

17. SETAKHA DHAR BASTEE(S.C.-57) (Slum Code:- 20018)

The project slum site is at the core area of the Municipality at Ward no-05. Road condition is very poor in this slum and most of roads are Kutchha and Bitumious. The Slum is 40 years old with a total site area is 6000 square metres. The ownership of land lies with ULB. The existing number of households is 57. Proposal for Beneficiary Led Construction are 37 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

18. ZAMINDARI BASTEE(S.C.-18) (Slum Code:- 20040)

The project slum site is at the core area of the Municipality at Ward no-28. Road condition is very poor in this slum and most of roads are Kutchha and Bitumious. The Slum is 40 years old with a total site area is 2150 square metres. The ownership of land lies with ULB. The existing number of households is 42. Proposal for Beneficiary Led Construction are 22 dwelling units for the year 2017-18. Most of the slum dwellers work as casual labour in local industries, others engaged in local housekeeping, as sweepers in local areas, as cleaners at Municipality area and as vegetable sellers in nearby areas.

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

National Poverty Alleviation Programmes and PMAY

Slum: the focus Area

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

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

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

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

Background

- i. Urbanization is fast becoming the defining process in shaping the course of social transformation & ensuing development concerns in India. About 377 million persons or about 31% of India's population of 1.21 billion lived in urban areas in 2011, spread over 5161 towns.

As per Report on Indian Urban Infrastructure and Services (NIUA) Report, the urban population is likely to grow to about 600 million by 2031. About one-fourth (24%) of the urban population of India is poor i.e. their expenditure on consumption goods is less than the poverty line benchmark. The benefits of urbanization have eluded this burgeoning 67 million urban poor population, most of who live in slums. An analysis of population growth trends between 1991 and 2001 shows that while India grew at an average annual growth rate of 2%, urban India grew at 3% mega cities at 4% and slum populations rose by 5%. This rapid and unplanned urbanization and simultaneous growth of urban population in the limited living spaces has a visible impact on the quality of life of the slum dwellers of the city.

- ii. It is increasing clear that sustainable growth can only take place when it is inclusive and when the entire population including the poor and marginalized need to

have at the least access to descent shelter, basic amenities, livelihoods and a voice in governance. Keeping this in mind the Government of India and the various State Governments have been taking up several schemes on partnership mode.

National Missions for Slum Development and Poverty Reduction

- i. The Government of India is committed to creating a slum free India as part of the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) sub mission on Basic Services for the Urban Poor (BSUP). More recently it has also launched the Pradhan Mantri Awas Yojana (PMAY) for providing Housing for All (HFA) by 2022 when the Nation Complete 75 years of its independence.
- ii. **Jawaharlal Nehru National Urban Renewal Mission (JNNURM) :** JNNURM is a reform- linked urban development and slum upgrading program. Under JNNURM, the Government of India has been providing central assistance to 65 metro and large cities to invest in infrastructure improvements with governance reforms under sub mission on Urban Development.
- iii. **Basic Services for Urban Poor (BSUP) :** BSUP is focussed on slum upgradation and poverty reduction through creating access and networking slums to urban infrastructure improvements. BSUP also has a 7-Point Charter that envisages integration of urban slum upgrading activities with social development programs/missions such as for health, education, social welfare, etc. to ensure comprehensive development.
- iv. **Swarna Jayanti Shahri Rozgar Yojana (SJSRY) :** SJSRY is a centrally sponsored program and it mainly emphasizes on the poverty reduction through employment generation. Main target groups of the program are: Urban poor, Women, SC/ST, Disabled etc.
- v. **National Slum Development Program (NSDP):** NSDP is a centrally assisted slum development program. NSDP is mainly for improvement in the environment in the slums as a broader objective through provision of infrastructure facilities and shelter for improving living conditions in the slums.
- vi. **Valmiki Ambedkar Awas Yojana (VAMBAY):** VAMBAY is a central Government scheme to provide housing to the poor. Under VAMBAY scheme, an amount of Rs. 50,000 is extended to a beneficiary in a city with more than 10 lacs population while in the cities having population less than 10 lacs. each beneficiary gets Rs. 40,000/- fifty percent of the amount is central government grant while the rest could be taken as loan from HUDCO/ other nationalized banks/ state government/ urban local bodies.
- vii. **Integrated housing and slum development program (IHSDP):** IHSDP was under Jawaharlal Nehru Urban Renewal Mission (JNNURM) beginning from the year 2005-2006. The major objectives for the IHSDP program are:-

- ☐ Focussed attention to integrated development of basic services to the poor. The basic services include security of tenure at affordable price, improving housing, water supply and sanitation.
- ☐ Secure effective linkages between asset creation and asset management so that the basic services to the urban poor created in the cities, are not only maintained efficiently but also become self sustaining over time.

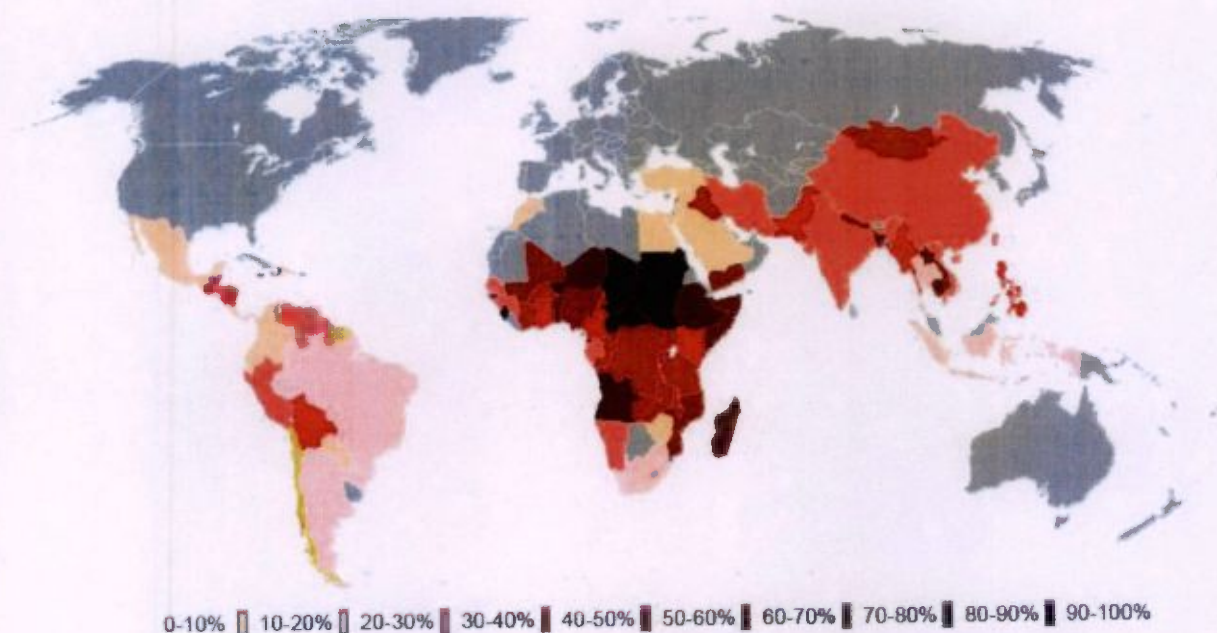
HFAPoA and Pradhan Mantri Awas Yojana (Housing for All)

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

ULB undertake a demand survey through suitable means for assessing the actual demand of housing. While validating demand survey, Cities should consider possible temporary migration from rural areas to the city just to take advantage of housing scheme and exclude such migrants from list of beneficiaries. On the basis of demand survey and other available data, cities will prepare Housing for All Plan of Action (HFAPoA). HFAPoA should contain the demand of housing by eligible beneficiaries in the city along with the interventions selected out of four verticals. The information regarding beneficiaries should be collected by ULB in suitable. While preparing HFAPoA, ULB and Implementing Agencies should also consider the affordable housing stock already available in the city as Census data suggests that large number of houses are vacant. Bank account number and Aadhaar number/Voter ID card/any other unique identification details of intended beneficiaries or a certificate of house ownership from Revenue Authority of beneficiary's native district will be integrated in the data base of HFAPoA for avoiding duplication of benefit to one individual family. Beneficiaries will be 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 will 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 can be 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 should be discussed with the local representatives including MLAs and MPs of that area so that their views are adequately factored in while finalising the plans and beneficiary list. Cities which have already prepared Slum Free City Plan of Action (SFCPoA) or any other housing plan with data on housing, should 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 will broadly involve Slum Development/Rehabilitation Plans based on

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

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/Union Territories to tackle the problem of slums in a holistic manner. It calls for a multi-pronged approach focusing on:

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

iv. Eligible Components of the PMAY:

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.

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

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

Need for Projects

The projects are needed to fully understand and develop redevelopment models that can be replicated in the city with benefits. One of the key objectives of developing The Projects is to incentivize innovation and encourage new approaches and solutions that can demonstrably improve the quality and quantity of shelter and services for the poor.

Such innovation could encompass:

- ☐ Projects with strong community participation i.e. Slum upgradation/ redevelopment projects initiated/spearheaded by the community; or with their demonstrable involvement and participation in design, planning and implementation
- ☐ Creation of fresh rental housing stock and transit shelters
- ☐ New models of public-private partnerships whereby the private sector can be encouraged to take up affordable housing for the EWS/LIG
- ☐ Innovations in planning, demonstrating integrated livelihoods, shelter and 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.

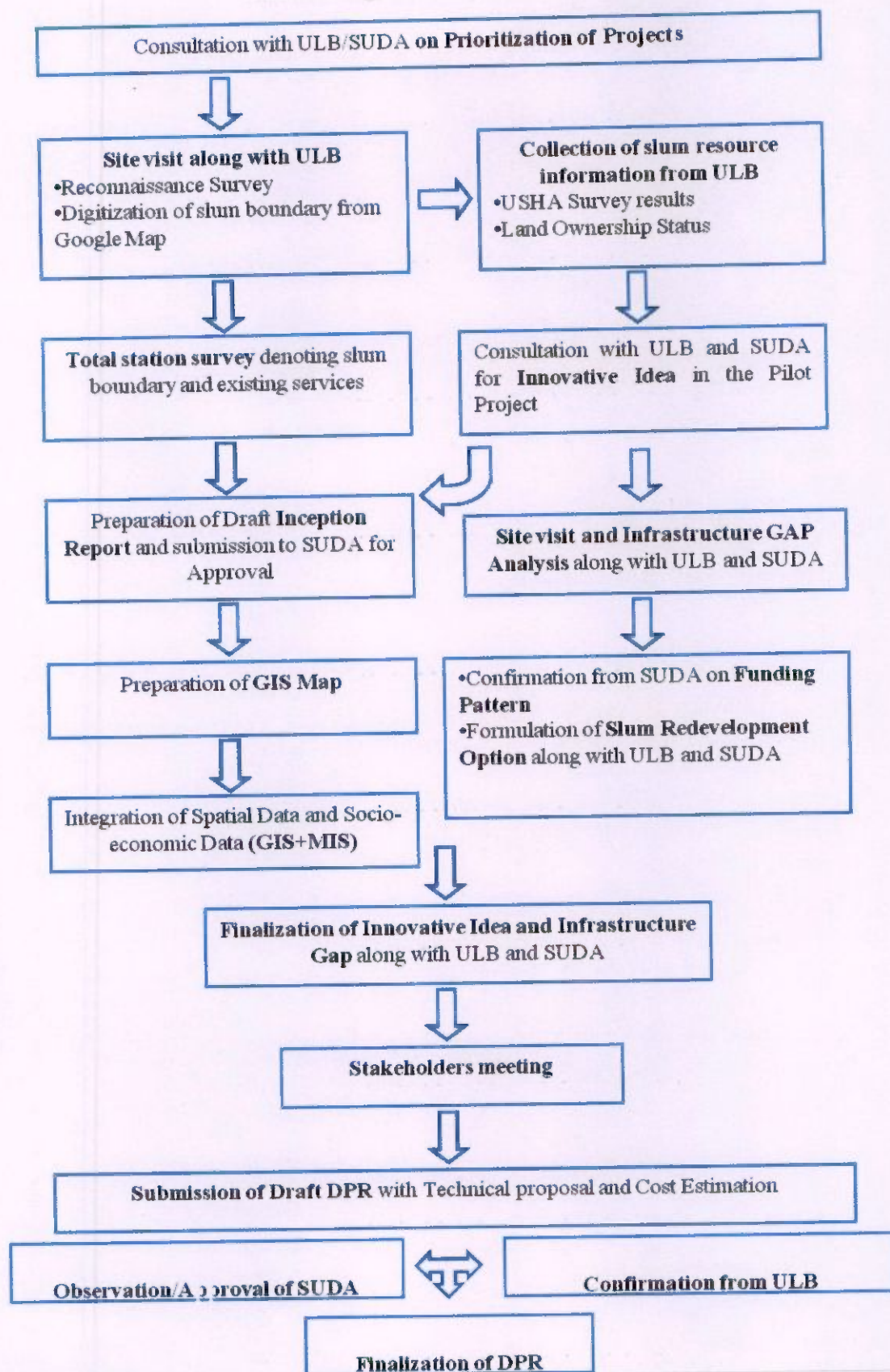
- ☐ Integrated development of all existing slums, notified or non-notified, i.e., development of infrastructure and housing in the slums/rehabilitation colonies for the slum dwellers/urban poor, including rental housing.
- ☐ Development/improvement/maintenance of basic services to the urban poor, including 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, rental or rental-purchase basis.
- ☐ 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.

Methodology for Preparation of DPR



Funding Pattern of PMAY

Support from Central Government shall include -

- ☐ 1.5 LAKHS of total cost of dwelling unit
- ☐ State + ULB to bear the cost of infrastructure
- ☐ State share for infrastructure to be minimum 5%
- ☐ Cost of infrastructure 10 % of sum total cost of dwelling unit
- ☐ Cost of capacity building 5 % 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 3 installments to the State Governments/SLNA;
- ☐ First Installment – after sanction of DPR and on submission of financing plan for State/ULB share for the project
- ☐ The subsequent installments on receipt of Utilization Certificate for 70% of the earlier release;
- ☐ 3 Mandatory reforms within 1 year of DPR sanctions

Status of existing infrastructure & services

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 31.42 square kilometres is comprised of 28 number of wards. With efficient and trained manpower, the Municipal 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.

Demographic features of the Berhampur Municipality :

Total Area of Corporation	31.42 Sq. Km.
Population (as per 2011 SECC)	1,95,363
Male (as per 2011 SECC)	1,00,430
Female (as per 2011 SECC)	94,933
Density of Population (as per 2011 SECC)	10029.77
Number of Municipal Wards	28
Number of Councillors	28

Urban Services

Role of various agencies engaged in urban sector related services whose jurisdiction includes ULB (Urban Local Bodies).

Water Supply	ULB
Solid Waste Management	ULB
Electricity & Street Lighting	WBSEDCL, DPL, DSP, ULB
Sewerage	ULB
Roads	ULB
Drains	ULB
Health Services	ULB
Education Services	ULB
Social Welfare Services	ULB
Sports & Games	ULB
Building Plan	ULB
Urban Planning	ULB

Status of Slums under Municipality

- i. As per the available data, the total number of people living in 28 slums covering an area of 1.44 sq.km. Thus over 4.58 percent of Municipality population resides in slums, squatters and other poor settlements. Their contribution to city's economy has been also been growing over the period.
- ii. 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.
- iii. 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 substantial 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.
- iv. 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.

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 Berhampur Municipality area .

- ☐ Firstly slums that grew up in the own lands of the dwellers but have no civic amenities, which are basically found in the listed 28 slums.

Slum Infrastructure Improvement Plan

The development objectives are:

- ☐ Ensure basic infrastructure services to all slums to provide better quality of life by giving emphasis on water supply and sanitation.
- ☐ Ensure maintenance of the asset created locally by ensuring collection of user charges locally and to enhance community participation.
- ☐ Ensure regular water supply and safe drinking water.
- ☐ To improve drainage system removing water logging in the slum.
- ☐ To ensure timely disposal of garbage of the slum.
- ☐ To provide housing for the dwellers of the slum.

- ☐ To provide streetlight facilities in the slum area.
- ☐ To provide road, community bathroom, community toilet and community seva kendra.
- ☐ To ensure economic upliftment

City Level Number of notified and non-notified slums					
City	No. of Non-Slums	No. of Notified Slums	No. of Notified	% Proportion of Slums	
				No. of Notified Non-Slums	No. of Notified
Municipality	28	18	0	100%	0%

Key Findings – Slums under Municipality :

Water Supply:

The main source of water supply in Municipality area is Ground water. Besides that another source is canal, which is used for different purposes except 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 community 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 notified 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 in this Municipality area as well as slum areas. BM held meeting for the campaigning of the system. Proposal for solid wastes collection has

taken in all over the Municipality area as well as in the slums.

List of slums under Berhampur Municipality :

Slum No.	Name of Slum	Slum Code	ward no	Area Sqm	Number of total Households(Including pucca)
1	BISHNUPUR BILLDHAR BASTI	20066	9	7000.00	125
2	CHANDAR BAGAN(S.C.-7)	20015	1	5000.00	30
3	COSSIMBAZAR NATUN PARA (S.C-003)	20058	2	2000.00	84
4	GIRJAPARA BASTEE(S.C.-46)	20016	3	9200.00	58
5	JOYCHANDRA ROAD BASTEE(S.C.-36)	20021	10	3000.00	148
6	KANTANAGAR(S.C.-38)	20004	8	2000.00	207
7	KEDAR MAHATO LANE BASTEE(S.C.-49)	20048	4	4300.00	69
8	KONAIPARA BASTEE(S.C.-54)	20013	1	2500.00	147
9	KUMAR DURGANATH BASTEE(S.C.-50)	20009	4	7268.00	189
10	LICHU BAGAN BASTEE(S.C.-39)	20005	8	9000.00	251
11	MUCHI PARA BASTEE(S.C.-37)	20023	11	1500.00	77
12	SHARMA PARA BASTEE(S.C.-5)	20020	1	4000.00	95
13	ABDUS SAMAD RD BASTEE(S.C.-17)	20041	28	1300.00	33
14	BROJA SAHA LANE BASTI(S.C.-29)	20052	19	4750.00	25
15	GAROWAN PARA(S.C.-24)	20049	18	1000.00	51
16	GHOSHPARA BASTI(S.C.-9)	20033	9	6000.00	75
17	SETAKHA DHAR BASTEE(S.C.-57)	20018	5	6000.00	57
18	ZAMINDARI BASTEE(S.C.-18)	20040	28	2150.00	42

Proposed Project:

Background

It is a path breaking approach being taken up by Central Govt., State Govt. and Municipal Corporation, as there are some need to embark on this project with the aim of evolving, demonstrating and establishing models that can thereafter be scaled with a key objective to incentives innovation and encourage new approaches and solutions that can demonstrably improve the quality and quantity of shelter and services for the poor.

Project Justification

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

Name of the Slum	Status	Land	Age in years	National High Way	Status of Housings	Road Status	Habitation pattern
BISHNUPUR BILLDHAR BASTI	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
CHANDAR BAGAN(S.C.-7)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
COSSIMBAZAR NATUN PARA (S.C-003)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

Name of the Slum	Status	Land	Age in years	National High Way	Status of Housings	Road Status	Habitation pattern
GIRJAPARA BASTEE(S.C.-46)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
JOYCHANDRA ROAD BASTEE(S.C.-36)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
KANTANAGAR(S.C.-38)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
KEDAR MAHATO LANE BASTEE(S.C.-49)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
KONAIPARA BASTEE(S.C.-54)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

Name of the Slum	Status	Land	Age in years	National High Way	Status of Housings	Road Status	Habitation pattern
KUMAR DURGANATH BASTEE(S.C.-50)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
LICHU BAGAN BASTEE(S.C.-39)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
MUCHI PARA BASTEE(S.C.-37)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
SHARMA PARA BASTEE(S.C.-5)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
ABDUS SAMAD RD BASTEE(S.C.-17)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

Name of the Slum	Status	Land	Age in years	National Highway	Status of Housings	Road Status	Habitation pattern
BROJA SAHA LANE BASTI(S.C.-29)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
GAROWAN PARA(S.C.-24)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
GHOSHPARA BASTI(S.C.-9)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
SETAKHA DHAR BASTEE(S.C.-57)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space
ZAMINDARI BASTEE(S.C.-18)	The condition of living in the slum is unhygienic	Land belongs to the ULB	40	The National Highway - 2 is 5.0 kms away	Major population is living in huts, made of darma / bricks with tin sheets and asbestos/tiles on roof	Majority portion of roads are brick paved or damaged roads.	Habitation pattern in the slums is congested with insufficient open space

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

Site Location

The project slum is situated at 0.12648 Sq.Km area in Municipality area.

Site Appraisal

1. Land of the project was belongs to WBSIDC and a part of it (0.12648 Sqkm) has been handed over to this Municipality by them for rehabilitation of the slum dwellers.
2. As the land of WBSIDC has been encroached by the slum dwellers and WBSIDC was unable to handover the land to entrepreneurs for the establishment of their Industries.
3. Condition of the slum was also not very good and the area will be slum free area if it is approved.
4. After implementation this project , this corporation, Our Municipality , WBSIDC , Slum Dwellers and Industrial Entrepreneurs all will be benefited.
5. More over C.I.C. & B.O.C. has also decided to take this slum as 1st PMAY Cluster project in the city.

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.

Project Land Particulars

SL NO.	Ward No.	Slum Code	Name of the Slum	Area of the Slum in sq. mtrs	Age in years	Whether located in core City/Town or Fringe area	Type of Area surrounding Slum	Is the slum Notified/ Declared	Ownership of Land where Slum is located
1	9	20066	BISHNUPUR BILLDHAR BASTI	7000	40	core City	Residential	Notified	Land belongs to the ULB
2	1	20015	CHANDAR BAGAN(S.C.-7)	5000	40	core City	Residential	Notified	Land belongs to the ULB
3	2	20058	COSSIMBAZAR NATUN PARA (S.C.-003)	2000	40	core City	Residential	Notified	Land belongs to the ULB
4	3	20016	GIRJAPARA BASTEE(S.C.-46)	9200	40	core City	Residential	Notified	Land belongs to the ULB
5	10	20021	JOYCHANDRA ROAD BASTEE(S.C.-36)	3000	40	core City	Residential	Notified	Land belongs to the ULB
6	8	20004	KANTANAGAR(S.C.-38)	2000	40	core City	Residential	Notified	Land belongs to the ULB
7	4	20048	KEDAR MAHATO LANE BASTEE(S.C.-49)	4300	40	core City	Residential	Notified	Land belongs to the ULB

SL NO.	Ward No.	Slum Code	Name of the Slum	Area of the Slum in sq. mtrs	Age in years	Whether located in core City/Town or Fringe area	Type of Area surrounding Slum	Is the slum Notified/ Declared	Ownership of Land where Slum is located
8	1	20013	KONAIPARA BASTEE(S.C.-54)	2500	40	core City	Residential	Notified	Land belongs to the ULB
9	4	20009	KUMAR DURGANATH BASTEE(S.C.-50)	7268	40	core City	Residential	Notified	Land belongs to the ULB
10	8	20005	LICHU BAGAN BASTEE(S.C.-39)	9000	40	core City	Residential	Notified	Land belongs to the ULB
11	11	20023	MUCHI PARA BASTEE(S.C.-37)	1500	40	core City	Residential	Notified	Land belongs to the ULB
12	1	20020	SHARMA PARA BASTEE(S.C.-5)	4000	40	core City	Residential	Notified	Land belongs to the ULB
13	28	20041	ABDUS SAMAD RD BASTEE(S.C.-17)	1300	40	core City	Residential	Notified	Land belongs to the ULB
14	19	20052	BROJA SAHA LANE BASTI(S.C.-29)	4750	40	core City	Residential	Notified	Land belongs to the ULB
15	18	20049	GAROWAN PARA(S.C.-24)	1000	40	core City	Residential	Notified	Land belongs to the ULB
16	9	20033	GHOSHPARA BASTI(S.C.-9)	6000	40	core City	Residential	Notified	Land belongs to the ULB
17	5	20018	SETAKHA DHAR BASTEE(S.C.-57)	6000	40	core City	Residential	Notified	Land belongs to the ULB
18	28	20040	ZAMINDARI BASTEE(S.C.-18)	2150	40	core City	Residential	Notified	Land belongs to the ULB

Migration

Maximum dwellers have migrated from rural areas due to lack of employment in agriculture sector. All household had migrated from rural to urban area. Majority of the population of this slum is living for more than 30 years in this slum. Hence, dwellers are now permanently depending on slums. This justifies as a parameter on the importance of Slum for In situ development.

Housing Status

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

House Type /Structure

Ward Number	Slum Code	Slum Name	Number of total Households(Including pucca)	AREA in Sq Mt	Semi-Pucca	Katcha	Pucca	Total
9	20066	BISHNUPUR BILLDHAR BASTI	227	7000	69	20		89
1	20015	CHANDAR BAGAN(S.C.-7)	26	5000	17	13		30
2	20058	COSSIMBAZAR NATUN PARA (S.C.-003)	388	2000	40	44		84
3	20016	GIRJAPARA BASTEE(S.C.-46)	221	9200	43	15		58
10	20021	JOYCHANDRA ROAD BASTEE(S.C.-36)	757	3000	112	36		148
8	20004	KANTANAGAR(S.C.-38)	407	2000	232	6		238
4	20048	KEDAR MAHATO LANE BASTEE(S.C.-49)	220	4300	68	1		69
1	20013	KONAIPARA BASTEE(S.C.-54)	189	2500	29	118		147
4	20009	KUMAR DURGANATH BASTEE(S.C.-50)	334	7268	188	1		189
8	20005	LICHU BAGAN BASTEE(S.C.-39)	296	9000	249	2		251

Ward Number	Slum Code	Slum Name	Number of total Households(Including pucca)	AREA in Sq Mt	Semi-Pucca	Katcha	Pucca	Total
11	20023	MUCHI PARA BASTEE(S.C.-37)	251	1500	68	9		77
1	20020	SHARMA PARA BASTEE(S.C.-5)	315	4000	65	30		95
28	20041	ABDUS SAMAD RD BASTEE(S.C.-17)	82	1300	31	2		33
19	20052	BROJA SAHA LANE BASTI(S.C.-29)	17	4750	10			10
18	20049	GAROWAN PARA(S.C.-24)	490	1000	15			15
9	20033	GHOSHPARA BASTI(S.C.-9)	101	6000	60	15		75
5	20018	SETAKHA DHAR BASTEE(S.C.-57)	119	6000	57	0		57
28	20040	ZAMINDARI BASTEE(S.C.-18)	155	2150	42			42

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

Land Tenure status

All of the existing households are encroachment on Municipal land

Physical Infrastructure

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

Physical infrastructure: Water supply, Drainage, Solid waste, Roads, Electricity.

Social infrastructure: Health, School, Community Hall, Lively Hood Centre

Status of Physical Infrastructure

Physical Infrastructure (Status)														
SL NO.	Ward No.	Slum Code	Name of the Slum	1. Connectivity to City-wide Water Supply System	2. Connectivity to City-wide Storm-water Drainage Supply System	3. Connectivity to City-wide Sewerage System	4. Whether the slum is prone to flooding due to rains	5. Frequency of garbage Disposal	6. Arrangement for Global Disposal	7. Frequency of clearance open drains	8. Approach Road/Lane/Constructed Path to Slum	9. Distance from the nearest Motorable road	10. Internal Road	11. Whether Street light facility is available in the Slum
1	9	20066	BISHNUPUR BILLDHAR BASTI	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
2	1	20015	CHANDAR BAGAN(S.C.-7)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
3	2	20058	COSSIMBAZAR NATUN PARA (S.C-003)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
4	3	20016	GIRJAPARA BASTEE(S.C.-46)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No

Physical Infrastructure (Status)														
SL NO.	Ward No.	Slum Code	Name of the Slum	1. Connectivity to City-wide Water Supply System	2. Connectivity to City-wide Strom-water Drainage Supply System	3. Connectivity to City-wide Sewerage System	4. Whether the slum is prone to flooding due to rains	5. Frequency of garbage Disposal	6. Arrangement for Global Disposal	7. Frequency of clearance open drains	8. Approach Road/Lane/Constructed Path to Slum	9. Distance from the nearest Motorable road	10. Internal Road	11. Whether Street light facility is available in the Slum
5	10	20021	JOYCHANDRA ROAD BASTEE(S.C.-36)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
6	8	20004	KANTANAGAR(S. C.-38)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
7	4	20048	KEDAR MAHATO LANE BASTEE(S.C.-49)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
8	1	20013	KONAIPARA BASTEE(S.C.-54)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No

Physical Infrastructure (Status)														
SL NO.	Ward No.	Slum Code	Name of the Slum	1. Connectivity to City-wide Water Supply System	2. Connectivity to City-wide Storm-water Drainage Supply System	3. Connectivity to City-wide Sewerage System	4. Whether the slum is prone to flooding due to rains	5. Frequency of garbage Disposal	6. Arrangement for Global Disposal	7. Frequency of clearance open drains	8. Approach Road/Lane/Constructed Path to Slum	9. Distance from the nearest Motorable road	10. Internal Road	11. Whether Street light facility is available in the Slum
9	4	20009	KUMAR DURGANATH BASTEE(S.C.-50)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
10	8	20005	LICHU BAGAN BASTEE(S.C.-39)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
11	11	20023	MUCHI PARA BASTEE(S.C.-37)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
12	1	20020	SHARMA PARA BASTEE(S.C.-5)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No.

Physical Infrastructure (Status)														
SL NO.	Ward No.	Slum Code	Name of the Slum	1. Connectivity to City-wide Water Supply System	2. Connectivity to City-wide Storm-water Drainage Supply System	3. Connectivity to City-wide Sewerage System	4. Whether the slum is prone to flooding due to rains	5. Frequency of garbage Disposal	6. Arrangement for Global Disposal	7. Frequency of clearance open drains	8. Approach Road/Lane/Constructed Path to Slum	9. Distance from the nearest Motorable road	10. Internal Road	11. Whether Street light facility is available in the Slum
13	28	20041	ABDUS SAMAD RD BASTEE(S.C.-17)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
14	19	20052	BROJA SAHA LANE BASTI(S.C.-29)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
15	18	20049	GAROWAN PARA(S.C.-24)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No
16	9	20033	GHOSH PARA BASTI(S.C.-9)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No

Physical Infrastructure (Status)															
SL NO.	Ward No.	Slum Code	Name of the Slum	1. Connectivity to City-wide Water Supply System	2. Connectivity to City-wide Storm-water Drainage Supply System	3. Connectivity to City-wide Sewerage System	4. Whether the slum is prone to flooding due to rains	5. Frequency of garbage Disposal	6. Arrangement for Global Disposal	7. Frequency of clearance open drains	8. Approach Road/Lane/Constructed Path to Slum	9. Distance from the nearest Motorable road	10. Internal Road	11. Whether Street light facility is available in the Slum	
17	5	20018	SETAKHA DHAR BASTEE(S.C.-57)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No	
18	28	20040	ZAMINDARI BASTEE(S.C.-18)	Partially connected	Partially connected	Partially connected	No	Daily	Municipal staff	Once in 2 days	Motorable katcha	Less than 0.5 km	Non-motorable	No	

Literacy level

There are many Govt. schemes like Sarba Shiksha Abhijan, Sisu Siksha Karmasuchi Saksharata Mission, (Literacy mission), Child Labour School, and Mid Day Meal Programme which are being implemented through the ULBs

Details of Social Infrastructure at a glance:

BISHNUPUR BILLDHAR BASTI(Slum Code:-20066)

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA

Education & Social Infrastructure	
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

CHANDAR BAGAN(S.C.-7)

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

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

Education & Social Infrastructure	
Women's Association/Mahila Samithis	NA

COSSIMBAZAR NATUN PARA (S.C-003)

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA

Education & Social Infrastructure	
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

GIRJAPARA BASTEE(S.C.-46)

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

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

JOYCHANDRA ROAD BASTEE(S.C.-36)

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA

Education & Social Infrastructure	
Community Hall	NA
Livelihood/Production Centre	NA
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

KANTANAGAR(S.C.-38)

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

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

KEDAR MAHATO LANE BASTEE(S.C.-49)

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA

Education & Social Infrastructure	
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

KONAIPARA BASTEE(S.C.-54)

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

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

KUMAR DURGANATH BASTEE(S.C.-50)

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA

Education & Social Infrastructure	
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

LICHU BAGAN BASTEE(S.C.-39)

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

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

MUCHI PARA BASTEE(S.C.-37)

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA

Education & Social Infrastructure	
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

SHARMA PARA BASTEE(S.C.-5)

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

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

ABDUS SAMAD RD BASTEE(S.C.-17)

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA

Education & Social Infrastructure	
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

BROJA SAHA LANE BASTI(S.C.-29)

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

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

GAROWAN PARA(S.C.-24)

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA

Education & Social Infrastructure	
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

GHOSHPARA BASTI(S.C.-9)

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

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

SETAKHA DHAR BASTEE(S.C.-57)

Education & Social Infrastructure	
Pre-primary School	
Anganwadi under ICDS	Within distance less than 1 km
Municipal Pre-school	NA
Private Pre-school	NA
Primary School	
Municipal	NA
State Government	Within distance less than 0.5 km
Private	NA
High School	
Municipal	NA
Private	NA
State Government	Within distance less than 0.5 km
Adult Education Centre	NA
Health Facilities	NA
Urban Health Post	NA
Primary Health Centre	NA
Government Hospital	Within distance less than 10 km
Maternity Centre	NA
Private Clinic	NA
Registered Medical Practitioner (RMP)	NA
Ayurvedic Doctor/Vaidya	NA
Social Development/Welfare	NA
Community Hall	NA
Livelihood/Production Centre	NA

Education & Social Infrastructure	
Vocational Training/Training cum Production Centre	NA
Street Children Rehabilitation Centre	NA
Night Shelter	NA
Old Age Home	NA
Self Help Groups/DWCUA Groups in Slum	NA
No. of Neighbourhood Groups (NHGs) in slum	NA
Slum-dwellers Association	NA
Youth Association	1
Women's Association/Mahila Samithis	NA

ZAMINDARI BASTEE(S.C.-18)

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

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

The Supply Demand Gap and Requirements

Particulars

Requirements

Housing: Dwelling Unit provision for Households with standard provisions:

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

Physical Infrastructure Requirement:

Standard Infrastructure Provision for

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

Project Development Option

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

Proposed Development

Based on preliminary understanding, the following components are being proposed

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

Innovations proposed in Project Planning

Background

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

as certain areas in the city. This growing slum population and the lack of basic facilities like water and sanitation will badly impact on overall development and prosperity of urban centres like Municipal Corporation.

To overcome the existing situation and to promote planned development the following innovative strategies can be adopted for the improvement of the city.

- To ensure that housing, along with the supporting services is treated as a priority and at par with the infrastructure sector.
- Forging strong partnerships between private, public, and cooperative sectors to enhance the capacity of the construction industry.
- Organizing public consultations to meet the special needs of slum dwellers.
- Promotion of livelihood for the slum dwellers.

Financial Implementation:

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

Tasks:

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

Post Project Monitoring

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

Physical Infrastructure

Background

The National Sample Survey Organization (NSSO) in the Ministry of Statistics and

Programme Implementation, Government of India has released the report of a nation-wide survey carried out by it during July 2008 to June 2009 (65th round) on the condition of urban slums.

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

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

- ☐ About 49 thousand slums were estimated to be in existence in urban India in 2008-09, 24% of them were located along *nallahs* and drains and 12% along railway lines.
- ☐ About 57% of slums were built on public land, owned mostly by local bodies, state government, etc.
- ☐ In 64% of notified slums, a majority of the dwellings were pucca, the corresponding percentage for the non-notified ones being 50%.
- ☐ For 95% slums, the major source of drinking water was either tap or tube wells.
- ☐ Only 1% notified and 7% non-notified slums did not have electricity connection.
- ☐ About 78% of notified slums and 57% of the non-notified slums had a pucca road inside the slum.
- ☐ About 73% notified and 58% non-notified slums had a motorable approach road.
- ☐ About 48% of the slums were usually affected by water logging during monsoon – 32% with inside of slum waterlogged as well as approach road to the slum, 7% where the slum was waterlogged but not the approach road, and 9% where only the

approach road was waterlogged in the monsoon.

- ☐ The sanitary conditions in the slums in terms of latrine facility during 2008-09 showed considerable improvement since 2002. Latrines with septic tanks (or similar facility) were available in 68% notified and 47% non-notified slums (up from 66% and 35% respectively in 2002). At the other extreme, 10% notified and 20% non-notified slums (down from 17% and 51% in 2002) did not have any latrine facility at all.
- ☐ About 10% notified and 23% non-notified slums did not have any drainage facility. The corresponding proportions in 2002 had been 15% for notified and 44% for non-notified slums. Underground drainage systems or drainage systems constructed of pucca materials existed in about 39% notified slums (25% in 2002) and 24% non-notified slums (13% in 2002).
- ☐ Underground sewerage existed in about 33% notified slums (30% in 2002) and 19% non-notified slums (15% in 2002).
- ☐ Government agencies were collecting garbage from 75% notified and 55% non-notified slums.

Among these slums, garbage was collected at least once in 7 days in 93% notified and 92% non-notified slums. About 10% notified and 23% non-notified slums did not have any regular mechanism for garbage disposal.

- ☐ Over the last five years, facilities had improved in about 50% of notified slums in terms of roads (both within-slum road and approach road) and water supply. The incidence of deterioration of any of the existing facilities in notified slums during the last five years was quite low (about 6% or below).
- ☐ In case of most slum facilities – sewerage and medical facilities being exceptions – the facility was reported to have improved during the last five years in more than 20% of non-notified slums. Deterioration of any of the existing facilities in non-notified slums, like notified slums, was rare (about 9% or below).
- ☐ Facilities such as street light, latrine, drainage, sewerage and medical facilities were each reported by more than 10% of notified slums to be non-existent both at the time of survey and five years earlier. In case of non-notified slums, facilities like street light, latrine, drainage, sewerage and garbage disposal were each reported by more than 20% of the slums to be non-existent, both during the survey and five years earlier.
- ☐ Where improvement had been brought about during the last 5 years, it was due to the

Government's efforts in about 80-90% of slums, both notified as well as non-notified

and for all the facilities. Improvement in educational facilities at primary level was attributed to NGOs in 13% of the notified slums where such improvement was reported. NGOs were also found to have played a role in the improvement of latrine and sewerage system in non- notified slums.

Topographical survey and GIS mapping

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

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

- ☐ Map showing existing Land use Map
- ☐ Map showing Household Size
- ☐ Map showing House Type/Structure, Flooring, Cooking
- ☐ Map showing Minority Status
- ☐ Map showing existing toilet facility
- ☐ Map showing existing road type in front of house
- ☐ Map showing existing source of drinking water
- ☐ Map showing existing source of house lighting

Water Supply

Proposal Rationale

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

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

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

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

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

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

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

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

Outcome

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

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

all the proposals is to optimize the total cost of the system.

Assessment of Overall State of Infrastructure

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

The following norms have been fixed for the region:

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

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

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

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

Situation Appraisal & Key Intervention for Identified Slum

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

It is now proposed that water pipeline shall be provided in each household with requisite number of

taps, as computed during the survey as felt needs shall be provided under this Project. However, considering that the houses are being provided with water, the provisions of multiple taps have not been encouraged and kept to the minimal level.

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

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

Design Period for various Project Components

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

Service Plan

The pipelines needs to be regularly and kept in full working conditions. It is proposed that operation and maintenance of these pipelines and other assets be done in conjunction with

the maintenance

programme of the Municipal Corporation. The Bustee Working Committee shall be the first level of

responsibility for ensuring that the pipelines etc are kept in good order. The overall operation and maintenance shall be carried out by the project cell of the Municipal Corporation.

Proposed Interventions

According to the above, the water supply design requirement for Municipality has been fixed at 135 lpcd

(Domestic Requirement) + 15% (head loss) + $100 \times (p^{0.5}) = 163.25 \text{ lpcd (approx.)}$

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

The details of water supply lines provide are as follow:

Transmission of Water

Berhampur Municipality has water supply through ESR having (24x7) water supply. For the proposed multi-storied buildings sum and pump with OHR is provided for each building. The water supply network for this slum will be connected to the citywide water supply network.

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

Following design criteria are adopted for this project:

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

Drainage and Solid waste management

Proposal Rationale

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

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

Outcome

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

Assessment Overall State of Infrastructure

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

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

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

Situation gets beyond control particularly during monsoon season like July and August.

Accumulated water causes to generate public health problems. Haphazard growth and settlement in the slum area has blocked the natural drainage courses, which in turn causes water logging and stagnation in different parts of the slum.

Proposed Interventions

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

Road Infrastructure

Proposal Rationale

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

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

Proposed status and strategy

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

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

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

Proposed Intervention

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

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

Outcome

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

poor communities in order to exchange information and views.

Proposed Intervention

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

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

The Community Centres act mainly as a supporting unit for livelihood and for revenue generation for O&M.

Materials of construction:

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

Definition of Slum for Housing

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

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

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

Situation Appraisal

The people living in the slums mostly have kutchha (381) and semi-pucca (1873) 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 dwellers in the pocket. In situ single dwelling units are proposed.

Building type	Number of DU
In situ single Unit	2017 within 18 slums

Building Plan

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

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

Building material

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

Structural Design

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

Design data

- ☐ Live load: 2.0 kN/m² at typical floor
- ☐ 1.5 kN/m² on terrace (With Access) : 0.75 kN/m² on terrace (without Access)
- ☐ Floor finish 50mm (0.05*24) = : 1.2 kN/m²
- ☐ Ceiling plaster 12mm (0.012*20.8) : 0.25 kN/m²
- ☐ Partition walls (Wherever Necessary) : 1.0 kN/m²
- ☐ Terrace finish: 1.5 kN/m²
- ☐ Earthquake load: As per IS-1893 (Part 1) - 2002
- ☐ Depth of foundation below ground: ,0.7 m
- ☐ Walls: 250 mm thick brick masonry walls at external and 125mm walls internal.

Reference codes:

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

NBC2005

Identification of Beneficiaries

Municipality Municipal Corporation, in consultation with State Urban Development Agency (SUDA), will approve the phasing of the beneficiaries in the region. The beneficiaries so identified and the projects so prepared shall be done in consultation with the committees and

community development societies already existing in that particular city. The identification of beneficiaries will be on the basis of the baseline survey already conducted under PMAY Demand Survey.

Allotment of Houses

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

Town Planning Norms

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

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

Compliance with Municipal Bye laws

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

Tenure

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

Summary of Investment

Project Costing

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

The cost components include:

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

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

Other costs

Administrative overheads and engineering design: In addition to the cost of infrastructure, calculated at the current market prices, a reasonable cost should also be estimated for administrative overheads and engineering design.

Land: Own land of Beneficiary.

Operation & Maintenance Costs: Costs for O&M of assets created under PMAY is permissible. This has been fixed at 2% of the approved project cost of which the Central

Beneficiary Contribution:

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

State Contribution:

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

ULB Contribution:

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

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

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

Project Cost and Financing Strategy

For Dwelling Unit

Total no of Dwelling unit = 837 Nos

Rate per Dwelling unit = 3.68 Lakhs

Total Cost of Dwelling unit = $837 \times 3.68 = 3080.16$ Lakhs

Central Share = 837×1.5 Lakhs = 1255.50 Lakhs

State Share = 837×1.93 Lakhs = 1615.41 Lakhs

Beneficiary Share = 837×0.25 Lakhs = 209.25 Lakhs

ULB Share = NIL

For Infrastructure

10 % of total Dwelling unit cost = $3080.16 \text{ Lakhs} \times 10\% = 308.02$ Lakhs

Central Share = NIL

State Share = $50\% \times 308.02$ Lakhs = 154.01 Lakhs

Beneficiary Share = NIL

ULB Share = $50\% \times 308.02$ Lakhs = 154.01 Lakh

The total project cost will be 3388.18 Lakhs

Out of these 308.02 Lakhs is the cost of Housing Infrastructure. The following table shows the share of cost between housing infrastructure & Physical Infrastructure.

Table: Cost Breakup between Housing & Infrastructure

Sl No.	Component	Cost in Lakhs
1.	Housing Cost (837 Dwelling Units)	3080.16
2.	Infrastructure Cost	308.02
	Total	3388.18

Sector wise Monitoring and Implementation Plan

Background

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

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

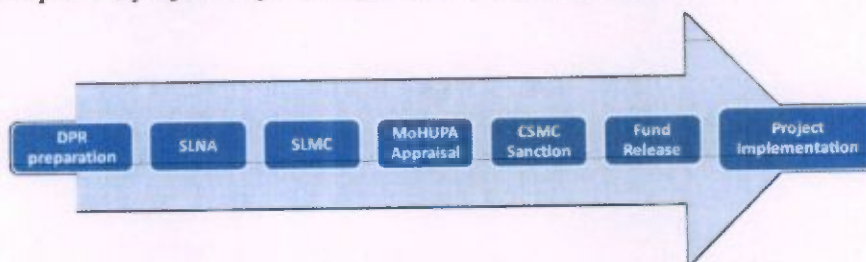
National Level

PMAY Mission Directorate

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

State PMAY Mission Director

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



Berhampur Municipality

The Municipality shall act as the implementation agency for the project. Keeping in mind the criticality of the project, a dedicated '**Bustee Works Management Committee (BWMC)**' has been set up for implementation and operation & maintenance (O&M) of the proposed infrastructure under the scheme.

The BWMC will have representatives of local councillor, Chairman-in-Council, municipal engineers, town project officer, community organizers and member from the local slum dwellers. Some of the responsibilities of BWMC are listed below:

- i. Delineation of poverty pockets in this town to execute the scheme.
- ii. Recruitment of community organizers
- iii. Guiding and assisting the community organizer to form neighbourhood group (NHG) and for identification of RCVs.
- iv. Formation of NHCs and CDs.
- v. Constitution of town level planning and monitoring committee (TLPMC).
- vi. Liaison with CMOH and other concerned district level officers and NGOs for conference.
- vii. Regular contact with SUDA and Department of Municipal Affairs.
- viii. Convening meeting of TLPMC to take stock of programme implementation and convergence.
- ix. Dovetail all poverty alleviation programmes with IHSDP.
- x. Obtain regular feedback from CDS and send the required monthly progress report to SUDA by the end of first week of the next month in the prescribed MIS format.

Participation through Beneficiary committees

People's participation in municipal planning and development is critical and shall be ensured through of Ward Committees in each ward irrespective of their population and size. The Ward Committee Rules have also been framed in such a way so as to ensure involvement of the members of the Ward Committees in the overall municipal administration and resource mobilization. The Ward Committee created especially for the purpose of PMAY will be headed by the Councillor of the Ward, who would in turn submit the report of progress to BWMC.

Some of the responsibilities the Ward Committee will be:

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

Participation through Community Based Organization

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

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

Social Infrastructure

In order to provide preventive health care, mother and childcare, supplementary nutrition, referrals and so on, a cost effective but sustainable community infrastructure or institution needs to be developed.

In the first step, community health facilities will be provided from centrally located Community Seva Kendra in slum pockets and for different type of imparting education and other training purpose, Community Centre will be put in place.

The Community Seva Kendra will be the hub of all activities of the Unit like: immunization, health- check up of pregnant women, growth monitoring, referrals, nutrition supplementation, awareness training and campaign and so on, besides other activities like Balwadi, NFE, cultural activities etc. Some part time medical staff may be posted for these Units in the slum pockets and some help from trained medicos will essentially be needed for services like health check up of pregnant women and children, and immunization.

Thus notwithstanding the guidelines in this regard, following alternatives will be tried:

- ☐ Creation of a dedicated cell for administrative activities and maintenance of the Community Seva Kendra
- ☐ Assistance from some NGOs like Rotary, Lions, IMA, etc.
- ☐ Request to the district outfit of the Health and Family Welfare Department to depute doctors to the UHC by rotation for 2-3 hours, three times a week.
- ☐ Engage duly certified inoculators or health workers for immunization only on the basis of token honorarium.
- ☐ Engage private medical practitioners who are motivated to provide service to the poor community and pay them token honorarium in recognition of their service.

Physical Infrastructure

The Ward Committee will not only be supervising and monitoring the progress of the activities, but shall be actively involved in scheme implementation and in mobilization of funds. The Ward Committee will have teams for individual physical infrastructure projects who shall be held responsible the scheme in the slums in the ward. Primary activity of the Committee for schemes is provided below in details.

- i. Assess water supply needs and identify spots for tap.
- ii. Develop water supply plan.
- iii. Train RCVs in hand pump maintenance.
- iv. Develop slum level water and sanitation committee.
- v. Test water quality periodically.
- vi. Construct platform around each hand pump that does not have it already.
- vii. Identify needs for community bathing cubicles for women and selecting ideal spot for constructing the same
- viii. Identify sites for building community toilets cum water points.
- ix. Link community toilets to biogas plant (on experimental basis).
- x. Improve the conditions of drains, soak pits and solid waste disposable bins.

Other Environmental Improvement Measures

- i. Organise hygiene and sanitation drives in slums.
- ii. Sports, games and cultural activities
- iii. Encourage local NGOs/clubs to create facilities for games and athletics for the children and youth.
- iv. Give support to the above by providing materials for games, etc.

- v. Organize annual sports and tournaments.
- vi. Organize facilities for learning music and dramatics.
- vii. Organize annual competition of music, recitation, drawing, drama, etc.

Creating income and employment opportunities for women

- i. Identification of marketable skills for women.
- ii. Arrange skill training with fund available under SUME of NRY.
- iii. Arrange credit-subsidy under SUME to enable the trained women to start and operate micro enterprise.
- iv. Arrange for supply of inputs and marketing of finished products.
- v. Thrift and Credit Society Formation
- vi. SHG Formation
- vii. DWCUA Formation

Housing

Monitoring

Officers dealing with HOUSING SCHEME at the State headquarters shall visit the slums regularly and ascertain through field visits whether the programme is being implemented satisfactorily and whether the construction of houses is in accordance with the prescribed norms. . A schedule of inspection which prescribes a minimum number of field visits for each supervisory level functionary from the State level to the corporation level shall be drawn up and strictly adhered to.

Evaluation Studies

Periodic evaluation studies on the implementation of HOUSING SCHEME shall be carried out by reputed institutions and organizations on issues identified during concurrent evaluation and reviews. Copies of these studies should be furnished to the Govt. of India. Remedial action shall be taken on the basis of the findings of these studies.

Modality of implementation

Before implementation it will be ascertained that either the property title in the name of the female member of the family or at least the female family member is the co-owner of the holding/property.

Transparency in implementation of Housing Scheme

The list of items on which information would be made available to people to bring about greater

transparency at the State, District and Corporation levels is given below:

- i. List of people below poverty line in the urban area.
- ii. List of beneficiaries identified during the preceding year and current year including details of SC/ST, BC, women beneficiaries and physically and mentally challenged persons under HOUSING SCHEME. Allocation made to the State under VAMBAY
- iii. Guideline of HOUSING SCHEME/ Criteria for selecting beneficiaries.
- iv. Display of HOUSING SCHEME signboard / logo on the allotted houses.

Monitoring & Evaluation

PMAY will be monitored at three levels: City, State and Government of India. In particular,

- ☐ Ministry of Housing and Urban Poverty Alleviation will periodically monitor the scheme.
- ☐ State Nodal Agency would send Quarterly Progress Report (on-line) to the Ministry of Housing and Urban Poverty Alleviation.
- ☐ Upon completion of a project, the State Nodal Agency, through the State Government, would submit completion report to the Central Government.
- ☐ Central Sanctioning-cum-Monitoring Committee will meet as often as required to sanction and review/monitor the progress of projects sanctioned under the Mission.
- ☐ States/Cities will be facilitated through independent quality control/ assurance/ third party teams at various levels that may be outsourced to specialized/technical agencies.
- ☐ Monitoring of projects by States/Urban Local Bodies by conducting Social Audit in conformity with guidelines to be prescribed, right from the stage of project preparation.
- ☐ The processes of implementation will be monitored by undertaking concurrent evaluation through reputed independent institutions to ensure that corrections to distortions, oversights or shortcomings can be made in time.

Convergence of Health and Education

Health

Development Objectives for the Health Care Service Delivery Improvement Plan.

Some of the development objectives, which the Berhampur Municipal Corporation address through their Health Care Service Delivery Improvement Plan, are as follows:

Theme 1: Public Health Services:

- i. Better coordination with State Government hospitals and dispensaries for maintaining a better referral system.
- ii. Improve the asset and human resource utilization pattern of health services such as ambulance services, dispensaries etc.
- iii. Ensure that all types of cooked / uncooked food in the Municipality area are sold by licensed food sellers to prevent spread of diarrhoeal and other disease in the area.
- iv. Strengthening and developing Health Management Information System.
- v. Exploring opportunities for strengthening decentralization and other public private partnerships in providing such public health services
- vi. Partner with leading private sector providers of medical services for better utilisation and maintenance of medical infrastructure such as municipal dispensaries, maternity homes.

Theme 2: Reproductive and Child Health Care Services:

- i. To establish quality antenatal care to 100% of the slum women.
- ii. To establish 100% institutional delivery for all women living in slums.
- iii. 100% immunization of infants against six killer diseases within 12 months of birth.
- iv. Making sterilization services available by way of improving efforts related to family planning.
- v. Formulate a wider basket of services aimed at providing health priorities within the RCH domain that have not been adequately addressed, as well as some health priorities outside the RCH domain which are major contributors to the burden of disease and impoverishment are included.
- vi. Spreading health awareness through various methods of communication not only to the beneficiaries of the Programme but also to the excluded groups and areas within the wards.

All Programmes for Preventive Health Care and other Independent Initiatives taken by the ULB:

- i. Promotion of hygienic measures to lead to reduced diarrhoeal disease with prompt and appropriate care and reducing household expenditure on recurrent diarrhoea.
- ii. Increase the coverage of vector control operations by rationalizing the use of assets and human resources available.
- iii. Effective implementation of Government Programmes to achieve the targeted goals and objectives.
- iv. The following schemes under implementation by the State Govt. in the social sector can be dovetailed and integrated with the IHSDP Program to ensure effective slum development. The Socio Economic Survey has already identified beneficiaries under the scheme.

RCH & IPP VIII Extension:

A surveillance program initiated by the State Govt. after completion of the World Bank Assistance in the two schemes. Main objective is to provide Health care facilities at the door steps of the slum dwellers / BPL Population, with emphasis on Mother and child health, preventive cares and immunization, Institution delivery, birth control.

Health Program under DFID Assistance:

With the same objective as above with decentralization of health care activities by formation of Health sub centers, which can be operated from the Community Seva Kendras, proposed earlier.

Education

The Municipality has been actively implementing key initiatives in the Education sector through convergence with the following objectives:

- ☐ Improvement Of the Status & Infrastructure & Basic Service in Primary Schools under Municipal Corporation.
- ☐ Achieving 100% enrolment in schools for next 5 years.
- ☐ Enhancing the quality of education provided in pry school with respect to student performance & teaching quality.
- ☐ Leveraging the existing resources created under the NSDP and other programme and increase the coverage in excluded committee and squatter settlements
- ☐ Achieving higher enrolment of children in age group of 6-14 in SSK centres
- ☐ Strengthening Parent Teacher Association and involving community

participation in improving the performance of school

- Creating awareness in the community through the existing community structures (NHG, NHC, CDS members) on the importance of primary and adult education.

Extensive training programme for teachers & sahayekas is being organized for improvement of quality teaching. Construction, extension and repair of SSK buildings must be done so that a greater portion of children aged 5 to 14 yrs can attend there.

SSA : 'Sarba Siksha Abhiyan' – a scheme meant for '*education for all*'

SSK : 'Sishu Siksha Kendra' – Mainly aimed at offering free primary education to the poorer section of the community.

Mid-day Meal: A program initiated to central the drop out rates, has been found success since its initiation.

Social Security

The following Social Security Schemes under State Plan are proposed to be integrated with the current program through convergence:

Adult Education: To promote self-dependability.

Thrift and Credit Society: For easier Credit and Finance availability.

Self Help Group: To promote self and micro entrepreneurship.

DWCUA: Upliftment of the life style and self-independency of Women Group.

Annapurna: To provide food stock at reduced price to the poorer section of the Community.

Antyoday Anna Yojana: To provide food stock free of cost to the older section of the community.

Environment Impact Assessment

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

IMPACT & REMEDIES		
10.	Location of Waste Water Disposal : a. Location for disposal of waste water	The surface drain have been proposed in the slum for disposal of waste water.
	b. Outfalls locations for longitudinal drains i) Outfall level and back flow ii) The outfall is in natural stream; measures shall be taken to prevent sediment into the stream.	 Natural slope of the ground will be maintained for waterways for discharge of surface runoff. No possibility of back flow except in the case of heavy flood. The storm water drain of the slums will discharge the water to the main high drain of the town.
11.	Air Pollution during construction work	Work shall be carried out by equipments like concrete mixer machine vibrator etc. at this time of concerting work only for which air pollution will be negligible.
12.	Identify locations susceptible to induced development	Locations vulnerable to induced development: In such location the Municipality has committed not to allow building construction activity. a. Lands within 50 m of junctions b. Agricultural lands with enforce restriction on building activity on either side of road. Stretches within 100m of worship places, weekly fairs and locations of community mass gatherings.
13.	Roles and responsibilities of Municipality in regulating development	The Municipality shall lay down restrictions on building activities along the by-pass roads : 1. Municipality will enforce restriction on building activity on either side of road. 2. Development of Residential sites outside Existing Settlement. Appropriate measure towards the removal of encroachments onto the public land to be taken.
14.	Traffic Congestion and related air & noise pollution	As the road passes through the slum area of the town and two wheelers, Three wheelers, light vehicle will move hence there will not be any traffic congestion, related air & noise pollution.
15.	Opportunity in economic activities due to ease of transportation system	The benefits due to this project are : 1. Generation of Man days 2. Improvement in Household or population

IMPACT & REMEDIES		
		sector i.e. Improvement of personal health, hygiene, socio- economic condition, education etc.

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. For this purpose each ULB will formulate and implement a fully resourced 'Operation and Maintenance Plan' for project area where infrastructure works have been undertaken from BSUP funds.
3. The following steps will be taken prior to preparation of the 'Operation and Maintenance Plan' for each slum :
 - a) 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.
 - b) 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 RCVs of that particular slum will be present. Other members / officials as felt necessary may also be present.
 - c) 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.
 - d) The stock of work done and assets created under slum level infrastructure works of that particular slum will be listed at this meeting.
 - e) At this meeting the ULB will brief the slum dwellers about the constitution, role and functions of the BWMC.
 - f) 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.

- g) Minute of each meeting with signature of the participants should be maintained.

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

- a) The BWMC will consist of minimum 5 members, all of whom will be resident of that particular slum.
- b) In addition, one RCV from that slum will be member.
- c) There will be at least two female members in the BWMC.
- d) The members of the BWMC may be from BPL / APL or both.
- e) At least one member will belong to a Neighbourhood Group (NHG) from that slum.
- f) The BWMC will be elected through an informal process of election.
- g) There must be good publicity to ensure wide attendance.
- h) At least 40% of slum dwellers must be present in the meeting during election of BWMC.
- i) The BWMC will be an independent body. The ULB will be responsible for overseeing the work of BWMC.
- j) 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, another member will be elected in his / her place within one month.
- k) Each BWMC will open and operate a separate bank account. This bank account will
function as the O&M fund for that
slum.
- l) The BWMC will be authorized by the ULB to raise funds for O&M as is elaborated under item no. 13.
- m) The ULB will make matching contribution against the fund raised by the BWM through user charges to encourage the process.
- n) 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.
- o) 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.

- p) 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.
- q) Chairman, Secretary and Cashier will be selected within the BWMC. Bank account will be operated by any two of them jointly.
- r) 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 cleaning 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 Bib cock 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

- a) What is the length of water line
- b) What is the diameter and material of water line
- c) How many stand posts are there
- d) How many small dia-deep tube wells are there and their status (functioning /defunct)
- e) 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 bib cock, short pipe for stand posts etc.

ii. Sanitation, Drainage, Solid waste management, Community Centre

- a) They will maintain a register showing number of existing community latrines, Community Seva Kendra and community centres under their control with their status. They will also maintain a register of consumable goods like Muriatic acid, brush, broom, towel, soap etc. which will be required for maintenance purpose.
2. They will maintain an attendance Register for the persons attending duties. They should also maintain a register of income (collection) and expenditure.
3. The Bustee Works Management Committee (BWMC) will be responsible for awareness generation amongst the slum dwellers for upkeep and maintenance of the assets created.

Function of ULB for O&M work through BWMC:

- i) Formation of Bustee Works Management Committee (BWMC) through a process of election.
- ii) One cashier to be elected among the BWMC for keeping accounts.
- iii) O&M Plan as per format to be discussed with all slum dwellers and agreed and a Tripartite Agreement signed by ULB, CDS and Bustee Works Management Committee.
- iv) ULB to pass the O&M Plan by Board of Council and earmark funds as required.

- v) ULB to allot work to one engineer and one accounts person to supervise, implement of O&M Plan and keep in regular touch with the BWMC to ascertain and solve minor problems. Local councillor may also be asked to supervise along with the engineer and liaise with the BWMC.
- vi) Necessary corrective action from time to time may be taken by ULB.

Proposed funding pattern for O&M work by BWMC

Under PMAY Projects, guidelines indicate that, O & M cost of first five years. This should be applicable to Cost of Buildings i.e. group housing, community centre etc. The beneficiaries should form a Residents Welfare association who should be responsible for maintenance of residential buildings, community facilities beyond the first five years. As far as the infrastructure viz. Roads, drains, street lighting, Water supply, sewerage is concerned the O & M becomes part of city wide infrastructure. However it is considered appropriate that beneficiaries would pay user charges for infrastructure for which the concerned authorities should work out appropriate User charge with suitable cross subsidy. In addition, the administrative arrangement for attending to complaint and regular maintenance to ensure on time maintenance also needs to workout.

Future year's operation and maintenance will be met out from a mix of user charges and ULB funding.

Arrangement for training to the members of the BWMC for petty repair, operation and maintenance work should be made by the ULB.

Central Share

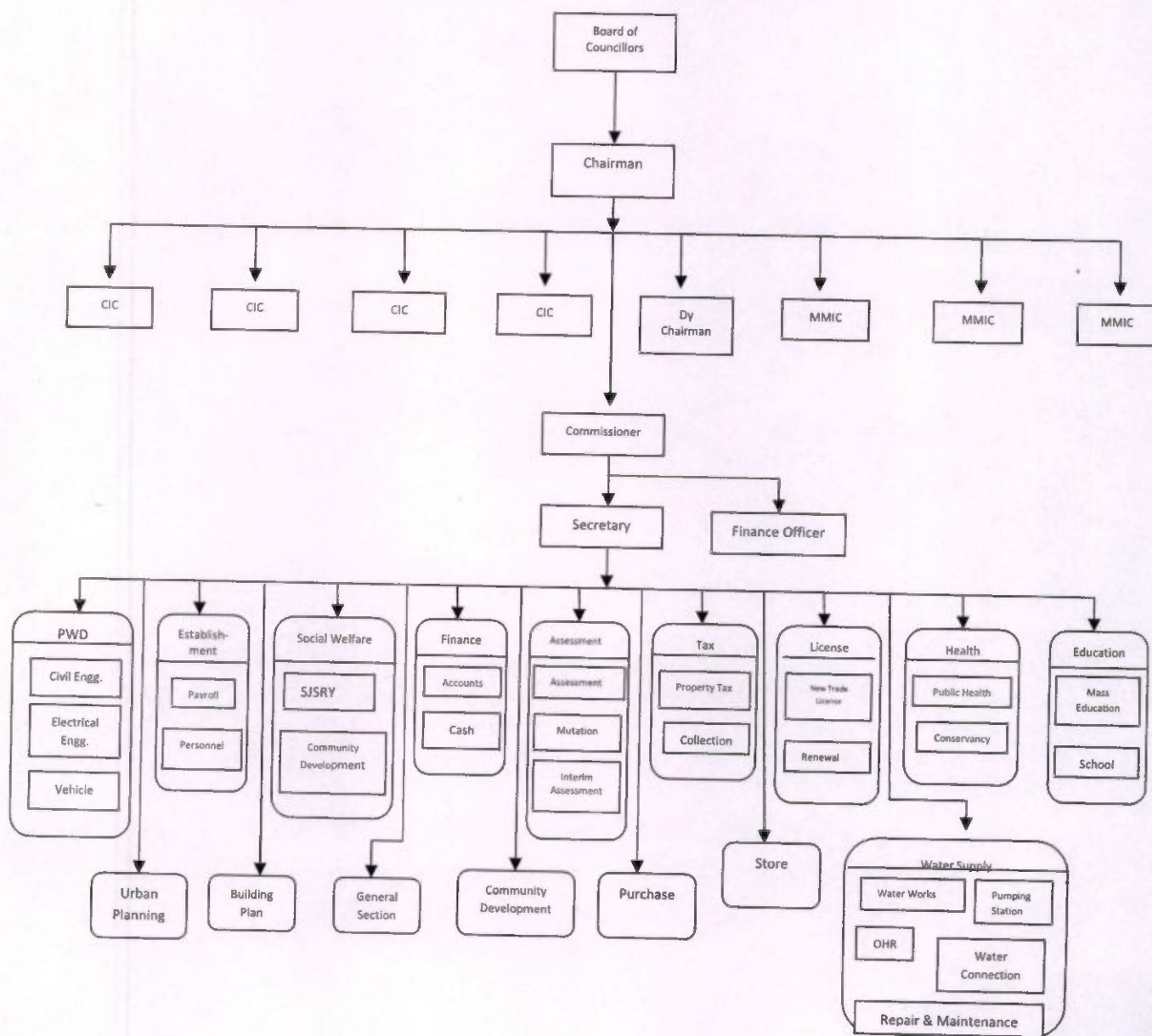
A cost for O&M of assets created under PMAY is permissible. This has been fixed at 2% of the approved project cost of which the Central share would be 50% i.e. 1% of the approved project cost.

Future year's operation and maintenance will be met out from a mix of user charges and balance from ULB funding.

Budget of Operation and Maintainance of Assets created Under Pradhan Mantri Awas Yojana Housing for All (Urban) for 60 months (O &M Started 3rd year from the date of construction.						
Sl.no	Description of Field	Quantity	Unit	Rate per month(Rs.)	Months	Amount (Rs. in lakhs)
A	Operational Personnel	Service of Municipal Staff to be Utilized				
1	Junior Engineer					0
2	Plumber					0
3	Electrician					0
4	Gardener					0
	Sub-Total					0
B	Repair of Housing & Infrastructure					
1	Housing	837	Nos.	26904	60	16.14
3	Drainage	6888	Mtr	10114	60	6.07
4	Road	7665	SqMtr	31680	60	19.01
	Sub-Total					41.22
	Total Expenditure(A+B)					41.22
C	Income Generation					
1	Beneficiaries Subscription	360	Nos.	80	60	17.28
2	Municipality Subsidy			39900	60	23.94
	Sub-Total					41.22
	Total Earning(C)					41.22
	Surplus/Deficit C-(A+B)					0.00

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 61.5 square kilometres is comprised of 41 wards. With efficient and trained manpower, the Municipality 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.

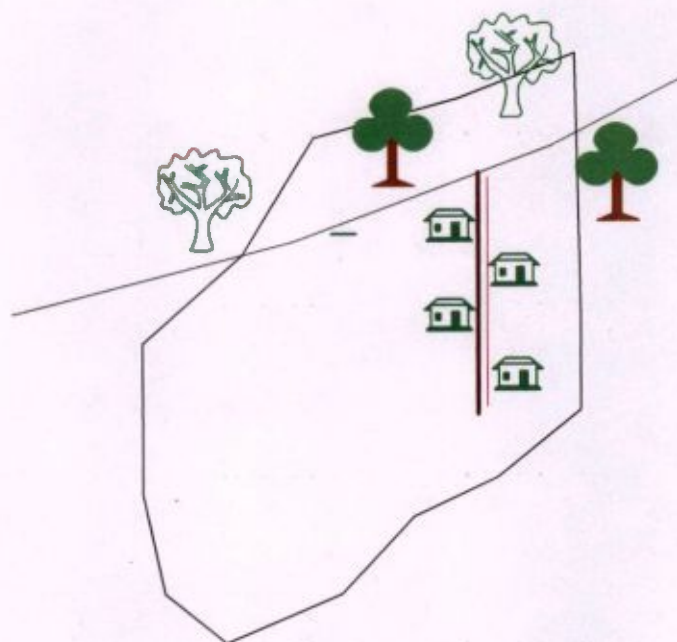


The Municipality is entrusted with the responsibilities of providing the following civic service and infrastructural facilities to the citizens:

- **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**
- **Development**
- **Education**
- **Water**
- **Beautification**
- **Auditoriums**

ALL MAPS

KUMAR DURGANATH BASTEE

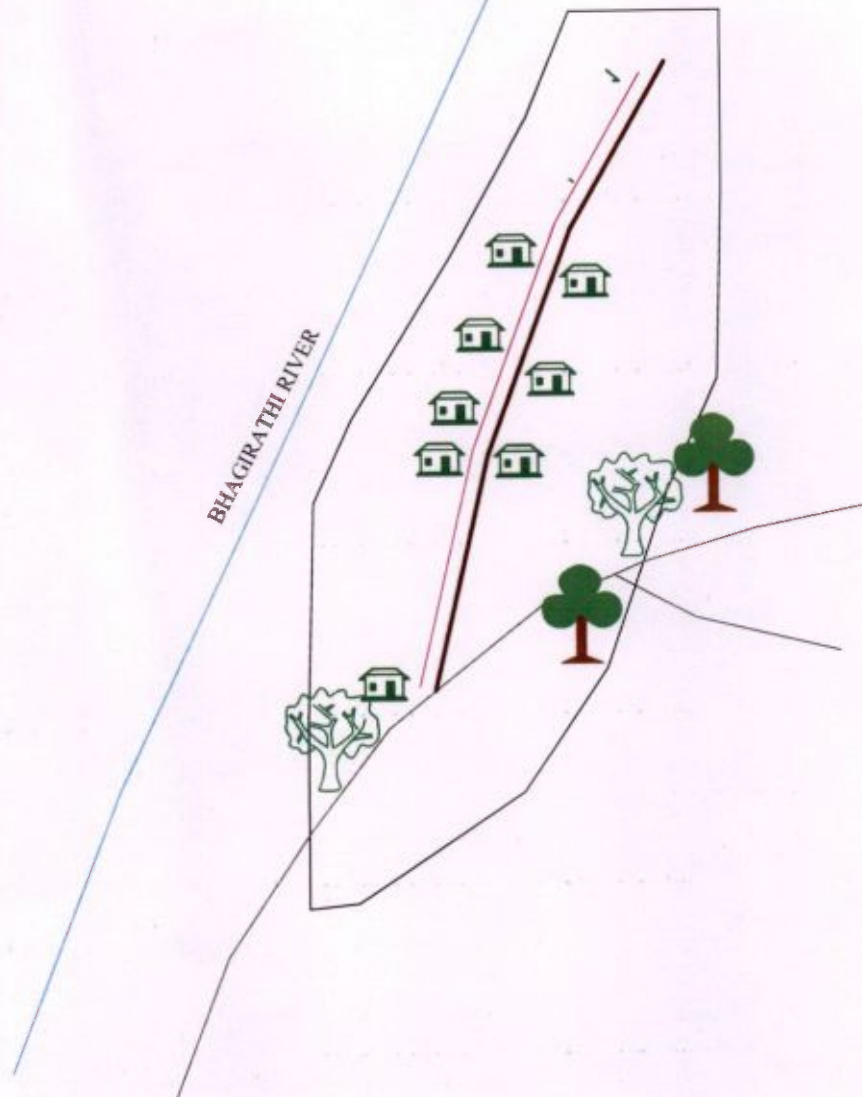


Chairman
Beharampore Municipality

PROPOSED LAND USE				
SULM- KUAMR DURGA NATHBASTEE				
SULM CODE:- 0				
BEHARAMPORE MUNICIPALITY				
LEGEND				
ITEMS	PUCCA	SEMI PUCCA	KUCHHA	UNIT
	SYMBOL	SYMBOL	SYMBOL	
DWELLINGHOUSE<NOS>				20NOS.
BLACK TOPPED ROAD (Sq.M.)				
PROPOSED CONCRETE ROAD (Sq.M.)				212(M)
DRAINAGE(M.)				145(M)
PIPELINE(M.)				



KANTA NAGAR



Chairman
Beharampore Municipality








PROPOSED LAND USE

SULM- KANTA NAGAR

SULM CODE:- 0

BEHARAMPORE MUNICIPALITY

LEGEND

ITEMS	PUCCA	SEMI PUCCA	KUCHHA	UNIT
	SYMBOL	SYMBOL	SYMBOL	
DWELLINGHOUSE(NDS)				15NDS.
BLACK TOPPED ROAD (Sq.M.)				
PROPOSED CONCRETE ROAD (Sq.M)				132(M)
DRAINAGE(M.)				127(M)
PIPELINE(M.)				

N

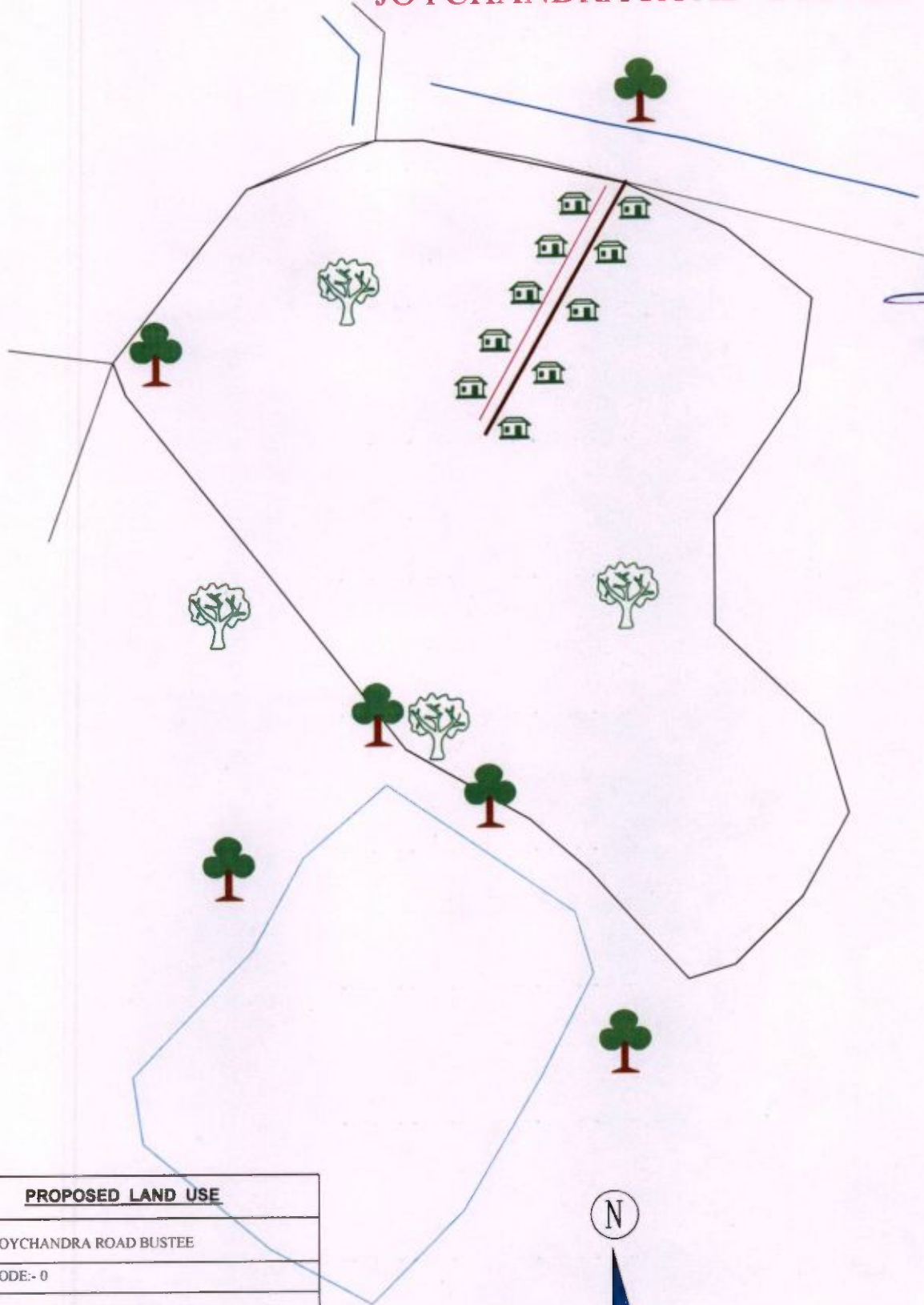


0 m 50 m 150 m



JOYCHANDRA ROAD BUSTEE

Chairman
Beharapore Municipality



PROPOSED LAND USE

SULM- JOYCHANDRA ROAD BUSTEE

SULM CODE:- 0

BEHARAMPORE MUNICIPALITY

LEGEND

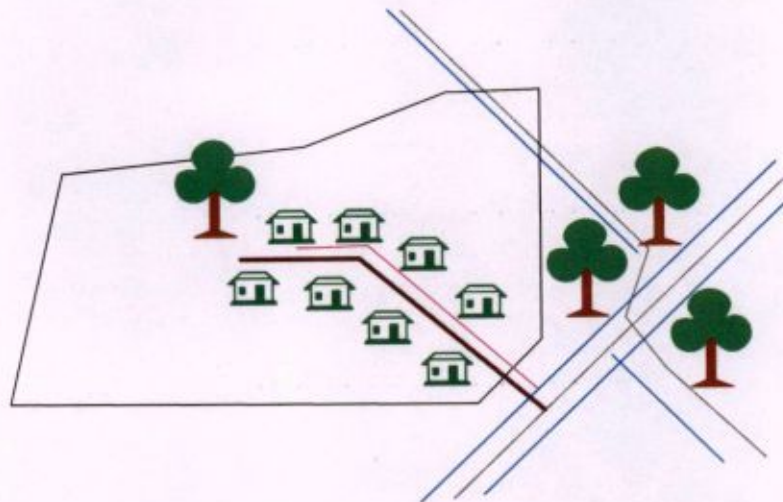
ITEMS	PUCCA	SEMI PUCCA	KUCHHA	UNIT
	SYMBOL	SYMBOL	SYMBOL	
DWELLINGHOUSE(NOS)				10NDS.
BLACK TOPPED ROAD (Sq.M.)				
PROPOSED CONCRETE ROAD (Sq.M.)				9200
DRAINAGE(M.)				8200
PIPELINE(M.)				

N



0 m 50 m 150 m

LICHU BAGAN BUSTEE



Chairman
Beharampore Municipality








PROPOSED LAND USE

SULM-LICHU BAGAN

SULM CODE:-

BEHARAMPORE MUNICIPALITY

LEGEND

ITEMS	PUCCA	SEMI PUCCA	KUCHHA	UNIT
	SYMBOL		SYMBOL	
DWELLINGHOUSE<NOS>				8NDS.
BLACK TOPPED ROAD (Sq.M.)				
PROPOSED CONCRETE ROAD (Sq.M)				74(M)
DRAINAGE<M.>				65(M)
PIPELINE<M.>				

N










0 m 50 m 150 m

ZAMINDARI BUSTEE

Chairman
Berhampore Municipality



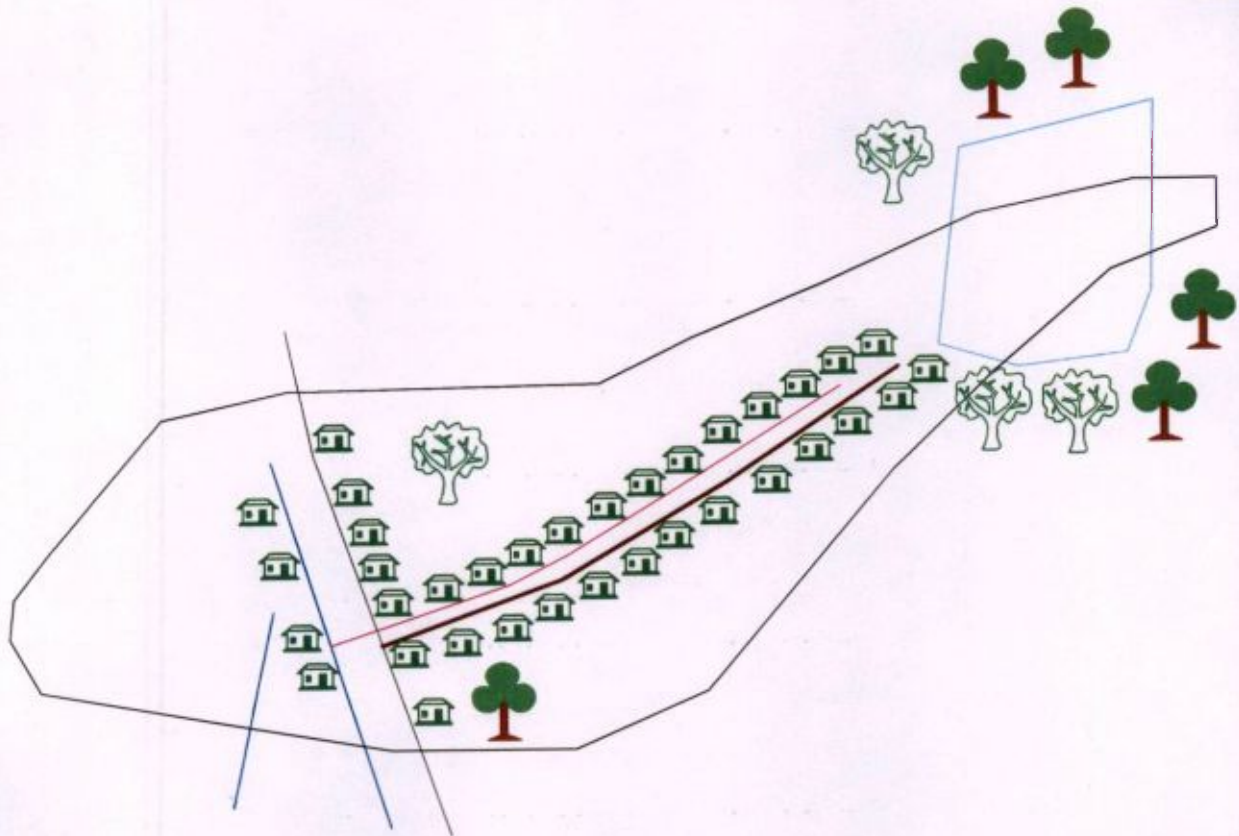
PROPOSED LAND USE				
SULM- ZAMINDARI BASTI				
SULM CODE:-				
BEHARAMPORE MUNICIPALITY				
LEGEND				
ITEMS	PUCCA	SEMI PUCCA	KUCHHA	UNIT
	SYMBOL		SYMBOL	
DWELLINGHOUSE<NOS>				36NOS.
BLACK TOPPED ROAD (Sq.M.)				
PROPOSED CONCRETE ROAD (Sq.M)				315(M)
DRAINAGE(M.)				306(M)
PIPELINE(M.)				

N



0 m 50 m 150 m

ABDUS SAMAD ROAD BUSTEE



PROPOSED LAND USE

SULM- ABDUS SAMAD ROAD BUSTEE

SULM CODE:-

BEHARAMPORE MUNICIPALITY

LEGEND

ITEMS	PUCCA	SEMI PUCCA	KUCHHA	UNIT
	SYMBOL	SYMBOL	SYMBOL	
DWELLINGHOUSE(NOS)				35NOS.
BLACK TIPPED ROAD (Sq.M)				
PROPOSED CONCRETE ROAD (Sq.M)				30300
DRAINAGE(M.)				30000
PIPELINE(M.)				

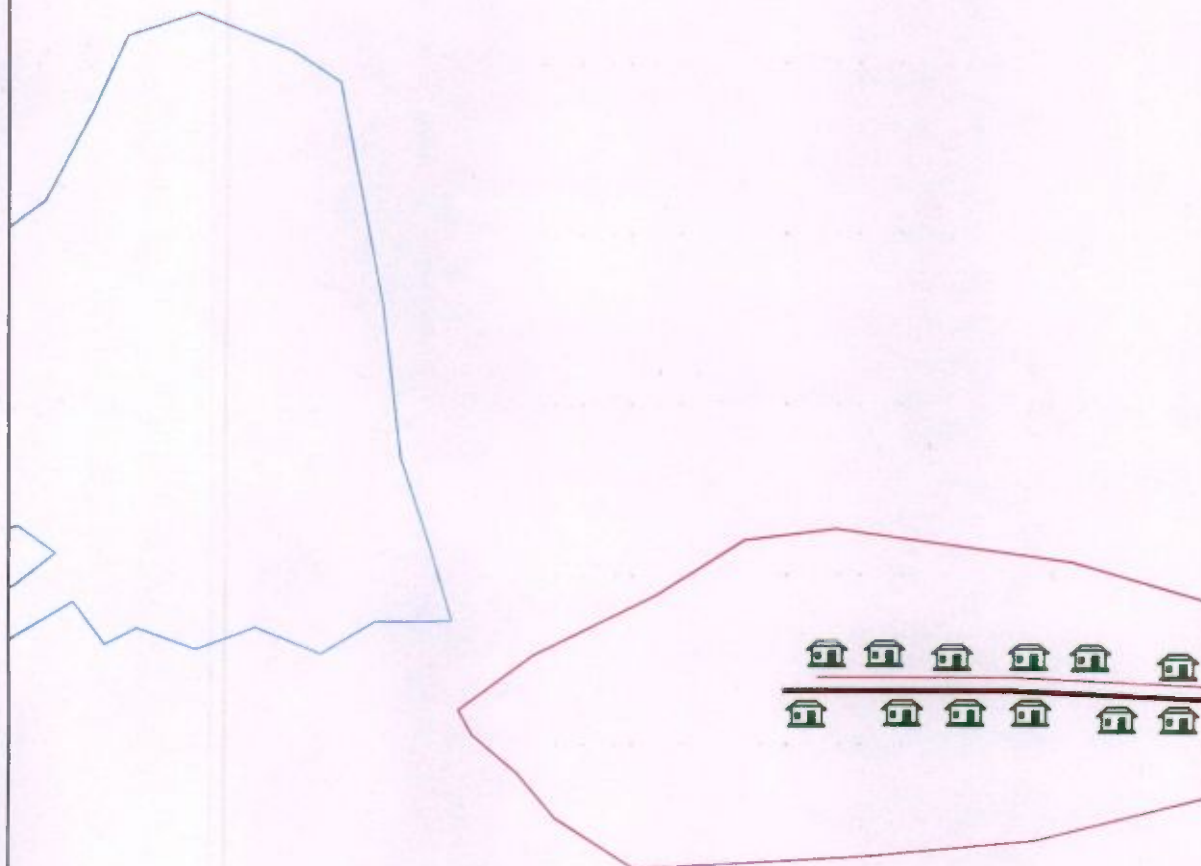
N



0 m 50 m 150 m



MUCHIPARA BUSTEE










PROPOSED LAND USE

SULM- MUCHIPARA BUSTEE

SULM CODE:-

BEHARAMPORE MUNICIPALITY

LEGEND

ITEMS	PUCCA	SEMI PUCCA	KUCHHA	UNIT
	SYMBOL		SYMBOL	
DWELLINGHOUSE(NOS)				12NOS.
BLACK TOPPED ROAD (Sq.M.)				
PROPOSED CONCRETE ROAD (Sq.M)				10800
DRAINAGE(M.)				10000
PIPELINE(M.)				

N



0 m 50 m 150 m

BROJA SAHA LANE BUSTEE

Chairman
Beharmpore Municipality



PROPOSED LAND USE

SULM- BROJA SAHA LANE BASTEE

SULM CODE:-

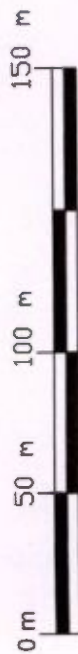
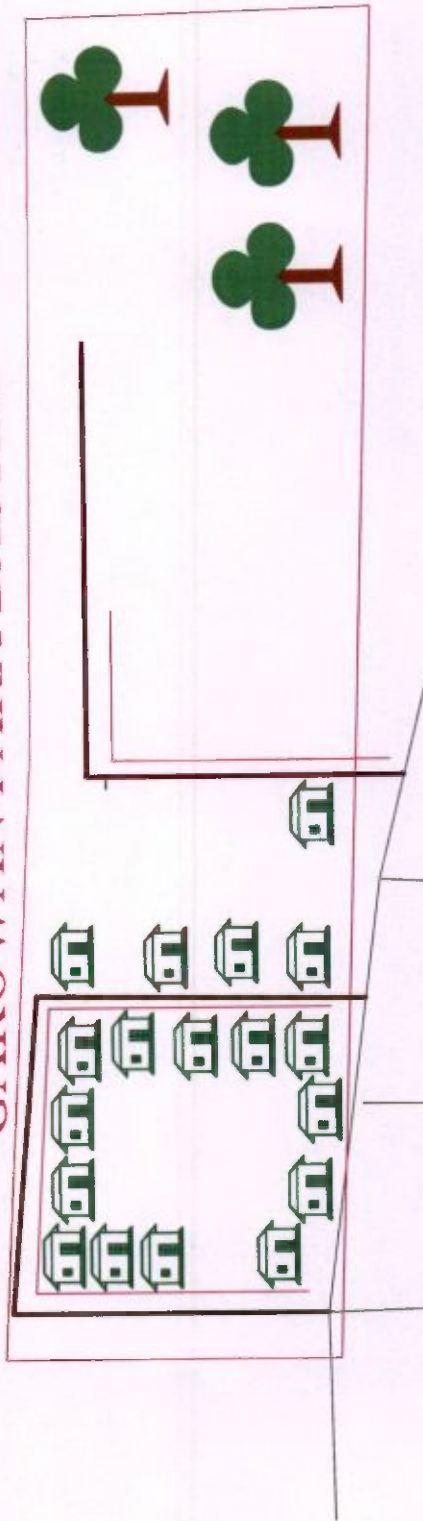
BEHARAMPORE MUNICIPALITY

LEGEND

ITEMS	PUCCA	SEMI PUCCA	KUCHHA	UNIT
	SYMBOL		SYMBOL	
DWELLINGHOUSE<NDS>				20NDS.
BLACK TOPPED ROAD (Sq.M.)				
PROPOSED CONCRETE ROAD (Sq.M)				174(M)
DRAINAGE<M.>				171(M)
PIPELINE<M.>				

0 m 50 m 150 m

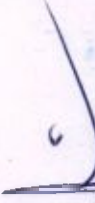
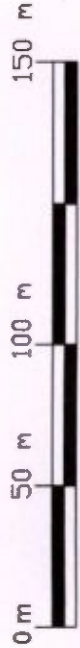
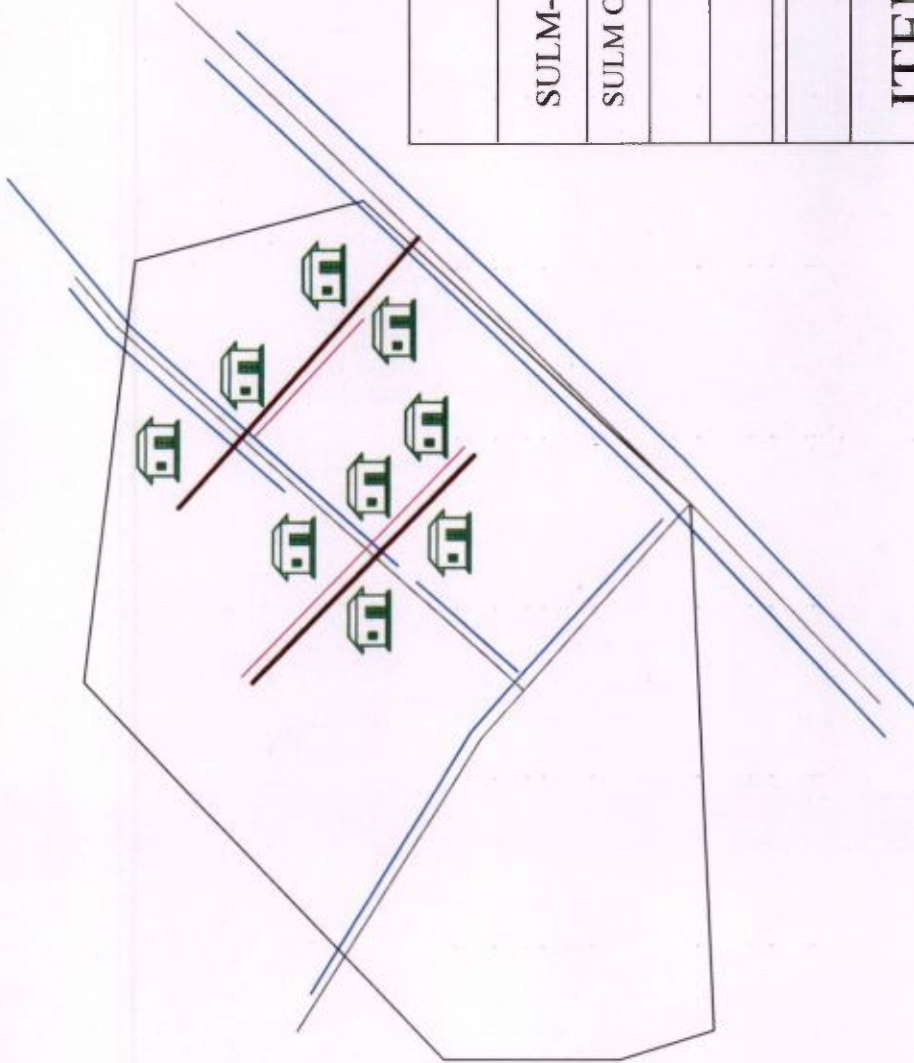
GAROWAN PARA BASTEE



PROPOSED LAND USE				
SULM- GAROWAN PARA BASTEE				
SULM CODE:-				
BEHARAMPORE MUNICIPALITY				
LEGEND				
ITEMS	PUCCA	SEMI	PUCCA	KUCHHA
	SYMBOL			SYMBOL
DWELLINGHOUSE<NOS>				
BLACK TOPPED ROAD <Sq.M.>				
PROPOSED CONCRETE ROAD <Sq.M>				
DRAINAGE<M.>				
PIPELINE<M.>				
				27NDS.
				265<M>
				210<M>

GHOSH PARA BUSTEE

N



Chairman
Beharapore Municipality

PROPOSED LAND USE

SULM- GHOSH PARA BUSTEE

SULM CODE:-

BEHARAMPORE MUNICIPALITY

LEGEND

ITEMS	PUCCA	SEMI	PUCCA	KUCHHA	UNIT
	SYMBOL			SYMBOL	
DWELLINGHOUSE<NDS>					11NDS.
BLACK TOPPED ROAD <Sq.M.>					
PROPOSED CONCRETE ROAD <Sq.M>					106<M>
DRAINAGE<M.>					87<M>
PIPELINE<M.>					

SLUM WISE DETAILS OF DU AND INFRASTRUCTURE COST OF 2017-18													
Slum No.	Name of Slum/Non-Slum	Slum Code	Ward no	Area Sqm	Number of total Households(Including pucca)	Dwelling Units (@ Rs. 3.68 Lakh/ each)		Drainage (M) (Rs.2540.00/M) (Section -400x400)		Concrete Roads (@ Rs. 1736.00/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)		
1	BISHNUPUR BILLDHAR BASTI	20066	9	7000.00	125	39	143.52	330	8.38	344	5.97	14.35	157.87
2	CHANDAR BAGAN(S.C.-7)	20015	1	5000.00	30	15	55.20	123	3.12	138	2.40	5.52	60.72
3	COSSIMBAZAR NATUN PARA (S.C-003)	20058	2	2000.00	84	20	73.60	167	4.24	180	3.12	7.37	80.97
4	GIRJAPARA BASTEE(S.C.-46)	20016	3	9200.00	58	15	55.20	126	3.20	134	2.33	5.53	60.73
5	JOYCHANDRA ROAD BASTEE(S.C.-36)	20021	10	3000.00	148	52	191.36	438	11.13	462	8.02	19.15	210.51
6	KANTANAGAR(S.C.-38)	20004	8	2000.00	207	60	220.80	510	12.95	526	9.13	22.09	242.89
7	KEDAR MAHATO LANE BASTEE(S.C.-49)	20048	4	4300.00	69	21	77.28	170	4.32	196	3.40	7.72	85.00
8	KONAIPARA BASTEE(S.C.-54)	20013	1	2500.00	147	47	172.96	395	10.03	419	7.27	17.31	190.27
9	KUMAR DURGANATH BASTEE(S.C.-50)	20009	4	7268.00	189	35	128.80	298	7.57	306	5.31	12.88	141.68
10	LICHU BAGAN BASTEE(S.C.-39)	20005	8	9000.00	251	27	99.36	229	5.82	237	4.11	9.93	109.29
11	MUCHI PARA BASTEE(S.C.-37)	20023	11	1500.00	77	27	99.36	229	5.82	237	4.11	9.93	109.29
12	SHARMA PARA BASTEE(S.C.-5)	20020	1	4000.00	95	25	92.00	212	5.38	220	3.82	9.20	101.20
13	ABDUS SAMAD RD BASTEE(S.C.-17)	20041	28	1300.00	33	30	110.40	249	6.32	272	4.72	11.05	121.45
14	BROJA SAHA LANE BASTI(S.C.-29)	20052	19	4750.00	25	10	36.80	85	2.16	88	1.53	3.69	40.49
15	GAROWAN PARA(S.C.-24)	20049	18	1000.00	51	15	55.20	126	3.20	134	2.33	5.53	60.73
16	GHOSH PARA BASTI(S.C.-9)	20033	9	6000.00	75	40	147.20	330	8.38	365	6.34	14.72	161.92
17	SETAKHA DHAR BASTEE(S.C.-57)	20018	5	6000.00	57	37	136.16	312	7.92	328	5.69	13.62	149.78
18	ZAMINDARI BASTEE(S.C.-18)	20040	28	2150.00	42	22	80.96	180	4.57	203	3.52	8.10	89.06

SLUM WISE DETAILS OF DU AND INFRASTRUCTURE COST OF 2017-18													
Slum No.	Name of Slum/Non-Slum	Slum Code	Ward no	Area Sqm	Number of total Households(Including pucca)	Dwelling Units (@ Rs. 3.68 Lakh/ each)		Drainage (M) (Rs.2540.00/M) (Section -400x400)		Concrete Roads (@ Rs. 1736.00/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)		
19	Ward 1	1				9	33.12	72	1.83	85	1.48	3.30	36.42
20	Ward 2	2				7	25.76	49	1.24	77	1.34	2.58	28.34
21	Ward 3	3				5	18.40	40	1.02	47	0.82	1.83	20.23
22	Ward 4	4				3	11.04	20	0.51	34	0.59	1.10	12.14
23	Ward 5	5				3	11.04	20	0.51	34	0.59	1.10	12.14
24	Ward 6	6				7	25.76	49	1.24	77	1.34	2.58	28.34
25	Ward 7	7				2	7.36	12	0.30	25	0.43	0.74	8.10
26	Ward 8	8				17	62.56	131	3.33	169	2.93	6.26	68.82
27	Ward 9	9				12	44.16	100	2.54	108	1.87	4.41	48.57
28	Ward 10	10				18	66.24	139	3.53	178	3.09	6.62	72.86
29	Ward 11	11				8	29.44	63	1.60	77	1.34	2.94	32.38
30	Ward 12	12				14	51.52	115	2.92	128	2.22	5.14	56.66
31	Ward 13	13				10	36.80	79	2.01	96	1.67	3.67	40.47
32	Ward 14	14				3	11.04	20	0.51	34	0.59	1.10	12.14
33	Ward 15	15				11	40.48	88	2.24	104	1.81	4.04	44.52
34	Ward 16	16				12	44.16	100	2.54	108	1.87	4.41	48.57
35	Ward 17	17				5	18.40	39	0.99	49	0.85	1.84	20.24
36	Ward 18	18				2	7.36	12	0.30	25	0.43	0.74	8.10


Chairman
Berhampur Municipality

SLUM WISE DETAILS OF DU AND INFRASTRUCTURE COST OF 2017-18													
Slum No.	Name of Slum/Non-Slum	Slum Code	Ward no	Area Sqm	Number of total Households(Including pucca)	Dwelling Units (@ Rs. 3.68 Lakh/ each)		Drainage (M) (Rs.2540.00/M) (Section -400x400)		Concrete Roads (@ Rs. 1736.00/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)		
37	Ward 19	19				9	33.12	68	1.73	91	1.58	3.31	36.43
38	Ward 20	20				10	36.80	79	2.01	96	1.67	3.67	40.47
39	Ward 21	21				12	44.16	100	2.54	108	1.87	4.41	48.57
40	Ward 22	22				15	55.20	126	3.20	134	2.33	5.53	60.73
41	Ward 23	23				18	66.24	139	3.53	178	3.09	6.62	72.86
42	Ward 24	24				7	25.76	49	1.24	77	1.34	2.58	28.34
43	Ward 25	25				20	73.60	167	4.24	180	3.12	7.37	80.97
44	Ward 26	26				21	77.28	170	4.32	196	3.40	7.72	85.00
45	Ward 27	27				28	103.04	233	5.92	253	4.39	10.31	113.35
46	Ward 28	28				12	44.16	100	2.54	108	1.87	4.41	48.57
Total					1763	837	3080.16	6888	174.96	7665	133.06	308.02	3388.18

HFA Under Pradhan Mantri Awas Yojana

Year of Implementation : 2017-18

Name of the City: Berhampur Municipality

Infrastructure Cost

SL. NO	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE PER UNIT	TOTAL COST (In Lacs)
1	Roads				
i	CC Roads	7665	Sqm	1736.00	133.06440
Total Road Cost Sub Total (A)					133.06440
2	Storm Water Drains				
i	Surface drain Brick Mationary 400mm x 400 mm	6888	Mtr.	2540.00	174.95520
Total Storm Water Drains Cost Sub Total (B)					174.95520
Grand Total (A+B)					308.02


Chairman
Berhampur Municipality

ESTIMATE

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

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 . SOR, PWD, P-1, I -2 a	13.000	%cu.m	12047.00	1566.11
2	Earth work in filling in foundation trenches or plinth with good earth in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete.(Payment to be made on the basis of measurement of finished quantity of work) a) With earth obtained from excavation of foundation. SOR, PWD, P-1, T/3 a	11.120	%cu.m	7831.00	870.81
	Supplying Laying Polithin Sheets etc. SOR, PWD, P-45, T - 13	22.000	sqm	25.00	550.00
4	Cement concrete with graded Stone ballast (40 mm.) excluding shuttering.a) In ground floor and foundation.6 : 3 : 1 proportion Pakur variety SOR, PWD, Page 24 ; Item -10 a	3.500	cu.m.	5823.00	20380.50
5	25 mm. thick damp proof with cement concrete (4:2:1) (with graded stone aggregate 10 mm. Normal size) and painting the top surface with a coat of bitumen using 1.7 kg. per sq.m. including heating the bitumen and cost and carriage of all materials complete. SOR, PWD, P-45, T-12	6.810	sqm,	297.00	2022.57
6	Brick work with 1st class bricks in cement mortar (6:1) a) In foundation and plinth. b) In super structure SOR, PWD, P-29, T -22(a), (b)	10.430 15.240	cum cum	5719.00 5943.00	59649.17 90571.32
7	125mm thick brick work with 1st. class bricks in cement mortar (4:1). a) In ground floor SOR, PWD, P-73, I -29	23.220	sq.m.	783.00	18181.26
8	Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes. (i) Pakur Variety SOR, PWD, P-14, T -7(i)	3.940	cu.m.	6851.66	26995.54
9	Reinforcements for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc. including supply of rods, initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16G black annealed wire at every inter-section, complete as per drawing and direction. (a) For works in foundation, basement and upto roof of ground floor / upto 4m. (i) Tor steel/Mild steel. SOR, PWD, P-27, T -15(i)	0.309	MT	60705.93	18775.74

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.) SOR, PWD, P-66, T -12(a) 25 mm. to 30 mm. thick wooden shuttering as per decision & direction of Engineer-in-charge. Ground Floor	37.063	M ²	360.00	13342.68
11	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints or roughening of concrete surface, including throating, nosing and drip course where necessary . In ground floor. A) With 6:1 cement mortar. a) Inside wall 20 mm thick plaster SOR, PWD, P-151, T -2 (i)(b) b) Out side Wall, 15mm th. SOR, PWD, P-151, I -2 (i)(c) B)10mm-th ceiling plaster (4:1) SOR, PWD, P-151, I -2 (i)(c)	116.940 111.950 23.330	sq.m. sq.m. sq.m.	181.00 156.00 140.00	21166.14 17464.20 3266.20
	Neat cement punning about 1.5mm thick in wall, dado, window, sills, floor, drain etc. SOR, PWD, P-152, I -8	26.700	sq.m.	38.00	1014.60
13	Artificial stone in floor,dado, staircase etc. with cement concrete (4:2:1) with stone chips laid in panels as directed with topping made with ordinary or white cement (as necessary) and marble dust in proportion (2:1) including smooth finishing and rounding off corners and including application of cement slurry before flooring works, using cement @ 1.75 kg./sq.m. all complete including all materials and labour. In ground floor. 3 mm. thick topping (High polishing grinding on this item is not permitted) with ordinary cement. 20mm thick SOR, PWD, P-40, I -3 (i)	26.490	sq.m.	265.00	7019.85
14	Supplying, fitting & fixing MS clamp for fixing door and window frame made of flat bent bar, end bifurcated, fixed in cement concrete with stone chips (4:2:1)a fitted and fixed omplete as per direction. 40mm x'6mm x 125 mm length. (Cost of cement concrete will be paid separately) SOR, PWD, P-90, I -18 (c)	34	each	22.00	748.00
	Wood work in door and window frame fitted and fixed complete including a protective coat of painting at the contact surface of the frame other Local wood SOR, PWD, P-85, T -1(i)	0.213	cu.m.	46171.00	9834.42
16	Panel Shutter of door & Window (each 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 SOR, PWD, P-105, I -84 (iv)c	8.520	sq.m.	1567.00	13350.84
17	Iron butt hinges of approved quality fitted and fixed with steel screws, with ISI mark. a)75mm x 47mm x 1.70mm SOR, PWD, P-91, T -20(iv)	32.000	each	34.00	1088.00
18	Iron Socket Bolt of approved quality fitted and fixed complete. i) 150 mm long x 10 mm dia SOR, PWD P-93, I-25,c	11.000	each	71.00	781.00
19	White washing including cleaning and smoothening surface thoroughly (5 parts of stone lime and 1 part of shell lime should be used in the finishing coat). Two Coats SOR, PWD, P-155, I -3 (b)	124.960	%sq.m	1887.00	2358.00
20	Colour washing with ella with a coat of white wash priming including cleaning and smoothing surface thoroughly external surface One Coat SOR, PWD, P-155, I -4(ii)(a)	100.560	%sq.m	1514.00	1522.48

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 SOR, PWD, P - 162, I - 7(a) 2) On Steel Surface SOR, PWD, P - 162, I - 7(b)	21.690 2.700	sq.m. sq.m.	41.00 31.00	889.29 83.70
22	Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. Including using of approved putty etc. on the surface, if necessary : With super gloss (hi-gloss)-With any shade except white. a) On timber or plastered surface Two Coats b) On Steel surface Two Coats SOR, PWD, P - 162, - 8A(aii),(bii)	21.690 2.700	sq.m. sq.m.	89.00 86.00	1930.41 232.20
23	Iron hasp bolt of approved quality fitted and fixed complete (oxidised) with 16 mm diad with center bolt and round fitting. 300 mm long SOR, PWD, P-93, I - 27c	2.000	each	193.00	386.00
24	Precast piler concrete jally work as per design and manufacture's specification including moulding etc. with stone chips and necessary reinforcement shuttering complete including fitting, fixing in position in all floors. (a) 37.5 mm th. panels Cement & steel required for this item will not be issued by deptt. SOR, PWD, P-32, I - 38 (b)	1.690	sq.m.	351.00	593.19
	Supplying, fitting and fixing UPVC down pipes A type and fittings conforming to IS 13592-1992 with necessary clamps nails including making holes in walls, etc. and cutting trenches in any soil, through masonry concrete structure etc. if necessary and mending good damages including jointing with jointing materials (Spun yarn, valamoid / bitumen / M. seal etc.) complete. P-173, I-21 A (ii), C(ii), D(ii) SOR, PWD, P173, I - 21 A (ii), C(ii), D(ii) i) UPVC Pipe 110 mm dia 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/m2 SOR, PWD, P - 76, I - 10 (i) (2.70sqm @ 10.5kg per sqm = 28.35 kg)	0.284	Qntl	8247.00	2342.15
27	Shallow water closet Indian pattern(I.P.W.C.) of approved make in white vitreous chinaware supplied ,fitted and fixed in position (excluding cost of concrete for fixing). 450 mm long SOR, PWD, (Sanitary) P - 65, I - 1 (iii)	1.000	each	1062.00	1062.00
28	Foot rest for water closet of size 275 mm X 125 mm with Artificial stone(4:2:1) with 6 mm stone chips and chequered including adding colour as necessary. SOR, PWD, (Sanitary) P - 66, I - 9	1.000	Pair	70.00	70.00
29	Supplying,fitting and fixing cast iron 'P' or 'S' trap conforming to I.S. 3989 / 1970 and 1729 / 1964 including lead caulked joints and painting two coats to the exposed surface. S Trap 100 mm SOR, PWD, (Sanitary) P - 54, I - 14(B-iii)	1.000	each	923.00	923.00
30	Supplying, fitting fixing CI Round Gratings 150mm dia SOR, PWD, (Sanitary) P - 55, I - 18(ii)	1.000	Each	100.00	100.00

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 75mm. RCC slab (4:2:1) with 8mm tor steel @ 150 mm. centre to centre both ways including plastering and neat cement punning on top of the slab and making hooking 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
					368000.00
(Rupees Three lakh Sixty seven thousand Eight hundred & Fifty eight only)					


Chairman
Berhampore 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 ceiling /beam/bound with 22SWG GI wire inclusive S & Drawing 1x18 SWG GI wire as fish wire inside the pipe & fittings and providing 55 mm dia disc of MS sheet (20SWG) having colour paint at one face first ended at the load point end of the polythene pipe with fish wire (synchronizing with roof/beam casting work of building construction) 19 mm dia 3 mm thick polythene pipe	RM	39.00	25.00	975.00
2	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 insulated and unseathed cop per (Finolex make) wire used as ECC in 19 mm bore 3 mm thk. polythene pipe complete with all accessries embedded in wall smooth run to light / fan/call bell point with pino key type switchb (6 Amps) (Anchor make) fixed on sheet metal (16 SWG) Switch Board with bakelite/ perspex (wall maching colour) Top cover (3 mm thick) flushed in wall including mending all good damages to original finish Average per point 6.00 mt.	points	828.00	10.00	8280.00
4	Deistribution concealed wiring with 2x1.5 sq mm (PH & N) single core stranded FR PVC insulated & unseathed 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 insulated & unseathed 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 strtranded 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

SLNo	Item of works	Unit	Rate	Quantity	Amount
SLNo	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

Adm

Cost Estimate for 2 Nos Leach Pit for single unit Dwelling Unit

(ANNEXURE-II)

Sl No	Description of Items	Quantity	Unit	Rate	Amount
1	Earth work in excavation of foundation trenches or drains in all sorts of soil (including mixed soil but excluding or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches leveling dressing and ramming the bottom boiling out water aqs required complete. Depth of exavation not existing 1500mm P.No-1, I-2(a)	2.500	%Cu.M	12047.00	301.18
2	Cement concrete with graded jhama Khoa ballast (30 mm size) excluding shuttering. In ground floor and foundation (a) 6:3:1 proportion.	0.050	Cu.M	5803.06	290.15
3	Brick work with 1st class bricks in cement mortar (6 : 1). a) In foundation & Plinth P.no-29, I-21(a)	0.010	Cu.M	5719.00	57.19
4	125 mm. thick brick work with 1st class bricks in cement mortar (4 : 1) G.Floor P.no-31, I-29	3.000	SqM	714.00	2,142.00
5	Controlled Cement concrete with well graded stone chips (20 - mm nominal size) excluding shuttering and reinforcement with complete design of concrete as per I : 456 and relevant special publications submission of job mix formula after preliminary mix design after testing of concrete cubes as per direction of Engineer-in charge Consumption of cement will not be less than 300 Kg of cement -with Super plasticiser per cubic meter of controlled concrete but actual consumption will be determined on- the basis of preliminary test and job mix formula. -I n ground floor and foundation. [Using concrete mixture] M 20 Grade P.no-12, I-6(a)	0.145	Cu.M	6871.54	996.37

6	Reinforcemnet for reinforced concrete work in all sorts of structures incl. Distribution bars, stirrups, binder etc. incl. supply of rods, initial straightening & removal of loose rust (if necessary), cutting to requisite length, hooking etc P.no-27, I-15(a)(i)	0.010	M.T	68508.00	685.08
7	Supplying, fitting and fixing UPVC down pipes A type and fittings conforming to IS 13592-1992 with necessary clamps nails including making holes in walls, etc. and cutting trenches in any soil, through masonry concrete structure etc. if necessary and mending good damages including jointing with jointing materials (Spun yarn, valamoid / bitumen / M. seal etc.) complete.				
	i) UPVC Pipe 110 mm dia P.no-173, I-21(A)(ii)	4.000	Mtr	291.00	1,164.00
	ii) UPVC Bend 87.5 degree 110 mm dia P.no-174, I-21(B)C(ii)	2.000	Each	162.00	324.00
8	Jaffri brick work 125 mm. thick with 1st class bricks in cement mortar (4:1) including 12 mm. thick cement plaster (4:1) in all faces in ground floor .P.no-32, I-35	2.000	SqM	792.00	1,584.00
Cost of 2 no leach pit					7,543.97
Total=					7,544.00

Hdm

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 Partitionwall		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 workin excavation						
	250 mm wall						
	1 23.5	0.75	0.7	12.34			
	0.875	0.75	0.7	0.46			
	24.375			12.8	m ³		
	125 mm Wall						
	2.625	0.4	0.225	0.24			
	WC	0.4	0.4	0.225	0.04		
	Bath	0.65	0.4	0.225	0.06		
	5.474	0.75		0.225			
	4.724	0.4	0.225	0.43			
	Varanda	1.425	0.4	0.225	0.13		
				0.88			
	Step	0.5	0.9	0.075	0.034		
				13.715	m ³		
2	Soling						
	24.375	0.75		18.281			
	11.45	0.4		4.58			
				22.861			
3	Polythene sheet						
	2.575	3.125		8.047			
	2.875	2.625		7.547			
	2	1.65		3.3			
	passage	0.625	2.375	1.484			
	Bath&WC	2.7	0.9	2.43			
	Varndah	1.025	0.6	0.615			
	step	0.9	0.5	0.45			
				23.873			
4	Jhama concrete						
		18.28	0.075	1.371			
		4.58	0.075	0.344			
		23.93	0.075	1.795			
				3.51			
5	Earth work in filling 1/5 excavation						
		13.715	5	2.743			
		23.48	0.375	8.805			
				11.548	m ³		

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

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

12	Shuttering								
	31	23.5	1.125						
			24.63	0.25					
	31			6.156	24.844				
	Side beam	2	3.125	0.15	0.9375				
		2	2.325	0.1	0.465				
	side slab	1	25.3	0.1	2.53				
	Lintel	1	0.9	0.25	0.225				
		1	1.525	0.1	0.153				
		1	1.275	0.35	0.446				
		1	0.3	0.05	0.015				
						29.615	sqm		
	4W1	4	0.9	0.25	0.9				
		4	1.2	0.1	0.48				
		4	1.2	0.35	1.68				
	2	4	0.3	0.05	0.12				
	1W2	1	0.75	0.25	0.188				
		1	1.05	0.1	0.105				
		1	1.05	0.35	0.368				
	2	1	0.3	0.05	0.03				
	WO2	3	0.75	0.25	0.563				
	1	1	3.05	0.1	0.305				
		1	3.05	0.35	1.068				
	2	1	0.3	0.05	0.03				
	Lintel 125 Wall								
	D1	1	0.9	0.125	0.113				
		2	1.3	0.1	0.26				
	D2	2	0.75	0.125	0.188				
	2	2	1.15	0.1	0.46				
	D2	2	0.75	0.125	0.188				
		2	1.9	0.1	0.38				
						7.423			
						37.038	sqm		
13	Plaster (6:1)								
	Out side 15 mmth.								
		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		
	Kitchen		2	1.65					
			2	3.65	0.45	3.285	Sqm		
			1	1.65	0.45	0.743	Sqm		
			2	2.075	0.1	0.415	Sqm		
	Varanda			1.775	0.1	0.178	Sqm		
	step WC	1		3	0.45	1.35	Sqm		
	Bath			3.5	2	7	Sqm		
				0.75	0.1	0.075	Sqm		
	In side punning						15.31	15.31	
	Total							26.695	Sqm
15	Art. Stone flooring								
	Floor area					25.37	sqm		
	Step	2	0.9	0.25		0.45			
	W1	4	0.9	0.1		0.36			
	W2	1	0.75	0.1		0.075			
	W3	3	0.75	0.1		0.225			
							26.48	Sqm	
16	Ms Clamp for door & window								
	D1+D2	4		6		24			
	W1+W2	5		2		10			
							34 nos.		
17	Wood work in Door & window frame								
	D1	2	5.1	10.2					
	D2	2	4.95	9.9					
	W1	4	3.6	14.4					
	W2	1	3.3	3.3					
				37.8	0.075	0.075	0.213	m3	
18	Z batten shutter								
	D1	2	0.775	2.025		3.139			
	D2	2	0.625	2.025		2.531			
	W1	4	0.775	0.775		2.403			
	W2	1	0.775	0.625		0.484			
							8.557	sqm	
19	Iron Butt Hinges								

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

ESTIMATE FOR CONSTRUCTION OF CONCRETE ROAD PER SQ-MTR

All rates are taken from P.W.D. Schedule

Consider 30.0m x 2.0m Cement Concrete Road

Sl. No	Description						UNIT	QTY.	RATE (RS.)	AMOUNT (RS.)
	Details	No	L	B	H	Qty.				
1	Brick edging 75 mm wide with picked jhama bricks, laid true to line and level including cutting necessary trench in soil or in hard metal surface, laying the bricks and repacking the trench (on both side of the edging) with spoils and ramming the same thoroughly complete as per direction. Page-189, Item-3. (b) Brick-on-end edging (250 mm) depth						%Metre	63.70	8,661.00	5,517.06
	For CC road	2.0	30.000			60.00				
	End side	2.0	1.850			3.70				
						Total-		63.70		
2	(A) Filling in foundation or plinth by silver sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water, ramming complete including the cost of supply of sand. (payment to be made on measurement of finished quantity). Page-2, Item No.-4.						%Cum	5.52	68,771.00	3,796.16
	For CC road	1.0	29.850	1.850	0.100	5.52				
						Total-		5.52		
3	Brick soling with picked jhama bricks including preparation of bed as necessary with brick joints properly filled in and packed with powdered earth and including necessary cushion of similar material below the soling (and in between layers when more than one layer is used) completes as per direction. Page-188, Item-1. (a) Single brick flat soling (thickness 75 mm.)						Sqm	55.22	329.00	18,167.38
	For CC road	1.0	29.850	1.850		55.22				
						Total-		55.22		
4	Hire and Labour Charges for shuttering with hard wood for precast R.C. Slab curved, or straight and striking out the same including fitting, fixing the precast slab in position with necessary carriage and haulage, hosting etc, complete in all respect. (only the area in contact with concrete to be measured) Page-27, Item No.-14						Sqm	6.40	99.00	633.60
	For CC road	2.000	30.000	0.100		6.00				
		2.000	2.000	0.100		0.40				
						Total-		6.40		
5	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, as per relevant IS codes. A) Pakur Variety. Page-11, Item-5.a a)Ground floor.						Cum	12.00	6,071.82	72,861.84
	For CC road	2.0	30.000	2.000	0.100	12.00				
						Total-		12.00		
6	Earth work in filling in foundation trenches or plinth with good earth. In layers not exceeding 100 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on basis of measurement of finished quantity of work). Consider total Earth cutting						%Cum	1.92	7,831.00	150.36
		2.0	30.000	0.300	0.100	1.80				
		2.0	2.000	0.300	0.100	0.12				
						Total-		1.92		

Total-	1,01,126.39
Add Contingency @ 3%	3,033.79
G. Total-	1,04,160.18
Total area of Road in Sq.m	60.00
Rate /Sq.m=	1736.00
Say	1736.00

Abstract of Estimated Cost for Drain section of 400mmx400mm under Berhampur Municipality.

All rates are taken from P.W.D. Schedule

Length= 1.0 Mtr.

Sl. No	Description						UNIT	QTY.	RATE (RS.)	AMOUNT (RS.)
	Details	No	L	B	H	Qty.				
1	Earth work in excavation of foundation trenches or drains. In all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing. Spreading or stacking the spills within a lead of 75m. As directed. The item includes necessary trimming the sides of trenches, leveling dressing and ramming the bottom complete a) Depth of excavation not exceeding 1500mm. Page-1, Item-2.						%Cum	0.65	12,047.00	78.31
	For drain	1.0	1.000	1.000	0.650	0.65				
					Total-	0.65				
2	(A) Filling in foundation or plinth by silver sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water, ramming complete including the cost of supply of sand. (payment to be made on measurement of finished quantity). Page-2, Item No.-4.						%Cum	0.10	68,771.00	68.77
	For drain	1.0	1.0	1.0	0.100	0.10				
					Total-	0.10				
3	Single Brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand. Page-11, Item-1.						Sqm	1.00	343.00	343.00
	For drain	1.0	1.000	1.000		1.00				
					Total-	1.00				
4	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, as per relevant IS codes. A) Pakur Variety. Page-11, Item-5.a a) Ground floor.						Cum	0.08	6,071.82	485.75
	For drain	1.0	1.000	1.000	0.075	0.08				
					Total-	0.08				
5	Brick work with 1st class bricks in cement mortar (4:1) (a) In foundation and plinth Page-29, Item No.-21.a						Cum	0.15	5,623.00	843.45
	For drain	1.0	1.000	0.250	0.400	0.10				
		1.0	1.000	0.250	0.200	0.05				
					Total-	0.15				
6	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 basis of measurement of finished quantity of work).						%Cum	0.65	7,831.00	50.90
	Consider total Earth	1.0	0.650			0.65				
					Total-	0.65				
7	125mm. Thick brick work with 1st class bricks in cement mortar (4:1) a) in ground floor. Page-31, Item No.-29.						Sqm	0.20	728.00	145.60
	For drain	1.0	1.0		0.200	0.20				
					Total-	0.20				
8	Hire and Labour Charges for shuttering with hard wood for precast R.C. Slab curved, or stright and striking out the same including fitting, fixing the precast slab in position with necessary carriage and haulage, hosting etc, complete in all respect. (only the area in contact with concrete to be measured) Page-27, Item No.-14						Sqm	0.15	99.00	14.85
	For drain	0.667	0.775	0.125	2.000	0.13				
		0.667	0.125	0.125	2.000	0.02				
					Total-	0.15				
9	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 In ground floor. Page-14, Item No.-7						m3	0.01	6,811.63	68.12
	For drain	0.667	0.775	0.125	0.125	0.01				
					Total-	0.01				