

HOUSING DEPARTMENT GOVERNMENT OF KARNATAKA

"We have to revive the tradition to fight for the poor and the oppressed. Only by doing so shall we gain the strength to create the India of our dreams".
- Rajiv Gandhi.



KARNATAKA SLUM DEVELOPMENT BOARD

DETAILED PROJECT REPORT

**DPR FOR CONSTRUCTION OF 666 (G.F) Du's HOUSING AT
KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING
INFRASTRUCTURE IN BANGALORE CITY IN BYATARAYANPURA AREA
UNDER**

RAJIV AWAS YOJANA (RAY)

VOLUME – I & II

With technical support from

Consultants :



i m p r i n t s

Architecture-Structural Engineering

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Abbreviations

BPL	Below Poverty Line
BSUP	Basic Services for Urban Poor
CBO	Community Based Organisation
CDG	Community Development Group
CDP	City Development Plan
CDS	Community Development Societies
CPHEEO	Central Public Health and Environmental Engineering Organisation
CRZ	Coastal Regulation Zone
CSP	City Sanitation Plan
DA	Development Authority
DC	District Collector
DPR	Detailed Project Report
DUDA	District Urban Development Authority
EWS	Economically Weaker Section
EPC	Engineering Procurement Contract
FAR	Floor Area Ratio
FSI	Floor Space Index
GIS	Geographical Information System
GoI	Government of India
IHSDP	Integrated Housing and Slum Development Programme
ILCS	Integrated Low Cost Sanitation Programme
LIG	Low Income Group
MIS	Management Information System
Mo/HUPA	Ministry of Housing and Poverty Alleviation
NBO	National Building Organisation
NGO	Non Governmental Organisation
NNRC	National Network of Resource Centres
PHC	Primary Health Care Center
RAY	Rajiv Awas Yojana
SFCPoA	Slum Free City Plan of Action
SJSRY	Swarna Jayanti Shahari Rojgar Yojana
SUDA	State Urban Development Authority

TDR	Transfer of Development Rights
UAA	Urban Agglomeration Area
ULB	Urban Local Body
ULCRA	Urban Land Ceiling and Regulation Act
UPA	Urban Poverty Alleviation

VOLUME – I



SI No	CHAPTERS	Page Nos
ABBREVIATIONS		
VOLUME – I		
01	INTRODUCTION	1 – 23
02	PROJECT DEFINITION SCOPE & CONCEPT	24 - 28
03	SLUM FREE CITY & ITS PHASING	29 – 38
04	MEANS OF TRAINING CUM AWARENESS & LIVELIHOOD ACTIVITIES & ITS INTEGRATION	39 - 42
05	DESCRIPTION OF PROJECT	43 – 48
a	SLUM SURVEY	
b	SLUM PLANNING	
c	COMMUNITY MOBILIZATION	
d	PROVISION OF HOUSING (PLANNING & DESIGN)	
e	PROVISION OF COMMUNITY FACILITIES	
f	PROVISION OF URBAN INFRASTRUCTURE (PLANNING & DESIGN)	
g	ENVIRONMENTAL ASSESSMENT & MANAGEMENT	
06	PROJECT COST ESTIMATE	49 – 49
07	PROJECT IMPLEMENTATION & MANAGEMENT FRAME WORK	50 – 58
a	IMPLEMENTATION SCHEDULE	
b	PROJECT MANAGEMENT SET UP	
c	QUALITY CONTROL & QUALITY ASSURANCE	
d	POST CONSTRUCTION SERVICES	





08	OPERATION & MAINTANANCE	59 – 66
09	FINANCING ARRANGEMENT/STRUCTURE	67 – 70
VOLUME – II		
10	ARCHITECTURAL & STRUCTURAL DRAWINGS	
11	BENEFICIARY LIST	
12	ADMINISTRATIVE & TECHNICAL CHECK LIST	
13	EXECUTIVE SUMMARY	
14	TECHNICAL CERTIFICATE	
15	BENEFICIARIES WILLINGNESS CERTIFICATE	
16	LAND POSSESSION CERTIFICATE	
17	COST CERTIFICATE	



1. INTRODUCTION

CHAPTER 1- INTRODUCTION

1.1 GENERAL INTRODUCTION

The state of Karnataka is one of the prominent states in the Southern region of India with Bangalore as its capital, falling under 'A-1' category of CCA and HRA Classification; similarly Bangalore is classified as 'C Class under HRA category. Being the district head quarters Bangalore was established as a municipality. Later it is upgraded as Bangalore City Corporation (TCC) on 28th August 2010. The Corporation comprises 192 wards with a Corporator for each ward, elected by - citizens of Bangalore every five years. The present Mayor Mr Venkatesh Murthy with 192 councillors. The city administration is headed by an IAS officer as the Commissioner of Municipal administration.

Govt of Karnataka had been implementing number of housing scheme for rural and urban mass in the state viz Basava housing scheme, Indira Awas Yojana, Ashraya housing scheme, Nagara Ashraya etc. Karnataka Govt with central assistance has taken up number of projects that includes - Housing, Transport and Self Employment etc for urbanities exclusively for urban poor and slum dwellers. The aim of these projects is to enabling them to avail of the same level of basic amenities as the rest of the town and to bring them to the main stream of society.

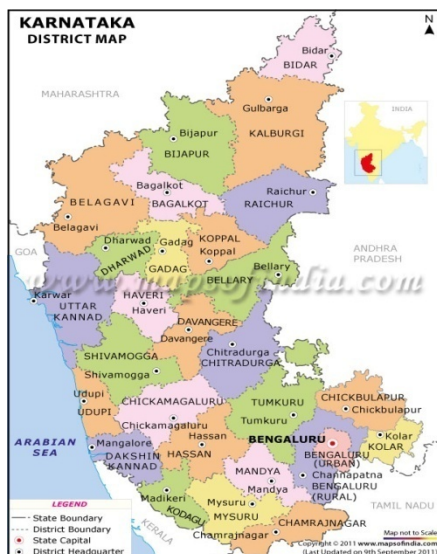
City Specific Strategic Interventions to make cities Slum Free are of Significance. With the same objective Government of India has Launched Rajiv Awas Yojana (RAY) envisaging "Slum Free India" through encouraging States and Union Territories to tackle the problems in Slums in definitive Manner. The Program envisages that each State will prepare a Slum Free State Plan of Action identifying Priority Cities Intended to be covered under RAY in First Five Years for Preparation Slum Free City Plan. It is expected to commit for a "Whole City" and d "Whole Slum" Approach in preparing Slum Free City Plans.

1.2 GENERAL BRIEF: BACKGROUND OF BENGALURU

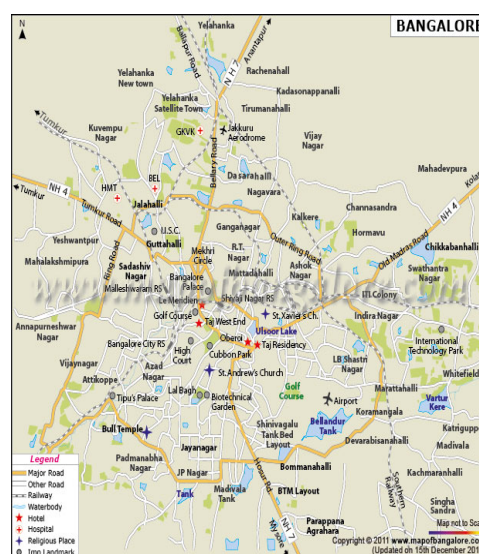
Bangalore, the capital of Karnataka is the 5th largest metropolis of the country. Bangalore founded by Kempegowda during 15th century has grown from a small village to 800sq Km The city is 900m above Sea level & has salubrious climate and located at 12.58° N and 77.38° East. The normal rainfall is 850 mm and peak rainfall is 1000mm. Bangalore once known as 'pensioners' paradise' has transformed to a modern thriving metropolis mainly driven by its strengths in Information Technology, Electronics and Bio Technology sector. Bangalore's area is les than 0.5 per cent of the state, but it is home to nearly 14 per cent of Karnataka's population and 12.7 per cent of its workforce.

With the creation of the greater Bangalore, it has expanded significantly, and has a forecast of reaching population of 10 million by 2011. Bangalore is a key contributor to the economic growth of the State and the country. With more than 11 per cent of the foreign direct investment in 2006, Bangalore as a city ranks only next to Delhi and Mumbai in India. Bangalore is home to 66 Fortune 500 companies and 743 MNCs in a total of 2001 IT/ITES companies, 131 Biotech firms (50 per cent of India's total) and 800 Apparel Units. More than 1.2 million people are employed in these sectors alone. As IT and ITES hub, Bangalore accounted for Rs. 57,000 crore of software exports which constitutes 36 per cent of country's exports of Rs. 1,60,000 crore in 2007-08..Bangalore is one of the 19 cities in the world which has future growth according to Forbes.





Karnataka Map



Bangalore Map

GROWTH OF BANGALORE CITY

During the year 1901 the population of the Bangalore City was only 1.63 lakhs according to 2011 census the pollution of city reaches to 85 lakhs. The literally rate of the city is 79.60%.

Bangalore is a base for fast growth of I T and B T Sectors, Several other major factories such as INFOSYS, WIPRO , HMT, BEL, BHEL, BEML, HAL etc., Bangalore's economy grow may hold because of the software boom.

CONNECTIVITY

The city is connected to major cities of the world and country by Air and has International Airport at Devanahalli 30km away from Bangalore. National highways connecting Chennai (Tamilnadu), Pune(Maharashtra), Hyderabad (Andhra Pradesh), Hosur and Coimbatore (Tamilnadu) pass through the city. All the district head quarters are connected to the city by State Highways. Bangalore is connected with all the major cities in the country by Rail Network and is the Head Quarters of South Western Railways. Metro work for a network of nearly 42km under Phase-I is in progress and being partly opened during April

DEMOGRAPHY & ECONOMY

The City is home to 70 engineering colleges. 7 of them among top 50, producing 20,000 engineering graduates every year. There are 74 NAAC accredited colleges in the city, 5 of them among top 50, producing 30,000 graduates every year of which 22,500 become available to the BPO talent pool. Further, Bangalore has 7 Medical Colleges 16 Dental Colleges, 61 Polytechnics and 292 ITIs, that no city in the country can match. Roughly, 50% of the students in these institutions are from outside the State and majority of them prefer to get employed in Bangalore itself. Availability of talent pool and city's capacity to provide employment has resulted in heavy migration into the city. Studies have revealed that for every IT job, 5 additional jobs are created.



Consequent to migration of techies, migration of small business men and service providers like washer men, drivers, maids, and others follow inevitably. For the last two decades Bangalore has attracted young talent from all over India, making it a microcosm of global India. The migration has happened from all corners of the country and abroad even from US and Europe. * (Source: Memorandum to the 13th Finance Commission, GOK, January – 2009.)

Climate and Rainfall

Bangalore falls in the eastern dry agro climatic zone. The temperatures start rising from January to May, around 40°C is common. Thereafter it declines during the monsoon period. The humidity is lowest during the dry season and highest during the monsoon period. The winds are 8 predominantly south westerly during the summer monsoon and northeasterly during the winter monsoon. The annual rainfall averages 670mm.

Table 1-1, which shows an overview of demographic facts:

SI No	Indicator	City/ULB
1.	Location (Longitude and Latitude)	12 ° 53'North 77°44'East
2.	Area (in Sq. Km.)	741 Sq Km
3.	Slum area (in Sq. Km.)	1.03 sq. km
4.	Demography	
	2001	35 Lakhs
	2001 census	65 Lakhs
	2021 census	100 lakhs
	2031 census	-
5.	No. of Households (2007)	-
6.		
7.	No. of Slums	597
	Notified	310
	Non-notified	287
8.	Slum population	1519001
9.	No of households in slums	19.86 Lakhs
	Percentage of Slum population covered in ULB	20%

According to 2001 census, the total population of Bangalore city was 35 Lakhs with a density of 5,122 persons per Sq.Km. On other side, it is found that a total of 597 slums have been identified in Bangalore City with a population of 15Lakhs residing in the slums as per the year 2011, the density in slums is about 0.13 times that of the overall density prevailing in the rest of the city .The growth in the decade of 1991-2001 and in the last five years is largely due to the growth of IT and ITeS industries in the city.

Land use of the city

The landlocked city of Bangalore is today a major business hub and a flourishing IT centre. It is estimated that about 4% of the population serves the IT sector and another 4% is engaged



in the less projected IT Enabled Sector. The Bangalore Urban District is located at the southernmost tip of the state and is surrounded on three sides by the Bangalore Rural district into which the city is fast expanding. The city is primarily governed by Bangalore Mahanagara Palike, the city corporation. The population of the city was 4,301,326 in 2001 and is estimated to have crossed 5 million in 2008 (*Source: Indiatat*).

Bangalore ranks number 1 in Human Development Index amongst the districts of Karnataka, as of 2001. This is a catchy 20% over 1991, when the district was ranked fourth (Table 2).

Table 2: Human Development Indicators for Bangalore Urban District

Indicator	2001		1991	
	Index	Rank	Index	Rank
Health	0.705	5	0.663	4
Education	0.887	1	0.757	3
Income	0.666	1	0.449	5
HDI	0.753	1	0.623	4

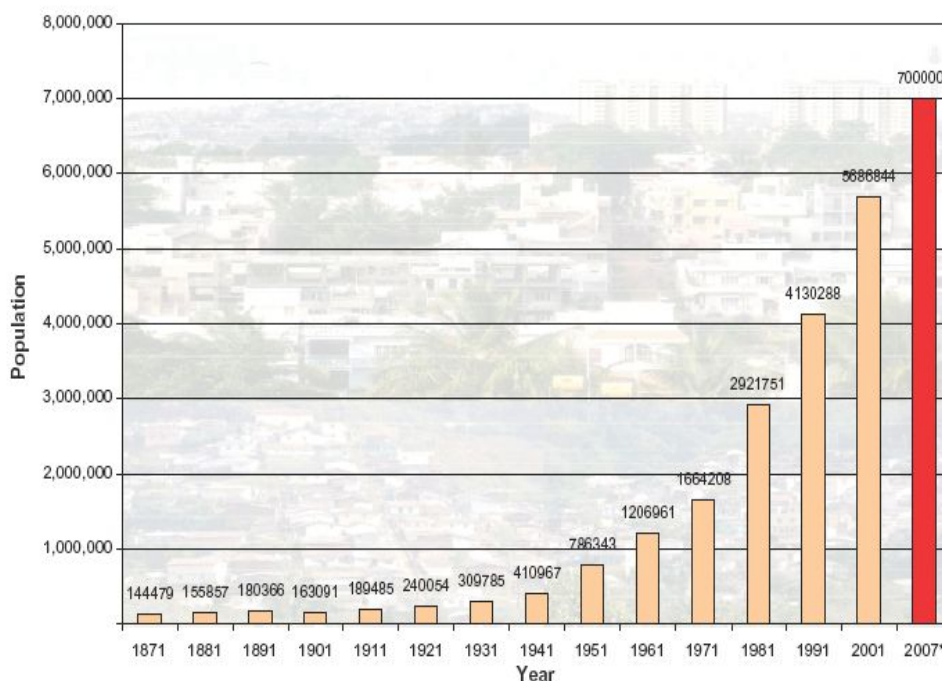


Figure 5 Population Growth of Bangalore City 1871 – 2007* (*The population for 2007 is an estimate). *Source:* Census of India (2001b).



According to 2011 census Bangalore has a population of 85 lakhs including floating population. It is fifth biggest city in India and 3rd largest city in the world by population. As per 2011 census Kannadigas accounted for 38% of the population sizable minorities from Tamilnadu, A.P. Kerala and other northern state from the country. Kannada widely spoken official language in Karnataka and other remaining languages are Telugu, Tamil Urdu and other Languages.

The literacy rate of Bangalore metropolitan city is 79.6%, naturally higher than the state average of 66.66% as a result of the good educational facilities are available in the city.

SLUMS DETAILS OF BANGALORE CITY :

Though Bangalore in fast growing city, the growth of slums in various parts of the city is also increasing there are 597 slums including declared and undeclared slums, which are under the control of BBMP, BDA, KSDB & TMC. In slums there are about 15 lakhs of people are residing in various slums in Bangalore city alone average slum population is 20%.

<u>Agency</u>	<u>No of slums</u>	<u>No of House Holds</u>	<u>Remarks</u>
Karnataka Slum Clearance Board	218	106266	Declared
BBMP			
East Zone	65	51,305	
South Zone	65	62444	
West Zone	39	17275	
Total	169	131024	
Byatarayanapura	38	81,842	139 Undeclared & 14 Declared
Krishanaraja	19		
Mahadevapura	22		
Bommanahalli	40		
R.R Nagar	15		
Dasarahalli	16		
Yelhanka	3		
Kengari	2		
Grand Total	597	3,19,245.00	

Rate and Pattern of Migration

The process of urbanization is intricately associated with migration. The direction of migration becomes unidirectional when the vast numbers who arrive in the city from the rural lands become permanent settlers, thereby initiating the process of germination of slums. These lots who become squatters in the city, come with a hope to evade poverty in the village; but in the process, they end up in another cauldron devoid of the basic necessities that they would have otherwise enjoyed in the village.



Though the scale of migration to Bangalore stood at a low in contrast with other Metros (Table 7), the rate of growth for the decade 1991-2001 are not far away from each other. This should be understood as a stabilizing migrant population in the context of the other metros while an escalating one in the case of Bangalore.

Table 7: Growth rate of Bangalore

City	Population			Exponential Growth Rate	
	1981	1991	2001	1981-1991	1991-2001
Bangalore	2,921,751	4,130,288	5,686,844	3.36	3.20

Source: Siva., Kundu, Singh, 2007

It would be worthwhile to ponder over the reasons for these trends. Bangalore, with its large IT and outsourcing industries continue to attract millions. It still remains a not-so-exploited city when compared to the four largest metros. Popular notions of scarcity of resources, crowd and security may also play a role in shaping preferences.

Spatially, the rate of urban growth in Bangalore is throbbing in the kernel of the city. The business ventures seek to exploit the extensive infrastructure facilities and transport connectivity at the centre of the city leading to a high concentration index (Table 8). It is also noticeable that the rate of urbanization in the peripheral areas of Bangalore is on fall, suggesting a trend towards contraction of the city. Added to this is the high rate of migration which together can lead to high population pressure at the core of the city.

Table 8: Growth Differentials of Core and Periphery

City	1981-1991		1991-2001	
	Core	Periphery	Core	Periphery
Bangalore	0.71	3.36	4.79	3.20

Source: Siva., Kundu, Singh 2007

To provide perspective, the growth in the core as well as peripheral circles of Mumbai has been on decline. Satellite cities and twin cities have instead taken the place, shifting the additional burden away from the shoulders of the city's administration. Bangalore is yet to reach such a state of saturation and continues to draw loads of migrants. 47% of the city's migrants are from outside Karnataka which should be seen in light of the highly lucrative sectors the city is opening up (Table 9).

Also to be noticed is that around 49% of the population growth in Bangalore in 1991-2001 was contributed by migrants (Table 9). This should not be a surprise at a time when all the fast growing economies are expecting their entire population to converge in three or four



giant cities. In developing world, however, this poses a concern as the mechanisms of planning and resource allocation are already weak and instances of widening inequities are coming to the fore.

The idea implicit is now clear. Pressure on land and resources like water, transport and even pure air is escalating. In the Bangalore episode, the situation is made alarming with the possible contraction of the city that we just came across. The poor are covertly pulled to margins as a result of the neo-liberal and modernist policy set ups that exclude them from gaining access to these resources through commoditization and pricing. Slums should be seen as the culmination of these inter-related processes.

Table 9: Migration in Bangalore

City	In- Migrants (1991-2001)	In-Migrants as Percentage of Decadal growth	Migrants From within the State	Migrants From Outside	Migrants From Other countries
Bangalore	761,485	48.9%	52.8%	46.4%	0.8%

Nature of Housing Scenario

Housing remains one of the many key areas where the slum dwellers face exclusion. Bangalore is a city with booming real estate market. But the flipside is that the price of apartments determined by the invisible hand is beyond the scope of a slum inhabitant's pocket. Governments around the world have taken it upon their shoulders to pitch in supplementary mechanisms to deliver houses to the urban poor, especially in the third world.



Tremendous housing programmes have been undertaken by the state government and the Urban Local Bodies for the urban poor in Bangalore as a result of which the percentage of



kuccha houses plummeted to 1.75 in 2001 as against 3.44 in 1991. Strikingly, the number of households living in one-roomed houses dropped to 38.91% from 36.6% during the same decade (Karnataka HDR, 2005). Besides a remarkably low number of dilapidated houses (Table 10), the Karnataka Human Development Report also boasts that 96.04% of the city's population has access to safe drinking water.

Table 10: Condition of Buildings in Bangalore Urban Districts, 2001

Residence Buildings				Residence cum Other Use			
Total	Good	Livable	Dilapidated	Total	Good	Livable	Dilapidated
1,216,397	799,271 (65.71%)	385,395 (31.68%)	31,731 (2.61%)	17,115	10,363 (60.55%)	6319 (36.92%)	433 (2.53%)

Source: Census 2001

The total dilapidated houses in 2001 stand at a mere 31,731 which doesn't fit well with the number projected by the Karnataka Slum Clearance Board for the number of slum households in the city- 179,000 (as in 2003); presuming that the number of households and houses would approximate each other. The census data also doesn't explicate the number of slum houses that are contained within the number of dilapidated houses.

To resettle and shelter these 1,79,000 households would be a Herculean task. The first step is to procure accurate data on the condition of houses in the city exclusively and then proceeding to estimate the production costs. A rough estimate has already been made by the Karnataka Slum Development Board splitting up the cost of slum upgradation into its constituents including infrastructure provision and health care (Table 11).

Table 11: Estimated Cost of Slum Up gradation and Development (In Rs. Crores)

Infrastructure/Service	2006-10	2011-15	2016-20	2021-25	2026-30
Site Improvement of Slums	120	120	120	120	120
Facilities Improvement					
Community Water supply	60	60	60	60	60
Community Toilets	20	20	20	20	20
Road Improvements	100	100	100	100	100
Storm Water Drains	130	130	130	130	130
Underground Drainage	70	70	70	70	70



Individual Water Supply	40	40	40	40	40
Individual Toilets	20	20	20	20	20
Training Unemployed youth	20	20	20	20	20
Healthcare for Women & Child	20	20	20	20	20
Total	600	600	600	600	600

Source: KSDB 2005/STEM

The estimation is too simplistic and doesn't serve any other purpose than portraying the enormity of the problem. While the estimation presupposes that slum will continue to exist even after 2020, no effort to prioritize the existing slums for resettlement or development is seen in the effort. Further, the factor of migration has been conveniently forgotten. This is visible in the uniformity of the split-up. While the rate of migration into the city has been steady over time, the contraction of the city into its core is likely to push the existent and new squatter to the periphery, as we saw already. This marks the urgency for prioritization of the housing needs of the city.

Meanwhile, a revisit to the quality of the existing houses built under housing projects needs to be done to assess the improvement in the lives of slum dwellers. Few housing projects involve the people in decision-making processes. The role that the slum-dwellers can play in developing their slum, including construction activities, is thus ignored.

OBJECTIVES & CONCEPTS:

As per 2011 population 85 lakhs people residing in urban area. The Tremendous increase of population of slum dwellers has caused tremendous pressure on urban basic services and infrastructure, Government of India has drawn up JNNURM with a mission statement of "Reforms driven, fast tract planned development Identified city's with focus on urban infrastructure/services, delivery mechanism, community participation and accountability of urban local bodies.

OBJECTIVES OF MISSION RAY

1. Focused attention on integrated development of basis services to the urban poor.
2. Scale of delivery of civil amenities and provision of utilities with emphasis on universal access to urban poor.
3. Ensure adequate investment of funds of fulfill deficiencies with basic services to the urban poor.
4. Provision of basic services to the urban poor including security if tendure at affordable prices, improved housing, water supply, sanitation and ensuring delivery.



5. Secure effective linkages between asset creation and asset management so that the basic services to the urban poor created are self sustaining.

Diagnostic Assessment of slums

The living conditions in slums represent the pathetic conditions of urban poor. Individuals and communities living in slums face serious challenges in their efforts to survive. Severe inadequacies in access to water, sanitation, shelter, health and education has deprived slum dwellers of some of the most basic amenities. For assessing the current situation of slums, appropriate indicators are required to understand the depth of problems. These indicators are derived from RAY guidelines wherein a detailed household/livelihood survey was conducted to identify the slums which are characterized by poor quality of housing and poor infrastructure. The following sections provide insights into the real picture of slums.

With increase in population of the city, housing needs grew, which could not be met by formal housing market. Migrant population, which could not avail the facilities of suitable housing and lack of monetary support were forced to satisfy their needs by occupying both private and public vacant lands and resulted in formation of slums and more number of squatter settlements. Slums are predominantly scattered and found mostly on private lands with major concentrations/ clusters found near city core areas and near areas of employment.

The existing scenario in Bangalore has got two distinct dimensions-housing and infrastructure. Such a high residential density coupled with acute shortage and dilapidation of housing stock marred with extremely poor infrastructural conditions necessitates redevelopment and renewal works so as to improve the habitability of these areas for the urban poor. It comprises 597 slums, where most of these are built on lands under Urban Local body ownership. Over 62% of slums have existed more than 30 years in the city due to the fact that it has been one of the continuously inhabited cities in India. The total population of the slums is 15,000,00 which about 20% of the total city population. With respect to physical location, 43% of the slums are located on sites of non hazardous sites in nature. Likewise, 22% of the slums are found to be located along the major road network and railway lines and 35% along the nallahs and other drains, there by vulnerable to natural disasters. Most of the slum settlements are concentrated around CBD or any other dominant location/land use by forming larger clusters around it (as seen in map -1-1)

As evident 57% of the slums are located in core area of the city with remaining 43% in fringe area. The abutting land use surrounding the slums is found to be predominantly residential in nature, followed by Industrial and other uses.





Picture showing the living condition of slum dwellers of Byatarayanapura

For the purpose of analyzing existing situation, the following variables mentioned In RAY guidelines were studied and reported:

- Land Tenability
- Land tenure status
- Ownership of the land
- Age of the slums

Land Tenability

Using the above variables, the settlements in each slum that are characterized by poor physical and socio-economic conditions, irrespective of land tenure status and ownership have been identified through primary surveys.

Out of 597 slums, 447 slums have found to be emerged on lands that are owned by the BBMP while the others are fall under the Railways and private ownership. As seen in the table 1-4, nearly 52% of the slums do possess a secured tenure status and an enabled pleasant living condition while 48% of the slums do not have a secured status without any access to basic amenities.

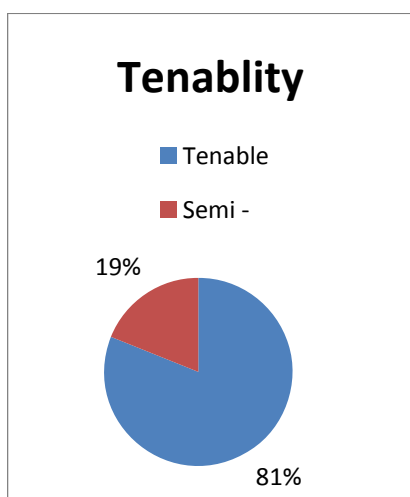
No. of Slums	Status		Tenability			Tenure	
	Notified	Non-notified	Tenable	Semi-Tenable	Non-tenable	Secure	Insecure
	310	287	30	7	0	24	13
No. of Slums	Age of the slum						
	0-5 Years	6-10Yrs	11-15Yrs	16-20Yrs	20-25 Yrs	26-30Yrs	31 Yrs above



No. of Slums	Ownership of land		
	BBMP/Govt	Private	Railway land
	447	146	4

1.5 Land Tenure Status

Land tenure is an important part of socio-economic structure of any neighborhood and enables entitlement of formal access to basic services. According to RAY guidelines, tenure status is "the mode by which land/property is held or owned or the set of relationships among people concerning land/property or its product" and defines the legal status of the land. 81% of the slum lands are secured and have access to basic amenities and in possession of certificates while 19% of the slums are In-secured, which needs regularization. While identified slums have some security of tenure and fall under the purview of municipal service provision, the unidentified slums fall outside the net of formal service provision.



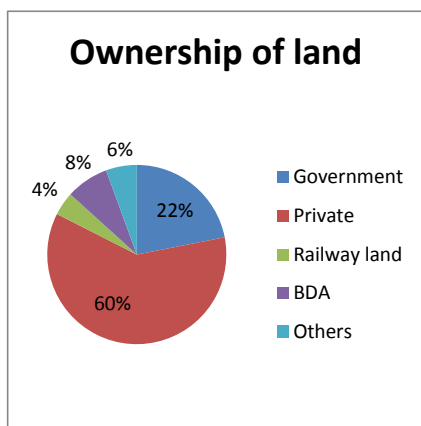
Distribution of Slums by Tenability Status

The land status of all listed slums/informal settlements are classified by the ULB as tenable/ or untenable in order to determine whether the land is fit for human habitation and void of health hazards. (RAY Guidelines).

Chart-1-1 indicates that the current tenability status for 597 slums as identified has been presented where 81 % of the slums are found to be tenable with the remaining 19% semi-tenable, thus proving to be unsafe due to the reason that the slum lands are either earmarked for any major public facilities or located on hazardous sites. This is very small in number; hence viable solution can be arrived in consultation with ULB.



Land Ownership

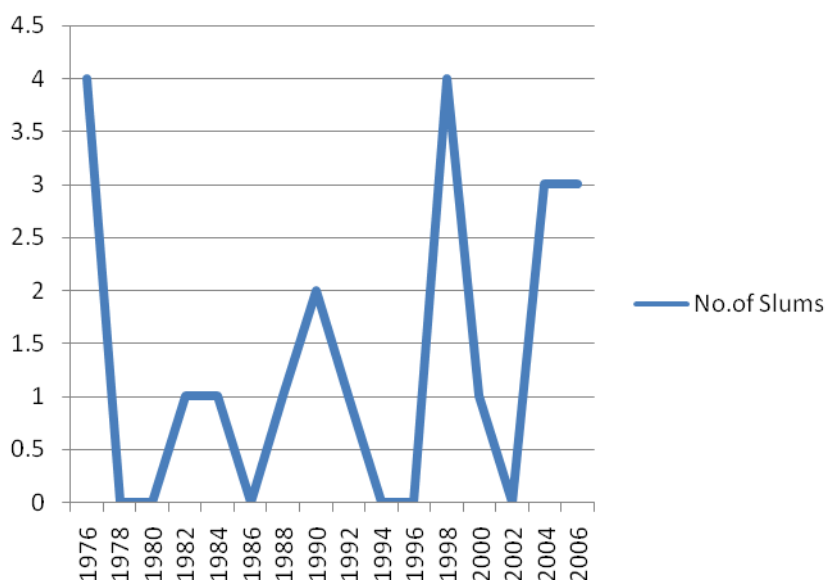


Slums and squatter settlements often come up on privately owned less, making the settlers prone to demolitions and evictions. Out of the above 231 slums for which data are available, 139 or 60.2% are standing on private lands (Table 6). Devoid of land titles or formalized tenures, most of the slums are easily liable to be termed illegal and encroached. The situation worsens when the private parties themselves lack proper documents on land registration and titles making the process of resettlement even more cumbersome.

Age of Slums

Distribution of Slum by Age of the slum Age of the slum is one of the important factors to understand the condition of a slum in any city. It is interesting to note that 62% of the slums in Bangalore have been into existence more than 30 years with remaining 38% of slums are over (above) 20 years old.

1.8 Notification of the slums



According to National Sample Survey Organization, areas notified as slums by the respective municipalities, corporations, local bodies or development authorities were treated as notified slums", tends to receive higher level of services and those unrecognized by the local bodies were considered as "non-notified slums". As per the AKM data, currently 310 slums are



notified by ULB to avail higher level of basic services. As seen in *map 1-3*, 15 slums marked in red color indicates that these are not yet notified, which requires the concerned authority to ascertain that these slums are to be provided with basic amenities.

Physical profile

Slum and squatter settlements in Bangalore are growing at an alarming rate due to increased construction activities and industrial activities. The general composition of majority of slums comprises of scheduled tribes, scheduled caste, and other backward classes, forming the weaker section of the society. From habitation point of view, it can be said that the locations of slums are least desirable low lying areas that are susceptible to inundation, open drains/nallah, tank beds, and along railway lines. According to a report prepared for the Karnataka Slum Clearance Board by STEM, one-third of the slums are usually located in environmentally sensitive and filthy areas, here water stagnation breeds mosquitoes and other health hazards are considered as Hazardous/ Objectionable.

The slum concentration in these areas has not only led to poor living conditions for the slum dwellers but also responsible for the general deterioration of the living environment in the city. This is primarily due to lack of proper infrastructure services in these areas and considering the fact that most of these slums are overcrowded, there is always constant pressure on the city infrastructure and resources. In this section, the following set of variables were measured to assess the existing housing scenario in terms of the structures, its type, access to electricity and other related issues so as to bring out the deficiencies:

- Location of slums and its areas
- Flood prone slums
- Abutting land use
- Housing type

Physical Locations of Slums

Out of 597 slums, 115 slums are found in the core area such as near CBD, large scale and small scale industries and remaining in the urban fringe area near agricultural lands. With respect to the physical location of the slums, around 8% are located along the major transport alignment such as National Highways while 35% along the open and storm water drains; 14% along the railway lines. On other side, 43% of the slums are on the sites of non hazardous / non objectionable areas





Social Profile

According to data, the total population in 597 slums is 15,19,001.00 with total number of 1,98,600 households, comprising 16% of total city households. Of the total slum population, 89% are under below poverty line (BPL) with 10098 households.

Total Population

	Male	Female	SCs	STs	Others	Others
Total population in Slum	881020	637981	934185	182280	402536	1519001

Number of Slums by Disability Status and senior citizens

As per data, the physically challenged population comprises 1 % of the total slum population, with OBCs and SC group forming the highest under social groups. Similarly the mentally challenged persons constitute 0.2% of the total population in Bangalore slums. Hence employment provisions needs to be made for those physically challenged person who are skilled enough.

In Bangalore Slums, it was found 0.6% of the total constitutes the senior citizens where in SC group accounts for 41%. For the well being of these citizens, it is essential to make due concessions and provision of adequate social facilities for the senior citizens in Bangalore slums. In addition, eligible aged persons and senior persons in BPL families that can hardly support the aged should be entitled to National Old Aged Pension Scheme (NOAPS).

Number of households by Health Condition

Poor water and unsanitary conditions leads to adverse effects on health of households living in the slums. Given the fact that Bangalore is industrial center, it is quite apparent that the slums are characterized by poor/crammed housing conditions, lack of good sanitation and contaminated water supply, thus making the households be exposed to skin irritation, respiratory problems and other diseases. Indicated in AKM, 0.03% of the slum population is found to be having HIV/AIDS while 0.05% of the population is suffering with Tuberculosis and 0.3% with respiratory problems, 0.6%with other chronic diseases.



Economic profile

The significant sectoral composition of economic base & structural changes take place within different periods influencing the city growth which cannot be denied. Advantageous geographical location and abundant productive rich fertile land has contributed majorly to the economy of the city. Bangalore has agrarian economy supplemented by handful of IT & BT Centers, Heavy industries and large & medium industries, Garment Factories & textile, leather and chemical industries.

Economy in Bangalore is based on various sectors like Industries of IT & BT Centers, Heavy industries and large & medium industries, Garment Factories & textile, leather and chemical industries. And also on the education sector, with world famous medical colleges and universities present in the city.

Livelihood profile

Two types of labor exist in all economies: skilled and unskilled. Skilled labor is the portion of workers in an economy that have specific, technical industry skills relating to business and the production of goods. Engineers, welders, accountants and scientists are a few examples of skilled labor. Unskilled labor is the cheaper and less technical portion of the workforce that makes up a large part of an economy's labor market. This workforce plays the important part of performing daily production tasks that do not require skills.

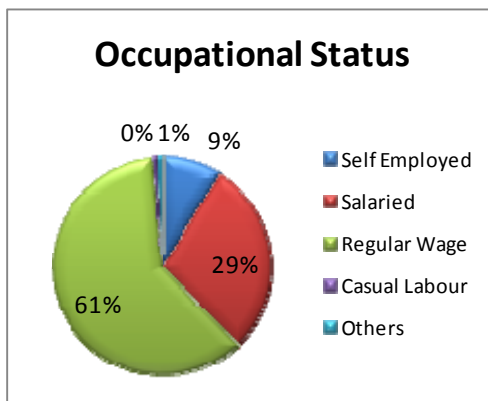
As indicated, 16% of slum population are illiterate with lack of skill and professional training, making it difficult for them to obtain skilled employment opportunities in Bangalore, hence end up doing low or moderately paid jobs on a daily basis.

The composition of work force conveys a picture of quality of life, associates with their social and economic activities. Due to increasing prominence of tertiary activities, the role of primary sector in Bangalore city has reduced. The unemployment in slum dwellers could be potentially mitigated by implementing schemes such as SJSRY, STEP UP and other livelihood oriented training programmes initiated by Govt. of India.

A majority of the working population in the slums is engaged in construction labor, vegetable vendor, beedi making, broomsticks, home based small businesses. On the other hand, women in the families are majorly involved in incense stick making and basket making and domestic help. On the other hand, slums households located in fringe are involved as agricultural laborers due to the presence of the agricultural lands in close proximity.



Distribution of slums households by Occupation Status



As Per data, It is confirmed that 15% of Households are found to be working as casual laborers & 10% on regular wage basis as they unskilled, includes domestic help, Broomstick workers, & vegetable vendors. On other hand 46% of households are self employee & 26% is actually working on monthly salary, indicating a secured position & skilled employment. Therefore nearly 28% of the poor households do not have access to dependable occupation & secure incomes.

This situation of Slum livelihoods need to taken into consideration in future development Programmes as there is their need for an enhanced productivity in the city.

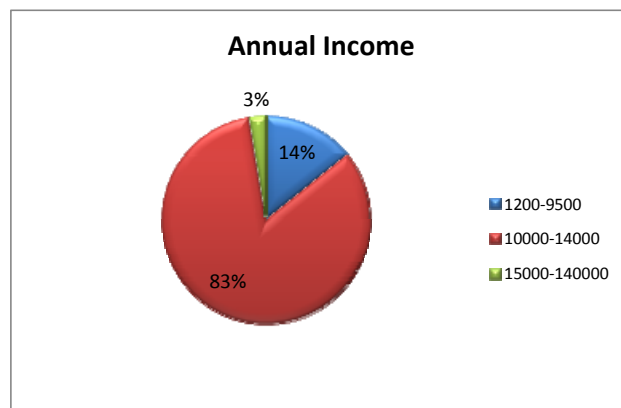
Monthly Income by Households:-

The monthly income of 5 % households ranges between Rs. 1500 to Rs.2000 and RS.2000 to Rs.3000 is 21 %. The percentage of households that earn less than Rs. 1500 is 7%, indicating that 48% of the households belong to casual labor and belong to BPL class.

Further, the livelihood pattern has become indefinite and irregular for the households, where only 67% of them are earning more than Rs.3000/- per month. In addition, it is also observed that child labor number is rapidly increasing where a need is felt to curtail it. There is urgency in creating economic assistance which can include training, job placements, credit and technical support to small and marginal businesses, creating new society -owned enterprises, providing micro-finance facilities and loans for housing and financial assistance such as subsidies for building materials.

There is ample scope for programmes like SJSRY projects to be launched particularly STEP UP, UCDN, UWESP in most of the slums as part of livelihood promotion and leads to enhanced productivity.





For slum wise details, please refer Annexure –ID on Economic profile.

Infrastructure:

Sustainable growth of a city depends on its infrastructure facilities. Lack of infrastructure and institutional mechanism can lead to collapse of urban system in a city. Access to basic services has now become a criterion for identification of the poor areas in a city. The responsibility for urban service provision in an equitable manner lies with the ULB, where an increasing gap in service levels and the difficulties in providing the same are prevalent. Information on access to services in terms of Physical Infrastructure of Bangalore city has been collected and a brief analysis on the current status of Water Supply, sewerage, Storm Water drainage and Solid Waste Management.

Water Supply

Bangalore has adequate water supply resources due to the proximity of Upper Kaveri water sources of water.

Connectivity to City Wide Water Supply System

Most of the slum households either have direct access to services or access them through community or common facilities. Of the total slums, 51 % of it is fully connected to the city wide water supply system; 46% is partially connected. The remaining 3% of the slums do not have connectivity to city water supply system.

Existing Sources of Drinking Water

Over 81 % of the households have individual water supply connections where protected drinking water is being supplied BBMP. Hence 19% of the households do not have access to drinking water and dependent on public water taps, tube wells, and water tanker. In a slum it is observed that on an average about 15 households are sharing one public tap.

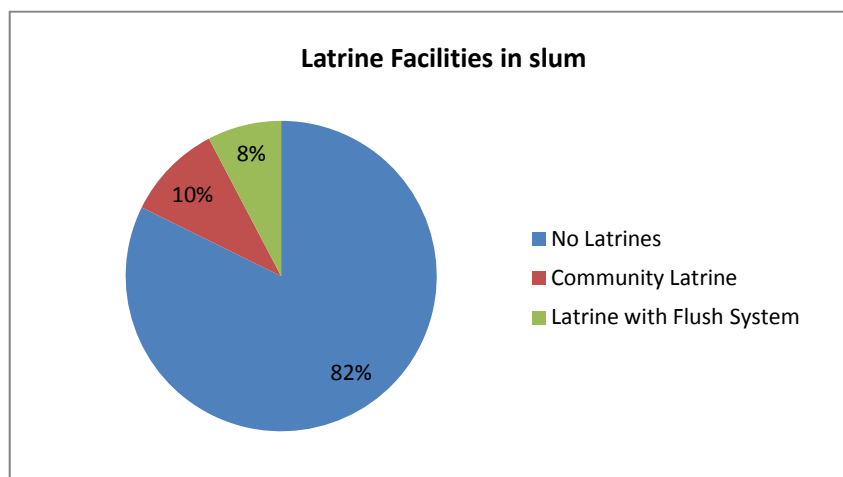


Duration of Piped Water Supply

The duration of water supply usually is once in a day or once in couple of days where 41 % of the slums have access to piped water supply between 1 to 2 or more on a daily basis. In order to achieve 100% piped water supply it is necessity to address deficit of slums.

Sanitation

Sanitation and sewerage systems are not only the basic necessities of life, but they are also crucial for achieving the goal of "Health for All", increased sanitation coverage is directly linked to improvement of health status. Lack of sanitation is a universal problem when it comes to Slums and is markedly less than access to other basic services. While, it is worthwhile to that the proportion of people having access to sanitation in urban areas is considerably greater when compared to their rural counterparts, however the problems are more exacerbated in slums. Urban sanitation is perceived as being important because of the health factor. In case of slums, it is observed that sanitation facilities are worst and in pathetic condition.



Connectivity to City wide Trunk Sewerage System

24% of the slums are fully connected to city wide sewerage system while 16% is partially connected to the system. Even though 40% of the slums are connected to city wide sewerage system yet 60% needs to be upgraded.

Connectivity to City wide Storm water drainage System

Similarly 35% of the slums are fully connected to the storm water drainage, 46% is partially linked to the system but 19% of the slums are not covered by the city wide system. Given the situation, it is necessary to improve the system as well as provide newer connections before it infiltrates into the environment.



Drainage and Sewerage facility

Even though 13% of the households in the slums have some form of drainage and sewerage facility, still 88% of the households are not connected to a sewerage system. Due to absence of a system, the gray water and waste water from houses are directly dumped into the open nallah or nearby open drains along with solid waste, makes it overloaded and choked. Due to this discarding, water logging in the slums areas is prevalent and in turn has direct consequences on the health of households (Seen in pictures).

Type of Drainage Facility	No of Households	Percentage
No drainage	4013	88
Open		
Kutchha	313	7
Pucca	228	5
Total	4560	100

Even though 72% of the households have access to some form of toilet, it is believed the existing toilet system is considered to be of primitive stage with no proper maintenance and lacks general hygienic condition, further deteriorating the environment.

Solid waste management

Well functioning and safe solid waste management system in slum is vital so as to minimize the health hazards and the environmental pollution caused by solid waste. In many areas, garbage disposal services are jagged and sometimes not available. People are forced to live in such environment and definitely a solution has to be put in place to efficiently, safely and properly dispose of their solid waste.

The table below gives an overall picture of the current situation of solid waste management.

Table Solid Waste management (Existing Situation)

Type of Garbage Disposal Systems	Households	Percentage
No of arrangements (open dumping)	3132	70
Dust bin provided by BDA / Municipal	1428	30
Total	4560	100

Frequency of Solid waste disposal

The *table 1-8* gives an overall picture of the current situation of solid waste management where 3% of slums have daily clearance of garbage, 8% have once in 2 days and 16% have it cleared once in a week, 14% of slums once in a 15 days. Due to inadequate collection of solid waste, 59% of slums are found to be affected with insanitary conditions, requires immediate attention from concerned authority.



Arrangement of Garbage Disposal

It is found that 46% of the solid waste disposal is handled by the BBMP staff. In areas where there is lack of solid waste disposal or collection, the arrangement is taken care by the residents/dwellers of those slums, constituting 5%. Around 49 % of slums have inadequate and untimely collection of solid waste, which reflects the necessity for increased staff and regular clearance to avoid any further unsanitary conditions

Frequency of Clearance of Open drains

It is found from the survey results that 8% of the slums have daily clearance of the open drain, 16% of slums once in 2 days. It is analyzed that 76% of the slums do not sufficiently covered with clearance of the open drains, further deteriorating environmental conditions and contaminating the ground water. For slum wise details.

Roads and Street lights

The network of roads and streets in Bangalore follows a hub and spoke system with arterial roads originating from the centre of the city. This arrangement also means that all commercial activities converge to the centre of the city causing congestion. Most of the roads in the city are broad and straight with regular footpaths on either side. The lack of connecting roads with other parts in the city and within the slums poses a grave issue and affects the transport connectivity. This is one of the fundamental issues that is generally neglected in slum developments & needs through planning & execution.

Nature of Approach Road

By and large, 73% of slums are provided with Motorable Pucca roads and 19% are Kutcha in nature. On the other side, 8% of the slums have non Motorable kutch a road, making the transportation access difficult; there is a need to upgrade.

Distance from nearest Motor able road

Around 49% of the slums have access to the nearest Motorable road less than 0.5 KM, 32% within 0.5 to 1.0 KM and 14% within 1.0 KM to 2.0 KM. For 5% of the slums, the nearest approach road is at the distance more than 5 KM.

Internal road connectivity

27% of the slums have Motorable Pucca internal roads while 68% have katcha internal roads. Around 5% of the slums lack in proper internal roads with BT surface.

Social infrastructure

The quality of life in any urban centre depends upon the availability of and accessibility to quality social infrastructure. Development of social infrastructure includes education, health, social welfare, livelihood centers and recreational facilities, instrumental in contributing to substantial improvements in physical quality of life, which in turn, initiates and accelerates



economic development in a city. The following are a list of elements that forms the social infrastructure:

- Educational facilities
- Health facilities
- Community halls & rooms
- Livelihood centers
- Youth centers
- Social welfare facilities
- Old age homes
- Night shelter
- Parks
- Public utilities such as fire services

Following section details out the current level of social infrastructure available as well as accessible to the slum households.

Educational facilities

As per data 65%, for slum households, the nearest distance to pre-primary schools run by different agencies are located maximum within the slums and 0.5 Km from the slums. About 35% slums have pre- primary schools run by government are located within the slums.,

Health facilities

Many of the health problems in urban slums stem from the lack of access to or demand for basic amenities. Basic service provisions are either absent or inadequate in slums. Lack of drinking water, clean, sanitary environment and adequate housing and garbage disposal pose series of threats to the health of slum dwellers, women and children in particular, as they spend most of their time in and around the unhygienic environment. Inadequate nutritional intake due to non-availability of subsidized ration or availability of poor quality ration makes the slum dwellers prone to large number of infections and lack of education or information, further aggravates the situation.

As per data, 51 % of the slums do not have primary health facilities, 70% constitute private clinics, 57% forms registered practitioner, 46% have government hospitals and 46% have urban health post. Health as well as medical facilities is provided and is serving the ailing people belonging to the slum areas.

Social welfare facilities

Similar to the above sections all social infrastructure, available social welfare facilities in 597 slums is 65% .The slums out of have facility of community halls; 16% of the slums do not have slum dwellers association however 51 % of the slums have women's associations to empower women with home based employment. In addition, the slums do have self groups as well as credit societies.



ACTIVITIES OF KSDB

Karnataka slums development Board is designed as an apex body at the state level and function under the control of housing department KSDB constituted in the year 1975 as per KSDB Act-1973. As per the act the D.C of district notifies a slum under section 3 and this comes under the control of KSDB.

KSDB has been entrusted with function of prevention of new slums coming up as well as taking socio-economic survey of the slums to study the socio-economic conditions of the slum dwellers. These primary objectives have been further disaggregated into a number of operational objectives such as :

1. Slum identification and plan of improvements
2. Socio-economic surveys
3. Rehabilitation of slum dwellers
4. Enhancement of living conditions of slum dwellers
5. Enforcement of orders with respect to unauthorized constructions, administrations
6. Betterment of living conditions of slum dwellers.

VISION OF KSDB:

KSDB in constructing houses and infrastructure to the slum dweller to uplift the standard of living in urban poor slums and to improve.

- 1) Environmental improvement, social & Economic development slums.
- 2) Enable the Slums dwellers to live in good hygienic condition.
- 3) Presenting formation of new slums and providing better facilities to exit sting slums.
- 4) Providing shutters and basic amenities to all people living in slums and make free society in next 25 years.

ACHIEVEMENT OF KSDB

The KSDB successfully implemented housing Projects under VAMBAY Scheme, the board has constructed 30,000 houses under the VAMBAY Scheme and allotted to the real beneficiaries.

KSDB Plan under RAY

KSDB is fully geared up to meet the objectives under JNNURM in ensuring complete service delivery to the urban poor. With its past experience and expertise KSDB will design adequate projects to realize the vision set for itself in making 'SLUM FREE " cities.

HYGENIC AND HEALTH CONDITIONS:

Diseases like stomach ache, vomiting, dysentery, Anemia, cold, fever, coughs, are all water borne diseases these mainly acc Bangalore acquired due to uncleaness and water contamination.



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Karnataka Slum Development Board



2. PROJECT DEFINITION , SCOPE & CONCEPT

CHAPTER-2 PROJECT DEFINITION, SCOPE AND CONCEPT

2.1 MOHUPA, GOI, has selected Byatarayanapura Area located in geographical coordinates: 13° 0' 2" North, 77° 40' 32" East, Bangalore city under RAY project and it proposed to make the Constituency slum free by the end of the 12th five year plan.

Due to lack of well built housing structures and inadequate physical infrastructure, there is a need to improve the living conditions of the Byatrayanapura Area.

The Kuvempunagar slum have been selected for the DPR towards the development of housing including infrastructure under RAY

Sl no	Name of the Slum	No of families	Houses proposed under RAY scheme	Area of extent (in Acres-Guntas)	Ownership of land	Declared / Un-declared / identified
01	Kuvempunagar	3000	666	24.00	Govt	Identified
	Total	3000	666	24.00		

It is proposed to provide nearly 666 including both individual units as in-situ development housing under RAY to make Bangalore slum free city. This slum is (identified) in Byatarayanapura area have been selected for housing under the RAY.

SI No.	Name of the slum	In-situ Development
1	Kuvempunagara Byatarayanapura Area ,Bangalore City	<p>In view of pathetic condition & vulnerable nature of the existing these slums it is proposed under incremental housing construction, slums of Bytarayanapura area has been selected on the need basis.</p> <p>The Kuvempunagara Slum comprising existing 3000 Households with 2334 nos of Pucca houses constructed by slum dwellers on their own and with the help of various Government schemes, whereas 666 nos of Kacchha houses are proposed to be constructed as Ground units.</p>



KUVEMPUNAGARA SLUM

Kuvempunagara slum is 19 kms from the Bangalore city located in Byatrayanapura Area Ward No. 11. Slum is in existence since 30 years in an area of 1A 36G and 3000 families belonging to different sections of the society live here.

The dwellers are living in tin sheds/huts with lack of basic amenities, infrastructure, hence is imperative to implement 7 point charter in provision of housing, drinking water, sanitation, road and social benefits to the proposed slum.



2.2 PROPOSAL UNDER RAJIV AWAS YOJANA

Government of India announced Rajiv Awas Yojana (RAY) for the slum dwellers and the urban poor on 6th August, 2009 with a vision of “Slum Free India”. The Scheme is aimed at providing support to states that are willing to provide property rights to slum dwellers.

The Programme envisages that each State will prepare a Slum Free State Plan of Action identifying Priority Cities Intended to be covered under RAY in First Five Years for Preparation Slum Free City Plan. It is expected to commit for a “Whole City” and “Whole Slum” Approach in preparing Slum Free City Plans.

The Programme 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 and Tackling the shortages of urban land and housing that keep shelter out of reach of the urban poor and



force them to resort to extra-legal solutions in a bid to retain their sources of livelihood and employment.

Bangalore city Corporation Initiated the Task for Preparation of Slum Free City Plan .Same is under progress.

2.3 SCOPE

The Detailed project Rep port is aimed to Provision of Housing and B Basic Services with focus on integrating Implementation n of 7-Point Charter. The 7 point charter includes:

1. Security of Tenure at Affordable Prices.
2. Improved Housing g
3. Water Supply
4. Education
5. Health
6. Social Security

Tenure Security is part of the Ray process in the prioritization of slums and housing, water supply, sanitation are the basic needs in compulsory provision to the slum if the ere are not provided/ well connected, is done as part of DPR preparation where as the provision of physical facilities like school, health care centers and other community facilities is taken care by the state and central government scheme .

The detailed project report is basically prepare with the active community participation of slum dwellers in focus group discussions, Micro planning and Listing of beneficiaries and Consent and Endorsement of Development Options by Beneficiaries .

2.4 GOAL

Rajiv Awas Yojana (RAY) for the Slum Dwellers and the Urban Poor envisages a 'Slum-free India' through encouraging States/ Union Territories to tackle the problem of slums in a definitive manner.

The Scheme is aimed at providing support to states that are willing to provide property rights to slum dwellers.

2.5 OBJECTIVE

To integrate the slums into the economic and social network of the city. To provide affordable housing and basic infrastructure facilities and amenities for the slum dwellers in form of up gradation, redeveloped and relocation of slums.



To include people in the planning, implementation, monitoring, financing, and maintenance of slum in the form of community participation.

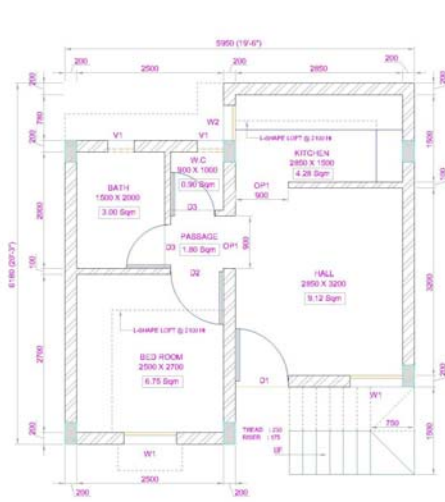
To strengthen institutional arrangements and build local capacity building to ensure operational zing, equipping and running the facilities provided in the slums.

It calls for a multi-pronged approach focusing on:

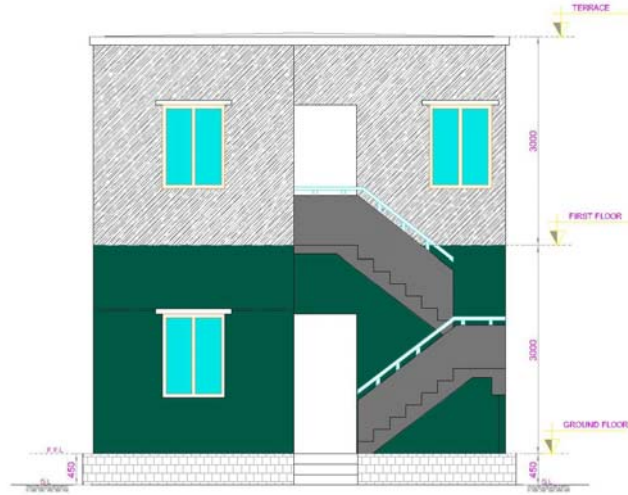
- Bringing existing slum within the formal system and enable them to a basic amenities;
- Redressing the failures of the formal system that lie behind the creation of slums; and
- Tackling the shortages of urban land and housing urban to retain their sources of livelihood and employment.
- City Slum Free City Plan of Action take into consideration not only the present status of slums and priorities of slum dwellers but also the resources and capabilities of the city in improving the quality of life of the urban poor to be partners in the development process. All urban development initiatives have an impact on the poor within the city.
- It has been recognized that the process of city planning and city governance has largely exclusive. The Process of preparing and implementing slum free city plan of action will involve learning by doing in partnership with slum communities themselves.
- The plan of a action will contain city, zone, ward and slum level approach. The Slum Free City Plan of action would include two strategies: Improvement of Existing Slums (Curative Strategy); and Prevention of Formation of new slums (Preventive Strategy) by organizing supply of a affordable housing for the urban poor the beneficiaries.



The Typical proposed Ground units plan with 25 Sqmts carpet area



Typical floor plan



Elevation



3. SLUM FREE CITY & ITS PHASING

CHAPTER. 3 SLUM FREE CITY PLAN AND ITS PHASING

The major factors that influence the design of upgrading programs are scale of the problem, the severity of conditions, tenure, and relevant support for social and economic development, community participation, the institutional framework, the financial structure, political will, and good governance. As part of community up-gradation, there are factors that need to be considered in the planning and implementation of initiatives. Most of the up-gradation programs undertaken throughout the world are one of three types: provision of basic infrastructure to the community, tenure security, and comprehensive up-gradation. The appropriateness of their use is driven by the status of existing conditions in the slums.

First component is provision of basic infrastructure to the slum households. Improvement of basic services is necessary when the environmental conditions and physical infrastructure are poor, but tenure is relatively secure. For improving the services, both the physical and social infrastructure elements such as sanitation, water supply, drainage, and often some community facilities are taken into account. This type of program tends to cost less per capita than more complex programs. The improvements can be financed easily by a program like RAY.

The second component is the incremental buildup of tenure security when the land tenure status is found to be insecure. In these circumstances, lack of tenure is a threat to the security of livelihoods, and a significant barrier to households investing in upgrading their own homes. The threat of forced evictions also looms over such settlements. In such cases rapid tenure regularization may lead to increased land values and, as a consequence, market driven displacement of beneficiaries. An incremental approach based on a 'continuum of land rights' and flexible tenure arrangements would be recommended,' Temporary occupancy rights, lease agreements, possession rights, anti-eviction rights are among flexible and effective tenure systems that do not place unrealistic demands on local governments with weak resources, do not disrupt municipal land markets, and provide beneficiaries with adequate and incremental security of tenure. When and where it becomes appropriate and affordable, lot titling through the sale or allotment of land should be considered as a way of providing the strongest form of tenure security.

The third type of upgrading program - a mixture of the previous two - is comprehensive upgrading. It combines both provision of basic infrastructure and tenure security. It is appropriate where environmental conditions and physical infrastructure is poor, where population densities are high, and where tenure is insecure.

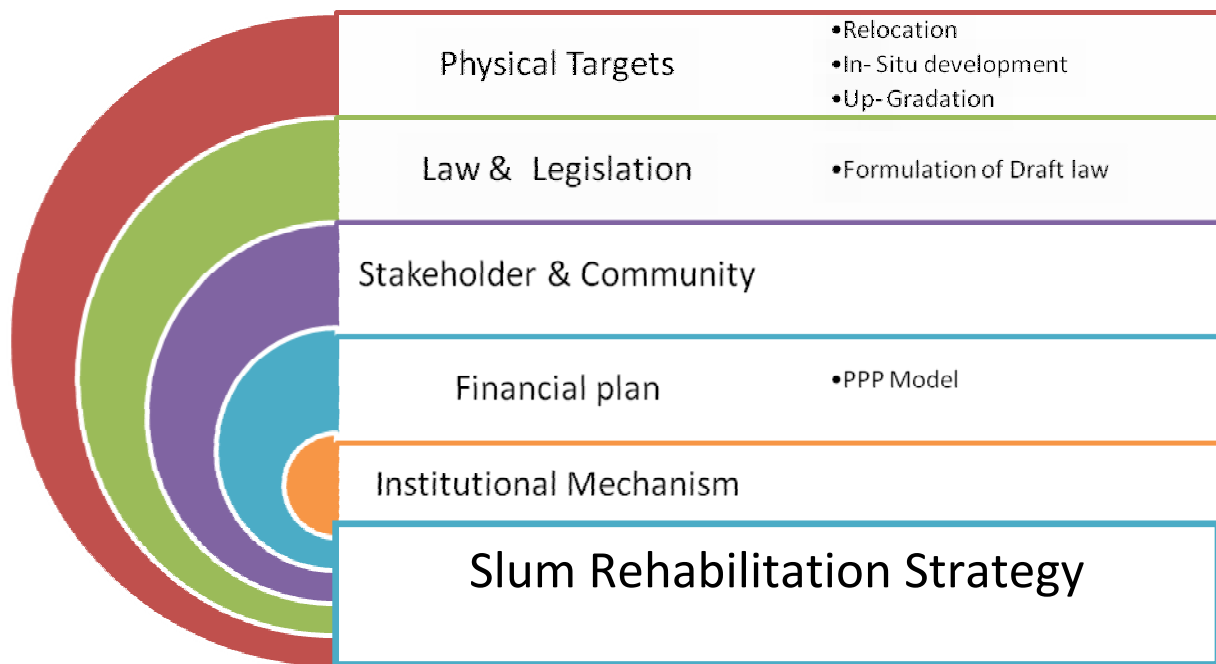
The comprehensive upgrading program is relatively complex and time-consuming because it has more administrative requirements, implicates more stakeholders, and depends on greater community involvement.

In order to best apply RAY' objectives and create Bangalore a Slum free city, an imperative slum rehabilitation strategy would be necessary depending on the expected outcomes from the findings or analysis of existing slum situation in a city. The rehabilitation strategy comprises of several components such as:



- Physical targets - relocation, in-situ and up gradation
- Law and legislation for slum dwellers
- Stakeholder/ community participation
- Financial framework
- Institutional mechanism

The following flow chart details the rehabilitation proposed for slum free Bangalore .



Physical targets

For slum rehabilitation, the top most priority would be given to the redevelopment! Rehabilitation of identified slums and measures to prevent future slums. The following three options of redevelopment that is categorized based on housing tenure, tenability, physical location, density and ownership:

- **Relocation mode**
 - Depending on the physical location of slums such as hazardous sites and environmental conditions and where there is no alternative
 - Involves communities in identification of alternative sites
 - Ensures that education, health, transport, basic services and infrastructure and provided before relocation
- **In situ Slum redevelopment mode**
 - Involves redevelopment of whole site to provide more living space and improved environmental conditions such as those in high density areas.



- Provision of transit accommodation and including of all residents, especially the extremely poor critical to success
- In this mode, new mixed-use mixed income communities can be created with a viable cross-subsidy model, which is a function of local land values, socio- economic needs and general context of the area,

➤ In-Situ Slum Up-gradation

- Involves a mixture of provision or upgrading of service and infrastructure levels, incremental housing improvements or selective replacement of katcha houses

Law and legislation

An appropriate legislation is a necessity to achieve and implement the development strategies formulated for Slum Free Bangalore. RAY promises a secured housing, provision of urban basic services helps the slums to become "slum free" through rehabilitation strategy. Legislation forms an important tool for Govt to assign property rights, provide basic services and achieve the holistic mission of RAY. Hence, suitable implementable and customized legislation forms an integral part of Slum rehabilitation strategy.

Stakeholder/ community participation

It has been proved by several previous schemes for slum development that community /stakeholder participation is a key aspect in implementing rehabilitation strategy to achieve Slum Free Bangalore. Community Participation calls for a strong and active participatory chain which would be involved throughout the implementation of RAY starting from surveys until project implementation and monitoring. This particular strategy would actually make the slum dwellers realize the motive behind the programme as an opportunity to raise their standard of living, achieve higher dignity and provide better facilities for present as well as future families. Community participation strategy is a promising bridge between the governments and the beneficiaries to understand the mutual benefits of the programme.

Financial framework

RAY has posed a significant challenge to the state, ULB and beneficiaries by announcing its 50% contribution towards the project. This calls for development of exclusive financial development strategy to meet the remaining 50% finances through various sources and mechanism. The alternatives as proposed by Govt. of India. The development strategy has been finalized after careful observations/scores that have been evolved through derived matrix preparation according to the Govt. of India guidelines. The strategy would enable the most needed slums to be taken care in first year in a strategic manner and continue to do so in the coming five years. The strategically financial framework would enable the project implementation smoothly without any finance hurdle.



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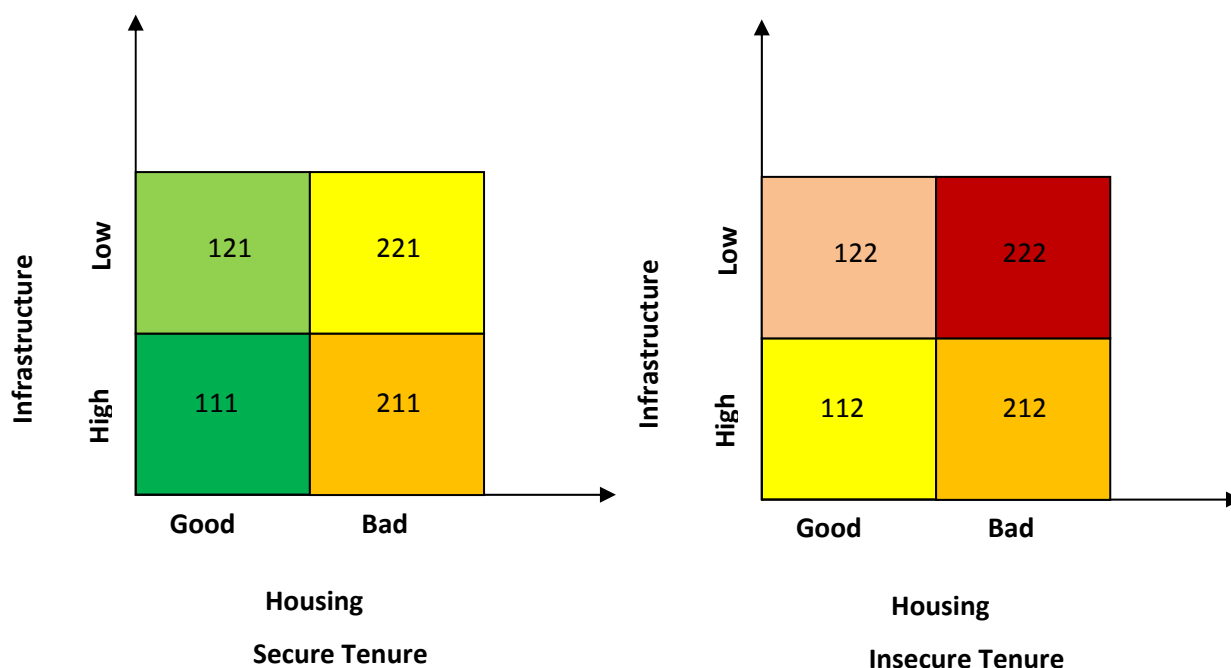
Institutional mechanism

RAY is a challenging task right from policy making until project implementation and monitoring. However the city should comprise of several teams which have to be coordinated within each other and successfully channelize step by step. The roles vary from Center, State, ULB, Slum clearance boards, RAY technical cell, NGOs and other associated agencies. The city should be able to actively involve the various agencies with various tasks as the programme advances yearly. There has to be hiring done at necessary levels/positions to complete coordination cycle. Hence institutional mechanism enables and proves to be a significant strategy for slum rehabilitation.

It is a necessary exercise to assess the existing slums to propose for a development strategy. A matrix analysis was prepared for Bangalore slums to identify the level of urban services. The matrix details the deficiency in the overall infrastructure and housing services among the slums.

Deficiency Matrix

According to RAY guidelines, a deficiency matrix for the existing slums is prepared using the scoring and ranking method. The matrix is based on three important parameters: Housing, Infrastructure and Tenure. Within these, Housing and Infrastructure are the physical parameters that are directly related to the existing quality of the housing condition.



Density based on the above individual scores, a final composite score for each slum is calculated using the parameters of security of tenure, housing condition and the infrastructure level. Once the score is obtained, the slums are then classified into:

- Good housing with good infrastructure
- Good housing with bad infrastructure



- Bad housing with good infrastructure
- Bad housing with bad infrastructure

In reference to RAY guidelines, settlements without any security of tenure are considered most vulnerable and therefore should be given priority in selection for improvement. In addition, settlements with bad housing bad infrastructure are also given priority for choosing the most appropriate development options. With the above classification method, suitable mode of development is selected for each slum. Once all the slums are synthesized and assigned with overall score, the slums will be categorized further based on the degree of deficiency for the three modes of redevelopment.



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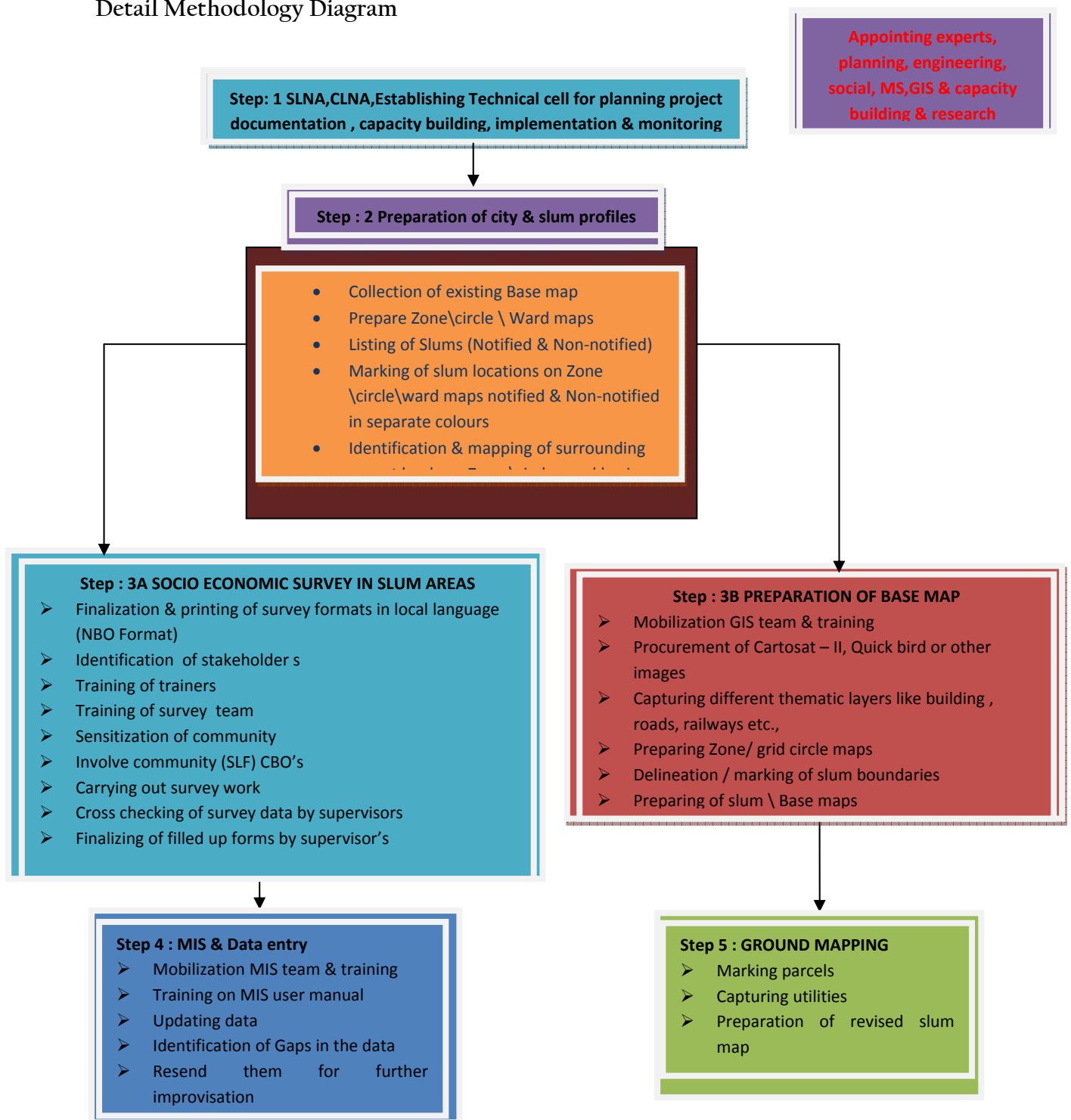
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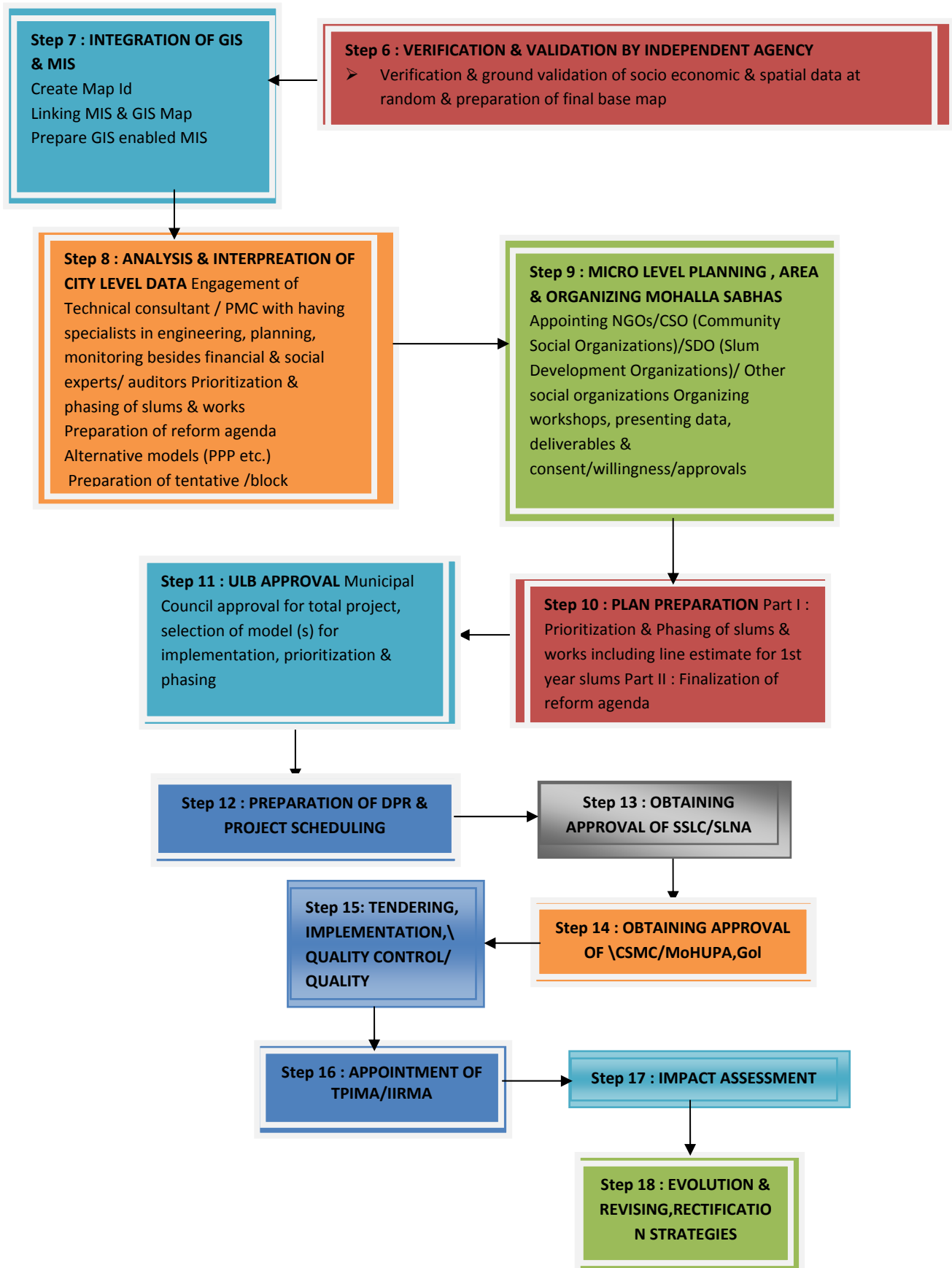
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Detail Methodology Diagram





With respect to Bangalore, the above methodology in *chart 2-4* is being followed for preparation of Slum Free City Plan, starting with:

Step-1: Establishment of a slum free technical cell at the state nodal agency level for city for planning, documentation, capacity building and monitoring the POA through selection of professionals from various departments and disciplines.

Step-2: Preparation of city and slum profiles involves collection of secondary information such as CARTOSAT II images and relevant slum information. Next preparation of base maps to an appropriate scale using GIS application. In addition, identification and inventory of all slum clusters along with inventory of all possible vacant lands in each zone and that could be used for slum redevelopment! Rehabilitation development purposes

Step-3A: Socio Economic Survey in slum areas: reputed NGO/CBOs were selected for conducting socio economic surveys and data validation. Identification of survey personnel from nearest slums with local knowledge and extensive training to be provided for survey personnel by the local organizations on survey formats as specified by MoHUP A.

Step-3B: Preparation of GIS based maps involves mobilization of GIS team and training, acquiring Satellite images for the cities and creating geo-databases with required spatial layers such as roads, buildings, land use and capturing utilities. In addition, involves preparation of base maps, thematic maps and slum maps.

Step-4: MIS & Data Entry involves collection of data of slum dwellers, compilation and collation of primary data, preparation of a robust Slum-wise, City and State Slum Survey Database and Baseline Reports. In addition, the MIS team is responsible for identifying data gaps validation, resend them to the concerned authorities and updating the database.

Step-5: Ground Mapping involves survey personnel team to map the parcels, capture utilities and updating the revised slum maps.

Step-6: Verification and Validation by Independent Agency on socio-economic, spatial data and base maps on a random basis. [RAY: Slum Free City Planning, Bangalore]

Step-7: MIS includes Integration of Slum MIS with GIS Maps to enable the preparation of GIS-enabled MIS maps for the preparation of meaningful Slum Development Plans and Slum-free City.

Step-8: Data analysis and decision for Slum Redevelopment Plan based on models like PPP development, infrastructure provision only, community-based development through involvement of the community mobilization and dialogue for deciding the model to be adopted.

Step-9: Micro level planning & organizing workshops with community stakeholders for prioritization of slums and the mode of development.

Step-10: Plan Preparation- Prioritization and phasing of slums and works including line estimates for 1st year slums.



Step-11: ULB Approval involves prioritization and phasing of slum rehabilitation models.

Step-12: Preparation of Slum-free City Plan and DPR should include 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.

Step-13: Obtaining approvals from ULB and other concerned authorities

Step-14: Obtaining approval of SLSC/ SLNA/ MoHUPA

Step 15 & 16: Tendering process, implementation of proposals and appointing of TPIMA team

Step 17: Impact Assessment

Step-18: Revisions and rectifications of the strategies, reforms.

Designing an Integrated layout

- **Integrated Layout**

An Integrated Layout to help the project get assimilate into the urban fabric of the city and be self sufficient.

- **Compact Block Design**

Block design is very compact as one staircase serving eight dwelling units which helped in minimizing the common areas, so promoting maximum use of land and increasing the Residential density of the area

- **Dwelling unit Design**

The dwelling units are provided with two habitable room's one Hall and one multipurpose room with Cooking Alcove & Balcony. The dwelling units are provided with individual toilets. Every dwelling unit will be provided with Tap connection and every block of the buildings will be providing with Water Tank on the Terrace.

5. Rainwater Harvesting

All the Roads and Paved Common Area as are provided with storm water drains. The Disposal of Storm water is done up to a nearest Natural Stream.

Drains from Terrace are connected to Proposed Water Recharging Pits for Ground Water Recharge bay tapping Roof Top water which will improve Ground Water Table.

6. Operation & Maintenance Mechanism

A model of Operation and Maintenance of the Proposed Redevelopment Sites has been



developed with participatory Approach. The Model Segregates O&M in three Levels

- Dwelling Unit Block Level
- Neighborhood / Community Level
- City Level



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**4. MEANS OF TRAINING CUM
AWARENESS & LIVELIHOOD ACTIVITIES
& ITS INTEGRATION**

CHAPTER;4 MEANS OF TRAINING CUM AWARENESS & LIVELIHOOD ACTIVITIES AND ITS INTEGRATION:

Majority of people living in this slum are migrant workers from Tamil Nadu and Andhra Pradesh and speak Tamil, Telugu, Urdu and Kannada and are living in temporary /Kucha huts without basic requirements of houses, toilet, UGD, planned road network, social amenities and other infrastructure facilities. Beneficiaries are mainly engaged in masonry, carpentry, tailoring, cobblers, vegetable and fruit vendors, bar benders, doop stick makers, daily wage earners and housemaids.



Living status of Community



File photo shows the means / different kind of livelihood activities of slum dwellers.

By Developing and providing housing with necessary Physical and Social infrastructure viz., water supply, road, electricity, health center, school/ anganawadi, community hall, work Shed etc. and providing Training cum Awareness programs and livelihood support activities, linking them with banks, micro financial institutions etc the livings condition of these slum dwellers are to be developed. We have training and awareness plan for Health & Hygiene, Health Camps, Water cum sanitation, Rain water Harvesting, Child Rights, Self Help Groups, Disaster management exclusively for fire accident, Net working, RTI and RTE, Convergence of Line Dept's. Women Empowerment, Youth awareness and Environmental Issues Etc, and at the same time we have Income Generation Cum Livelihood activities



through EAP (Entrepreneurs Awareness programs), EDP (Entrepreneurs Development Programs) and SEDP (Skill Entrepreneurs Development Programs) activities



Socio Economic survey carried by the staff of KSDB

NEED FOR SOCIAL INFRASTRUCTURE:

Through consultations with the opportunistic community, it is inferred that the social Infrastructure is the most crucial need. Every individual of the community should get access to facilities like housing, safe drinking water, shops, community center, livelihood centre, anganwadis, parks, medical clinics, recreation centers etc, in the living area. Keeping this in view the slum has been selected under RAY Scheme to facilitate the same to attain one of the MDGs (Millennium Development Goal).

PARTICIPATORY APPROACH/COMMUNITY MOBILISATION:

The community participation is envisaged at various stages of socio-economic survey, planning and designing. This process is initiated by KSDB staff and Project Implementation Unit (PIU) by frequent visits to slums to understand the community, culture and its livelihood pattern. Slum dwellers have been interacted through community consultations, FDGs and awareness was given and was briefed about benefits of the Projects and identified their needs and concerns. Subsequently local leaders were also approached for their involvement and briefed about RAY's participatory process needed for effective implementation of the project.

The PIU team explained the community members about the process of slum in-situ development under RAY and responsibility of the community in paying beneficiary contribution and ensuring quality of construction. It was also discussed about formation of Community Based Organization for collective efforts for successful implementation and sustainability of the Project. The dwellers were persuaded for GF model of dwelling Units.





Coordinative efforts of PIUs and Technical staff of KSDB in community mobilization



Board staff involved in motivating the community on G.F model

Through socio-economic survey identified beneficiaries and ensured that no house hold have been left out.

Under this Project it is proposed to have...

- Mainly Shelter to all: RCC building for each of the family.
- Education: Construction of Anganwadi building.
- Counseling Services- Health and hygiene, livelihood (who need assistance to plan for the future), domestic violence.
- Linkage Services: Liaison with other government departments to leverage the benefits of other social security schemes to rehabilitate the community to lead a dignified life on par with the main stream of the society.
- Capacity building: Awareness and Vocational training, support and placement in diversified occupations are required to be done. Livelihood and vocational training to be provided free of charge. While selecting training activities equal opportunity will be given to both men and women. These will be attended in coordination with ULBs. Ref. No. 7.1.5 of Rajiv Awas Yojana Guidelines by MoHUPA states that support for capacity building. Preparatory



activities, IEC and Community Mobilisation, Planning, administrative and other expenses (PA & OE).

PROPOSED DEVELOPMENTAL ACTIVITIES UNDER IEC

Sl No	Training & Awareness program	Livelihood Development Program
1	SHG Concept	Tailoring Training
2	Social Security	Embroidery
3	Legal Assistance	Agarbatti Making
4	Awareness on Health & hygiene	Flower making
5	Skill up gradation programs	Candle making
6	Gender issues	Computer courses
7	Importance of Education	Spoken English
8	Awareness on child beggary & child Marriage	Beauty Parlor
9	Child care, girls child education	Crèche Services
10	Community Participation	Mobile phone, Radio and TV Repair
11	First Aid	Driving
12	Nutrition and Diet	Book Binding

Soon after the commencement of project IEC activities will be carried out for the sustainability of the community.

- Health Facilities: To carry out health camps and other health related activities health centre to be constructed and First aid kits must be made available and health facilities be accessed.
- Community Based Organizations: Community based organizations will be formed to bring under Community Development Network for the utilization of Community Participation Fund. Strengthen the Neighborhood Community groups and facilitate them to proper implementation and utilization of the Project.

OPERATION AND MAINTENANCE ARRANGEMENT

Community based organizations and beneficiary committees will be formed in project area on the lines of private apartments for maintenance of assets created under Project. In addition the infrastructure viz., roads, drainage, etc., would be transferred to ULB's and slum would be de-notified.



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Karnataka Slum Development Board



5. DESCRIPTION OF PROJECT

CHAPTER-5 DESCRIPTION OF PROJECT

SLUM SURVEY

Identification of Slums for DPR

The slums are identified by considering the focus on integrating implementation of 7 point charter in provision of housing and basic infrastructure and community facilities to slums. It is proposed to provide nearly 666 individual units as in-situ housing under RAY to make Bangalore slum free city. This Kuvempunagara slums have been selected among 17 existing slums (both - declared, identified) in Byataryanapura area have been selected for in-situ development housing with supporting infrastructure for the RAY Project

Criteria for selection of Slums for DPR

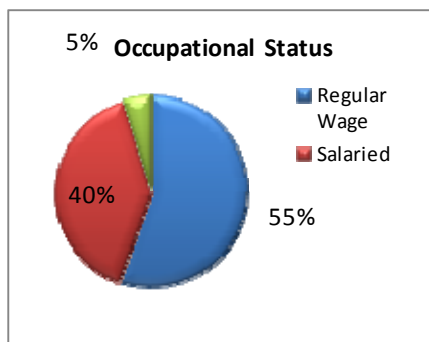
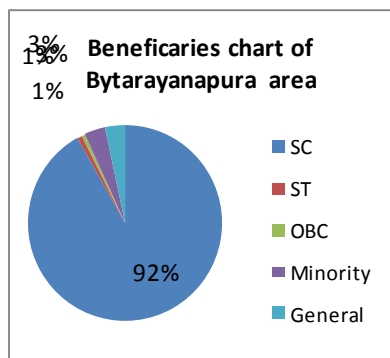
- Tenure Status of Households in Slum - In -secure Tenure Households are more vulnerable hence will be implemented in priority than semi secure tenure and secure tenure households.
- Ownership of Slums – Public Owned Land slums will have more priority than Other Ownership.
- 3X3 3X3 Matrix Condition Status – Priority on the basis of Vulner ability
- Existing Trunk Infrastructure Availability – Priority to slums having connectivity to City Level Trunk Infrastructure of Water Supply, Sanitation and Road Connectivity.
- Willingness of Slum Community gathered through FGD's

Slums selected for the Detailed Project Report in BYATARAYANAPURA AREA IN-SITU SLUMS

Sl no	Name of the Slum	No of families	Houses proposed under RAY scheme	Area of extent (in Acres-Guntas)	Ownership of land	Declared / Un-declared / identified
01	Kuvempunagar	3000	666	24.00	Govt	Identified
	Total	3000	666	24.00		

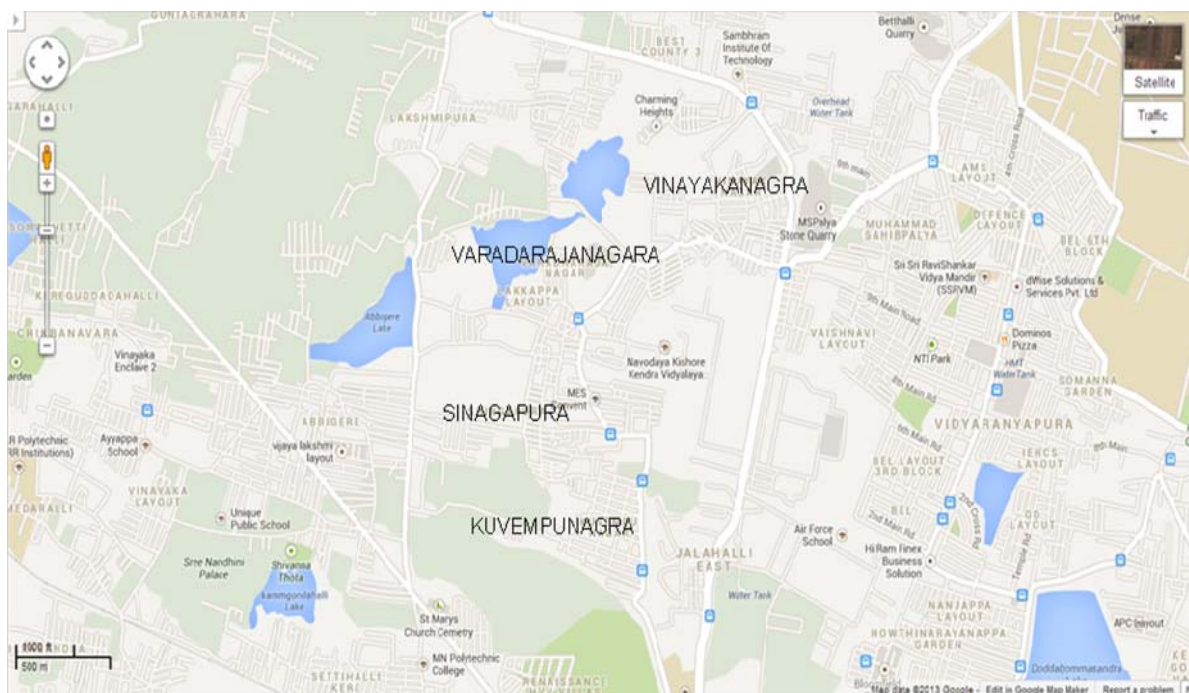


SOCIO ECONOMIC PROFILE OF THE BENEFICIARIES IN FOUR SLUMS



Slum Planning

It is proposed to provide nearly 666 dwelling units as in-situ development housing under RAY to make Bangalore slum free city. This Kuvempunagara slums (identified) in Byatarayanapura Area have been selected under the RAY Project.



The selected / identified slum are proposed to be taken up for in-situ housing which is proposed to construct new structure in place of existing Kachha houses with individual RCC framed ground floor structure having foundation provision for 1 floors above for the future expansion by beneficiaries to have additional tenability area for the benefit of the beneficiaries, whereas Kuvempunagar is proposed to be taken up for development under RAY, with basic amenities such as housing, electrification, water supply, roads, drains, etc.



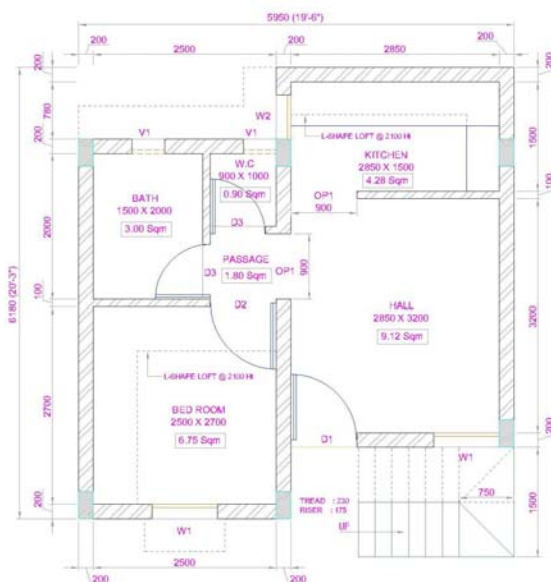
Which is proposed to constructing GF models to accommodate the all beneficiary in new layout.

Community Mobilization

The slum dwellers who were in these slum locations have been interacted and they are agreeable to in-situ housing model of dwelling units structure, hence It is proposed to construct about 666 dwelling Units under RAY project. They (666 DU's) are meant for beneficiaries of selected four slums and urban poor's as identified city assembly member.

IN-SITU HOUSING

The concept is to adopt norms prescribed as per the toolkit under RAY for housing and propose to provide ground units with 25 Sqm carpet area comprising using RCC Frame structure and with solid cement block walls based on the IS-456 code of practice including shuttering, the housing units have been designed with the following area for each dwelling unit ..



Hall	=	9.12 Sqmt
Bedroom	=	6.75 Sqmt
Kitchen	=	4.28 Sqmt
Bath	=	3.00 Sqmt
Wc	=	0.90 Sqmt
Passage	=	1.80 Sqmt

Total Carpet Area = 25.00 Sqmt

The Detailed Architectural & Structural provisions and parameters as follows.

a) HOUSING

1. RCC Columns framed structure with Isolated/eccentric footings designed as per soil condition and the unit and layout plans as per the guide lines of the RAY tool kit/ JNNURM-BSUP.
2. Flooring with ceramic/Semi vitrified tiles
3. Box section steel windows



4. 30mm thick flush/paneled/GRP sandwiched shutters
5. Internal Water Supply& plumbing works ,
6. An external UGD from individual house are connected to the net work and there after the sludge is treated with DEWAT system and treated water is used for arboriculture.
7. Lump sum provisions are made for preparation DPR, appointment of PMC and also cartage charges.

b) COMMUNITY FACILITIES

Not considered in view of existing in-situ development under incremental housing proposal.

c) AREA DEVELOPMENT & INFRASTRUCTURE (Planning and Design)

Considered in view of existing in-situ development only the connectivity from the source to the proposed construction under incremental housing proposal as per RAY Norms.

d) ENVIORNMENTAL ASSESSMENT AND MANAGEMENT :

Not applicable

e) DISASTER MANAGEMENT AND MITIGATION.

These slums proposed are in the heart of the city are in CDP area. The proposed layout/ site are located in residential zone.

1. Earth Quake: city does not come under seismic zone and not vulnerable to earth quake.
2. Land Slide: The land is fairly level and there is no chance of landslide.
3. Floods: There is no history of flooding since the land is not located near river or tank.
4. Fire Hazardous: If by chance fire is broke out in the area, there are sufficient roads with width to encounter the accident by fire fighting vehicles. Fire hydrant values are also proposed.

KUVEMPU NAGARA SURVEY LAYOUT

Construction of 666 Houses & Infrastructure works under Rajiv Awas Yojana (R.A.Y)



PROJECT ESTIMATE - BRIEF

Estimates are prepared for the selected slum, an integrated approach would be adopted with provision of housing, basic civic infrastructure and social amenities and also connectivity to city civic infrastructure from the existing schemes and programmes of State/ULB/Centre. These costing is based on the latest KPWD Schedule rates in the respective divisions. The specifications for the Housing estimate is based on the given Architectural & Structural drawings and local parameters, whereas provision for infrastructure is in need basis and as per actual requirement including all basic civic infrastructure and social amenities like water supply ,sewerage, drainage, solid waste management approach and internal road, street lighting etc.,.

The guide lines for the preparation of Detailed project Reports and estimates are based on the following Revised Guidelines (September 2013) of the RAY as per clause 8.0, 8.2 8.3 & 8.9 P -12 -13

1. There will be an upper ceiling of ₹5lakh per DU for cities with population more than 5lakhs. This ceiling would be at ₹ 4 lakhs per DU for smaller cities with population less than 5lakhs. In North East (NE) and special category States, upper ceiling would be at ₹ 5 lakh per DU irrespective of population of the city. Upper ceilings, as above, would also include cost of civic infrastructure and social amenities.
2. Cost of civic infrastructure and social amenities per DU should not exceed 25% of the cost.
3. Beneficiary contribution as per guidelines
4. O&M Fund should be made provision in the DPR to be utilized as a corpus and placed at the disposal of the ULB. Central Government will contribute one time to this fund in the applicable ration for the city Central Government will contribute one time to this O& M fund in the applicable ratio for the city i.e. 50:50 for cities with population more than 5 lakh, 75:25 for cities with population less than 5 lakh and 80:20 for cities in North eastern and special category States.
5. The DPR's is having financial & revenue model including commitment of State/ULB share required to complete the Projects as per the RAY Guidelines



Approved Funding Pattern

The funding pattern is as per the table below:

Category	Type of City/Urban Agglomerations (UA) as per 2011 Census	Contribution of				
		Component %	Centre %	State %	ULB %	Beneficiaries %
A	Cities/ UAs with Population 5 lakhs and above	Housing	50	25	-	25
		Infrastructure	50	25	25	25
B	Cities/ UAs with having Population less than 5 lakhs	Housing	75	15	-	10
		Infrastructure	75	15	10	0
C	Cities/ UAs in North-Eastern Region & special category states (Jammu & Kashmir, Himachal Pradesh & Uttarakhand)	Housing	80	10	-	10
		Infrastructure	80	10	10	0

COST SUMMARY PER UNIT

- Housing Cost : 4.35 Lakhs per Du
- Physical Infrastructure : 0.65 Lakhs per Du

Total cost per DU : 5.00 Lakhs

The above mentioned costing is well within limits as per the guidelines of the RAY for cities with population more than 5.0 lakhs



6. PROJECT COST ESTIMATE

CHAPTER 6 – PROJECT COST ESTIMATE

ENCLOSED IN VOLUME- II



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Karnataka Slum Development Board



NAME OF THE PROJECT :- CONSTRUCTION OF 666 (G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATRAYSANAPURA AREA UNDER RAY.		
ABSTRACT SHEET		
SI No	Description	Amount
HOUSING BREAK UP DETAILS (G.F)		
	PART : I - (GF)	
1	Housing	421400.00
2	Internal Water Supply	1950.00
3	Internal Sanitary	7150.00
4	Internal Electrical	4500.00
	Rs	435000.00
Part - A : Housing		
5	For 666 (G.F) Units	289710000.00
	Sub Total for Part - A :	289710000.00
Part - B1 : Physical Infrastructure		
	PART : I - (GF)	
6	Roads : i. Asphalt Road	898000.00
	ii. CC Road	9990000.00
7	Water Supply : i. Service connection	1998000.00
	ii. Mini water supply scheme	2838000.00
8	Storm water Drains : i. Drains	11582000.00

SI No	Description	Amount
9	Sewerage : i. Service connection	7326000.00
10	Street lighting : i. Service connection	8658000.00
	Sub Total for Part - B1 :	43290000.00
Part - B2 : Social Infrastructure		
11	Community Center	Nil
	Sub Total for Part - B2 :	0.00
	Sub Total for Part - B1+B2 :	43290000.00
	Sub Total for Part - A + B :	333000000.00
Part - C : Operation & Maintenance cost		
12	O & M @ 4%	13320000.00
	Sub Total for Part - C :	13320000.00
Part - D : Others		
13	A & OE, IEC, DPR Preparation & PMC @ 5%	16650000.00
	Sub Total for Part - D :	16650000.00
	Grand Total (Part - A + B + C + D) :	362970000.00
	Grand Total amount Rs in Lakhs :	3629.70
(Rs Thirty Six Crores Twenty Nine Lakhs Seventy Thousand Only)		
Assistant Engineer	Assistant Executive Engineer	Executive Engineer
	No:4, Sub-Division,	No.2, Division,
	KSDB, Bangalore.	KSDB, Bangalore.

KARNATAKA SLUM DEVELOPMENT BOARD

**NAME OF THE PROJECT :- DETAILED ESTIMATE FOR CIVIL WORKS FOR CONSTRUCTION OF 666
(G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING
INFRASTRUCTURE IN BANGALORE CITY, BYATRAYANAPURA AREA UNDER RAY.**

I : CIVIL WORKS :

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
1	Dismantling Mangalore tiles roof A.C. sheet roofing. and stacking the material within a radius of 50 meters. (Item No : 37.42.3)								
	4 X 3.5 Shed		1	4.00	4.00		16.00		
	Total :	Sqm					16.00	48.76	780.16
	Basic Rate	46.00							
	Area Weightage 6%	2.76							
	Total Rate	48.76							
2	KSRRB M200-14.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, seel work, including T & P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000 metres complete as per specifications.B. In cement mortar MORTH Specification No. 202 (Item No : 18.23)								
	4 X 3.5 Shed		1	15.00	0.20	(2.50+2.75)	7.88		
	Total :	Cum					7.88	197.16	1552.64
	Basic Rate	186.00							
	Area Weightage 6%	11.16							
	Total Rate	197.16							
3	KSRRB M100-4.2 Haulage of materials by tipper excluding cost of loading, unloading and stacking complete as per specifications. MORTH - 100/ Chapter 1 Case - II : Unsurfaced gravelled road. (Item No : 17.5)								
	debris removal for 5km		5	1.30	2.54	16.54	7.88		
	Total :	t.km					7.88	16.54	130.22
	Basic Rate	2.40							
	Area Weightage 6%	0.14							
	Total Rate	2.54							
4	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. (Item No. 2.4)								
a	Lift upto 1.50m depth								
	F1		2	1.80	1.65	1.50	8.91		
	EF1		4	2.00	1.175	1.50	14.10		
	Total :	Cum					23.01	223.66	5146.42

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
	Basic Rate	211.00							
	Basic Rate	12.66							
	Total Rate	223.66							
5	Earthwork excavation for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. (Item No. 2.3)								
	External Mian Wall		1	23.45	0.750	0.575	10.11		
	Partation walls :								
	Wall b/w Kit & Hall		1	2.85	0.60	0.100	0.17		
	Wall b/w Bedroom & Bath		1	2.50	0.60	0.100	0.15		
	Wall b/w Bath & W/C		1	2.00	0.60	0.100	0.12		
	Wall b/w W/C & Passage		1	0.90	0.60	0.100	0.05		
	Total : Cum						10.61	148.93	1579.82
	Basic Rate	140.50							
	Area Weightage 6%	8.43							
	Total Rate	148.93							
5	KSRB 4.2.2 : Providing and laying in position plain cement concrete of mix M 7.5 with OPC cement @180 kgs with 40mm and down size graded granite metal, coarse aggregate @ 0.85 cum and fine aggregates @0.57 cum machine mixed, concrete laid in layers not exceeding 15 cms thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 (Item No : 4.3)								
a	For Foundation								
	F1		2	1.80	1.65	0.10	0.59		
	EF1		4	2.00	1.175	0.10	0.94		
	External Mian Wall		1	23.45	0.75	0.10	1.76		
	Partation walls :								
	Wall b/w Kit & Hall		1	2.85	0.60	0.10	0.17		
	Wall b/w Bedroom & Bath		1	2.50	0.60	0.10	0.15		
	Wall b/w Bath & W/C		1	2.00	0.60	0.10	0.12		
	Wall b/w W/C & Passage		1	0.90	0.60	0.10	0.05		
	Total : Cum						3.79	4211.38	15951.65
	Basic Rate	3973.00							
	Area Weightage 6%	238.38							
	Total Rate	4211.38							
b	For Flooring								
	Living		1	2.85	3.20	0.075	0.68		
	Bed room		1	2.50	2.700	0.075	0.51		
	Kitchen		1	2.85	1.50	0.075	0.32		
	Bath		1	1.50	2.00	0.075	0.23		
	W.C		1	0.90	1.00	0.075	0.07		
	Passage near W.C / Bath		1	1.10	0.90	0.075	0.07		
	Total : Cum						1.88	4211.38	7907.39
	Basic Rate	3973.00							
	Area Weightage 6%	238.38							
	Total Rate	4211.38							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
6	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix 1:1.5:3 (M20) with OPC cement @320 kgs with 20mm and down size graded granite metal, coarse aggregate @ 0.878 cum and fine aggregates @0.459 cum with superplastisiser @3ltrs confirming to IS9103-1999 Reaffirmed -2008 machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintles, retaining walls, return walls, walls (any thickness) including attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1, 4.6 . (Item No. 4.11)								
a	For Footing concrete								
	F1		2	1.65	1.50	0.30	1.49		
	EF1		4	1.85	1.100	0.35	2.85		
	Total :	Cum					4.33	5535.32	23990.08
	Basic Rate	5222.00							
	Area Weightage 6%	313.32							
	Total Rate	5535.32							
b	For Pedestal concrete								
	EF1 of P1		4	0.275	0.525	0.60	0.35		
	Total :	Cum					0.35	5535.32	1917.99
7	Providing and removing centering, shuttering, strutting, propping etc, and removal of form work for foundations,footings, bases of columns for mass concrete etc., including cost of all materials, labour complete as per specifications as per direction of Engineer in charge. (Item No: 4.28)								
a	For Footing concrete								
	F1		2 X 2 (1.65 + 1.50)			0.30	3.78		
	EF1		4 X 2 (1.85 + 1.10)			0.35	8.26		
	EF1 of P1		4 X 2 (0.275 + 0.525)			0.60	3.84		
	Total :	Sqm					15.88	220.48	3501.22
	Basic Rate	208.00							
	Area Weightage 6%	12.48							
	Total Rate	220.48							
8	KSRB 4.2.8 : Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggretes @ 0.46cum, with superplastisiser @3ltrs confirming to IS9103- 1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for R.C.C. beams, columns of all sizes in foundation plinth and superstructure ground floor level for roof slabs, staircase, lintles, columns, including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1, 4.6 (Item No. 4.17)								
	For Columns								
	C1		2	0.20	0.375	3.875	0.58		
	C2		4	0.20	0.375	3.275	0.98		
	Total :	Cum					1.56	5535.32	8655.86
	Basic Rate	5222.00							
	Area Weightage 6%	313.32							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
	Total Rate	5535.32							
9	Providing and removing centering, shuttering, strutting, propping etc, and removal of form work for columns etc., including cost of all materials, labour complete as per specifications including all lead and lift charges etc., complete as per directions as directed by Engineer in charges. (Item No. 4.32) For Columns								
	For Columns								
	C1		2 X 2	(0.20 + 0.375)			3.875	8.91	
	C2		4 X 2	(0.20 + 0.375)			3.275	15.07	
	Total :	Sqm					23.98	330.72	7929.84
	Basic Rate	312.00							
	Area Weightage 6%	18.72							
	Total Rate	330.72							
6	Providing and constructing granite/ trap/basalt size stone masonry in foundation with cement mortar 1:6 , stone hammered dressed in course not less than 20cm high, bond courses at 2mtrs apart in each course including cost of materials, labour, curing etc., complete as per specifications and as directed by Engineer in charge. (Item No. 5.6)								
	External Mian Wall		1	23.45	0.600	0.20	2.81		
			1	23.45	0.525	0.20	2.46		
			1	23.45	0.450	0.20	2.11		
	deduct for column		-2	0.20	0.375	0.60	-0.09		
	Pedestal		-4	0.275	0.525	0.60	-0.35		
	Partation walls :								
	Wall b/w Kit & Hall		1	2.85	0.45	0.40	0.51		
	Wall b/w Bedroom & Bath		1	2.50	0.45	0.40	0.45		
	Wall b/w Bath & W/C		1	2.00	0.45	0.40	0.36		
	Wall b/w W/C & Passage		1	0.90	0.45	0.40	0.16		
	Total :	Cum					8.44	3484.22	29390.27
	Basic Rate	3287.00							
	Area Weightage 6%	197.22							
	Total Rate	3484.22							
7	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix 1:1.5:3 (M20) with OPC cement @320 kgs with 20mm and down size graded granite metal, coarse aggregate @ 0.69 cum and fine aggregates @0.46 cum with superplasticiser @3ltrs conforming to IS9103-1999 Reaffirmed -2008 machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintels, retaining walls, return walls, walls (any thickness) including attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1, 4.6 (Item No. 4.17)								
	Plinth beam : Longer Side		2	5.20	0.20	0.300	0.62		
			1	6.18	0.20	0.375	0.46		
	Shoter Side		2	2.50	0.20	0.300	0.30		
			2	2.85	0.20	0.300	0.34		
	Total :	Cum					1.73	5535.32	9573.34
	Basic Rate	5222.00							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
	Area Weightage 6%	313.32							
	Total Rate	5535.32							
8	Providing and removing centering, shuttering, strutting, propping etc, for columns etc., including cost of all materials, labour complete as per specifications including all lead and lift charges etc., complete as per directions directed by Engineer in charges. (Item No. 4.32)								
	Plinth beam : Longer Side		2 X 2	5.20		0.300	6.24		
			1 X 2	6.18		0.375	4.64		
	Shoter Side		2 X 2	2.50		0.300	3.00		
			2 X 2	2.85		0.300	3.42		
	Total : Sqm						17.30	312.00	5396.04
	Basic Rate	312.00							
	Area Weightage 6%	18.72							
	Total Rate	330.72							
9	KSRB 2.5 : Earthwork excavation (in deposited soil) and filling sides of foundation upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. specification. No. KBS 2.9.9/2.9.10.1/2.1.1 (Item No-.2.12)								
	For Flooring Bed		1	2.475	4.30	0.375	3.99		
			1	2.125	4.30	0.375	3.43		
	Total : Cum						7.42	199.28	1478.16
	Basic Rate	188.00							
	Area Weightage 6%	11.28							
	Total Rate	199.28							
10	KSRB 5-14 : Providing and constructing precast concrete solid blocks with compressive strength not less than 35 Kg/sqm with cement mortar 1:4 masonry (quin, Jamb, closer blocks) with solid concrete blocks of size 40x15x20 cms conforming to I.S: 2185 of 1965 in superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications. (Item No - 5.27.2)								
	Ground floor main wall								
	Long Wall		1	5.20		2.625	13.65		
			1	6.18		2.625	16.22		
			1	5.20		2.625	13.65		
	Short Wall		2	2.85		2.625	14.96		
			2	2.50		2.625	13.13		
	Kitchen platform wall		3	0.60		0.75	1.35		
	SubTotal :						72.96		
	Deductions : Doors		1	0.90		2.10	1.89		
	OP1		1	0.90		2.63	2.36		
	W1		2	0.90		1.20	2.16		
	W2		1	0.60		0.45	0.27		
	V		2	0.45		0.45	0.41		
	Deduct lintel		1	27.28		0.15	4.09		
							11.18		
	Total : Sqm						61.78	802.42	49573.91
	Basic Rate	757.00							
	Area Weightage 6%	45.42							
	Total Rate	802.42							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
11	KSRB 5-14 : Providing and constructing precast concrete solid blocks with compressive strength not less than 35 Kg/sqm with cement mortar 1:4 masonry (quoin, Jamb, closer blocks) with solid concrete blocks of size 40x10x20 cms conforming to I.S: 2185 of 1965 in superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications. (Item No - 5.28)								
	Partition wall-BED		1	2.50		2.885	7.21		
	Partition Wall -KIT		1	2.85		2.100	5.99		
	Partition Wall -Bath		1	2.00		2.885	5.77		
			1	0.90		2.885	2.60		
	Sub Total :						21.56		
	deduct D2		1	0.90		2.10	1.89		
	D3		2	0.75		2.10	3.15		
	OP1		1	0.90		2.10	1.89		
	Deduct lintel		1	8.25		0.15	1.24		
	Sub Total :						8.17		
	Total :	Sqm					13.40	650.84	8718.98
	Basic Rate	614.00							
	Area Weightage 6%	36.84							
	Total Rate	650.84							
12	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix 1:1.5:3 (M20) with OPC cement @320 kgs with 20mm and down size graded granite metal, coarse aggregate @ 0.878 cum and fine aggregates @0.495 cum with superplastisiser @3ltrs confirming to IS9103-1999 Reaffirmed -2008 machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintles, retaining walls, return walls, walls (any thickness) including attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1, 4.6 (Item No 4.11)								
	Lintels For Main wall: LB1								
	Above Windows : W1		2	1.30	0.15	0.150	0.06		
	Above Windows : W2		1	1.00	0.15	0.150	0.02		
	Above Ventilators : V1		2	0.85	0.15	0.150	0.04		
	Above Door Opening		2	1.30	0.15	0.150	0.06		
	Lintels For Partation wall: LB2		1	8.25	0.10	0.150	0.12		
	Total :	Cum					0.30	5535.32	1668.90
	Basic Rate	5222.00							
	Area Weightage 6%	313.32							
	Total Rate	5535.32							
13	Providing and removing centering, shuttering, strutting, propping etc, and removal of form work for Beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1m in depth including cost of all materials, labour complete as per specifications. (Item No. 4.34)								
	Lintels For Main wall: LB1								
	Above Windows : Sides : W1		2 X 2	1.30		0.15	0.78		
	Bottom		2	0.90	0.15		0.27		

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
	Above Windows : Sides : W2		1 X 2	1.00		0.15	0.60		
	Bottom		2	0.60	0.15		0.18		
	Above Ventilators : Sides : V1		2 X 2	0.85		0.15	0.51		
	Bottom		2	0.45	0.15		0.14		
	Above Door Opening:Side		2 X 2	1.30		0.15	0.78		
	Bottom		2	0.90	0.15		0.27		
	Lintels For Partation wall: LB2		1 X 2	8.25		0.15	2.48		
	Bottom								
	D2		1	0.90		0.10	0.09		
	D3		2	0.75		0.10	0.15		
	OP1		1	0.90		0.10	0.09		
	Total : Sqm						6.33	239.56	1516.41
	Basic Rate	226.00							
	Area Weightage 6%	13.56							
	Total Rate	239.56							
14	KSRB 4.2.8 : Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregates @ 0.46cum, with superplasticiser @3lts conforming to IS9103- 1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for R.C.C. beams, columns of all sizes in foundation plinth and superstructure ground floor level for roof slabs, staircase, lintels, columns, including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1, 4.6 (Item No. 4.17)								
	Roof beam : Longer Side		2	5.20	0.20	0.26	0.54		
			1	6.18	0.20	0.26	0.32		
	Shoter Side		3	2.50	0.20	0.26	0.39		
			3	2.85	0.20	0.26	0.44		
	Total : Cum						1.70	5535.32	9392.11
	Basic Rate	5222.00							
	Area Weightage 6%	313.32							
	Total Rate	5535.32							
15	Providing and removing centering, shuttering, strutting, propping etc, and removal of form work for Beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1m in depth including cost of all materials, labour complete as per specifications. (Item No. 4.34)								
	Roof beam : Longer Side		2 X 2	5.20		0.26	5.41		
			1 X 2	6.18		0.26	3.21		
	Shoter Side		3 X 2	2.50		0.26	3.90		
			4 X 2	2.85		0.26	4.45		
	Total : Sqm						16.97	239.56	4064.76
	Basic Rate	226.00							
	Area Weightage 6%	13.56							
	Total Rate	239.56							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
14	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix 1:1.5:3 (M20) with OPC cement @320 kgs with 20mm and down size graded granite metal, coarse aggregate @ 0.69 cum and fine aggregates @0.46 cum with superplastisiser @3ltrs confirming to IS9103-1999 Reaffirmed -2008 machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintles, retaining walls, return walls, walls (any thickness) including attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1, 4.6 (Item No. 4.17)								
	Slab : Area X Thickness		1	31.14		0.115	3.58		
	Total :	Cum					3.58	5535.32	19822.53
	Basic Rate	5222.00							
	Area Weightage 6%	313.32							
	Total Rate	5535.32							
15	Providing and removing centering, shuttering, strutting, propping etc, and removal of form work for Roof slabs, staircases etc., including cost of all materials, labour complete as per specifications including all lead and lift charges etc., complete as per directions of Engineer in charge. (Item No 4.29)								
	Ground Floor								
	Living		1	2.85	3.20		9.12		
	Bed room		1	2.50	2.700		6.75		
	Kitchen		1	2.85	1.50		4.28		
	Bath		1	1.50	2.00		3.00		
	W.C		1	0.90	1.00		0.90		
	Passage near W.C / Bath		1	1.10	0.90		0.99		
	Sides		1	24.26	0.115		2.79		
	Total :	Sqm					27.82	284.08	7904.50
	Basic Rate	268.00							
	Area Weightage 6%	16.08							
	Total Rate	284.08							
16	Providing and laying in position reinforced cement concrete of mix 1:1:5:3 (M20) with 12mm and down size graded granite metal, machine mixed, well compacted for plain chejja of 7.5 cms average thickness, upto ground floor level, including cost of all materials labour, HOM of machinery, finishing curing (exclusive of cost steel and fabrication charges) (Item No 4.19)								
	For chejja								
	W1		2	1.20	0.30		0.72		
	W2 & V1		1	0.68	0.30		0.20		
	V1		1	0.75	0.30		0.23		
	Loft :								
	Bed room loft		1	2.50	0.30		0.75		
	Kitchen loft		1	2.85	0.30		0.86		
	Total :	Sqm					2.75	405.98	1118.07
	Basic Rate	383.00							
	Area Weightage 6%	22.98							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
	Total Rate	405.98							
17	Providing and removing centering, shuttering, strutting, propping etc, and removal of form work for Chejja etc., including cost of all materials, labour complete as per specifications including all lead and lift charges etc., complete as per directions of Engineer in charge. (Item No. 4.37)								
	For chejja								
	W1		2	1.20	0.30		0.72		
	W2 & V1		1	0.68	0.30		0.20		
	V1		1	0.75	0.30		0.23		
	Loft :								
	Bed room loft		1	2.50	0.30		0.75		
	Kitchen loft		1	2.85	0.30		0.86		
	Total :	Sqm					2.75	242.74	668.51
	Basic Rate	229.00							
	Area Weightage 6%	13.74							
	Total Rate	242.74							
18	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, fixing with binding wire and anchoring to the adjoining members wherever necessary complete as per design, (laps and wastages shall not be measured and paid) csot of materials, etc. complete as per specifications (Item No 4.46.1)								
	Footing & Pedestal			4.68	40.00	Kg/Cmt	1.87		
	Plinth Beams			1.73	120.00	Kg/Cmt	2.08		
	Columns			1.56	250.00	Kg/Cmt	3.91		
	Roof Beams			1.70	160.00	Kg/Cmt	2.71		
	Roof Slabs			3.58	70.00	Kg/Cmt	2.51		
	Lintel			0.30	177.00	Kg/Cmt	0.53		
	Chejja		2.75	0.21	20.00	Kg/Cmt	0.04		
	Total :	Qtl					13.65	7244.04	98906.69
	Basic Rate	6834.00							
	Area Weightage 6%	410.04							
	Total Rate	7244.04							
19	Providing 12mm thick cement plaster in single coat with cement mortar 1:3 to ceiling including rounding off corners wherever required smooth rendering. Providing and removing scaffolding, including cost of materials, labour, curing etc., complete as per specification. (Item No. 15.21)								
	Ground floor : Ceiling plastering	Sqm							
	Living		1	2.85	3.20		9.12		
	Bed room		1	2.50	2.70		6.75		
	Kitchen		1	2.85	1.50		4.28		
	Kitchen Platform wall		6	0.60	0.75		2.70		
	Bath		1	1.50	2.00		3.00		
	W.C		1	0.90	1.00		0.90		
	Passage Near W.C / Bath		1	1.10	0.90		0.99		
	loft : Bed room		1	2.50	0.90		2.25		
	loft : Kitchen		1	2.85	0.90		2.57		
	Total :	Sqm					32.55	163.24	5313.46
	Basic Rate	154.00							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
	Area Weightage 6%	9.24							
	Total Rate	163.24							
20	Providing 12mm thick cement plaster in single coat with cement mortar 1:6 to brick masonry including rounding off corners wherever required smooth rendering including Providing and removing scaffolding, cost of materials, labour, curing etc., complete as per specification. (Item No. 15.11)								
	Room		1	10.40		2.87	29.85		
	hall		1	9.25		2.87	26.55		
			1	2.85		2.10	5.99		
	Kitchen		1	5.85		2.87	16.79		
			1	2.85		2.10	5.99		
	Bath		1	7.00		2.87	20.09		
	Toilet		1	3.8		2.87	10.91		
	Passage		1	3.30		2.87	9.47		
			4	0.60		0.80	1.92		
	Sub Total :						127.54		
	Deduction D1		1	0.90		2.10	1.89		
	Deduction D2		1	0.90		2.10	1.89		
	Deduction D3		1	0.75		2.10	1.58		
	Op1		2	0.90		2.10	3.78		
	Op2		4	3.20		0.53	6.72		
	Window W1		2	0.90		1.20	2.16		
	Window W2		1	0.75		0.60	0.45		
	WinVentilater V		2	0.45		0.60	0.54		
	Sub Total :						19.01		
	50 % of the deduction qty :						9.50		
	Total : Sqm						118.04	124.02	14639.26
	Basic Rate	117.00							
	Area Weightage 6%	7.02							
	Total Rate	124.02							
21	KSRB15-7 : Providing lime rendering for plastering to wall and ceiling , including cost of materials, labour, curing complete as per specifications. (Item No. 15.33)								
	Inside plastering						32.55		
	Ceiling plastering						118.04		
	Total : Sqm						150.59	19.08	2873.25
	Basic Rate	18.00							
	Area Weightage 6%	1.08							
	Total Rate	19.08							
22	Providing 18 mm thick cement plaster in single coat with cement mortar 1:6 to brick masonry including rounding off corners wherever required smooth rendering. Providing and removing scaffolding, including cost of materials, labour, curing etc., complete as per specifications for Out side plastering. (Item No. 15.17)								
	Ground Floor Out side plastering alround		1	24.26		3.00	72.78		
	Roof Flooring (WPC)		1	31.14			31.14		
	Sub Total :						103.92		
	Deductions								
	Deduction D1		1	0.90		2.10	1.89		
	Op1		2	0.90		2.10	3.78		
	Window W1		2	0.90		1.20	2.16		
	Window W2		1	0.75		0.60	0.45		

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
	WinVentilater V		2	0.45		0.60	0.54		
	Sub Total :						8.82		
	50 % of the deduction qty :					50%	4.41		
	Total :	Sqm					99.51	165.36	16454.97
	Basic Rate	156.00							
	Area Weightage 6%	9.36							
	Total Rate	165.36							
23	KSRB 15-14.1 : Providing and applying two coats with oil bound washable distemper of approved brand and shade on wall surface including priming coat with distemper primer after thoroughly brooming the surface free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. (item no 15.49.1)								
	Inside plastering						Qty Wide item No : 19	118.04	
	Ceiling plastering						Qty Wide item No : 20	32.55	
	Total :	Sqm						150.59	56.00
	Basic Rate	56.00							8433.01
	Area Weightage 6%	3.36							
	Total Rate	59.36							
24	KSRB 15-16.1 : Providing and finishing external walls in two coats with primer of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. (Item No. 15.53.2)								
	Outside plastering						Qty Wide item No : 22	68.37	
	Total :	Sqm						68.37	78.44
	Basic Rate	74.00							5362.94
	Area Weightage 6%	4.44							
	Total Rate	78.44							
25	Providing and fixing RCC door frames factory manufactured, with C.C. 1:1 1/2 :3 reinforced with 3 Nos. of 6 mm dia. Main bars and 6 mm dia. Stirrups welded at 30 cm C/C, vibrating, curing including cost of steel and fabrication charges having 3 Nos. of hinges with 20mm x 3mm M.S. flat welded with required iron rods and flats with drilling and fixing 4 No.of flat screw nuts each in concrete for fixing hinges and making necessary provision in concrete for fixing aldrops, tower bolts etc., including cost of one coat of oil based enamel primer, 4 No.of hold fasts, 3 Nos. ISS Iron oxidised hinges necessary metal screws etc., complete. 60mm x 100 mm size-Door frames. (Item No:9.98)								
	Door - D1: With threshold		1	6.00				6.00	
	Door - D1 : Without threshold		1	5.10				5.10	
	Total :	m						11.10	231.08
	Basic Rate	218.00							2564.99
	Area Weightage 6%	13.08							
	Total Rate	231.08							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
26	Providing and fixing of factory made single leaf HDF skin sandwiched composite door shutter of 32 mm thick laminated with 2 HDF skins with wood grain finish and high quality structural honeycomb core materials, the thickness of the skin shall not be less than 3 mm and honey comb core of 29 mm thick, good quality wooden reinforcement properly seasoned having a cross section 65X28 mm for fixing the metal fittings such as tower bolts, aldrops etc., shall be provided, a structural bonding material compatible with the honey comb core, wood & HDF skin shall be used for bonding, the HDF skin, core and wooden reinforcement assembly are bonded together at high temperature and pressure by compression moulding process. The door surface coated with 2 coats of high quality primer and 2 coats of paint of approved make and quality, conforming to RV-TIFAC centre standards and specifications and tested as per IS: 4020-1994 including cost of all fixtures. with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of engineer-in-charge of the work. (Approved Rate)								
	Door - D1		2	0.78		1.98	3.09		
	Total :	Sqm					3.09	2400.00	7413.12
27	Providing and fixing in position in cement concrete 1:3:6 Steel glazed windows and ventilators side hung / top hung 2/3 openable 1/3 fixed as per approved drawings using Z angles of 25x46x3mm. Weighing 1.419 Kg/m both for outer and inner frames and central mullion section of size 25x46x3mm. Weighing 2.28Kg/m duly providing T section 19x19x3mm weighing 0.839Kg/m for glazing of windows not more than 34 cms. C/C including providing and fixing 4mm. Thick reeded glass with teakwood beading of required size, all sections should confirm to IS 7452:1990, 4nos. of holdfasts of approved size, section should be cut to length welded and electrically grinded subdividing frames of unit shall be tenoned and revetted into the frames electrically. All the steel surface shall be throughly cleaned free of rust and painted with one coat of anti-corosive paint and fininshing with two caats of ready mix paint of approved colour and make including cost of materials, fixtures, labour and HOM of machinery complete as per specifications. (Item No. 7.8)								
	W1		2	0.90		1.20	2.16		
	W2		1	0.60		0.45	0.27		
	V		2	0.45		0.45	0.41		
	Total :	Sqm					2.84	3058.10	8669.71
	Basic Rate	2885.00							
	Area Weightage 6%	173.10							
	Total Rate	3058.10							
28	Supplying and fixing of PVC door shutters made of 20mmx200mm with the wall thickness of 1.0mm+/-0.1mm equally divided into 4 nos with tongue and groove locking arrangements. The shutter frame is made of 58x24mm with the wall thickness of 1.5mm+0.15mm section metricut and jointed at 4 corners with 125mm x 225mm 2 Nos of 8mm PVC rods. Teak wood battoms shall be reinforced inside the door shutter during the fabrication of the door shutters at those points wherver the hardware is fixed on to the door shutter, as per specifications. (Item No : 9.86)								
	Door - D3		2	0.75		2.10	3.15		
	Total :	Sqm					3.15	1860.30	5859.95
	Basic Rate	1755.00							
	Area Weightage 6%	105.30							
	Total Rate	1860.30							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount	
33	Miscellaneous and Unforseen Charges								11.38	
Total for Civil work for One House :									421400.00	
This is to Certified that :										
1	Area comes under the jurisdiction of KSDB									
2	Estimate prepared based on the SR of 2013-14									
	Assistant Engineer		Assistant Executive Engineer					Executive Engineer		
			No:4, Sub-Division,					No.2, Division,		
			KSDB, Bangalore					KSDB, Bangalore		

KARNATAKA SLUM DEVELOPMENT BOARD

NAME OF THE PROJECT :- DETAILED ESTIMATE FOR INTERNAL WATER SUPPLY WORKS FOR CONSTRUCTION OF 666 (G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATRANAPURA AREA UNDER RAY.

II : INTERNAL WATER SUPPLY :

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
1	KSRB13-6.1-1 : Providing and fixing in position brass bib cock of approved quality 15mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. KBS 13.2.2/13.3 (Item No :13.23)		1	3.00			3.00		
	Total : Each						3.00	231.08	693.24
	Basic Rate	218.00							
	Area Weightage 6%	13.08							
	Total Rate	231.08							
2	KSRB13-8.1 : Providing and fixing to wall, ceiling and floor, low density polyethylene pipes 6.00 kgf/sq.cm working pressure 20mm outside diameter compression type fittings, wall clips, making good the wall, ceiling and floor including cost of all materials, labour charges, HOM of equipments and testing excluding cost of fitting etc., complete as per Specification (Item No :13.66)		1	10.00			10.00		
	Total : Rmt						10.00	89.04	890.40
	Basic Rate	84.00							
	Area Weightage 6%	5.04							
	Total Rate	89.04							
3	KSRB13-6.3-1 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 20mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. KBS 13.2.6/13.3 (Item No :13.32)		1	1.00			1.00		
	Total : Each						1.00	340.26	340.26
	Basic Rate	321.00							
	Area Weightage 6%	19.26							
	Total Rate	340.26							
4	Miscellaneous and Unforseen Charges								26.10
	Total for Internal water supply work for One House :								1950.00

This is to Certified that :

1	Area comes under the jurisdiction of KSDB
2	Estimate prepared based on the SR of 2013-14
3	Area weightage of Bangalore city is considered
	Assistant Engineer
	Assistant Executive Engineer
	No:4, Sub-Division,
	Executive Engineer
	No.2, Division,

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
			KSDB, Bangalore				KSDB, Bangalore		

KARNATAKA SLUM DEVELOPMENT BOARD

NAME OF THE PROJECT :- DETAILED ESTIMATE FOR INTERNAL ELECTRIFICATION WORKS FOR CONSTRUCTION OF 666 (G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATRAYANAPURA AREA UNDER RAY.

IV : INTERNAL ELETRIFICATION :

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
1	Groove cutting: supplying 19/20 mm dia 2mm /2.5mm thick heavy gauge PVC Conduit Pipe with bends metal junction boxed adhesive paste etc., and bracing U or J hooks and cement plastering up to the surface of the brick level and run with 18 SWG GI fish wire run through out the 19/20 mm dia 2mm thick. (Item no : 3a)		1	41.00			41.00		
	Total :	Rmt					41.00	32.00	1312.00
2	Point wiring using copper with switch. Supplying and wiring adopting loop system in existing PVC conduit/ casing capping using copper PVC insulated multistand 2x1.5 Sqmm Copper wire with a 6 Amps flush type SP control switch shall be fixed on the existing plastic sheet / gang box, the other end of the wire shall be terminated with sufficient loose.Point wiring using class A material								
a	Short point up to 3 mtrs from tapping point to outlet via switch (Item no: 8a)		1	3.00			3.00		
	Total :	m					3.00	175.00	525.00
b	Medium point above 3mtrs up to 6 mtrs from trapping point outlet via switch (Item no : 8a)		1	2.00			2.00		
	Total :	m					2.00	260.00	520.00
3	Supplying 6A flush/projected type socket and a 6 Amps flush/projected type SP switch either surface/Flush in a existing gang box or in a 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required. 6Amps 3/5 Way (Item no: 12 b)		1	1.00			1.00		
	Total :	Nos					1.00	106.00	106.00
4	Wiring for lighting/power circuit using one of PVC insulated 1100v grade, mutis and copper conductor single core cable in open or concealed system of wiring. Group 'A' material Page no: 9 item no: 20								
a	2.5 Sqmm		1	30.00			30.00		
	Total :	Rmt					30.00	25.00	750.00
b	4Sqmm page no: 9 item no: 20 d		1	10.00			10.00		

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount	
	Total :	Rmt					10.00	32.00	320.00	
5	Supplying and flush mounted teak wooden box with out front plank made of not less than 12 mm thick wood after due groove cutting necessary masonry patch work complete.									
a	10"x7"x3" item no :6 c		2	2.00			4.00			
	Total :	No					4.00	68.00	272.00	
b	1 to 2 way item no :6 f		1	2.00			2.00			
	Total :	No					2.00	18.00	36.00	
c	1 to 6 way item no: 6 h		1	2.00			2.00			
	Total :	No					2.00	32.00	64.00	
6	Supplying 4mm thick plasting sheet with necessary nitches for fixing switches regulator etc and fixing on existing wooden or metal box using NF screws (item no: 22)		1	1200.00			1200.00			
	Total :	Sqcm					1200.00	0.22	264.00	
7	Supplying and fixing of bake light DP socket / switch with or without neon indicator over existing board or flush mounting in plastic plate or nitches. (P6/4.11d)		1	1.00			1.00			
	Total :	Sqcm					1.00	165.00	165.00	
8	Providing RAY logo and numbering		1	1.00			1.00			
	Total :	Sqcm					1.00	120.00	120.00	
9	Miscellaneous and Unforseen Charges								46.00	
			Total for Internal Electrification work for One House :						4500.00	
This is to Certified that :										
1	Area comes under the jurisdiction of KSDB									
2	Estimate prepared based on the SR of 2013-14									
3	Area weightage of Bangalore city is considered									
	Assistant Engineer		Assistant Executive Engineer					Executive Engineer		
			No:4, Sub-Division,					No.2, Division,		
			KSDB, Bangalore					KSDB, Bangalore		

NAME OF THE WORK : DETAILED ESTIMATE OF ASPHALT ROAD FOR CONSTRUCTION OF 666 (G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATRAYANAPURA AREA UNDER RAY.									
SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
1	Earthwork excavation by manual means in hard soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications.MORTH Chapter 3 (Page No152, Item No.19.2)								
a	Kuvempunagara								
	For 7.00 Mtrs Wide		1	280.00	6.20	0.40	694.40		
	Total Qty	Cum					694.40	89.04	61829.00
	Basic Rate	84.00							
	Area Weightage 6%	5.04							
	Total Rate	89.04							
2	Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specification. (Item No - 19.64, Page No - 160)								
a	Kuvempunagara								
	For 7.00 Mtrs Wide		1	280.00	6.20		1736.00		
	Total Qty	Sqm					1736.00	3.98	6901.00
	Basic Rate	3.75							
	Area Weightage 6%	0.23							
	Total Rate	3.98							
3	Construction of sub-grade and earthen shoulders with approved material Grave / Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No -300-2 Complete as per specifications (Including cost of earth, watering charges & comacation by vibratory roller). (item No - 19.62 Page No - 157)								
a	Kuvempunagara								
	For 7.00 Mtrs Wide		1	280.00	6.20	0.10	173.60		
	Total Qty	Cum					173.60	190.80	33123.00
	Basic Rate	180.00							
	Area Weightage 6%	10.80							
	Total Rate	190.80							
4	Construction of granular sub-base by providing close graded material , mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A.Plant mix method Grading-III material (Item no - 20.4.3, Page No - 164)								
a	Kuvempunagara								
	For 7.00 Mtrs Wide		1	280.00	6.20	0.10	173.60		

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
		Total Qty	Cum				173.60	952.94	165430.00
		Basic Rate	899.00						
		Area Weightage 6%	53.94						
		Total Rate	952.94						
5	Providing, laying, spreading and compacting graded stone aggregates to wet mix macadam specifications including pre mixing the material with water at OMC Mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired basically complete as per Specifications. MORTH specification No. 406 (Page No - 170, Item No - 20.18)								
a	Kuvempunagara								
	For 7.00 Mtrs Wide		1	280.00	6.20	0.10	173.60		
		Total Qty	Cum				173.60	1100.28	191009.00
		Basic Rate	1038.00						
		Area Weightage 6%	62.28						
		Total Rate	1100.28						
6	Cleaning the existing WBM road surface including removing of binding materials and other foreign matter with wire brushes and small picks, sweeping with brooms or soft brushes and finally dusting with old gunny bags and / or compressed air, to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 (Page No - 175, Item No - 21.1)								
a	Kuvempunagara								
	For 7.00 Mtrs Wide		1	280.00	6.20		1736.00		
		Total Qty	Cum				1736.00	10.34	17942.00
		Basic Rate	9.75						
		Area Weightage 6%	0.59						
		Total Rate	10.34						
7	Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.60 Kg/Sqm using mechanical means complete as per specifications MORTH specification No 502 (Page No - 175, Item No - 21.6)								
a	Kuvempunagara								
	For 7.00 Mtrs Wide		1	280.00	6.20		1736.00		
		Total Qty	Cum				1736.00	43.46	75447.00
		Basic Rate	41.00						
		Area Weightage 6%	2.46						
		Total Rate	43.46						
8	Providing and applying tack coat on the prepared black topped surface at 2.5 kg per 10 sqm , heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries, complete as per specifications MORTH / Chapter 5 (Page No - 176, Item No - 21.7)								
a	Kuvempunagara								
	For 7.00 Mtrs Wide		1	280.00	6.20		1736.00		
		Total Qty	Cum				1736.00	16.96	29443.00

**NAME OF THE WORK : DETAILED ESTIMATE OF CONCRETE ROAD FOR CONSTRUCTION OF 666 (G.F)
DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING
INFRASTRUCTURE IN BANGALORE CITY, BYATRAYANAPURA AREA UNDER RAY.**

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
1	Earthwork excavation by manual means in hard soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications.MORTH Chapter 3 (Page No152, Item No.19.2)								
a	Kuvempunagara Main Road								
	No - 01		1	260.00	5.00	0.40	520.00		
	No - 06		1	300.00	5.00	0.40	600.00		
	No - 07		1	300.00	5.00	0.40	600.00		
	No - 08		1	280.00	5.00	0.40	560.00		
	No - 09		1	134.00	5.00	0.40	268.00		
	Total Qty	Cum					2548.00	89.04	226874.00
	Basic Rate	84.00							
	Area Weightage 6%	5.04							
	Total Rate	89.04							
2	Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specification. (Item No - 19.64, Page No - 160)								
a	Kuvempunagara Main Road								
	No - 01		1	260.00	5.00		1300.00		
	No - 06		1	300.00	5.00		1500.00		
	No - 07		1	300.00	5.00		1500.00		
	No - 08		1	280.00	5.00		1400.00		
	No - 09		1	134.00	5.00		670.00		
	Total Qty	Sqm					6370.00	3.98	25321.00
	Basic Rate	3.75							
	Area Weightage 6%	0.23							
	Total Rate	3.98							
3	Construction of sub-grade and earthen shoulders with approved material Grave / Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No -300-2 Complete as per specifications (Including cost of earth, watering charges & comacation by vibratory roller). (item No - 19.62 Page No - 157)								
a	Kuvempunagara Main Road								
	No - 01		1	260.00	5.00	0.10	130.00		
	No - 06		1	300.00	5.00	0.10	150.00		
	No - 07		1	300.00	5.00	0.10	150.00		
	No - 08		1	280.00	5.00	0.10	140.00		
	No - 09		1	134.00	5.00	0.10	67.00		
	Total Qty	Cum					637.00	190.80	121540.00
	Basic Rate	180.00							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
	Area Weightage 6%	10.80							
	Total Rate	190.80							
4	Construction of granular sub-base by providing close graded material , mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A.Plant mix method Grading-I material (Item no - 20.4.1, Page No - 164)								
a	Kuvempunagara Main Road								
	No - 01		1	260.00	5.00	0.10	130.00		
	No - 06		1	300.00	5.00	0.10	150.00		
	No - 07		1	300.00	5.00	0.10	150.00		
	No - 08		1	280.00	5.00	0.10	140.00		
	No - 09		1	134.00	5.00	0.10	67.00		
	Total Qty	Cum					637.00	1040.92	663066.00
	Basic Rate	982.00							
	Area Weightage 6%	58.92							
	Total Rate	1040.92							
5	Providing and laying in position plain cement concrete of mix M10 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum machine mixed, machine mixed, concrete laid in layers not exceeding 15cms thick, well compacted, in foundation and plinth, cost of all materials, labour, HOM of machinery, curing complete as per Specification. (P.No.12, I.No.4.2)								
a	Kuvempunagara Main Road								
	No - 01		1	260.00	5.00	0.10	130.00		
	No - 06		1	300.00	5.00	0.10	150.00		
	No - 07		1	300.00	5.00	0.10	150.00		
	No - 08		1	280.00	5.00	0.10	140.00		
	No - 09		1	134.00	5.00	0.10	67.00		
	Total Qty	Cum					637.00	4413.84	2811616.00
	Basic Rate	4164.00							
	Area Weightage 6%	249.84							
	Total Rate	4413.84							
6	KSRRB M600-2: Cement Concrete Pavement, Construction of un-reinforced dowel jointed, plain cement concrete pavement over a prepared sub base with OPC cement design mix M30 at 360kg per Cum, with 25mm and down size graded granite metal coarse aggregate at 0.39cum and fine aggregate @0.46cum with super plastisizer at 3ltrs conforming to IS 9103-1999 reaffirmed 2008, coarse and fine aggregate conforming to IS 383, mixed in a batch rig and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. MORTH Specification No. 602 (2013-14 SR Page No189, Item No.22.2.1)								
a	Kuvempunagara								

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount	
	Main Road									
	No - 01		1	260.00	5.00	0.15	195.00			
	No - 06		1	300.00	5.00	0.15	225.00			
	No - 07		1	300.00	5.00	0.15	225.00			
	No - 08		1	280.00	5.00	0.15	210.00			
	No - 09		1	134.00	5.00	0.15	100.50			
	Total Qty	Cum					955.50	6426.78	6140788.00	
	Basic Rate	6063.00								
	Area Weightage 6%	363.78								
	Total Rate	6426.78								
7	Miscellaneous, Unfrosen charges & rounding off :								795.00	
Grand Total :									9990000.00	
	Assistant Engineer		Assistant Executive Engineer					Executive Engineer		
			No:4, Sub-Division,					No.2, Division,		
			KSDB, Bangalore					KSDB, Bangalore		

NAME OF THE WORK : DETAILED ESTIMATE OF SERVICE CONNECTION FOR WATER SUPPLY WORKS FOR CONSTRUCTION OF 666 (G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATRAYSANAPURA AREA UNDER RAY.

SI No	Description of items	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5 (2013-14 SR Page No.5, Item No.2.4)								
			1	10.70	0.60	0.60	3.85		
	Total Qty	Cum					3.85	223.66	861.54
	Basic Rate	211.00							
	Area Weightage 6%	12.66							
	Total Rate	223.66							
2	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications allow 60% of rate considered under item KSRB 2.3 (2013-14 SR Page No.6, Item No.2.11)								
			1	10.70	0.60	0.60	3.85		
	Total Qty	Cum					3.85	59.36	228.65
	Basic Rate	56.00							
	Area Weightage 6%	3.36							
	Total Rate	59.36							
3	Providing and fixing Chlorinated Poly Vinyl Chloride(CPVC) Pipes conforming to IS 15778, having thermal stability for hot and cold water supply including CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00mtr spacing. This includes jointing of pipes and fittings with one step solvent cement, trenching, refilling and testing of joints complete (external work) 20mm nominal OD Pipes (2013-14 SR Page No.106, Item No.13.87.2)								
			1	10.70			10.70		
	Total Qty	Mtr					10.70	127.20	1361.04
	Basic Rate	120.00							
	Area Weightage 6%	7.20							
	Total Rate	127.20							
4	KSRB13-6.6-4 : Providing and fixing unplasticised PVC connection pipe with brass union 20mm nominal bore 450mm length of PVC connection including cost of all materials, labour and HOM of equipments with all leads complete as per specifications (2013-14 SR Page No.99, Item No.13.49)								
		Set	1				1.00		
	Total Qty	Set					1.00	307.40	307.40
	Basic Rate	290.00							
	Area Weightage 6%	17.40							

SI No	Description of items	Unit	No	L	B	D	Qty	Rate	Amount
	Total Rate	307.40							
5	KSRB13-6.5-2 : Providing and fixing in position 20mm nominal bore brass ferrule with C.I mouth cover including boring and tapping the main, cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS (2013-14 SR Page No.99, Item No.13.44)								
		Each	1				1.00		
	Total Qty	Each					1.00	234.26	234.26
	Basic Rate	221.00							
	Area Weightage 6%	13.26							
	Total Rate	234.26							
6	Miscellaneous and Roundingoff								7.11
	Total for One Houses Connection :								3000.00
	Grand total for 666 Houses Connection :								1998000.00
	Assistant Engineer	Assistant Executive Engineer				Executive Engineer			
		No:4, Sub-Division,				No.2, Division,			
		KSDB, Bangalore				KSDB, Bangalore			

**DETAIL ESTIMATE FOR PROVIDING WATER SUPPLY WORKS AT BOREWELL FOR
CONSTRUCTION OF 666 (G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU
DEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY,
BYATRAYANAPURA AREA UNDER RAY.**

ABSTRACT

SI No	Description	Amount in Rs
1	Providing Sinking of Borewell Works.	194800.00
2	Providing Pumping Machinery Works.	344500.00
3	Providing Raising Mains Works.	92700.00
4	Providing Cistern Works.	77500.00
	Total for 1 Nos :	709500.00
	Grand total for 4 Nos :	2838000.00

Assistant Engineer

Assistant Executive Engineer
No:4, Sub-Division,
KSDB, Bangalore

Executive Engineer
No.2, Division,
KSDB, Bangalore

**NAME OF THE WORK : DETAILED ESTIMATE OF SINKING OF BOREWELL FOR CONSTRUCTION OF 666 (G.F)
DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING INFRASTRUCTURE IN
BANGALORE CITY, BYATRAYANAPURA AREA UNDER RAY.**

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
1	Geophysical investigation of site for sinking bore well for supplying drinking water to the Habitation either through the hand pump, MWS, PWS by vertical electrical sounding by method, including reconnaissance survey of Geological formation, geophysical investigation of existing ground water in the vicinity, indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to bedopted, probable yield and other information required and accessories to work site, engaging technical personal and labour required. (Page No - 48, Item No - 9.4)								
	For One Bore well		1				1.00		
	Total Qty	Nos					1.00	1938.46	1938.46
	Basic Rate	1882.00							
	Area Weightage 3%	56.46							
	Total Rate	1938.46							
2	Sinking of borewell of 165mm dia clear using fast hydraulic of capacity 250 PSIG & above burden upto 20m. Fixing of casing pipes, collars and cap with neccessary cutting, threating and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yeild testing at the final depth with a minimum working of compressor for one hour (excluding cost of casing pipes, collars, cap etc.,) (Page No - 46, Item No - 9.1.1 to 9.1.8)								
a	Upto 50.00 Mtrs.		1	50.00			50.00		
	Total Qty	Rmt					50.00	315.18	15759.00
	Basic Rate	306.00							
	Area Weightage 3%	9.18							
	Total Rate	315.18							
b	Above 50.00 to 100.00 Mtrs.		1	50.00			50.00		
	Total Qty	Rmt					50.00	412.00	20600.00
	Basic Rate	400.00							
	Area Weightage 3%	12.00							
	Total Rate	412.00							
c	Above 100.00 mtrs and upto 150 Mtrs.		1	50.00			50.00		
	Total Qty	Rmt					50.00	458.35	22917.50
	Basic Rate	445.00							
	Area Weightage 3%	13.35							
	Total Rate	458.35							
d	Above 150.00mtrs and upto 200 Mtrs.		1	50.00			50.00		
	Total Qty	Rmt					50.00	484.10	24205.00
	Basic Rate	470.00							
	Area Weightage 3%	14.10							
	Total Rate	484.10							
e	Above 200.00mtrs and upto 250 Mtrs.		1	50.00			50.00		
	Total Qty	Rmt					50.00	560.32	28016.00
	Basic Rate	544.00							
	Area Weightage 3%	16.32							
	Total Rate	560.32							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
f	Above 250.00mtrs and upto 300 Mtrs.		1	50.00			50.00		
	Total Qty	Rmt					50.00	600.49	30024.50
	Basic Rate	583.00							
	Area Weightage 3%	17.49							
	Total Rate	600.49							
g	Above 300.00mtrs and upto 350 Mtrs.		1	20.00			20.00		
	Total Qty	Rmt					20.00	640.66	12813.20
	Basic Rate	622.00							
	Area Weightage 3%	18.66							
	Total Rate	640.66							
3	Supply of ISI Mark 175 mm nominal Bore, Plain end Steel casing Pipe - grade of Steel Fee 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5 to 7mtrs. Both ends threaded confirming to IS 554/1985, one end fixed with socket confirming to IS4270/2001 and the other end with screwed pipes. All pipes shall be reasonably free from defects. The tubes shall be reasonably straight should be with ISI marking, weighing 25.10kg/mtr. (Inclusive of all taxes and duties) (Page No - III, Item No - 84)								
	For One Bore well		1	20.00			20.00		
	Total Qty	Mtrs					20.00	1325.00	26500.00
4	Providing 175mm dia collars over borewell including conveying all materials with all lead and watering welding wherever required as directed etc., complete as per the directions of the engineer in-charge of the work. (P-III, I-86).								
a	For One Bore well		1 X 4				4.00		
	Total Qty	Nos					4.00	150.00	600.00
5	Providing and fixing 175mm dia borewell cap medium class. (Page No - III, Item No - 85)								
	For One Bore well		1				1.00		
	Total Qty	Nos					1.00	100.00	100.00
6	Providing and installing at site of work P.V.C pipes including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe around to a depth not less than 15 cms with gravel or selected earth available from the excavation etc., complete. (Page No-15, Item No-3.4.2) (G) 200mm dia.								
	For One Bore well		1	12.00			12.00		
	Total Qty	Rmt					12.00	937.30	11247.60
	Basic Rate	910.00							
	Area Weightage 3%	27.30							
	Total Rate	937.30							
7	Miscellaneous, Unfrossen charges & rounding off :								
									78.74
	Grand Total :								194800.00
Assistant Engineer	Assistant Executive Engineer						Executive Engineer		
	No:4, Sub-Division,						No.2, Division,		

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
	a) 50mm dia GI pipe for Motor purpose. For Pumping Machinery		1	330.00			330.00		
	Total Qty	m					330.00	453.68	149714.00
	Basic Rate	428.00							
	Area Weightage 6%	25.68							
	Total Rate	453.68							
6	Meter and Panel Board : Supplying and delivery of meter and panel board unit one number of MS box of size 250x380x150mm mechanically strong vermin proof and water proof. The apprerance of the unit shall be neat and dust free. The box shall have two detachable doors and two numbers of spring loaded, latch, locking door, canopy, apron and louver, ventilation shall be provided fabricated out of 1.6mm thick sheet steel.(Approved SR Rate wide Page.No.3 and Item.No.11)								
	For Pumping Machinery		1				1.00		
	Total Qty	Nos					1.00	9000.00	9000.00
7	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clapsms with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete (Page No - 41, Item No - 38)								
	For Pumping Machinery								
	b) 16SWG								
a	Back and Front		1 x 2	75.00		90.00	13500.00		
b	Sides		1 x 2	25.00		90.00	4500.00		
c	Top and Bottom		1 x 2	75.00	25.00		3750.00		
	Total Qty	Nos					21750.00	0.33	7177.50
8	Earthing: Supplying fixing, wiring earth electrode for grounding conducts, I.C. cutouts and other equipments on the meter board using 40mm dia 2.9mm thick GI pipe 2.5M long buired in a pit. The pit should be filled with equal proportion of salt and charcoal 150mm around the pipe to complete depth. the connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.33 of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc. The pipe shall have 16 through holes of 12mm dia. (Page.No.68, Item No.1)								
	For Pumping Machinery		1				1.00		
	Total Qty	Each					1.00	1950.00	1950.00
9	Supplying, fixing and wiring heavy duty low voltage capacitors conforming to IS 2834. 3 phase, 400/440 volts grade, for power factor improvement of rotating machinery. Cost per KVAR. (Page No - 40, Item No - 33)								
	1) Group 'A'								
	For Pumping Machinery		1	5.00			5.00		
	Total Qty	Per KVAR					5.00	360.00	1800.00
10	Fixing a shunt capacitor of ... KVAR capacity with necessary clamps, bolts, and nuts to an existing wooden or metal board including banking of more than one capacitor. (Page No-30, Item No-15)								
	1) Group 'A'								
	For Pumping Machinery		1				1.00		
	Total Qty	Each					1.00	120.00	120.00

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
11	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, Indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required. (Ele SR. Page.No.37, Item No-12.F Group-A)		1				1.00		
		Total Qty	Nos				1.00	1584.70	1585.00
		Basic Rate	1495.00						
		Area Weightage 6%	89.70						
		Total Rate	1584.70						
12	Erection, electrification and commissioning of pumpset/submersible pump including aligning and balancing with all necessary erection material and labour including supply and fitting of two pairs of supporting clamps with necessary material and labour including providing cement concrete foundation bed etc., complete.		1				1.00		
		Total Qty	Nos				1.00	1710.00	1710.00
13	Erection of panel board and meter board unit erection of combined panel and meter board unit with all necessary material and labour including providing cement concrete foundation bed etc., complete.								
	Outer Type								
	i) Indoor Type		1				1.00		
		Total Qty	Nos				1.00	425.00	425.00
14	Supplying of L.T.U.G. cable having aluminium conductor PVC insulated sheathed galvanised steel wire / steel tape armored cable with P.V.C. outer sheathing 1.1K.V class (conforming to IS 1554) (P.68,I.No.4.d) 4.00 core 16 Sqare mm.		1	23.00			23.00		
		Total Qty	Mtrs				23.00	150.00	3450.00
15	Labour charges for laying of 1.1 KV class UG cable when supplied agency in existing trench GI pipe / stoneware pipe / on wall / on pole as required.(Page No - 69, Item No - 5)								
	i) In existing trench / duct								
	a) 6 Sqmm to 16 Sqmm		1	23.00			23.00		
		Total Qty	Mtrs				23.00	8.00	184.00
16	Digging of trench of 0.6m deep x 0.50 Mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB. Page No - 70, Item No - 6)								
	i) In existing trench / duct								
	a) 6 Sqmm to 16 Sqmm		1	20.00			20.00		
		Total Qty	Mtrs				20.00	50.00	1000.00
17	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., (Ele SR 2010-11, P.No.70, I.No.10b)		1				1.00		
		Total Qty	Each				1.00	260.00	260.00
18	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers etc., complete.(Page No - 32, Item No - 3)								
			1 x 6				6.00		
		Total Qty	Each				6.00	219.00	1314.00

**NAME OF THE WORK : DETAILED ESTIMATE OF RCC HUME PIPE CISTERN WORKS FOR CONSTRUCTION OF
666 (G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING
INFRASTRUCTURE IN BANGALORE CITY, BYATRANAPURA AREA UNDER RAY.**

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
1	Earth work excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Hard soil not exceeding 1.5m, in depth including dressing the bottom and sides of pits and trenches stacking the excavated soil clear from edges of excavation after breaking of clods complete as per specification, including loading, unloading and lift charges etc., complete as per direction of engineer incharge. (P. No. 5 Item No. 2.4 PWD SR of 2013-14)		2	1.60	1.60	0.45	2.30		
			2	2.50	2.50	0.30	3.75		
	Total Qty	Cum					6.05	223.66	1354.04
	Basic Rate	211.00							
	Area Weightage 6%	12.66							
	Total Rate	223.66							
2	Providing and laying in position plain cement concrete of mix 1:4:8 using 40mm and down size graded granite metal, machine mixed, concrete laid in layers not exceeding 15 cms, thick well compacted, in foundation and plinth, including cost of all material, labour HOM Machinery curing complete as per specification, (P. No. 12 Item No. 4.3 PWD SR of 2013-14)		2	1.60	1.60	0.15	0.77		
			2	2.50	2.50	0.15	1.88		
	Total Qty	Cum					2.64	4211.38	11130.68
	Basic Rate	3973.00							
	Area Weightage 6%	238.38							
	Total Rate	4211.38							
3	KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13. (P.No.25, I.No.5.6 PWD SR of 2013-14)		1 X 2	1.50	0.75	0.40	0.90		
			1 X 2	1.50	0.75	0.40	0.90		
	Total Qty	Cum					1.80	3484.22	6271.60
	Basic Rate	3287.00							
	Area Weightage 6%	197.22							
	Total Rate	3484.22							
4	KSRB 5.3-2 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:8, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. aprat in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 (P.No.25, I.No.5.8. PWD SR of 2013-14)		1 X 2	1.50	0.75	0.40	0.90		
			1 X 2	1.50	0.75	0.40	0.90		
	Total Qty	Cum					1.80	4002.56	7204.61
	Basic Rate	3776.00							
	Area Weightage 6%	226.56							
	Total Rate	4002.56							

**NAME OF THE WORK : DETAILED ESTIMATE OF RCC STORM WATER DRAIN FOR CONSTRUCTION OF
666 (G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING
INFRASTRUCTURE IN BANGALORE CITY, BYATRAYANAPURA AREA UNDER RAY.**

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
1	Earthwork excavation by manual means in hard soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications.MORTH Chapter 3 (Page No152, Item No.19.2)								
a	Kuvempunagara Main Road								
	No.01, 06, 07, 08 & 09		2	1410.00	0.85	0.90	2157.30		
	Cross Road								
	No.01, 06 & 07		2	480.00	0.85	0.90	734.40		
	Hill top Area								
	Main Road								
	No.01		2	75.00	0.85	0.90	114.75		
	Cross Road								
	No.01		2	233.00	0.85	0.90	356.49		
	Total Qty	Cum					3362.94	89.04	299436.00
	Basic Rate	84.00							
	Area Weightage 6%	5.04							
	Total Rate	89.04							
2	Providing and laying in position plain cement concrete of mix M7.5 with OPC cement @180kgs , with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregates @ 0.57 cum machine mixed, machine mixed,concrete laid in layers not exceeding 15 cms, thick well compacted, in foundation and plinth, including cost of all material, labour HOM Machinery curing complete as per specification,(Page. No. 12 Item No. 4.3)								
a	Kuvempunagara Main Road								
	No.01, 06, 07, 08 & 09		2	1410.00	0.85	0.10	239.70		
	Cross Road								
	No.01, 06 & 07		2	480.00	0.85	0.10	81.60		
	Hill top Area								
	Main Road								
	No.01		2	75.00	0.85	0.10	12.75		
	Cross Road								
	No.01		2	233.00	0.85	0.10	39.61		
	Total Qty	Cum					373.66	4211.38	1573624.00
	Basic Rate	3973.00							
	Area Weightage 6%	238.38							
	Total Rate	4211.38							

SI No	Description of items	Unit	Nos	L	B	D	Qty	Rate	Amount
3	Providing and laying in position plain cement concrete of mix M20 with OPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @0.64cum and fine aggregates @ 0.43cum, with superplasticiser @3lts conforming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Page No.12 Item No.4.5. PWD SR 2013-14 Bangalore Circle.								
a	Kuvempunagara Main Road No.01, 06, 07, 08 & 09								
	Bottom Slab		2	1410.00	0.65	0.10	183.30		
	Sides : 2sides x 2 Nos - 4 Nos		4	1410.00	0.60	0.10	338.40		
	Cross Road No.01, 06 & 07								
	Bottom Slab		2	480.00	0.65	0.10	62.40		
	Sides : 2sides x 2 Nos - 4 Nos		4	480.00	0.60	0.10	115.20		
	Hill top Area Main Road								
	Bottom Slab		2	75.00	0.65	0.10	9.75		
	Sides : 2sides x 2 Nos - 4 Nos		4	75.00	0.60	0.10	18.00		
	Cross Road								
	Bottom Slab		2	233.00	0.65	0.10	30.29		
	Sides : 2sides x 2 Nos - 4 Nos		4	233.00	0.60	0.10	55.92		
	Total Qty	Cum					813.26	5224.74	4249072.00
	Basic Rate	4929.00							
	Area Weightage 6%	295.74							
	Total Rate	5224.74							
4	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design, (laps and wastages shall not be measured and paid) cost of materials,labour,HOM of machinery etc. complete as per specifications (Page. No. 19 Item No. 4.46.1)								
			1	813.26	45	Kg/cmt	36596.70		
	Total Qty	Qtl					365.97	7244.04	2651080.00
	Basic Rate	6834.00							
	Area Weightage 6%	410.04							
	Total Rate	7244.04							
5	Providing and removing centering, shuttering, strutting, propping etc, and removal of form work for vertical surface such as walls any thickness including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. (Page no -17, item no - 4.31)								
a	Kuvempunagara Main Road No.01, 06, 07, 08 & 09								
	Sides : 2sides x 4 Nos - 8 Nos		8	1410.00	0.60		6768.00		
	Cross Road								
	Sides : 2sides x 4 Nos - 8 Nos		8	480.00	0.60		2304.00		

NAME OF THE WORK : DETAILED ESTIMATE OF SEWERAGE CONNECTION FOR CONSTRUCTION OF 666 (G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU DEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATRANAPURA AREA UNDER RAY.									
SI No	Description of items	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5 (2013-14 SR Page No.5, Item No.2.4)								
	Pipe Line		1	9.40	0.60	0.60	3.38		
	Inspection Chamber		2	1.21	1.21	0.60	1.76		
	Total Qty	Cum					5.14	223.66	1149.82
	Basic Rate	211.00							
	Area Weightage 6%	12.66							
	Total Rate	223.66							
2	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications allow 60% of rate considered under item KSRB 2.3 (2013-14 SR Page No.6, Item No.2.11)								
	Qty vide item No: 1						5.14		
	Total Qty	Cum					5.14	59.36	305.17
	Basic Rate	56.00							
	Area Weightage 6%	3.36							
	Total Rate	59.36							
3	KSRB 12-1.1 : Providing and laying in position to required level or slope 100mm internal diameter salt glazed stoneware pipes grade A and jointing with stiff mixture of cement mortar in proportion of 1:1, testing of pipes and joints, including cost of materials, labour charges complete as per specifications. Specification No. KBS 12.2.5 / 12.7 (2013-14 SR Page No.71, Item No.11.1)								
			1	9.40			9.40		
	Total Qty	Mtrs					9.40	222.60	2092.44
	Basic Rate	210.00							
	Area Weightage 6%	12.60							
	Total Rate	222.60							

SI No	Description of items	Unit	No	L	B	D	Qty	Rate	Amount
4	KSRB 12-8.1 : Constructing brick masonry inspection chamber 450x300mm, and 450mm depth, (clear inside dimension) for single pipeline, using table moulded non-modular bricks of class designation 50 in cement mortar 1:5, C.I cover with frame (light duty) 450x300mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15 kg) R.C.C. top slab with cement concrete M15 with 20mm and downsize granite metal, foundation concrete M5 with 40mm and downsize granite metal inside plastering 12mm thick with cement mortar 1:3, finish smooth with a floating coat of cement on walls and bed concrete complete as per standard design including cost of materials, labour charges, curing complete as per specifications. (2013-14 SR Page No.75, Item No.11.50.3)								
			2				2.00		
		Total Qty	No's				2.00	3024.18	6048.36
		Basic Rate	2853.00						
		Area Weightage 6%	171.18						
		Total Rate	3024.18						
5	KSRB 12-7.1 : Making connection of drain or sewer line of size 100 to 230mm external dia with existing manhole including breaking into and making good the walls, floors with cement concrete M15 with 20mm and downsize granite metal, cement plastered on both sides of mix 1:3, finished with a floating coat of neat cement, and making necessary channels for the drain, including cost of materials, labour charges, curing complete as per specifications. (2013-14 SR Page No.75, Item No.11.47)								
			1				1.00		
		Total Qty	No's				1.00	1378.00	1378.00
		Basic Rate	1300.00						
		Area Weightage 6%	78.00						
		Total Rate	1378.00						
6	Miscellaneous and Roundingoff								26.22
Total for One Houses Connection :									11000.00
Grand total for 666 Houses Connection :									7326000.00
Assistant Engineer		Assistant Executive Engineer				Executive Engineer			
		No:4, Sub-Division,				No.2, Division,			
		KSDB, Bangalore				KSDB, Bangalore			

SI No	Description	Unit	No	L	B	D	Qty	Rate	Amount	
			1				1.00			
	Total Qty	Each					1.00	195.00	195.00	
13	Supplying fixing and wiring electronic 10 to 40 Amps Electro Mechanical single phase Energy Meter (P-39, I-25a)									
			1				1.00			
	Total Qty	Each					1.00	1835.00	1835.00	
14	Miscellaneous and Roundingoff								78.06	
	Total for One Houses Connection :								13000.00	
	Grand total for 666 Houses Connection :								8658000.00	
	Assistant Engineer	Assistant Executive Engineer					Executive Engineer			
		No:4, Sub-Division,					No.2, Division,			
		KSDB, Bangalore					KSDB, Bangalore			

7. PROJECT IMPLEMENTATION & MANAGEMENT FRAMEWORK

CHAPTER-7 PROJECT IMPLEMENTATION & MANAGEMENT FRAMEWORK

Implementation Plan

A DPR would be recommended for each and every slum for implementation of slum development plan. The plan implementation and modalities would be discussed in detail through slum level community participation.

Prioritization of slums

Parameters for prioritization of slums for implementation of in-situ provement / redevelopment for first phase of implementation for tenable slums are suggested below:

- Insecure tenure of slum pockets: Settlements without any security of tenure are most vulnerable and therefore should be given priority in selection for improvement.
- Housing conditions and infrastructure deficiency: Settlements with poor housing conditions and infrastructure deficiency should be given high priority for improvements.
- Public land ownership: Slum pockets on public sector owned land should be prioritized for improvement, as slums on private land would either require negotiations with owner or time consuming acquisition. Slum improvement/redevelopment should first be taken up where land is owned by Government agencies.
- Existence of trunk infrastructure: - Areas near existing trunk infrastructure with spare capacity should receive priority, since investments will be more cost effective.
- Population Density: - Priority should be given to small and medium size slums with low or moderate densities as it is difficult to improve very high density Large slums.

The total percentage is divided into 5 ranges and five (5) ranks have been given for prioritization. Then, addition of ranks for each indicator has done for all the slums. Mean from this total have been taken to prioritize slums year-wise for period of 5 years.

All the slums in the ULB are proposed to be covered under RAY in the phased manner three different mode of development has been chosen to improve the existing slum conditions as well prevent future growth of the same. The following gives a brief these modes and its characteristics:

Relocation mode

- Depending on the location and where there is no alternative
- Involves communities in identification of alternative sites
- Ensures that education, health, transport, basic services and infrastructure and provided before relocation



In situ slum redevelopment mode

- Involves redevelopment of whole site to provide more living space and improved environmental conditions such as those in high density areas.
- Provision of transit accommodation and including of all residents, especially the extremely poor critical to success

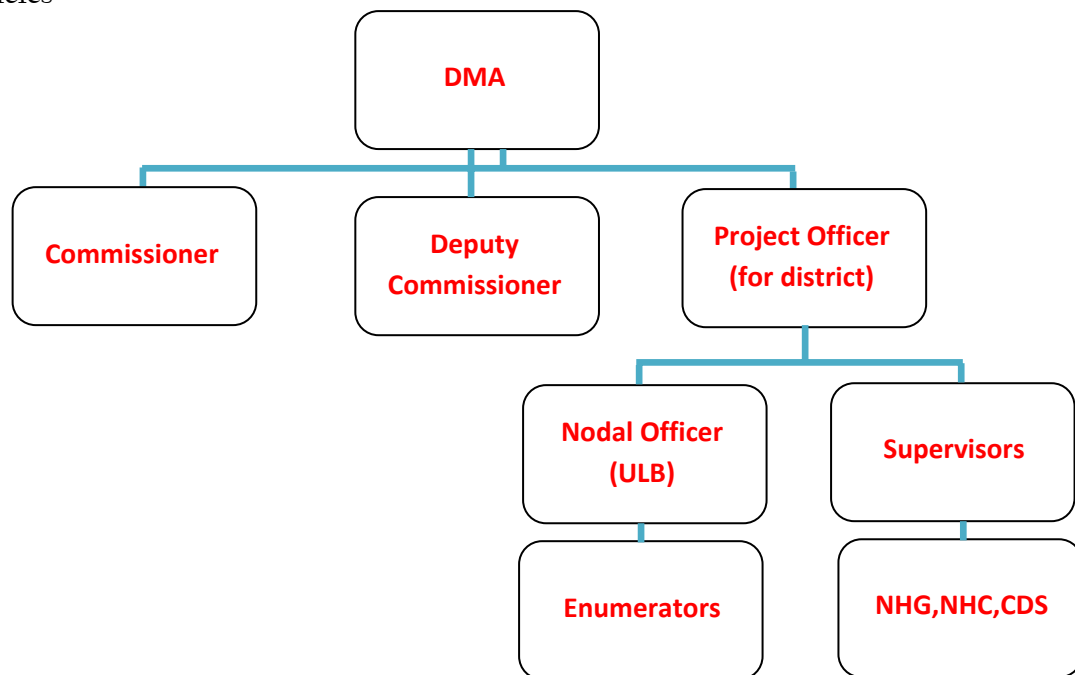
In situ slum up-gradation mode

- Involves a mixture of provision or upgrading of service and infrastructure levels, incremental housing improvements or selective replacement of katcha houses

In Bangalore's case, almost 65% of registered and 35% of the unregistered households falls under ULB. Category and where the in situ mode of development has been chosen with multiple options such as RAY Guidelines)

PROJECT MANAGEMENT AND SET-UP

Directorate of Municipal Administration (DMA) is the nodal agency to implement 'Rajiv Awaz Yojana' in the State. As per the directions of Government of India, Slum Survey & Mapping Process has started in Karnataka from 14.07.2009. Chart Institutional arrangement of agencies



Agencies (including procurement process) & Stakeholders involved

DMA has been the Nodal agency to monitor the quantity and quality of surveys performed by individual cities. Commissioners and deputy commissioners have established a system where in a Project Officer has taken in charge for one district, a project officer for a ULB and number of supervisors for quality and quantity check upon the enumerators who



have done the surveys. Member of Self Help Groups constituted under SJSRY/Urban Shree Shakthi Scheme & Anganwadi Teachers with minimum qualification of SSLC were taken as Enumerators to collect information and to fill up the survey forms. A set of two Enumerators to cover 20-22 households in a day for every 300 to 400 households one set of enumerator was appointed. The various stakeholders involved in the process comprised of NHG's, NHC's, CDS and reputed NGO's working in the local areas.

b. GIS mapping

Methodology: Karnataka State Remote Sensing Applications Center (KSRSAC) has been awarded the job of GIS Mapping. The satellite images were acquired for all cities and digitization of city and slum boundaries are in process. KSRSAC is the only stakeholder involved in preparation of GIS maps for the state and it directly reports to DMA.

c. MIS

Methodology: DMA has initiated a project division under the operation of Municipal Reforms Cell (MRC), which has performed the operations of MIS. Data Entry has been done at ULB level and ported the data to the main server at MRC. A routine checkup of data has been reformed and uploaded in a web tool specially prepared for RAY project called Asha Kirana Mahithi (AKM) @ <http://www.mrc.gov.in/akm>. Every ULB has given a USER Name & PASSWORD to access their data from the Central Server: The front and back end of the webtool is Java and Oracle. Once the data is frozen and migrated to centralized data base at MRC, any editing of data will be done by the Project Director, DUDC in case of Town Panchayats, Town Municipal Council, and City Municipal Council and by Commissioners in case of City Corporations. In case of BBMP it will be done by Zonal Commissioners. AKM web tool has the synchronizing database structure with that of national MIS database prepared by Centre for Good Governance (CGG), so that at any required time, database can be transferred to the national tool.

d. Stakeholder Consultation

The stakeholder consultations are done at 3 stages:

1. City level consultation: This is the first stage of stake holder meeting where the city level data is analyzes and the major problems in the city are discussed with sectoral officials like water supply, sanitation, slum clearance board, etc.
2. Slum level consultation: At this stage the slum dwellers play a key role in explain the existing situation of slums and in giving the correct picture of the basic employment and other details of the slums.
3. Official meeting: At this stage of meeting the proposals of the development are discussed in detail with the commissioner, urban poverty alleviation cell, slum clearance board and other officials concerned.

Once a development option is chosen for a particular slum habitation, the implementation structures are to be decided based on the extent of public, community and private



involvement. It is envisaged that for any of the implementation structures chosen, the community and the implementing ULB will have overarching roles as set out below. The same would need to be taken into account while formulating the implementation options.

Discussion of summaries

- Boundary confirmation
- Slum overlapping boundaries
- Hazardous slums
- Prioritization
- Offshore costing

Slum Categorization

The Categorization of Slums is done based on the scoring and ranking method where certain parameters are taken into account to identify the deficiencies and make suitable decisions. The three important parameters that play equal role in determining the slums that are deficient are Housing, Infrastructure and Tenure status. In this section, the following parameters such as Tenability, Abutting Land use, Tenure status, Ownership of the land, density and land value are being discussed.

a. Tenability

As a first step, the slums and vacant lands will be categorized as tenable, or untenable. Untenable slums will be only those which are 'unsafe' or 'health hazard' to the inhabitants or to their neighborhoods, even if redeveloped. Such untenable sites or portions will be earmark for relocation to other redevelopment/vacant sites, preferably within the same zone.

Of 37 slums identified, 81 % of the slums are found to be tenable while 19% to be semi-tenable. Due to surrounding land use non-residential uses and any other land reservation. In order to make these slums tenable it is recommended to change in present land use zoning be made however it will be decided competent authority.

b. Abutting Land use

It is established that 92% of the households are surrounded by the residential use, followed by 1 % under commercial and 2% by industrial. To identify vacant lands for slum rehabilitation and prevention, the information to be procured is of vital importance to enable further classification of the slums based upon land value and to decide upon redevelopment models for each slum pocket within the zones.

c. Land tenure Status

38% of the slum households have registered with possession certificates while 18% are registered and have Pattas for their respective lands. On the contrary, 3% of the households are not registered and hence live on encroached lands of private as well as public owned and 41 % of the households are rented.



d. Ownership of Land Status

The categorization based on land ownership of slums can be used in assigning strategies for development and priorities for implementation under various strategies for development. 56% of total households have registered and the remaining 44% are not registered with any agency. Under the ownership of ULB, 31 % of the households are registered and 23% are unregistered. Similarly 22% are registered and 19% households are unregistered, belong to the private ownership of the land. Overall under the Railways owned lands, 4% belong to registered and 2% unregistered. Speaking of ownership, Urban Local Body ownership is termed to be the highest with 56% of the households under it. Still 44% of the households need a secured status in order to avail better infrastructure. 27% of the notified slums and 30% of the non notified slums are under the ownership of ULB. While on other side, it is also found that private agencies make the largest by owning nearly 27% of the notified and 11 % of the non-notified slums and 5% of the notified slums are under ownership of Railways. 10 are notified slums with land owned by ULB and the remaining 10 slums owned by Private agencies. As far as land covered by respective agencies, it is found that urban local Body holds the highest percent (63%) owning the lands under slums.

e. Density

In this context, due consideration will have to be given to existing density of each slum pocket within a zone, in order to propose a suitable development option. Based on Section-I data analysis, the classification of the slums is based on the values of density where:

- Low where density is less than 120 persons per hectare
- Medium where density ranges from 120- 250 persons per hectare
- High where density is greater than 250 persons per hectare

As per the prioritization, it was found that 20 slums have Low density while 10 slums are moderately dense and the remaining pretty low. Under the category of low density, 14 slums have been chosen for In-situ and 6 slums for up-gradation. At the same time, 11 slums which are moderately dense are tentatively selected 6 for In-situ and 4 for up-gradation mode. Of the highly dense slums, 4 have been chosen for in-situ and ;3' for up-gradation.

f. Land value

For Bangalore City, the land values will be determined with reference to the slum and it is case specific and based on the mode of development, which will be calculated during preparation of DPR. At this is stage, it might be difficult to determine the land value as it is expected to vary in concord with market prices.

Slum Rehabilitation Framework

According to RAY guidelines, preparation of housing condition & infrastructure deficiency and tenure insecurity matrix for all slum settlements is based on scoring and ranking. The matrix is based on three important parameters: Housing, Infrastructure and Tenure. Within these, Housing and Infrastructure are the physical parameters that are directly related to the



existing quality of the housing condition, while land tenure defines the legal status of land ownership.

TENDERING:

- i) Notification of tenders one week from date of approval to the project.
- ii) Receipt of tenders within one month form the date of notification.
- iii) Appointment of contractors within one month from receipt of tenders.
- iv) Construction period nine months from the date of appointment of contractors.

QUALITY CONTROL & QUALITY ASSURANCE.

The KSDB and contract data provide for establishment of field laboratory and also quality control tests in any reputed testing laboratories. As project management consultants are also appointed they will be responsible for 10% quality checks. In addition the field Engineers will also be checking the quality and the major item in housing is RMC and steel. RMC is obtained from reputed manufacturers will also provide test results.

POST CONSTRUCTION SERVICE.

The Project Implementation, its Sustenance in terms of Post Occupancy Management Has been given detailed though in this chapter also throws light on the Impacts of the projects and its estimated benefits to the urban poor and entire city as well.

The construction would be maintained by contractors for twelve months after the completion of the project as per the K SDB and the agreement prescribed by the Govt.

Implementation Mechanism

The implementation mechanism envisaged for the project attempts to balance Democratic accountability with functional efficiency, in a framework of beneficiaries Participation approach. It is designed to initiate some of the processes of grassroots Devolution of power and responsibilities as proposed in the Constitution (74th Amendment) Act 1992, although with short-term circumvention for speedy implementation, Until the structures under the 74th Amendment are full in place and Functioning at all scales. the suggestions made in this report are by no means sacrosanct. Other similar delivery mechanisms may also be considered, Provided that the objectives of this project are met within the framework of partnerships, participation, good governance and efficiency.

The success of the project depends partly on the proposed implementation mechanism but even more critically on the larger issues of the governance structures as well as on the overall development of Gwalior city to sustain the demands of the project and even benefit from it.



Community Based Organization

Community based organization have been established in each of the scheme which will participate actively in the implementation process with the Gwalior municipal corporation. the organization has been registered and recognized by the Gwalior Municipal Corporation.

Role of BBMP/KSDB

The project will be tendered to Private Contractor as a single package on contractual basis. At the city level the Corporation will be the principal executing agency and a joint financier with the support of the special bodies as and when required. The other agencies would supplement the Corporation with its community development staff and at the same time enable convergence of the other programmes related to the social sectors to the project.

Total work plan

KSDB The implementing agency has prepared a plan of operations referred earlier in section. It is a work plan organized location wise and component wise. The plans are processed and approved by the competent authority. The approved work plan duly consolidated will become the benchmark for internal monitoring.

Internal Monitoring

The basis of internal monitoring is the total work plan. It is necessary to briefly state the process of formulation of total work plan to situate the internal monitoring process in a proper perspective.

Monthly Progress Reports

The monthly progress reports will be submitted by PMC and will be presented in two parts:

- Physical progress reports showing location wise activity wise component wise physical progress in the execution of the work, and
- Financial progress reports that show corresponding expenditure for each of the activity.

A consolidated monthly status report along with suggested corrective action is submitted to the head project monitoring Committee. The Committee reviews the status report of all areas in relation to the physical and financial targets and processing of all requirements.



Quality assurance

A part from receiving the monthly reports the Head project Monitoring (PMU) of the also has a system to monitor the physical progress of the project. This is done through a system of internal audit and through physical verification of activities.

Project time frame

This project, which is complex in terms of activities and scales, depends on the perceptions and participation of many partners at various levels and has to respond to many imponderables of the city development. In such circumstances, fossilized project proposals and budgets would invariably lead to the problems of cost over – runs and time extensions. The Project formulation and implementation needs to dynamic in response to the changing needs as well knowledge gained along with the way. It is proposed the project is executed in one phase in 24 months.

Si No	Activities	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	5 th Quarter	6 th Quarter	7 th Quarter	8 th Quarter	Total cost (Lakhs)
1.	Procurement Process									
2.	Construction of Housing									
3.	Physical Infrastructure									
4.	Social Infrastructure									
5.	DPR Preparation , Project Management & sup									
6.	Carp. Bldg., com Mob Social audit & TPIM									
7	O & M									
	Grand Total									
	Total First two Quarters									
	Total for 1 st Year									



Total for 2 nd Year										
Grant by GOI										
Grant by GoK., ULB & Beneficiaries Share										



8. OPERATION & MAINTANANCE

CHAPTER 8 .OPERATION AND MANTANANCE

Operation & Maintenance

In general, operation and maintenance costs form a sizeable share of a slum redevelopment budget. In case of Bangalore slums, O & M costs makes up 9% of the total estimated cost for each year. The following list of related costs that will be incurred during the implementation of a slum rehabilitation/redevelopment includes:

- O&M (4%)
- A & OE, IEC, DPR Preparation & PMC (5%)

Depending upon the mode of development, the operation and maintenance costs will vary for the slums.

a. Slum dwellers

Slum dwellers also act as stakeholders in planning for slums as they understand the slums, strategies implemented in those slums and future requirements. Hence they should be trained in developing their respective slums, otherwise the aims of SJSRY staff not be fulfilled.

b. Intermediaries

CO's, CBO's and community volunteers are the Intermediary stakeholders to train the trainer's. Capacity building for them is convincing & managing the slum association to accept proposals, Training and adequate guidance to the CBO's and the community volunteers can be organized by the concerned cells/agencies/lead NGO to build common understanding on their role and purpose of data collection for the SFCP. The capacity building activities can also be undertaken by the National Network Resource Centres (NNRCs), empanelled by the Mo/HUPA.

It is expected that the SFCPoA is prepared with active participation of community during the planning process. To enable the same suitable structures (cooperatives/ societies) might need to be formed, where necessary. The communities would need to demonstrate willingness to adopt the implementation option, plan for livelihood/ economic activities within the slum. Communities are also expected to assist in generating the beneficiary contribution.

c. Urban Local Body performs tasks under Government stakeholders

Being the main sponsor of the RAY scheme, ULB would prepare the SFCPoA as a first step to clearly articulate the action plan for making the city "slum free". During the preparation of Slum Free City Plan of Action, ULB would continuously consult with the community in the planning process. During the process, ULB would categorize and prioritize for rehabilitation! Development, and would provide/ facilitate provision of infrastructure.



ULB, in consultation with the community, will also allot dwelling units and enable provision of the legal titles to

Reforms & Slum Prevention Reforms

For any city, preventing the formation of newer slums is quite critical and pretty much the same as dealing with the existing slums. A key component in preventing future slums is the availability of developed lands at affordable prices, set aside for meeting the needs of the urban poor. To prevent further growth of slums and improve the social status of existing ones along with reconstruction, the states need to make the following provisions in terms of amendments to certain legislations, reservation of lands, as well as formulate newer laws such as:

● Assignment of property rights

The property rights shall not be assigned to the slum dwellers in the slum Areas notified and located on any of the following categories:

Objectionable government lands, such as tank beds, burial grounds, solid waste land Jill cities etc., central government, defense, industrial units, disputed lands, protected monuments, public sector lands and other lands which are specified by government for a specific purpose and usage.

The legal title should be entitled either on the woman or jointly with the main male householder, provided it should be made on the house or the land and it must be alienable as per the transfer of title to state after a certain period.

● Formation of Slum Redevelopment Authorities

A slum redevelopment authority is to be created at state level with induction of members from various departments. The role of the authority would be to provide guidance in identification of slums, formulate policies and programmes for redevelopment and rehabilitation of slums, special zoning regulations and to administer the funds released by govt. of India, state govt. and other agencies. On similar lines of the slum redevelopment authority at state level, a district level authority can be formed to function as well as monitor the slum rehabilitation for each district.

● Land Acquisition

Just in case where no suitable government or ULB lands are available, suitable private patta lands are identified for rehabilitation of slum areas. In process, the competent authority shall take action for acquisition of lands under the provisions of land acquisition act, 1894.

● Land pooling

In land pooling/town planning scheme, the owner or developer undertaking the development shall reserve and earmark the land in the proportions of 5% for the economically weaker sections (EWS) and 5% of land for low income group persons for



housing purpose. In case of vertical development, 20% of built up space shall be earmarked for EWS and low income groups.

Once implemented, in the long term, availability of affordable land Housing will discourage squatting by poor on public lands and create slum free cities. It will also sustainably reduce urban poverty levels by providing regal access to better services and economic opportunities.

Transferable Development Rights (TDR) /Incentive Zoning

TDR is aimed at providing to a land owner builder additional FAR in another property part of the city in exchange for presently occupied land so that the land could consolidated. This method has been extensively used in other parts of India.

● Microfinance for shelter up-gradation

To make cities slum free, it is necessary to build partnerships with Self Help Groups and Micro Finance Institutions both formal and informal to help poor access money to purchase land /houses. Often Financial Institutions prefer to provide loans through NGOs, who works as intermediaries, to disburse loan to beneficiaries. State/ city administration can facilitate this process by standing guarantee or by framing appropriate regulations so that benefits of these transactions reach the target group.

● Other legislations

- Under the 7- Point Charter of JNNURM in order to make serviced land available for the poor for the future and to prevent slums - there is a necessity to reserve 0%-25% of the land for every new public/private housing projects.
- Amendment to enactments to enable revision of population density norms, FAR, land use, etc. and to allow private sector participation wherever reasonably possible.
- Extension of basic network services including health and education to slum settlements through national sanitation and health related programmes
- Provision of skills and training and nonwage, self employment assistance, the self-employment component in the SJSRY
- Changes in Master Plans that allows for slum renewal and redevelopment, legislation and building byelaws.

ULB's role

The implementing agency ULB would need to continue fiscal reforms that have already been initiated under the JNNURM and other relevant schemes. Approach to financing of the ULB contribution would need to be a combination of initiatives that ring-fence and maximize internal accruals, and developing a framework for sustainable community participation/unlocking other sources of revenues.



Capacity Building

With the launch of RAY, capacity building efforts received a significant boost in terms scale as well as scope. It is usually focused on provision of technical assistance, training an " knowledge support to enable implementation of programmers and related components. Throng incremental approach and comprehensive framework, capacity building requires in selecting appropriate mode of training and should imply the flow of ideas, systems and process knowledge management through the creation of networks of sector managers for sharing emerging trends, ideas and best practices towards implementing slum free cities.

At State level,

The state needs to prepare state specific capacity building strategy should map existing arrangements/requirements/gap analysis/identify specific measures for strengthening existing facilities and expertise. This framework should incentivize knowledge and skill development and provide an environment for the use of skills acquired.

At ULB level,

Given the legal implications, it is essential for ULB staff to improve levels of performance in order to reduce evasion. Hence to gain expected outcomes, it is necessary for orienting ULB personnel to the role expected out of them in the context of rising expectations from the citizens in terms of service delivery, greater transparency and accountability etc.

At NGO's level,

Implementation of projects and reforms involves increased stakeholders participation among the general public, NGOs and the private sector. There is a need to create forums where different stakeholders can articulate their demands for better service delivery and governance levels.

Slum dwellers

Slum dwellers also act as stakeholders in planning for slums as they understand the slums, strategies implemented in those slums and future requirements. Hence they should be trained in developing their respective slums, otherwise the aims of SJSRY staff not be fulfilled. An amount up to 5% of the total annual allocation of RA Y scheme will be set aside for capacity building activities, of which 1 % would be utilized by the Centre, 4% by the States Ts, n addition, up to 5% of the total scheme allocation will be earmarked for preparatory activity regarding development of Slum-Free City Plans including pilot projects, preparation of DPRs. community mobilization, IEC, planning and administrative expenses for both the Centre and the States/UTs and creation of institutional space and capacities.

Assessment of Implementation Options

The assessment for implementing a mode of development for any slum in Bangalore city would be based on the prevailing land value. The implementation could be both public and



private depending on the public and stakeholders consensus with due approval of the city with respect to its land ownership and project implementation.

Financing Plan

a. Summary of Investments

Sector	Total Project Cost (Iakhs)
Housing	2897.10
Water Supply	48.36
Sanitation	73.26
Solid waste management	-
Roads	224.70
Street Lighting	86.58
Education	-
Health	-
Social development	-
i. Parks & Landscape	-
ii. Community Centre	-
iii. Anganwadi	-
Others	299.70
Total	3629.70

The operation and maintenance of the project which is usually not taken care of is the most important aspect of the project and its success. It has been looked after in a very simple and resolved manner in this report. The Community participation is of signification Importance in the Operation and Maintenance of the Assets created and to create an ownership feeling between the residents. The Community has been involved in the planning of Operation and Maintenance of the Locality.

Funds required for Operation and Maintenance will be raised at different levels from residents in form of user charges, ULB fund will be raised from the taxes collected and for O & M Funds a separate joint bank account between the CBO and the ULB is proposed. ULB & CBO are required to maintain Escrow accounts for O&M money.

An escrow account is an arrangement made under contractual provisions between transacting parties, whereby an independent trusted third party received and disbursement by the transacting parties. With the timing of such disbursement by the third party dependent on the fulfillment of contractually – agreed conditions by the transacting parties.



The Operation and maintenance Cost proposed in the DPR for the initial five years will be given to the CBO in installment as per need. For this purpose an Escrow account is opened to facilitate the purpose under the specific heads. Water supply line Repairs, Sewerage line repair, Street lights, Road maintenance & Sweeping, irrigation & maintenance of garden, Neighborhood Facilities such as Community Centre and maintenance of social infrastructure like primary school, open spaces etc.

Building Block Level

- **Water Supply**
Every Individual is responsible for Water usage for their households & it is paid by user in form of user Charges.
- **Door to Collection of Solid Waste**
Community Based Organization will arrange a person to collect waste from each Household, & he will be paid by users in form of user Charges.
- **Electricity usage by individual HHs**
Every Individual is responsible for electricity usage for their households & it is paid by user in form of user Charges.
- **Common Areas of Building Block (Staircase, Corridors etc)**
It will be looked after by the Residents of that particular Block. the residents to share costs for maintenance of the common areas in the building block like cleaning, common area and lighting within the blocks like the staircase lobby etc.
- **Periodic Repair, Colouring & Retro Fitting etc. of Building Block.**
For other periodic Repairs of the Building Blocks like yearly colouring and retrofitting to keep the created assets in the form of building block functional, funds will be utilized from the O&M fund to maintain this.

Housing Area and Neighborhood level

- **Water Supply**
ULB will be responsible for periodic Cleaning of Sump well, terrace tanks and repair of Water Supply distribution Line; with the help of O&M funds.
- **Sewerage**
ULB will be responsible for periodic Cleaning of Septic tank & Repairs of Sewerage distribution Line with the help of O&M Funds



- Strom Water Drainage**
 ULB will be responsible for Periodic Repair of Strom water Drainage Network with the help of O&M Funds.
- Sweeping of Roads**
 The Community Based Organization will be responsible for sweeping of roads & solid waste management they will collect for maintenance of the assets from the residents and may hire services in form of Public private partnership for the same.
- Roads & Streets Lights**
 ULB will be responsible for Periodically Repairing of Roads, Footpaths & Replacement of Street Lights with the help of O&M Funds.
- Electricity**
 For functioning of the facilities like water supply, Electrical supply for pump house to raise water to the Individual building blocks terrace tanks and for installation of street lights and providing electrical supply within the slums will be done by ULB which will carry out from the funds raised from various taxes and from residents.
- Neighborhood Facilities**
 Community Based organization, which is formed, will look after assets created at Neighborhood level such as community hall, Primary school gardens, Parks & open spaces etc. They will also look after their day to day cleaning. Periodic Repair & retro fitting of Neighborhood facilities which CBO can outsource to Private Agencies with local labour.

City Level

ULB will be responsible for operation & maintenance of Main trunk lines of water supply, sewerage etc. and solid waste management – transportation & recycling from the slums & operation and maintenance of connecting roads & streetlights. Will be done by ULB for which they will carry out the funds raised from various taxes.

Si No	Activities	Responsibility			Funding			
		HHs	CBO	KSDB/Other Govt Agencies	User Contribution	User Charges	KSDB/ Others	O & M Funds
I.	Building Block level							



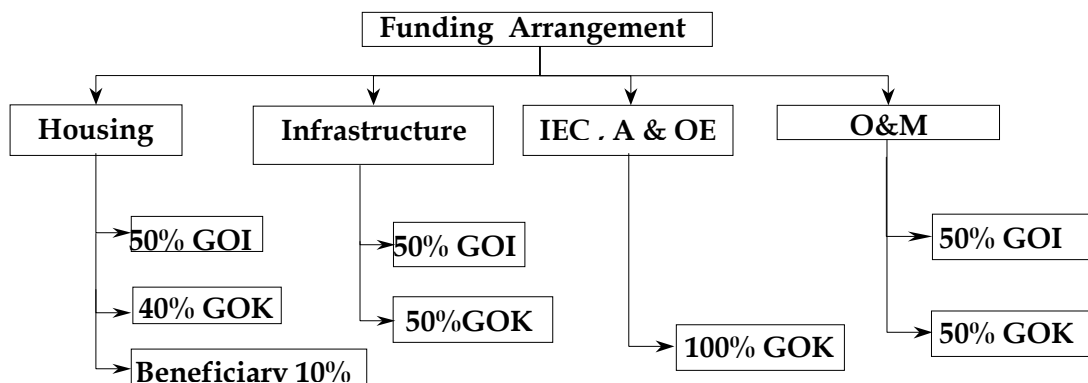
a	Water supply usage by individual HHs							
b	Door to Door Collection of solid waste							
c	Electricity usage by Individual HHs							
d	Electrification & Lighting of common areas of building block (Staircase, Corridor etc.)							
e	Day to Day cleaning of common areas of building block (Staircase, Corridor etc.)							
f	Periodic Repair, colouring & Retro fitting							
2	Housing area and Neighbourhood level							
a	Periodic cleaning of sump well & terrace tanks , Repairs of water supply distribution line							



9. FINANCING ARRANGEMENT / STRUCTURE

CHAPTER -9 FINANCING ARRANGEMENT/STRUCTURE

Implementing slum free cities requires the concerned authorities to develop a legal framework based policy for internal earmarking of funds, ensuring the preparation of separate budget for urban poor, creating BSUP Fund etc.



Central Share

Speaking of the Govt. of India share in RAY project funding, 50% of the cost of provision of basic civic and social infrastructure and housing, including rental housing- an transit housing for in-situ redevelopment -in slums would be borne by the Centre, including O & of assets created under RAY scheme. The remaining half required the states or ULBs to use PPP models innovatively to generate resources for slum housing through land use concessions, etc the private industry partners, and use of the central share as viability gap funding. States hi h demonstrate an innovative use of PPP models resulting in utilization of less than the specific central share of 50% in any project shall be incentivized by allowing them to use this saving in other projects in the city.

An amount of nearly 5% of the total annual allocation would be set aside for capacity building activities, of which 1 % would be utilized by the Centre, 4% by the States/UTs. In addition, Upto 5% of the total scheme allocation will be earmarked for, preparatory activity -



regarding development of Slum-Free City Plans including pilot projects, preparation of DPRs. Community mobilization, IEC, planning and administrative expenses.

Beneficiary Contribution

In order to ensure the communities interest and active participation, financial contribution by the beneficiaries is considered to be critical. As specified, the share of beneficiary contribution in the housing sector is anticipated to be a minimum of 12% of total cost and 10% in case of different social groups and other weaker sections. Options such as aggregation of loans to a community of beneficiaries wherever feasible, will be encouraged. Adequate security and credit enabling structures for such participation including mortgage insurance would need to be structured and made available to the beneficiaries. The option of linking to the Mortgage Risk Guarantee Fund (MRGF) to which the State has to contribute could be explored.

There are various initiatives that can be undertaken by the States/ ULBs to facilitate beneficiary contribution and to make finances available during the 5 year span of the RA scheme. These include the following:

- Facilitating long-term concessional interest rate/differential interest rates to the beneficiaries
- Access to microfinance and alternate funding options
- Rajiv Awas Shelter Fund, to be used:
- To keep the slum/urban poor beneficiary from turning defaulter due to unemployment death or other genuine distress and thereby risk forfeiture of dwelling unit and foreclosure on loan
- To share the lender's costs of servicing the loan.

Component	Central Share in Lakhs	State share in Lakhs	ULB share in Lakhs	Beneficiary Share in Lakhs	Any other in Lakhs	Total Project cost in Lakhs
Housing	1448.55	1157.19	-	291.36	-	2897.10
Infrastructure	216.45	216.45	-	-	-	432.90
Other (Percentage/Contingencies, DPR Preparation A & OE etc)	66.60	233.10	-	-	-	299.70
Total	1731.60	1606.74	-	291.36	-	3629.70



c. Strategy for Sustenance

Local bodies need to explore options for raising finance through other avenues such as PPP, shared mortgage and pooled financing mechanisms. For sustenance, it is essential for a ULB to prioritize in a way that the maximum benefit is derived for the investments proposed made for implementing development works and service delivery for slums. This can be achieved only through beneficiary participation and consensus.

a. ULB Finances

To undertake financing for slum rehabilitation, ULBs need to adopt a different approach or a well designed strategy for financing by:

- Internal earmarking of funds for RAY in the municipal budgets., allocation of available surplus for slum rehabilitation under RAY
- Earmarking of property taxes, trade license fee, hawkers –license fees, SWM cess etc.,
- Share of other devolutions, whenever applicable
- Proceeds from PPP projects
- Unlocking alternate revenues, using land based instruments such as FSI, TDR, land banking etc.

e. Earmarking for Slum Rehabilitation & Prevention Strategy

For all new housing projects developed by public or private agencies, it would be mandatory to construct houses for LIG/EWS groups. Suitable amendment may be made to State local enactments for this purpose. The percentage of housing units to be earmarked for LIG/EWS in apartments or group housing projects in large and small cities will be between 20- 25% as prescribed under RAY. In case of vertical development, 20% of built up space shall be earmarked for economically weaker sections and low income groups of persons.

f. Community Participation

Community participation is critical for a successful slum rehabilitation and development. ULBs need to ensure that appropriate community processes and organization of community structures for planning and implementation of housing and upgrading projects. In addition, the local bodies need to facilitate Area and Ward Committees with representation of slum communities, in accordance with the Community Participation Law for participatory area and ward level planning and monitoring.

Monitoring & Review

RAY would be monitored at three levels: City, State and Government of India. The following agencies and departments would be monitoring at their respective levels: 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 sanction and review/monitor the progress of projects sanctioned under the Mission.
- Monitoring of quality of projects executed by the implementing agencies in the States/Cities will be facilitated through independent quality control assurance/ the 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 distortions, oversights or shortcomings can be made in time.

Reforms

A draft slum free act has been already in place in state of Karnataka. ULB / State Govt. agencies need to suggest the sequencing of steps and timelines to be adopted during implementation of slum redevelopment programmes for a period of five years.



With technical support from

M/s iMPRINTS

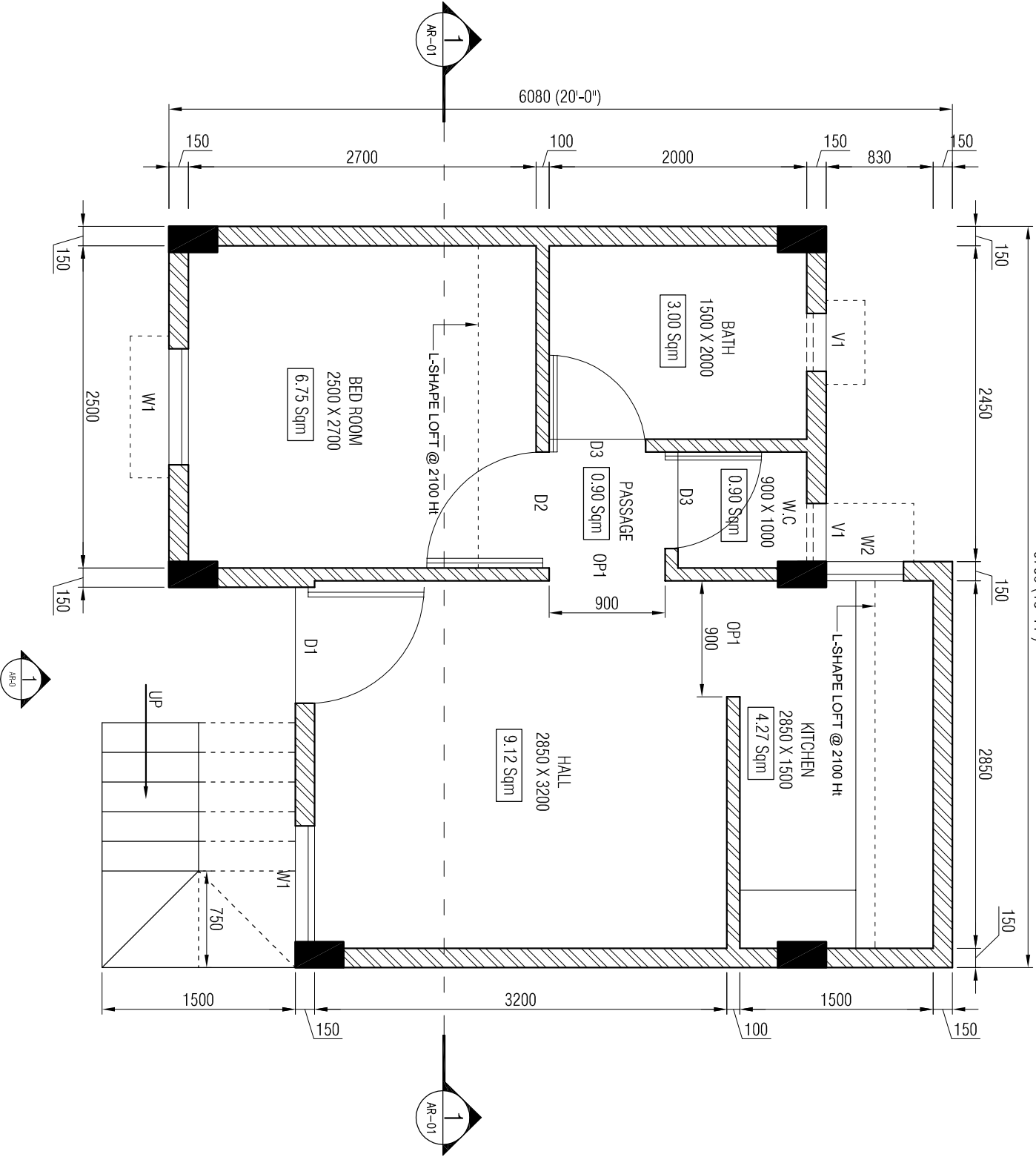
implementing agency

Karnataka Slum Development Board



VOLUME – II

5750 (18'-11")



NOTE:

- DO NOT SCALE THE DRAWING FOLLOW THE WRITTEN DIMENSIONS ONLY.
- ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
- GROUND - ONE FLOOR STRUCTURE
- FLOOR TO FLOOR HEIGHT = 2.8m

SCHEDULE OF OPENINGS

DOORS :	
D1	0.90m X 2.10m (with threshold)
D2	0.90m X 2.10m
D3	0.75m X 2.10m
OP1	0.90m X 2.10m

WINDOWS :

W1	0.90m X 1.20m
W2	0.75m X 0.60m

VENTILATOR :

V1	0.45m X 0.45m
----	---------------

AREA STATEMENT

CARPET AREA : 25.00 Sqm (269.00 Sq Ft)

PLINTH AREA : 29.52 Sqm (317.75 Sq Ft)

ISSUED TO	NO.	DATE	BY

DESCRIPTION	REVISION	DATE	REV

CONSULTANTS :

imprints

ARCHITECTURE - STRUCTURAL ENGINEERING
 # 55, FIRST FLOOR, 8th CROSS,
 5th MAIN, MALESWARAM,
 BANGALORE - 560003
 Email: imprints_3e@ymail.co.in
 TEL: 9845442629

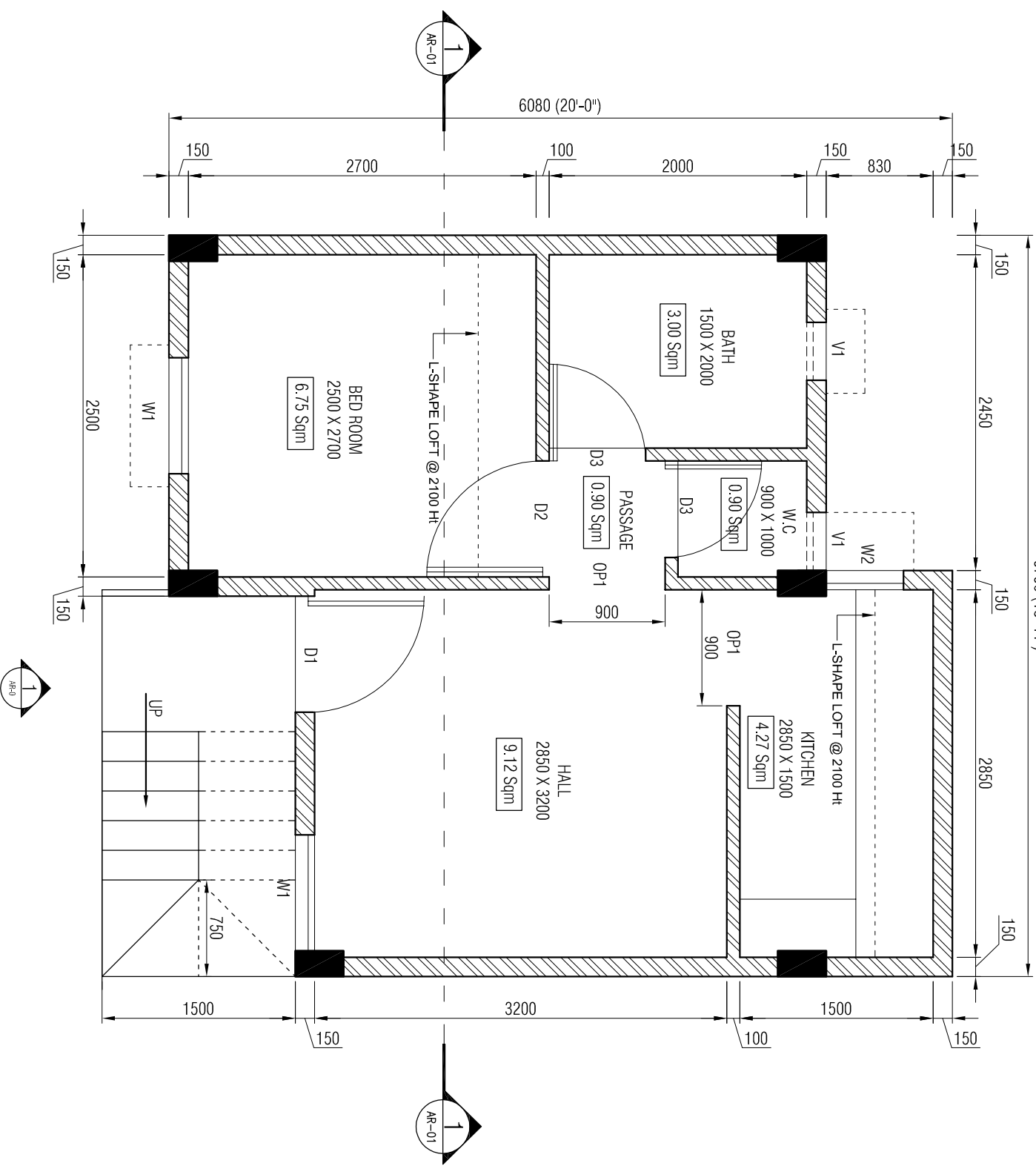
CLIENT:
 KARNA TAKA SLUM DEVELOPMENT BOARD, BANGALORE.

DRAWING TITLE:
 GROUND FLOOR PLAN

PROJECT TITLE:
 CONSTRUCTION OF 686 (G.F) DUS HOUSING AT KUVEMPUNAGARA SLUM (INSITU REDEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATARA YANAPURA AREA UNDER RAY

DRAWN	: CHANDRASEKHAR
CHECKED	: MELINA
APPROVED	: MANAVANAND
DATE	: 17-10-2013
SCALE	: N.T.S
DWNO	: AR-01
REV	: R0

5750 (18'-11")



NOTE:
 1. DO NOT SCALE THE DRAWING FOLLOW THE WRITTEN DIMENSIONS ONLY.
 2. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
 3. GROUND = ONE FLOOR STRUCTURE
 4. FLOOR TO FLOOR HEIGHT = 2.30m

SCHEDULE OF OPENINGS

DOORS :	
D1	0.90m X 2.10m (with threshold)
D2	0.90m X 2.10m
D3	0.75m X 2.10m
OP1	0.90m X 2.10m

WINDOWS :

W1	0.90m X 1.20m
W2	0.75m X 0.60m

VENTILATOR :

V1	0.45m X 0.45m
----	---------------

AREA STATEMENT

CARPET AREA : 25.00 Sqm (269.00 Sq Ft)
 PLINTH AREA : 29.52 Sqm (317.75 Sq Ft)

ISSUE DETAILS			
ISSUED TO	NO.	DATE	BY

REVISION		
DESCRIPTION	DATE	REV

CONSULTANTS :

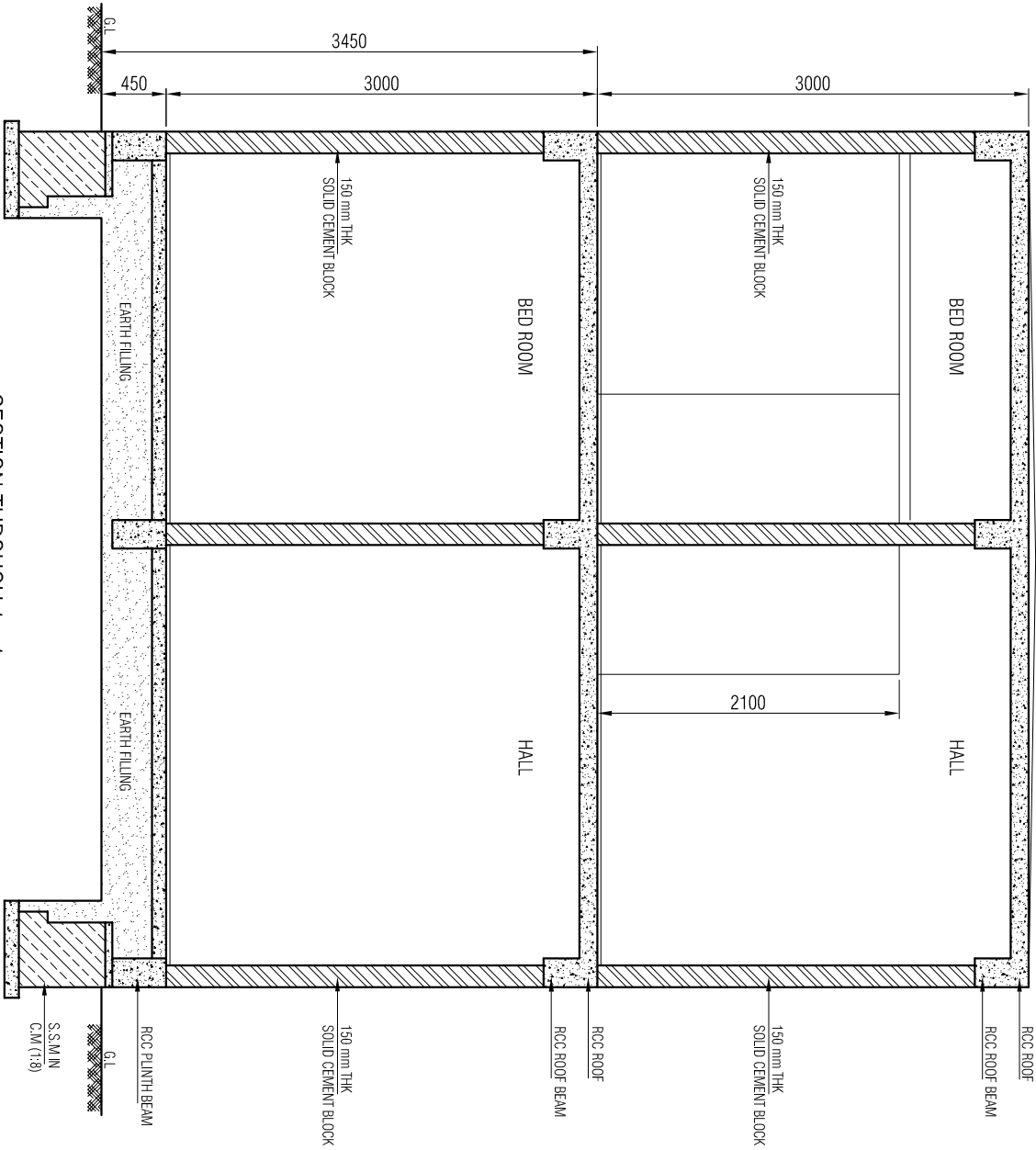
imprints
 ARCHITECTURE - STRUCTURAL ENGINEERING
 # 55, FIRST FLOOR, 8th CROSS,
 5th MAIN, MALESWARAM,
 BANGALORE - 560003
 Email: imprints_3e@ymail.co.in
 TEL: 9845442629

CLIENT:
 KARNA TAKA SLUM DEVELOPMENT BOARD, BANGALORE.

DRAWING TITLE:
 FIRST FLOOR PLAN

PROJECT TITLE:
 CONSTRUCTION OF 686 (G.F) DUS HOUSING AT KUVEMPUNAGARA SLUM (INSITU REDEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATARA YANAPURA AREA UNDER RAY

DRAWN	: CHANDRASEKHAR
CHECKED	: MELINA
APPROVED	: MANAVANAND
DATE	: 11-10-2013
SCALE	: A1S
DWNO	: 04-10
REV	: 01



SECTION THROUGH 1 - 1

- NOTE:
- DO NOT SCALE THE DRAWINGS FOLLOW THE WRITTEN DIMENSIONS ONLY.
 - ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
 - GROUND = ONE FLOOR STRUCTURE
 - FLOOR TO FLOOR HEIGHT = 2.3m

SCHEDULE OF OPENING

DOORS :

D1	0.90m X 2.10m (with threshold)
D2	0.90m X 2.10m
D3	0.75m X 2.10m
OP1	0.90m X 2.10m

WINDOWS :

W1	0.90m X 1.20m
W2	0.75m X 0.60m

VENTILATOR :

V1	0.45m X 0.45m
----	---------------

AREA STATEMENT

CARPET AREA : 29.00 Sqm (269.00 SQ)
 PLINTH AREA : 29.52 Sqm (317.75 SQ)

ISSUED TO	NO.	DATE	BY
DESCRIPTION	DATE	REV	

CONSULTANTS :

ARCHITECTURE - STRUCTURAL - ENGINEERING
 # 55, FIRST FLOOR, 8th CROSS,
 BANGALORE E - 560 083
 e-mail: imprints_arch@ymail.com
 TEL: 98423444205

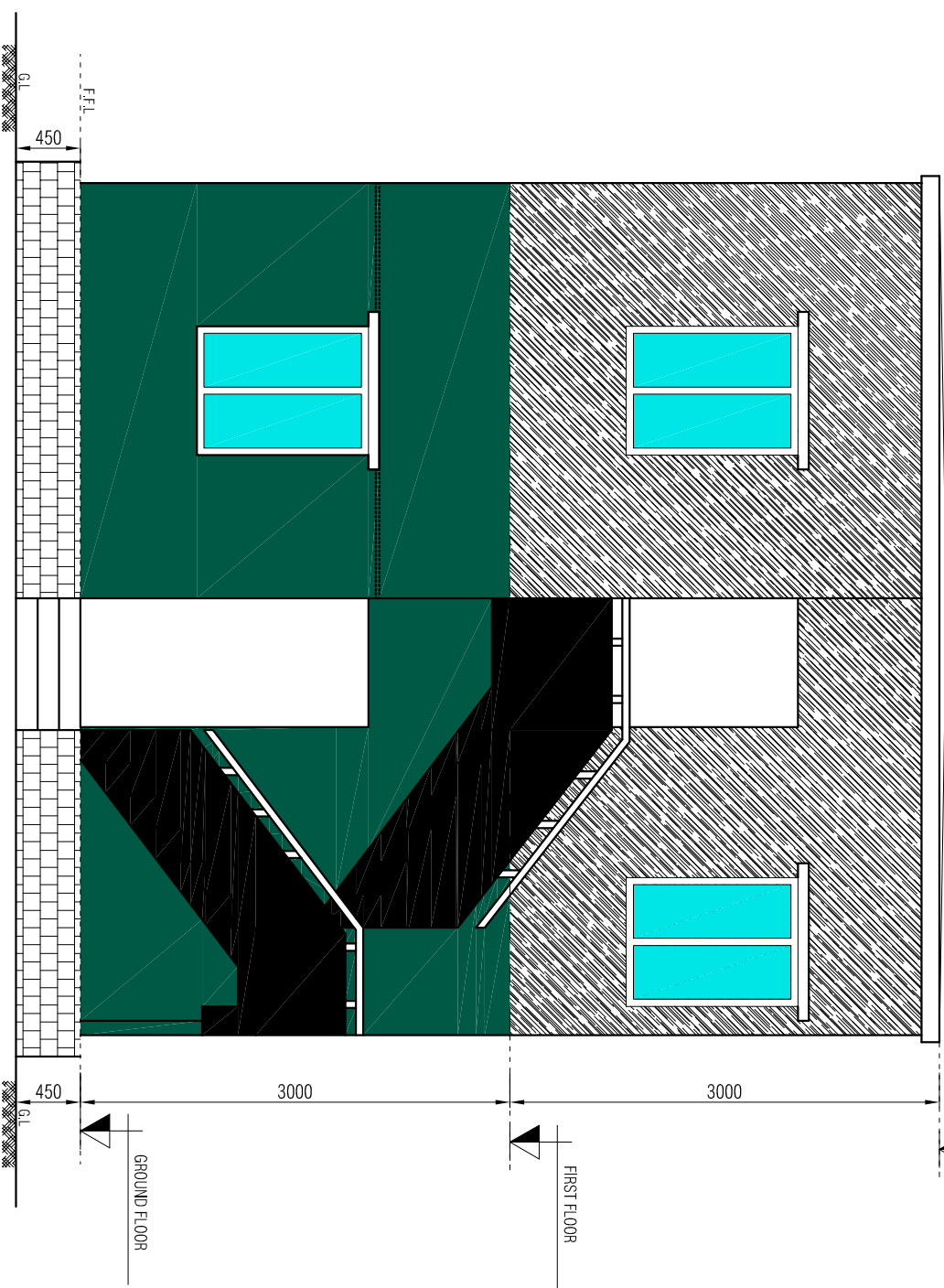
CLIENT :
 KARNATAKA SLUM DEVELOPMENT BOARD, BANGALORE.

DRAWING TITLE :
 GROUND FLOOR SECTION & ELEVATION PLAN

PROJECT TITLE :
 CONSTRUCTION OF 666 (G.F.) DVS HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU REDEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATARAANAPURA AREA UNDER RAY

DRAWN	: CHANDRASHERAGA
CHECKED	: MELVIN
APPROVED	: VIJAYANAND
DATE	: 17-10-2013
SCALE	: N.T.S
DWG NO	: AR-03
REV	: RO

- NOTE:
1. DO NOT SCALE THE DRAWINGS FOLLOW THE WRITTEN DIMENSIONS ONLY.
 2. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
 3. GROUND - ONE FLOOR STRUCTURE
 4. FLOOR TO FLOOR HEIGHT = 2.30m



FRONT ELEVATION
 (GROUND FLOOR CONSTRUCTION BY KSDB & FIRST FLOOR
 WILL CONSTRUCTED BY BENEFICIARIES IN DUE COURSE)

SCHEDULE OF OPENINGS

DOORS :

D1	0.90m X 2.10m (with threshold)
D2	0.90m X 2.10m
D3	0.75m X 2.10m
OP1	0.90m X 2.10m

WINDOWS :

W1	0.90m X 1.20m
W2	0.75m X 0.60m

VENTILATOR :

V1	0.45m X 0.45m
----	---------------

AREA STATEMENT

CARPET AREA : 25.00 Sqm (269.00 Sq)
 PLINTH AREA : 29.52 Sqm (317.75 Sq)

NO.	DATE	BY
ISSUED TO		
ISSUE DETAILS		
DESCRIPTION	DATE	REV
REVISION		

CONSULTANTS :

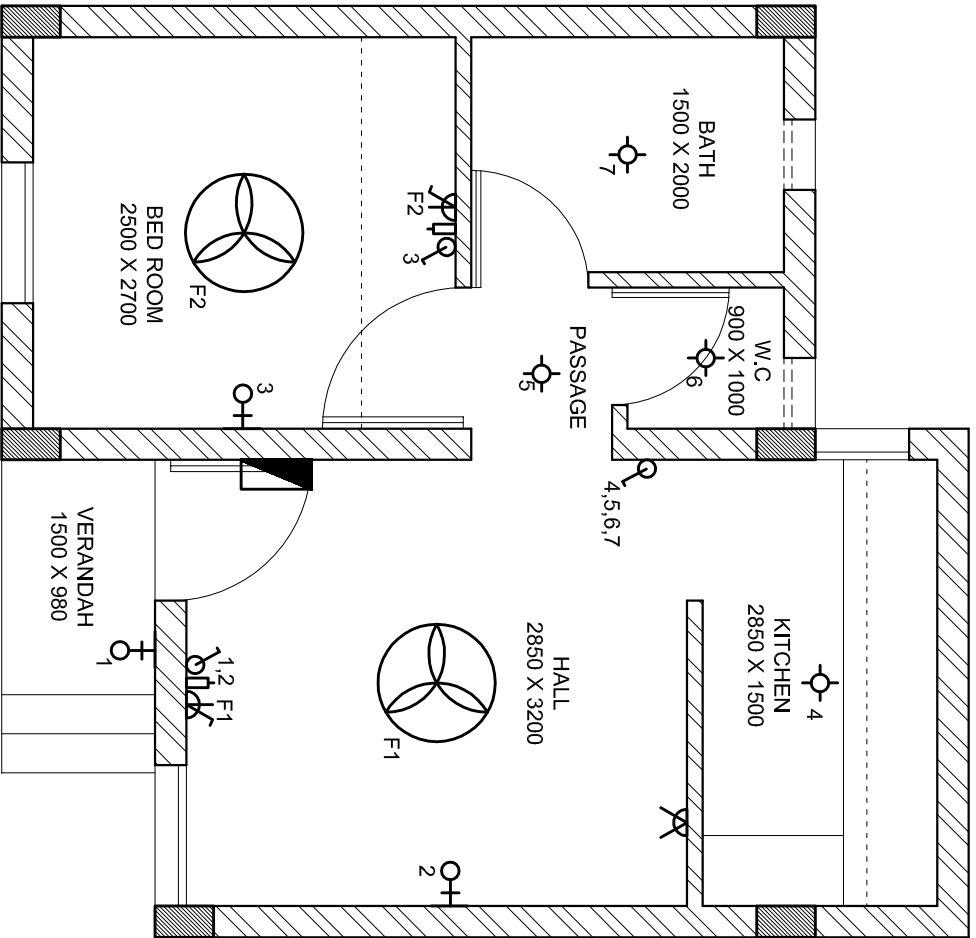
imprints
 ARCHITECTURE - STRUCTURE - ENGINEERING
 # 55, FIRST FLOOR, 8th CROSS,
 5th MAIN, MALESWARAM,
 BANGALORE - 560003
 email: imprints_arch@ymail.com
 TEL: 9846244235

CLIENT :
 KARNA TAKA SLUM DEVELOPMENT
 BOARD, BANGALORE.

DRAWING TITLE :
 VIEW - 01

PROJECT TITLE :
 CONSTRUCTION OF 666 (G.F.) DUS
 HOUSING AT KUVEMPUNAGARA SLUM
 (IN-SITU REDEVELOPMENT) INCLUDING
 INFRASTRUCTURE IN BANGALORE CITY,
 BYATARAANAPURA AREA UNDER RAY

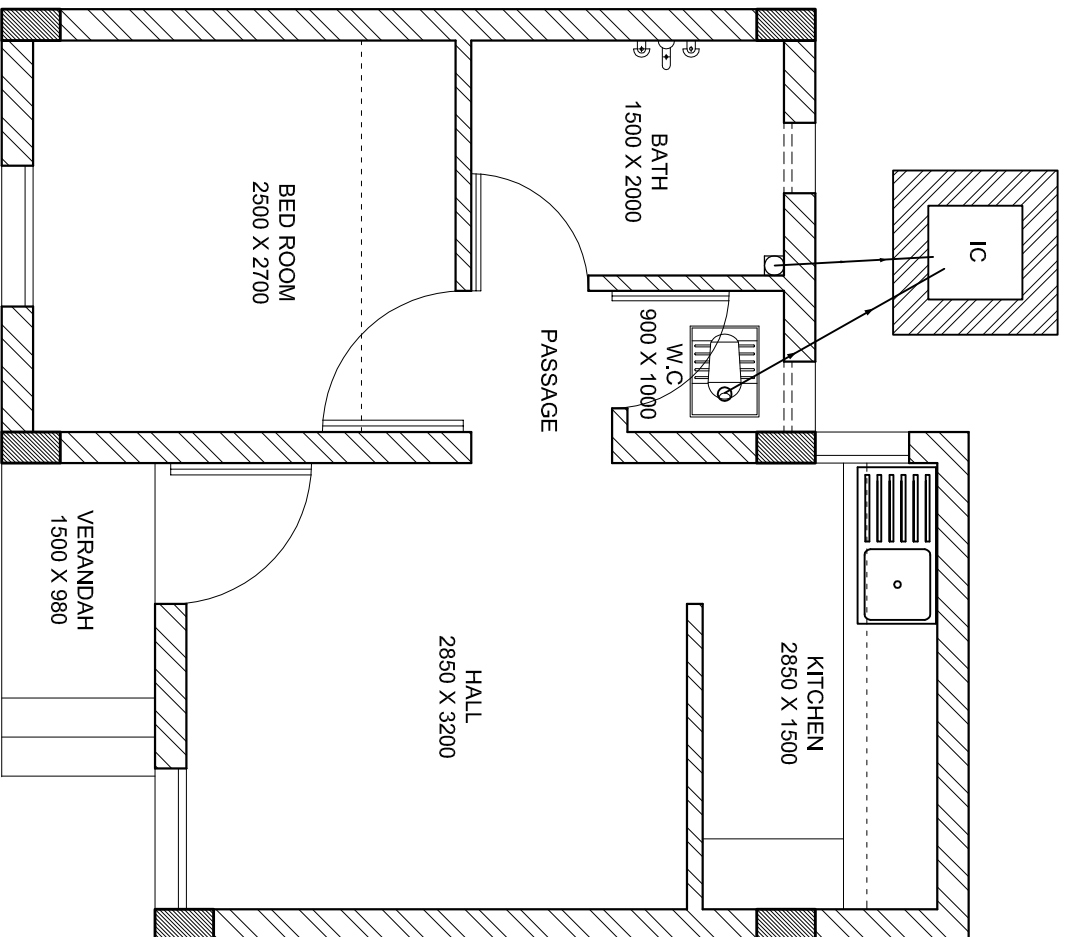
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CHECKED	: MELVIN
APPROVED	: VIJAYANAND
DATE	: 17/10/2013
SCALE	: N.T.S
DWG NO	: AR-04
REV	: RO



ELECTRICAL LAYOUT

INDEX		
SYMBOL	DESCRIPTION	MOUNTING Ht. AFFL
	CEILING LIGHT POINT	@ CEILING
	CEILING FAN	@ CEILING
	WALL MOUNTED LIGHT POINT	@ 2350mm
	5A SINGLE POLE SWITCH	@ 1200mm
	TV OUTLET	@ 1200mm
	5A MULTI PIN SOCKET CONTROLLED BY SWITCH	@ 1200mm
	ELECTRONIC FAN STEP REGULATOR	@ 1200mm
	MCB DISTRIBUTION BOARD	@ 2350mm

<p>CLIENT: KARNATAKA SLUM DEVELOPMENT BOARD, BANGALORE.</p>		 REGISTERED ARCHITECTURAL ENGINEERING # 55, FIRST FLOOR, 8th CROSS, 5th MAIN, MALESWARAM, BANGALORE - 560003 TEL: 080-26464205 @imprints.co.in																				
<p>CONSULTANTS:</p>																						
<p>PROJECT TITLE: CONSTRUCTION OF 666 (G.F.) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU REDEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATARAAYANAPURA AREA UNDER RAY</p>		<table border="1"> <thead> <tr> <th>ISSUED TO</th> <th>NO.</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	ISSUED TO	NO.	DATE	BY																
ISSUED TO	NO.	DATE	BY																			
<p>DRAWING TITLE: ELECTRICAL LAYOUT</p>		<table border="1"> <thead> <tr> <th>DESCRIPTION</th> <th>REVISION</th> <th>DATE</th> <th>REV</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	DESCRIPTION	REVISION	DATE	REV																
DESCRIPTION	REVISION	DATE	REV																			
<p>DRAWN: : RAGHAVENDRA</p> <p>CHECKED: : MELVIN</p> <p>APPROVED: : VIJAYAMAND</p> <p>DATE: : 17-10-2013</p> <p>SCALE: : N.T.S</p> <p>DWGNO: : EL-01</p> <p>REV: : R0</p>		<p>PROJECT TITLE: CONSTRUCTION OF 666 (G.F.) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU REDEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATARAAYANAPURA AREA UNDER RAY</p>																				



PLUMBING LAYOUT

ISSUED TO	NO.	DATE	By
ISSUE DETAILS			
DESCRIPTION	DATE	REV	

CONSULTANTS :



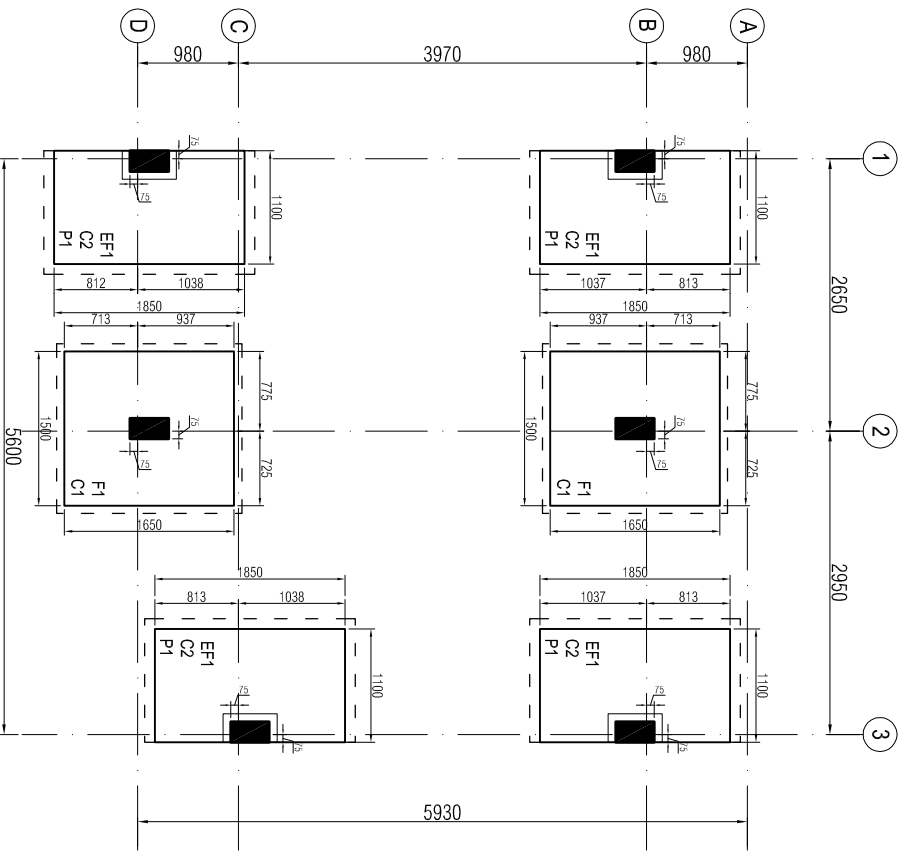
imprints
 ARCHITECTURE - CIVIL ENGINEERING
 # 55, FIRST FLOOR, 8th CROSS,
 5th MAIN, MALESWARAM,
 BANGALORE. E - 560003
 @imprints.in
 TEL: 080-25464205

CLIENT:
 KARNATAKA SLUM
 DEVELOPMENT BOARD,
 BANGALORE.

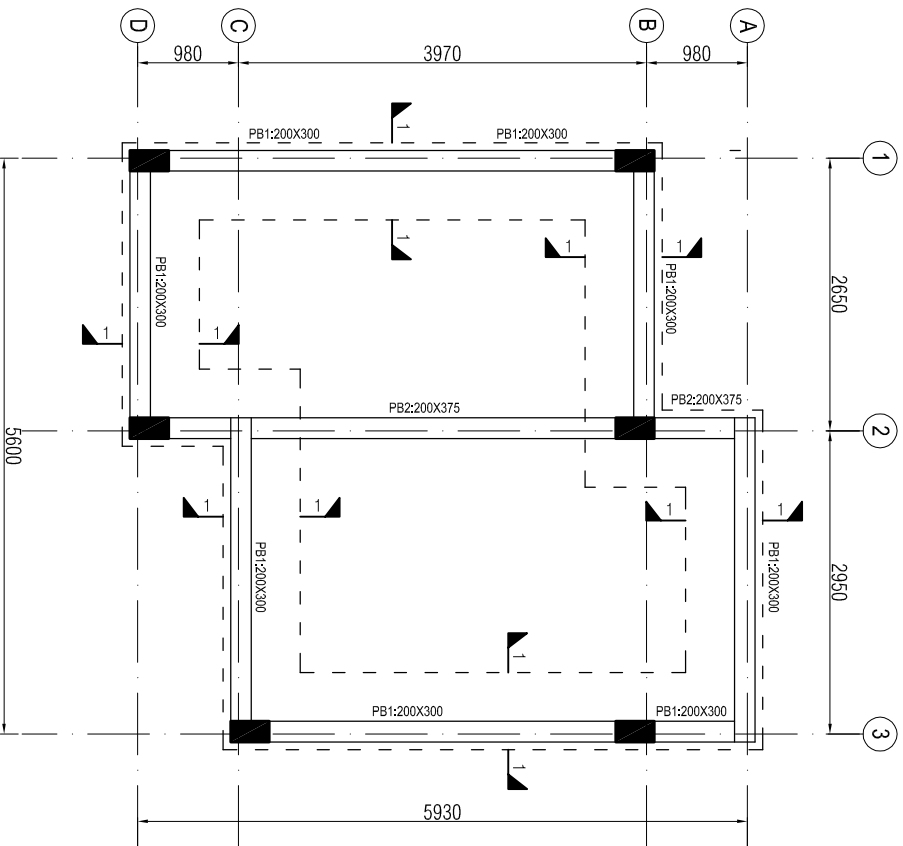
DRAWING TITLE:
 PLUMBING LAYOUT

PROJECT TITLE:
 CONSTRUCTION OF 686 (G.F.) DUS
 HOUSING AT KUVEMPUNAGARA SLUM
 (IN-SITU REDEVELOPMENT) INCLUDING
 INFRASTRUCTURE IN BANGALORE CITY,
 BYATRAYANAPURA AREA UNDER RAY

DRAWN : RAGHAVENDRA
 CHECKED : MELVIN
 APPROVED : VIJAYAMAND
 DATE : 12-10-2013
 SCALE : NTS
 DWG.NO : PL-01
 REV. : R0



EXCAVATION & CENTERLINE LAYOUT



PLINTH BEAM LAYOUT

NOTE:
01. DO NOT SCALE THE DRAWING FOLLOW THE WRITTEN DIMENSIONS ONLY.
02. ALL DIMENSIONS ARE IN 'mm' & LEVELS ARE IN 'm' UNLESS NOTED OTHERWISE.
03. ANY CHANGES SHOULD BE BROUGHT TO THE NOTICE OF THE CONCERN ENGINEER, GRADE OF CONCRETE FOR
04. FOOTINGS : M20
COLUMNS : M20
PLINTH BEAM : M20
COVER:
05. FOOTINGS : 50mm
COLUMNS : 40mm
PLINTH BEAM : 25mm
06. "#" REPRESENTS HYSD BARS OF GRADE Fe-415.
07. SBC ASSUMED 15 T/SOM
08. LAPS TO BE STAGGERED.
09. ANCHORAGES TO BE PROVIDED AS PER USUAL PRACTICE.
10. ANY DISCREPANCY IN DRG SHOULD BROUGHT TO THE NOTICE OF ENGINEER
11. FOUNDATION IS DESIGNED FOR G.F. + 1 UPPER FLOORS ONLY.
12. ADD 75mm ON EITHER SIDE OF FOOTING FOR EXCAVATION.

ENG. REF.:
-THIS DRG SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND SERVICES DRG
CONST. REF.:
ST - 01

LEGEND:
UNO - UNLESS NOTED OTHERWISE.

ISSUED TO	NO.	DATE	BY

DESCRIPTION	DATE	REV

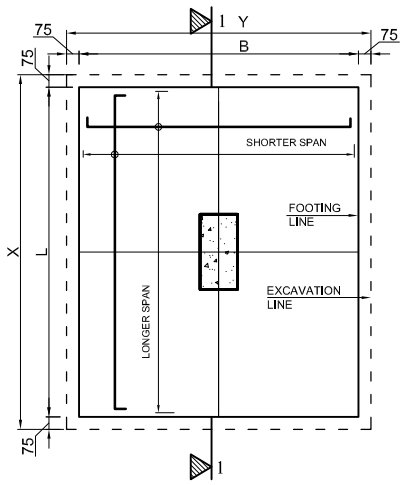
CONSULTANTS:
imprints
ARCHITECTURE & STRUCTURAL ENGINEERS
55, FIRST FLOOR, 8th CROSS,
5th MAIN, MALESWARAM,
BANGALORE, KARNATAKA
TEL: 9845246265

CLIENT:
KARNATAKA SLUM DEVELOPMENT BOARD, BANGALORE.

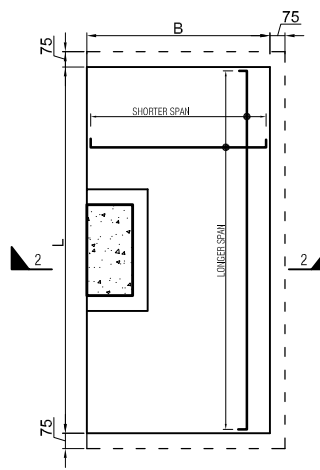
DRAWING TITLE:
CENTERLINE, EXCAVATION & PLINTH BEAM LAYOUT PLAN

PROJECT TITLE:
CONSTRUCTION OF 666 (G.F.) DUS HOUSING AT KUVEMPU/MAGARA SLUM (INSITU REDEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATARA/ANAPURRA AREA UNDER RAY

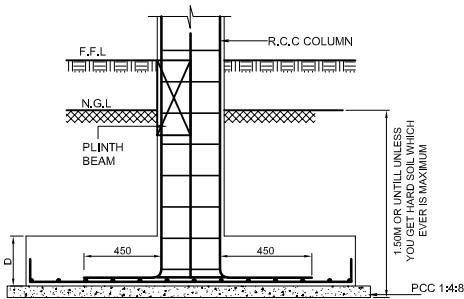
DRAWN : CHANDRASHHEKARA
CHECKED : VIJAYANAND
APPROVED : VIJAYANAND
DATE : 17-10-2013
SCALE : NTS
DWG. NO. : ST-01
REV. : R0



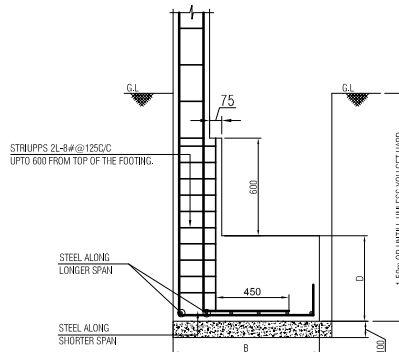
TYPICAL PLAN OF FOOTINGS



TYPICAL PLAN OF ECCENTRIC FOOTINGS



TYPICAL CROSS SECTION 1-1



SECTION 2-2
SCALE : N.T.S

- NOTE:
- DO NOT SCALE THE DRAWING FOLLOW THE WRITTEN DIMENSIONS ONLY.
 - ALL DIMENSIONS ARE IN 'mm' & LEVELS ARE IN 'm' UNLESS NOTED OTHERWISE.
 - ANY CHANGES SHOULD BE BROUGHT TO THE NOTICE OF THE CONCERN ENGINEER.
 - GRADE OF CONCRETE FOR
FOOTINGS : M20
COLUMNS : M20
PLINTH BEAM : M20
 - COVER:
FOOTINGS : 50mm
COLUMNS : 40mm
PLINTH BEAM : 25mm
 - "#" REPRESENTS HYSD BARS OF GRADE Fe-415.
 - SBC ASSUMED 15 T/SQM
 - LAPS TO BE STAGGERED.
 - ANCHORAGES TO BE PROVIDED AS PER USUAL PRACTICE.
 - ANY DISCREPANCY IN DRG SHOULD BE BROUGHT TO THE NOTICE OF ENGINEER
 - FOUNDATION IS DESIGNED FOR G. F + 1 UPPER FLOORS ONLY.
 - ADD 75mm ON EITHER SIDE OF FOOTING FOR EXCAVATION.

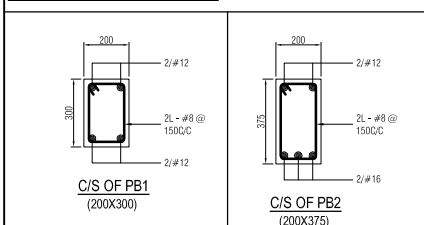
COLUMN DETAILS:

STRIUUPS	#8@175C/C	#8@175C/C
COLUMN STEEL	6-#16	4-#16 + 2-#12
COLUMN SIZE	200X375	200X375
FROM FOOTING TO TERRACE FLOOR LVL		
COLUMN	C1	C2

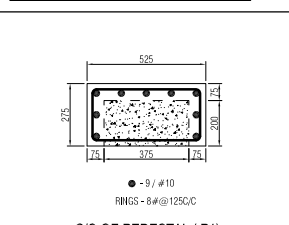
FOOTING DETAILS:

FOOTING NAME	EXCAVATION SIZE		FOOTING SIZES			REINFORCEMENT	
	X	Y	L	B	D	REINFORCEMENT ALONG L	REINFORCEMENT ALONG L
F1	1800	1650	1650	1500	300	#10 @150 C/C	#10 @150 C/C
EF1	2000	1175	1850	1100	350	#10 @150 C/C	#10 @150 C/C

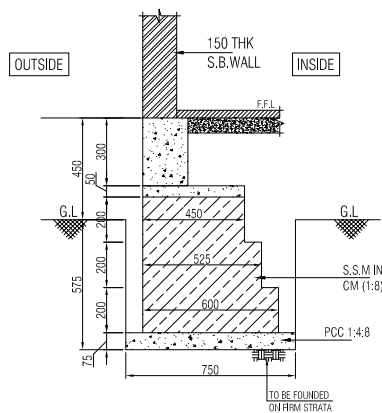
PLINTH BEAM DETAILS:



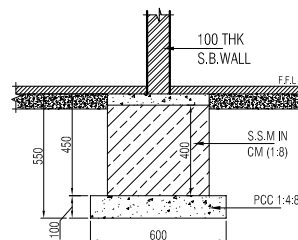
PEDESTAL BEAM DETAILS:



WALL FOUNDATION DETAILS:



SECTION AT 1-1
(TYPICAL EXTERNAL WALL FOUNDATION)



TYPICAL PARTITION WALL FOUNDATION

ENGG. REF :

-THIS DRG SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND SERVICES DRG

CONST. REF. :

ST - 01

LEGEND :

UNO - UNLESS NOTED OTHERWISE.

ISSUED TO	NO.	DATE	By

ISSUE DETAILS			
DESCRIPTION	DATE	REV	

CONSULTANTS :

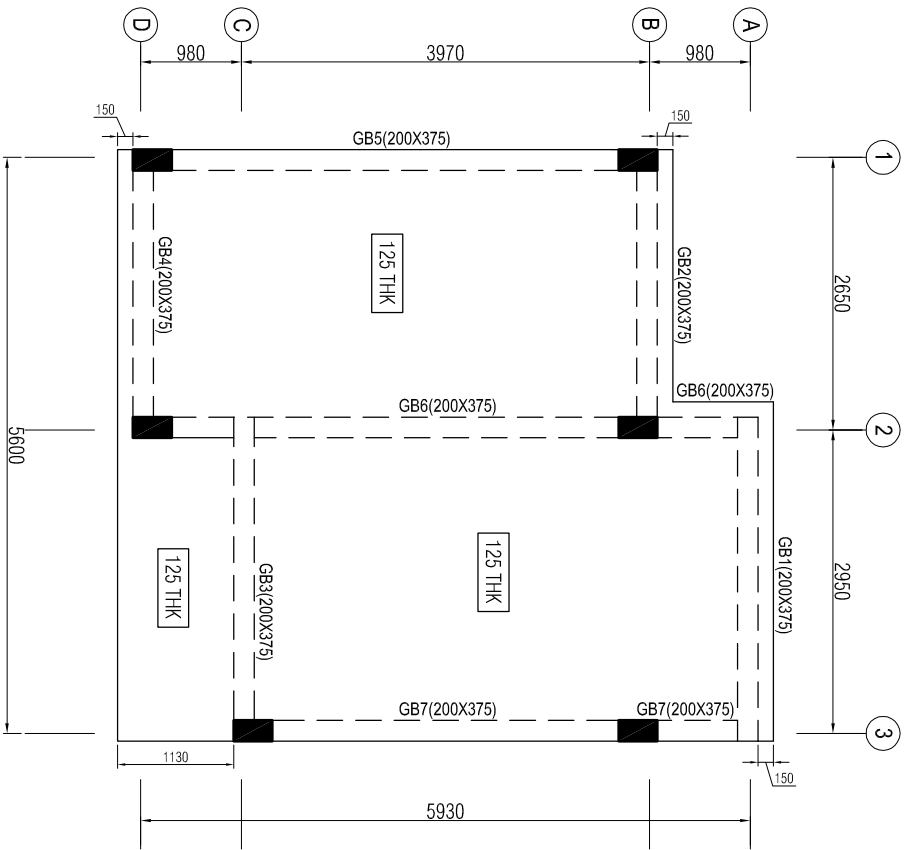
imprints
ARCHITECTURE - STRUCTURAL ENGINEERING
55, FIRST FLOOR, 8th CROSS,
5th MAIN, MALLESHWARAM,
BANGALORE - 560 003
e-mail: imprints_arn@yahoo.co.in
TEL: 080-23464205

CLIENT:
KARNATAKA SLUM DEVELOPMENT BOARD, BANGALORE.

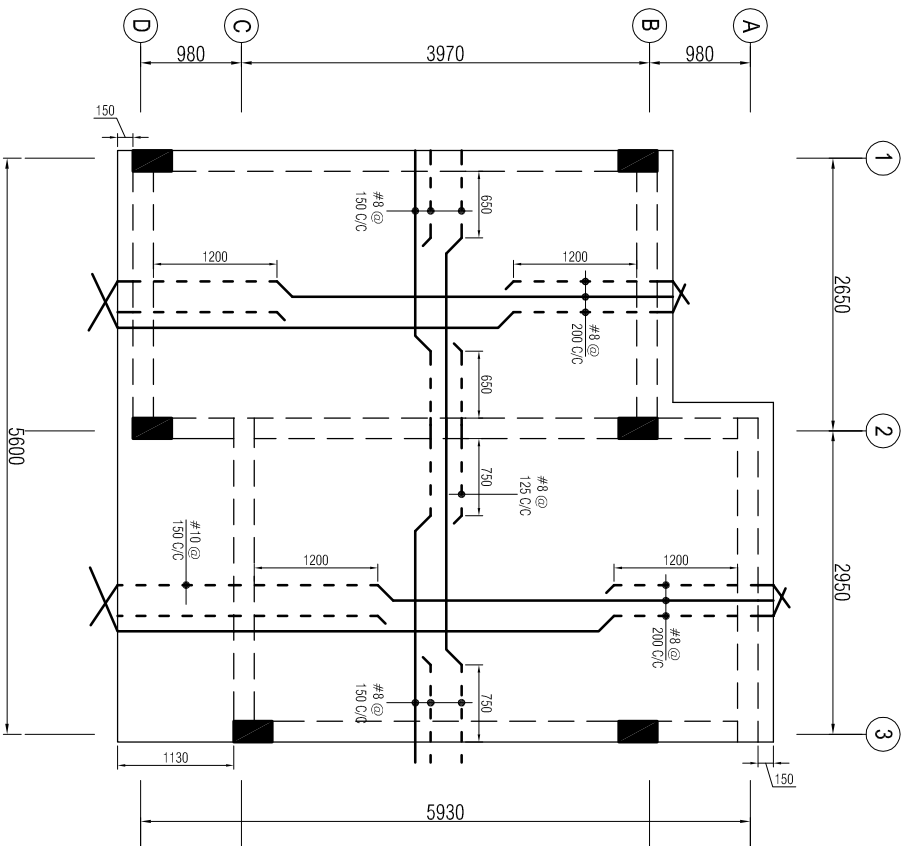
DRAWING TITLE :
FOOTING, COLUMN AND PLINTH BEAM DETAILS PLAN

PROJECT TITLE :
CONSTRUCTION OF 666 (G.F) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU REDEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATARAYANAPURA AREA UNDER RAY

DRAWN	: CHANDRASHEKARA
CHECKED	: VIJAYANAND
APPROVED	: VIJAYANAND
DATE	: 17-10-2013
SCALE	: N.T.S
DWG.NO	: ST - 02
REV.	: R0



G.A. OF SLAB & BEAMS @ FIRST FLOOR LVL



SLAB REINFORCEMENT DETAILS

- NOTE:
- DO NOT SCALE THE DRAWING FOLLOW THE WRITTEN DIMENSIONS ONLY.
 - ALL DIMENSIONS ARE IN mm UNO.
 - ANY CHANGES SHOULD BE BROUGHT TO THE NOTICE OF THE CONCERNED ENGINEER. ALL LEVELS / PROFILES / DIMENSIONS / LOCATIONS ARE TO BE CHECKED WITH ARCHITECTURAL DWG.
 - GRADE OF CONCRETE FOR
 - COLUMNS : M20
 - ROOF SLABS : M20
 - ROOF BEAMS : M20
 - COVER:
 - COLUMNS : 40mm
 - ROOF SLAB : 15 to 20mm
 - ROOF BEAMS : 30mm
 - #8 REPRESENTS HVSD BARS OF GRADE Fe-415.
 - LAPS TO BE STAGGERED.
 - ANCHORAGES TO BE PROVIDED AS PER USUAL PRACTICE. PROVIDE SPACER RODS WHERE EVER REQUIRED.
 - PROVIDE DISTRIBUTION STEEL
 - #8 - 240 C/C UNO.
 - LEAVE DOWNERS AS PER ARCHITECTURAL ELEVATION TREATMENT.

ENG. REF :
-THIS DRG SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND SERVICES DRG

CONST. REF. :
ST - 04

LEGEND :
UNO - UNLESS NOTED OTHERWISE
GB - INDICATES GROUND FLOOR ROOF-BEAM

ISSUED TO	NO.	DATE	BY

DESCRIPTION	DATE	REV

CONSULTANTS :
imprints

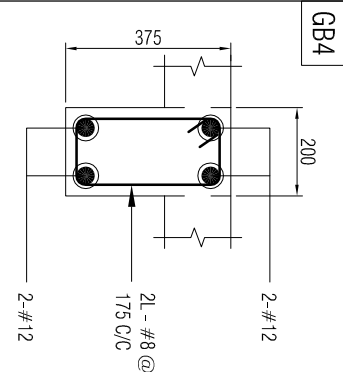
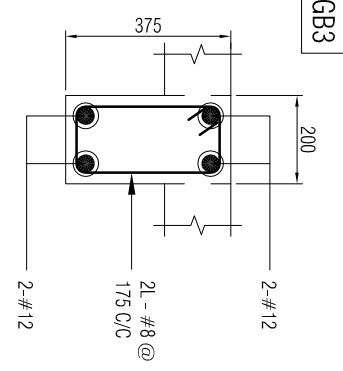
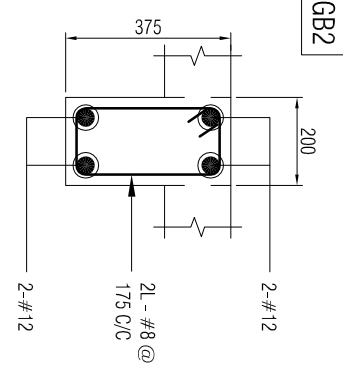
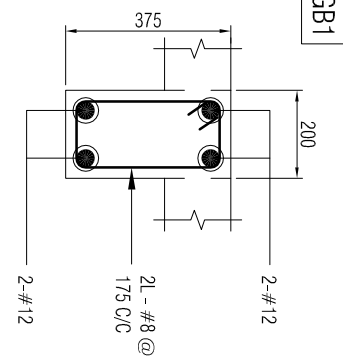
ARCHITECTURE-STRUCTURAL ENGINEER
55, FIRST FLOOR, 8th CROSS,
4TH STAGE, 1ST BLOCK,
B.A.N.G.A.L.O.R.E. 560090
Email: imprints_eng@9900.co.in
TEL: 080-22464205

CLIENT:
KARNATAKA SLUM DEVELOPMENT BOARD, BANGALORE.

DRAWING TITLE :
GROUND FLOOR SHUTTERING & SLAB REINFORCEMENT DETAILS PLAN

PROJECT TITLE :
CONSTRUCTION OF 668 (G.F.) DUS HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU REDEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BY ATARAYANAPURA AREA UNDER RAY

DRAWN	: CHANDRASHHEKARA
CHECKED	: VIJAYANAND
APPROVED	: VIJAYANAND
DATE	: 17-10-2013
SCALE	: NTS
DWG. NO.	: ST-03
REV.	: R0

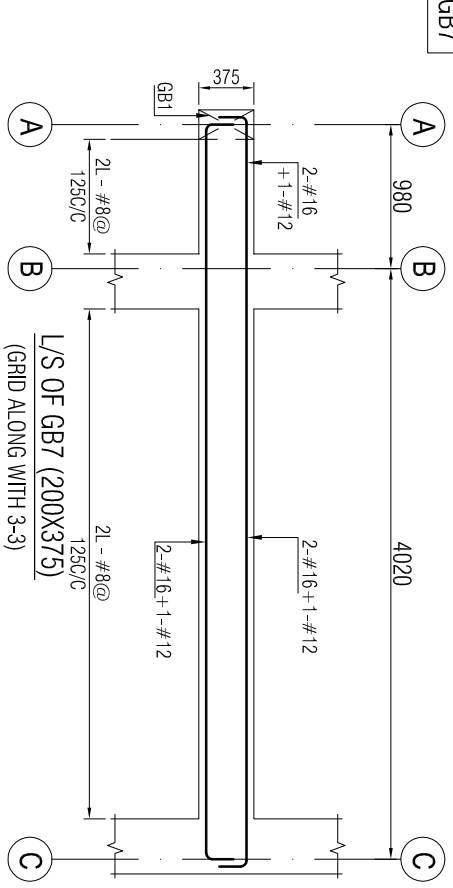
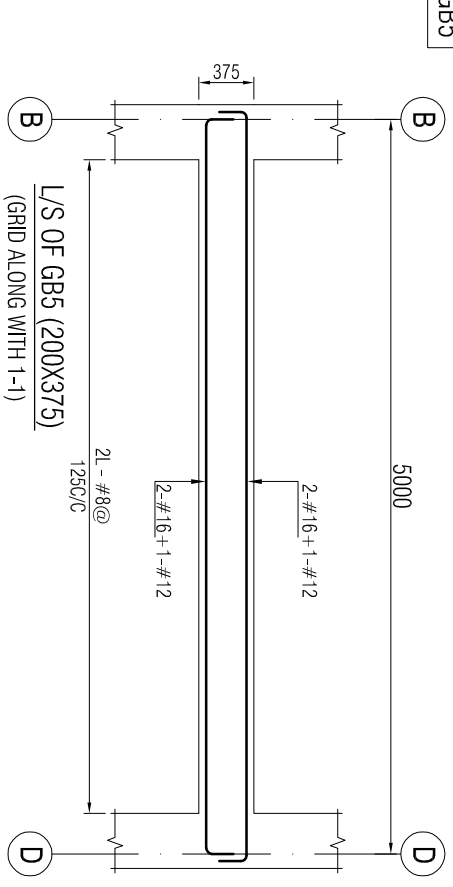


C/S OF GB1
(200X375)

C/S OF GB2
(200X375)

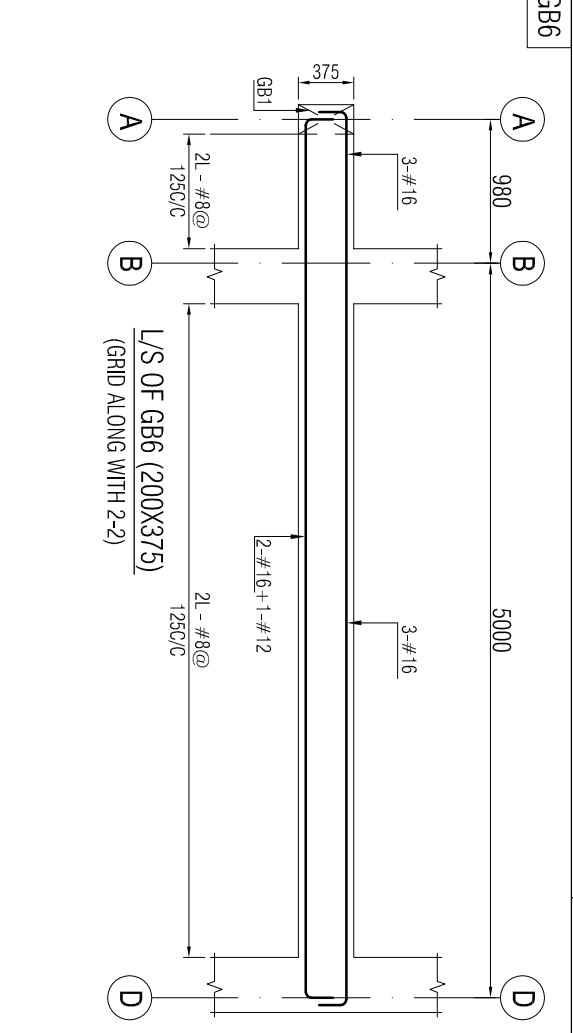
C/S OF GB3
(200X375)

C/S OF GB4
(200X375)



GB5
5000

GB7
4020



GB6
980

GB6
5000

- NOTE:
- DO NOT SCALE THE DRAWING FOLLOW THE WRITTEN DIMENSIONS ONLY.
 - ALL DIMENSIONS ARE IN mm UNO.
 - ANY CHANGES SHOULD BE BROUGHT TO THE NOTICE OF THE CONCERNED ENGINEER. ALL LEVELS / PROFILES / DIMENSIONS / LOCATIONS ARE TO BE CHECKED WITH ARCHITECTURAL DWG.
 - GRADE OF CONCRETE FOR COLUMNS : M20
 - ROOF SLABS : M20
 - ROOF BEAMS : M20
 - COVER:
 - COLUMNS : 40mm
 - ROOF SLAB : 15 to 20mm
 - ROOF BEAMS : 30mm
 - *##* REPRESENTS HVSD BARS OF GRADE Fe-415.
 - LAPS TO BE STAGGERED.
 - ANCHORAGES TO BE PROVIDED AS PER USUAL PRACTICE.
 - PROVIDE SPACER RODS WHERE EVER REQUIRED.
 - PROVIDE DISTRIBUTION STEEL
 - #3 - 240 C/C UNO.
 - LEAVE DOWNERS AS PER ARCHITECTURAL ELEVATION TREATMENT.

ENG. REF :
-THIS DRG SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND SERVICES DRG

CONST. REF. :
ST - 03

LEGEND :
UNO - UNLESS NOTED OTHERWISE
GB - INDICATES GROUND FLOOR ROOF-BEAM

ISSUED TO	NO.	DATE	BY
ISSUE DETAILS			
DESCRIPTION	DATE	REV	

CONSULTANTS :



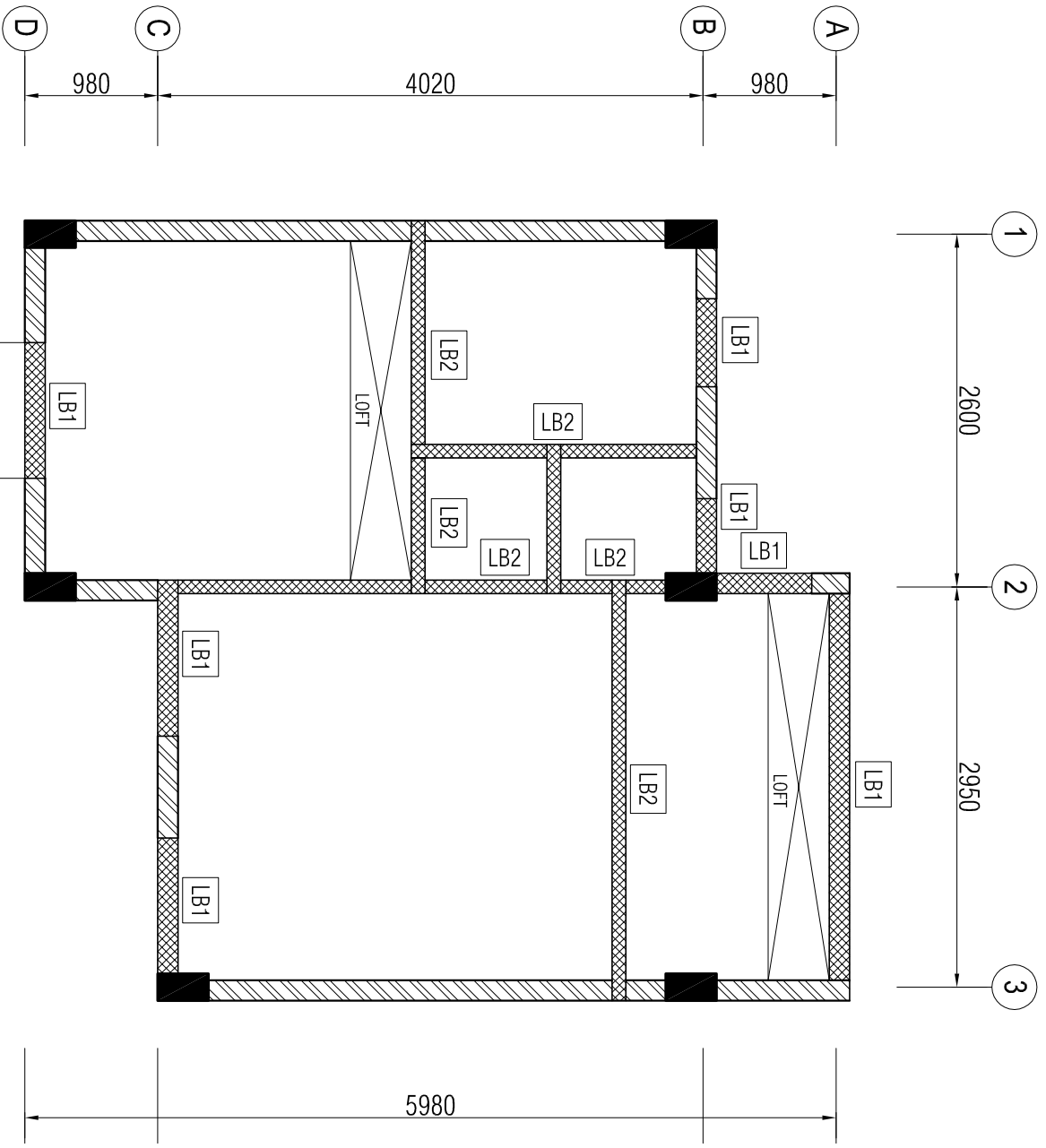
ARCHITECTURE-STRUCTURAL ENGINEERING
55, FIRST FLOOR, 8th CROSS,
KUMARASWAMY NAGAR,
BANGALORE, INDIA - 560001
Email: imprints_arch@99acoin.in
TEL: 080-23462705

CLIENT:
KARNATAKA SLUM DEVELOPMENT BOARD, BANGALORE.

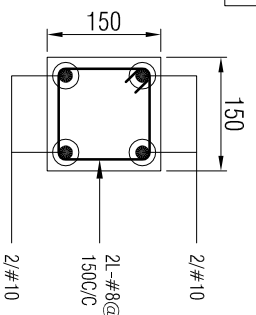
DRAWING TITLE :
GROUND FLOOR BEAM REINFORCEMENT DETAILS PLAN

PROJECT TITLE :
CONSTRUCTION OF 666 (G.F.) DU'S HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU REDEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATRAYAMPURA AREA UNDER RAY

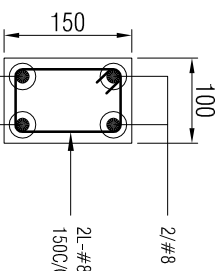
DRAWN	: CHANDRASHHEKARA
CHECKED	: VIJAYANAND
APPROVED	: VIJAYANAND
DATE	: 17-10-2013
SCALE	: NTS
DWG. NO.	: ST-04
REV.	: R0



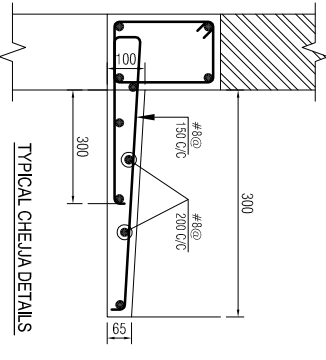
GROUND FLOOR LINTEL BEAM LAY-OUT PLAN



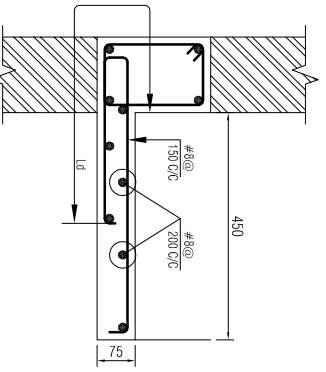
C/S OF LINTEL LB1
(UP TO 900 OPENING)



C/S OF LINTEL LB2
(ABOVE PARTITION WALL)



TYPICAL CHELUA DETAILS



TYPICAL LOFT SLAB DETAILS

- NOTE:
- DO NOT SCALE THE DRAWING FOLLOW THE WRITTEN DIMENSIONS ONLY.
 - ALL DIMENSIONS ARE IN mm UNO.
 - ANY CHANGES SHOULD BE BROUGHT TO THE NOTICE OF THE CONCERNED ENGINEER.
 - ALL LEVELS / PROFILES / DIMENSIONS / LOCATIONS ARE TO BE CHECKED WITH ARCHITECTURAL DWG.
 - GRADE OF CONCRETE FOR COLUMNS : M20
 - ROOF SLABS : M20
 - ROOF BEAMS : M20
 - COVER :
 - COLUMNS : 40mm
 - ROOF SLAB : 15 to 20mm
 - ROOF BEAMS : 30mm
 - *#* REPRESENTS HVSD BARS OF GRADE Fe-415.
 - LAPS TO BE STAGGERED.
 - ANCHORAGES TO BE PROVIDED AS PER USUAL PRACTICE.
 - PROVIDE SPACER RODS WHERE EVER REQUIRED.
 - PROVIDE DISTRIBUTION STEEL
 - #8 - 240 C/C UNO.
 - LEAVE DOWNERS AS PER ARCHITECTURAL ELEVATION TREATMENT.
- ENG. REF :
-THIS DRG SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND SERVICES DRG
- CONST. REF. :

LEGEND :
UNO - UNLESS NOTED OTHERWISE.

ISSUED TO	NO.	DATE	BY

DESCRIPTION	DATE	REV

CONSULTANTS :



55, FIRST FLOOR, 8th CROSS,
5th MAIN, MALESHWARAI
BANGALORE - 560 003
e-mail: imprints_arch@imprints.co.in
TEL: 080-23466205

CLIENT :
KARNATAKA SLUM DEVELOPMENT BOARD, BANGALORE.

DRAWING TITLE :
LINTEL LAY-OUT & DETAIL PLAN

PROJECT TITLE :
CONSTRUCTION OF 666 (G.F.) DUS HOUSING AT KUVEMPUNAGARA SLUM (IN-SITU REDEVELOPMENT) INCLUDING INFRASTRUCTURE IN BANGALORE CITY, BYATARA VANAPURA AREA UNDER RAY

DRAWN	: CHANDRASHHEKARA
CHECKED	: VIJAYANAND
APPROVED	: VIJAYANAND
DATE	: 17-10-2013
SCALE	: NTS
DWG. NO.	: ST-05
REV.	: R0

Karnataka Slum Development Board, No 4 Division, Bangalore. Byatarayanapura Area ,Consolidated Report of Socio Economic Survey.						
SI No	H No	Name of the beneficiary	Husband/ Father/ S/o	Caste	Annual Income	Occupation
Kuvempunagara						
1	1	Manimeghalai	Saddevel.P	SC	9000.00	Regular wage
2	2	Rani	Shekhar	SC	12000.00	Salaried
3	3	Sushila	Bali (Son)	SC	12000.00	Salaried
4	4	Saroja	Chinnathambi	SC	9000.00	Regular wage
5	5	Jayalakshmi	Arjuna	SC	11000.00	Salaried
6	5/1	Sharada	Elumalai	SC	9000.00	Regular wage
7	6	Vellagalli	Jaypal Raj	SC	8000.00	Regular wage
8	7	M. Kamala	M. Manohar	SC	10000.00	Regular wage
9	8	Kalearasi	Panirselvam	SC	10000.00	Regular wage
10	9	Saraswathi	Subbanna	SC	7000.00	Regular wage
11	10	Kavitha Meri	Arogyadas	SC	10000.00	Salaried
12	11	Rajamanikyam	Saravana (son)	SC	13000.00	Self employed
13	12	P. Chaithra	P. Shankar	SC	10000.00	Regular wage
14	13	Vaniitha	Shanmugam	SC	10000.00	Regular wage
15	14	Annamma	Shanmugam	SC	9000.00	Regular wage
16	15	Jayamma S.	Chandraiah	SC	10000.00	Regular wage
17	16	Jayamma	Suresh Kumar	SC	8000.00	Regular wage
18	17	Gangamma	A. Kumar	SC	11000.00	Salaried
19	18	Radhika	Soundarya Raj	SC	10000.00	Salaried
20	19	Shashikala	N. Govindaraju	SC	10000.00	Regular wage
21	20	K. Vijaya	N. Krishna	SC	11000.00	Salaried
22	21	S. Prathibha	Chandrashekhar	SC	10000.00	Regular wage
23	22	B.R. Dhanalakshmi	Thahanath S.	Others	10000.00	Regular wage
24	23	Anushiyamma	Venkatappa	Others	12000.00	Salaried
25	24	Meri	Lokas	Minority	10000.00	Regular wage
26	25	Arogyameri	Arulmani	SC	10000.00	Regular wage
27	26	Krishna	Ramappa	SC	10000.00	Regular wage
28	27	Nalini	Janbai	SC	15000.00	Salaried
29	28	Selvi	Murugan	SC	10000.00	Regular wage
30	29	Kantha	Shadain	SC	12000.00	Salaried
31	30	Manjula	Maharaj	SC	10000.00	Regular wage
32	31	Anila	Dhanapal	SC	12000.00	Salaried
33	31/1	Lakshmamma	Murali (son)	SC	10000.00	Regular wage
34	32	Sathya	Ayyappa	SC	10000.00	Regular wage
35	33	Jayanthi	Nataraj	SC	9000.00	Regular wage
36	34	Dhanalakshmi	Kumar	SC	10000.00	Regular wage
37	35	Selvi	Periswamy	SC	8000.00	Regular wage
38	36	Yogeshwari	Chandrana	SC	10000.00	Salaried
39	37	Bhavani	Subramani	SC	10000.00	Regular wage
40	38	Chaithra	Kumar	SC	8000.00	Salaried
41	39	Shivambu	Shivalingam	SC	10000.00	Regular wage
42	40	Rajeshwari	K. Balu	SC	8000.00	Salaried
43	41	Yalavarani	Kashinath	SC	10000.00	Regular wage
44	42	N. Ponnamma	C. Veeraswamy	SC	7000.00	Salaried
45	43	Anjalai	Kumar	SC	10000.00	Regular wage
46	44	Chithra	Ramaiah	SC	8000.00	Salaried
47	45	Pungavana	M. Mani	SC	10000.00	Salaried
48	46	Rani	Rajesh	SC	9000.00	Salaried
49	47	Jarlu	Kolanji	SC	10000.00	Regular wage
50	48	Thayamma	Srinivasu	SC	10000.00	Regular wage
51	49	Periswamy	Muthyalapps	SC	13000.00	Self employed
52	49/1	Manjula	H. Dakshinamurthy	SC	10000.00	Salaried
53	50	Picchamani	Kala	SC	10000.00	Regular wage
54	51	Kanikameri	Saverimuttu	Minority	10000.00	Regular wage
55	52	Priya	Janmuruga	Minority	10000.00	Regular wage
56	53	Selvi	Peetar	Minority	12000.00	Salaried
57	54	Sabhina	Abdul Khadhir	Minority	10000.00	Regular wage
58	55	Manikya	Ayyaswamy	Minority	10000.00	Regular wage
59	56	Parvathi	Shankar	Minority	13000.00	Salaried

SI No	H No	Name of the beneficiary	Husband/ Father/ S/o	Caste	Annual Income	Occupation
60	57	Rajeshwari	Dhayal	Others	10000.00	Regular wage
61	58	Manikyam	Ayyaswamy	SC	10000.00	Regular wage
62	59	Nirmala	Armugam	SC	9000.00	Salaried
63	60	Chinnamma	Chinnathambi	Minority	10000.00	Regular wage
64	61	Amuda	Kaliyamurthy	SC	10000.00	Regular wage
65	62	Papathi	Yaliya	SC	12000.00	Salaried
66	63	Yashoda	Dayananda	SC	10000.00	Regular wage
67	64	Ananda	Kuppanna	Minority	10000.00	Regular wage
68	65	Malliga	N. Chinnaswamy	Others	7000.00	Regular wage
69	66	Bhagya	Murthy	SC	10000.00	Regular wage
70	67	Rajamma	Rakhesh	SC	10000.00	Salaried
71	68	Prema	Sundar Raj	SC	10000.00	Regular wage
72	69	Madevi	Shivakumar M.R	SC	10000.00	Regular wage
73	70	Roja	Nagaraj	SC	8000.00	Salaried
74	71	Shantha	Armugam	SC	10000.00	Regular wage
75	72	Seleyam	Ramesh	SC	10000.00	Regular wage
76	73	Roja	Nagaraj	SC	10000.00	Salaried
77	73/1	Sanravana	Rajesh	SC	7000.00	Self employed
78	74	Vijayalakshmi	Murugan	SC	10000.00	Regular wage
79	75	Radha	Paramesh	SC	10000.00	Regular wage
80	76	Manimeghalai	Sangamungam	SC	11000.00	Self employed
81	77	Varalakshmi	Chandra	SC	10000.00	Regular wage
82	78	Lilli	Kiran (son)	SC	10000.00	Regular wage
83	79	Mahalakshmi	Lakshmana	SC	12000.00	Self employed
84	80	Varalakshmi	Thirumurthi	SC	10000.00	Regular wage
85	81	Kamala	Leganandan	SC	9000.00	Regular wage
86	82	Sunitha Bayi	Rammunna Prabhu	SC	10000.00	Regular wage
87	83	Muniswamy	Chandra	SC	10000.00	Self employed
88	84	Hindarani	Karampan	SC	10000.00	Regular wage
89	85	Pounamma	P. Raja	Minority	10000.00	Regular wage
90	86	Peramma	Peraswamy	SC	10000.00	Regular wage
91	87	Vijaya	Pereswamy	SC	11000.00	Self employed
92	88	Lakshamma	S. Krishna	SC	10000.00	Regular wage
93	89	Anjali	Late. Balashankar	SC	12000.00	Regular wage
94	90	Dhanalakshmi	Senavas	SC	10000.00	Salaried
95	90/1	Angamma	S. Peraswamy	Minority	10000.00	Regular wage
96	91	Selvakumari	Muraga	SC	10000.00	Regular wage
97	91/1	Mohan	Late. Anjalai	SC	13000.00	Self employed
98	92	Hamsalavi	Kandaravel	SC	10000.00	Regular wage
99	92/1	Lakshmi	Perumal	SC	10000.00	Regular wage
100	93	Chekalingam	Chekalingam	SC	15000.00	Self employed
101	93/1	Ambika	Subramani	SC	10000.00	Regular wage
102	94	Raniyamma	Late Govindaswamy	SC	10000.00	Regular wage
103	94/1	Padmavathi	Late. Ganesh	SC	16000.00	Salaried
104	95	Kanakamma	Late Perumal	SC	10000.00	Regular wage
105	96	Chinnathayi	Paramashiva	SC	10000.00	Regular wage
106	97	Balachandran	Sagairaj	SC	12000.00	Salaried
107	98	Lakshmi	Ramadas	SC	10000.00	Regular wage
108	99	Muniyappa	Late. Kantha	SC	10000.00	Self employed
109	100	Padmavathi	Shamhamani	SC	10000.00	Regular wage
110	101	Mala	Palani	SC	10000.00	Regular wage
111	101/1	Indira Gandhi	Periswamy	SC	10000.00	Salaried
112	102	Panjali	K. Manikanya	SC	10000.00	Regular wage
113	103	Anjali	Mani	SC	13000.00	Salaried
114	104	Shanthi	Late. Kumar	SC	10000.00	Regular wage
115	105	Lakshmi	Sathyavelu	SC	10000.00	Regular wage
116	106	Ashwini	R. Ramu	SC	10000.00	Regular wage
117	107	Rechalrani	N. Velu	SC	13000.00	Salaried
118	108	Lakshmi	R. Manohar	SC	10000.00	Regular wage
119	109	Shashikala	Shankar	SC	10000.00	Regular wage
120	110	Mariyamma	Venkatesh	SC	120000.00	Salaried
121	110/1	Jyothi	Datta	SC	10000.00	Regular wage
122	111	Jnanamala	Anthoni	SC	12000.00	Regular wage
123	112	Mahadevi	Yadhavan	SC	11000.00	Salaried

SI No	H No	Name of the beneficiary	Husband/ Father/ S/o	Caste	Annual Income	Occupation
124	112/1	Sivagami	Jayaram	SC	10000.00	Regular wage
125	113	Muttamma	Krishnamurthy	Minority	11000.00	Salaried
126	114	Ritameri	Arush	Minority	10000.00	Regular wage
127	115	Kannappa	Kannagi	Minority	12000.00	Regular wage
128	116	Nagomi	Jaarj	SC	10000.00	Regular wage
129	117	Shanthi	Mani	Minority	10000.00	Regular wage
130	118	Lakshmi	Arunachalam	SC	11000.00	Salaried
131	119	Lakshmi	Singaram	SC	10000.00	Regular wage
132	120	Shivagami	Raju	SC	13000.00	Salaried
133	121	Pintamaram	Subramani	SC	11000.00	Regular wage
134	122	Manliga	Manivelu	SC	10000.00	Regular wage
135	123	Ramakka	Marappa	SC	10000.00	Regular wage
136	124	Chandra	Derankan	SC	14000.00	Salaried
137	124/1	Kampara	Late Thangavol	SC	11000.00	Regular wage
138	125	Pavani	S. Shivakumar	SC	12000.00	Salaried
139	126	Kolanjiyamma	K. Thangaraj	SC	10000.00	Regular wage
140	127	Shantha	Arunkumar	SC	10000.00	Salaried
141	127/1	Roslin Meri	Poulraj	Minority	13000.00	Salaried
142	128	Leela	Athsaniraj	SC	10000.00	Regular wage
143	128/1	Lalitha ambika	Parashuraman	SC	13000.00	Salaried
144	129	K. Anjali	Late. Kanya	SC	10000.00	Regular wage
145	130	Subramani	Rajamani	SC	10000.00	Self employed
146	131	Angamma	Adhimulam	SC	10000.00	Regular wage
147	132	Anjali	Suresh	SC	10000.00	Salaried
148	133	Kamma	akalappa	SC	11000.00	Salaried
149	134	Rangamma	Marappa	SC	10000.00	Regular wage
150	135	Namma	Anjinappa	SC	11000.00	Regular wage
151	136	Sharada	Pandiyan	SC	10000.00	Salaried
152	137	Rani	Murugesh	SC	10000.00	Regular wage
153	138	Ranga	Narayan	SC	16000.00	Self employed
154	139	Kamala	Kardan	SC	10000.00	Regular wage
155	139/1	Kumari	Thangavol	SC	10000.00	Regular wage
156	140	Alamelu	Pichapullai	SC	140000.00	Salaried
157	141	Punitha	Iliyaraju	SC	10000.00	Regular wage
158	142	Malar	Ganeshan	SC	13000.00	Salaried
159	143	Habhumthavali	Marugavel	SC	10000.00	Regular wage
160	144	Kumudavelli	Chokalingam	SC	12000.00	Salaried
161	145	P. Anjali	Pichapullai	SC	10000.00	Regular wage
162	146	Veerathambu	Suresha	SC	11000.00	Salaried
163	147	Sagaymeri	Udaya Kumar	SC	10000.00	Regular wage
164	148	Chinnathayi	M. Velu	SC	10000.00	Regular wage
165	149	Mariyamma	Muttuvelu	SC	12000.00	Salaried
166	150	Narayan	Srinivasu	SC	11000.00	Self employed
167	151	K. Lakshmi	Kaliyamurthy	SC	10000.00	Regular wage
168	152	K. Chandra	V. Krishna	SC	10000.00	Regular wage
169	153	K. Jaya	K. Kuppaswamy	SC	13000.00	Regular wage
170	154	Kanniyamma	Shanmugam	SC	10000.00	Regular wage
171	155	Devanagai	Devasagai	SC	12000.00	Self employed
172	155/1	Vinoliya	Late. Karnamurthy	SC	10000.00	Regular wage
173	156	Anjali	Shakthivel	SC	10000.00	Regular wage
174	157	R. Bhagya	M. Parthasarathi	SC	12000.00	Regular wage
175	158	Anjalai	M. Swamydorai	SC	140000.00	Salaried
176	158/1	S. Haseena	M. Sendamarai	SC	10000.00	Salaried
177	159	Munsayi	Govindaraj	SC	13000.00	Regular wage
178	159/1	Lakshmi	Venkatesh	SC	10000.00	Salaried
179	160	Devathi	Murugan	SC	12000.00	Regular wage
180	161	Lakshmi	N. Venkatesh	SC	10000.00	Salaried
181	161/1	Munsayi	Govindaraj	SC	11000.00	Salaried
182	162	Chandamarai	Neru	SC	10000.00	Regular wage
183	163	K. Shanthi	M.G.Kumar	SC	13000.00	Salaried
184	164	Bhoopathe	Kadireshan	SC	12000.00	Regular wage
185	165	Shanthi	Vijaya	SC	10000.00	Regular wage
186	166	Anjali	K. Raju	SC	14000.00	Salaried
187	167	Amruthavalli	Shivalingam	SC	10000.00	Regular wage

SI No	H No	Name of the beneficiary	Husband/ Father/ S/o	Caste	Annual Income	Occupation
188	167/1	Papathi	Ramalingam	SC	10000.00	Regular wage
189	168	Saraswathi	M. Nagaraj	SC	13000.00	Salaried
190	168/1	Lakshmamma	Krishna	SC	10000.00	Salaried
191	169	Devi	Murthy	SC	10000.00	Regular wage
192	170	Devi	Chandrashekhar	SC	10000.00	Regular wage
193	171	Anjali	A. Balakrishna	SC	12000.00	Salaried
194	172	M. Rekha	Rajeevgandhi	SC	10000.00	Regular wage
195	172/1	Pushpa	Prabhudeva	SC	10000.00	Regular wage
196	173	Parashakthi. V	K. Vijayakumar	SC	10000.00	Regular wage
197	174	Mallika	Armugam	SC	140000.00	Salaried
198	175	Nirmala	Balakrishnan	SC	10000.00	Regular wage
199	176	Dhanalakshmi	C. Manikyam	SC	10000.00	Regular wage
200	177	Poopadi	D. Seetharama	SC	13000.00	Salaried
201	178	Palani	Devi	SC	10000.00	Regular wage
202	178/1	Devi	Palani	SC	10000.00	Regular wage
203	179	Swamynathan	Selvanathan	SC	14000.00	Self employed
204	180	Lakshmi	Podamattan	SC	10000.00	Regular wage
205	181	Jyothi	B.M. Raja	SC	10000.00	Regular wage
206	182	Josef	Thamas	SC	15000.00	Self employed
207	183	Kantha	Aravind	SC	10000.00	Regular wage
208	184	Malar	Purushotham	SC	13000.00	Salaried
209	185	Selvi	Kumar	SC	10000.00	Regular wage
210	186	Moni	Mythivs	SC	12000.00	Self employed
211	186/1	Mariyamma	Ramu	SC	10000.00	Regular wage
212	187	Thulasi	Daranivelu	SC	13000.00	Salaried
213	188	Lakshmi	Ramu	SC	10000.00	Salaried
214	188/1	Chithra R.	R. Ravi	SC	12000.00	Regular wage
215	189	Radharukmani	Subramani	SC	14000.00	Salaried
216	190	Kaliyamma	Chandrashekhar	SC	10000.00	Regular wage
217	191	Shankari	Nandakumar	SC	14000.00	Salaried
218	192	Vidyarooopa	Srinivasu	SC	10000.00	Regular wage
219	193	Mangala Shirunamani	P. Karnan	SC	13000.00	Salaried
220	194	Sudha	Santhosh	SC	10000.00	Salaried
221	195	Ramya	Ramaswamy	SC	10000.00	Regular wage
222	195/1	Padmini	Gopal	SC	14000.00	Salaried
223	196	Amudaveni	Damodaran	SC	10000.00	Regular wage
224	197	Anniyamma	Peruswamy	SC	12000.00	Regular wage
225	198	Muttulakshmi K	R. Kamalakannan	SC	10000.00	Salaried
226	199	Kotishwari	Suresh	SC	10000.00	Regular wage
227	199/1	Kotishwari	Late Kumalselvi	SC	13000.00	Salaried
228	200	Kodandan	Ramaiah	SC	14000.00	Self employed
229	201	Kala	Late Dhanavel	SC	10000.00	Salaried
230	202	Manimeghalai	Mani	SC	10000.00	Regular wage
231	203	Indira Gandhi	Swamynadan	SC	14000.00	Salaried
232	204	Veeramma	Jowdamani	SC	10000.00	Regular wage
233	205	Pongodi	Rajendran	SC	9000.00	Regular wage
234	206	Neru	Chandamaray	SC	13000.00	Salaried
235	207	Palaya	Perumal	SC	10000.00	Regular wage
236	208	Elavarina	Sathyavelu	SC	14000.00	Salaried
237	209	Vijayakumari	Vijay Kumar	SC	10000.00	Regular wage
238	210	Pramila	R. Murali	SC	10000.00	Regular wage
239	211	Lakshmi	Krishnan	SC	13000.00	Salaried
240	212	Neela	Murugesh	SC	10000.00	Regular wage
241	213	Venugopal	Kannan	SC	14000.00	Self employed
242	213/1	Poopathi	Kaliyan	SC	10000.00	Regular wage
243	214	Sampangi	Gopal	SC	10000.00	Regular wage
244	215	Sarasamma	V. Arunachala	SC	13000.00	Salaried
245	216	Sarasa	Venkatesh	SC	10000.00	Regular wage
246	217	Shalini	Suresh	SC	10000.00	Regular wage
247	218	P. Periyamma	Annadorai	SC	11000.00	Regular wage
248	219	M. Valli	N. Marimuttu	SC	12000.00	Salaried
249	220	Daivanai	Chandil	SC	130000.00	Salaried
250	221	Rani	G. Nataraj	SC	9000.00	Regular wage
251	222	Kolanjamma	Periswamy	SC	11000.00	Regular wage

SI No	H No	Name of the beneficiary	Husband/ Father/ S/o	Caste	Annual Income	Occupation
252	223	Ambika	Muniyappa	SC	13000.00	Regular wage
253	224	Shobha	V. Periswamy	SC	14000.00	Salaried
254	225	Alamelu	Shanmugam	SC	10000.00	Regular wage
255	226	Parvathi	Kolanji	SC	12000.00	Salaried
256	227	Sadeyamma	Manikam	SC	10000.00	Regular wage
257	228	Anjali. K	Kumar	SC	10000.00	Regular wage
258	229	Saddeyamma	Pandiyan	SC	9000.00	Regular wage
259	230	Muniyamma	K. Krishna	SC	10000.00	Regular wage
260	231	Mariyamma	Pungan	SC	14000.00	Salaried
261	231/1	Kanagavalli	Swamydorai	SC	10000.00	Regular wage
262	232	Shanthi	Subramani	SC	10000.00	Regular wage
263	233	Ayyammal	Murugan	SC	15000.00	Salaried
264	234	Anjalai	Periswamy	SC	10000.00	Regular wage
265	235	Pushpa	Kuppuswamy	SC	11000.00	Salaried
266	236	Vruthambu	Ramalingam	SC	10000.00	Regular wage
267	237	Vasanthi	Ganesh	SC	12000.00	Salaried
268	238	Shashikala	Kadiravelu	SC	10000.00	Regular wage
269	239	Shankar	Kadrivelu	SC	15000.00	Self employed
270	240	Masala Mani	P. Raja	SC	10000.00	Regular wage
271	241	Anjalai	Subbaiah	SC	10000.00	Regular wage
272	242	Kadiravelu	Ayyappa	SC	12000.00	Salaried
273	243	Pajanla	Veeraswamy	SC	10000.00	Regular wage
274	244	Lakshmi	Meena	SC	10000.00	Regular wage
275	245	Gowri	Sathivelu	SC	12000.00	Salaried
276	246	Pavam	Raja	SC	10000.00	Regular wage
277	247	Annapurna	Ravi	SC	13000.00	Salaried
278	248	Aparanju	Madivelu	SC	10000.00	Regular wage
279	249	Panchali	Surya	SC	12000.00	Salaried
280	250	Dipu	Shekhar	SC	110000.00	Salaried
281	251	Ramadas	Gokuldas	SC	15000.00	Self employed
282	252	M. Lakshman	Muttu	SC	12000.00	Salaried
283	253	Chinnakavalli	Ramu	SC	9000.00	Regular wage
284	254	Ramam	Muniyan	SC	9000.00	Regular wage
285	256	Vijayalakshmi	Kuliyam	SC	11000.00	Salaried
286	257	Mandamma	Saravana	SC	10000.00	Regular wage
287	258	Jooli	Rasool	SC	12000.00	Salaried
288	259	Amulu	Alegzender	SC	9000.00	Regular wage
289	260	Narayanamma	Venkateshapps	SC	8000.00	Regular wage
290	261	Krishnaveni	Venkatesh	SC	12000.00	Salaried
291	262	Roopani	Kananya	SC	13000.00	Salaried
292	263	Jyothi	Chinnapanu	SC	10000.00	Regular wage
293	264	Lakshmi	Rajshekhar	SC	14000.00	Salaried
294	265	Thilakam	Mohan	SC	10000.00	Regular wage
295	266	Kampaya	Shiva	SC	14000.00	Salaried
296	267	Fathima	Rachigan	Minority	10000.00	Regular wage
297	268	Luddameri	Channapan	SC	14000.00	Salaried
298	269	Kaliyamma	Mani	SC	10000.00	Regular wage
299	270	Priya	Manangal	SC	9000.00	Regular wage
300	271	Kamamma	Rajini Kumar	SC	10000.00	Regular wage
301	272	Jeeva	Neharu	SC	12000.00	Salaried
302	273	Bhagyalakshmi	K. Jos	SC	10000.00	Regular wage
303	274	Nalina	R. Ashok	SC	13000.00	Salaried
304	275	Susheela	Shanthakumar	SC	12000.00	Salaried
305	276	C. Navamani	M. Chakravarthi	SC	10000.00	Regular wage
306	276/1	N. Gayathri	Nagesh	SC	12000.00	Salaried
307	277	Irsayi	Mani	SC	11000.00	Salaried
308	278	Pethay	Rajendran	SC	10000.00	Regular wage
309	279	Rasathi	P. Rajendran	SC	13000.00	Salaried
310	280	Pachchamma	C.M. Periyaswamy	SC	10000.00	Regular wage
311	281	Shanthi	M. Ramaswamy	SC	10000.00	Regular wage
312	282	Manjula	Ayyanar K.	SC	12000.00	Salaried
313	283	Manima	Vadivel	SC	11000.00	Salaried
314	284	Mahalakshmi	Mohan	SC	10000.00	Regular wage
315	285	M. Periyamma	P. Murugesh	SC	9000.00	Regular wage

SI No	H No	Name of the beneficiary	Husband/ Father/ S/o	Caste	Annual Income	Occupation
316	286	Jyothi	P. Venkatesh	SC	10000.00	Regular wage
317	287	Nusee	Mohan	SC	12000.00	Salaried
318	288	Kananya	Dhasharath	SC	13000.00	Self employed
319	289	Amu	Manikanti	SC	10000.00	Regular wage
320	290	Alamelu	Prabhakar	SC	12000.00	Salaried
321	291	Chinnamma	Birappa	SC	13000.00	Salaried
322	292	Pavalakodi	Balakrishna	SC	10000.00	Regular wage
323	293	Daisirani	Velangani	SC	9000.00	Regular wage
324	294	Nethravathi	Prabhu	SC	10000.00	Regular wage
325	295	Latha	Kolanji	SC	12000.00	Salaried
326	296	Anjali	Nataraj	SC	10000.00	Salaried
327	297	Deepa	K. Mani	SC	13000.00	Salaried
328	298	Kolanjamma	Pichikaran	SC	10000.00	Regular wage
329	299	Lakshmidevi	Ramachari	SC	10000.00	Regular wage
330	300	Kannagee	M.B. Arjuna	SC	14000.00	Salaried
331	301	Kalpana	Swamydorai	SC	10000.00	Regular wage
332	302	Shamala	Thimmaraju	SC	10000.00	Regular wage
333	303	Anjali	Veeramuttu	SC	13000.00	Salaried
334	304	Anjali	Nagaiah	SC	14000.00	Salaried
335	304/1	Panchavaran	Arunmani	SC	10000.00	Regular wage
336	305	Rani	Kannan	SC	12000.00	Salaried
337	306	Shelvi	Shankar	SC	11000.00	Salaried
338	307	Virdambu	Chinnaswamy	SC	10000.00	Regular wage
339	308	Kumari	Balan	SC	12000.00	Salaried
340	309	Rokku	Vilsan	SC	10000.00	Regular wage
341	310	Selvi	Ramu	SC	13000.00	Salaried
342	311	Uma	Mugesh	SC	10000.00	Regular wage
343	312	Valli	Mari	SC	13000.00	Salaried
344	313	Kolanji	Marimuttu	SC	9000.00	Regular wage
345	314	Meena	Abel	SC	10000.00	Regular wage
346	315	Sheela	Ramesh	SC	13000.00	Salaried
347	316	Ammamma	Mari	SC	10000.00	Regular wage
348	317	Papathi	Late Manjunatha	SC	11000.00	Regular wage
349	318	Nallamma	Velu	SC	12000.00	Salaried
350	319	Ayyamma	Sakkare	SC	10000.00	Regular wage
351	320	Anjalai	Late Kamrapan	SC	13000.00	Salaried
352	321	Parumayi	Kannan	SC	10000.00	Regular wage
353	322	Jaya	T. Selvam	SC	14000.00	Salaried
354	323	Kamala	Veeramani	SC	13000.00	Salaried
355	324	Amalesi	Paliniyar	SC	10000.00	Regular wage
356	325	Chandra	Gunashekhhar	SC	14000.00	Salaried
357	326	Sridevi	Annamalai	SC	12000.00	Salaried
358	327	Malar	Murugesan	SC	13000.00	Salaried
359	328	Sadayamal	Lakshmana	SC	10000.00	Regular wage
360	329	Indira Gandhi	Murugan	SC	10000.00	Regular wage
361	330	Lakshmi	Nagaraj	SC	12000.00	Salaried
362	331	Annamma	Ayyakan	SC	10000.00	Regular wage
363	332	Madhavi	V. Mahalingam	SC	9000.00	Regular wage
364	333	Chennaponnu	Lakshman	SC	10000.00	Regular wage
365	334	Maheshwari	Muniyan	SC	14000.00	Salaried
366	335	Vijaya	Marimuttu	SC	10000.00	Regular wage
367	336	Ramya	Mari	SC	13000.00	Salaried
368	337	Sujatha	K.K. Raju	SC	10000.00	Regular wage
369	338	Ramayi	Kalaiselvi	SC	9000.00	Regular wage
370	339	Dhanalakshmi	Ashok	SC	12000.00	Salaried
371	340	Chandra	Doreraja	SC	13000.00	Salaried
372	341	Mariyamma	Selvaraj	SC	10000.00	Regular wage
373	342	Elamb	K. Subramani	SC	12000.00	Regular wage
374	343	Sagamma	Josef	SC	13000.00	Salaried
375	344	Nagamma	Jan	SC	10000.00	Regular wage
376	345	Lakshamma	Kadrivelu	SC	12000.00	Salaried
377	346	Nagamma	Perumal	SC	10000.00	Regular wage
378	347	Marakka	Prabhakaran	SC	12000.00	Salaried
379	348	Sharadamma	Rajashekhar	SC	10000.00	Regular wage

SI No	H No	Name of the beneficiary	Husband/ Father/ S/o	Caste	Annual Income	Occupation
380	349	Kolanji	Mani	SC	13000.00	Salaried
381	350	Veeramma	Kaliyan Muttu	SC	10000.00	Regular wage
382	351	Devi	K. Suresh	SC	14000.00	Salaried
383	352	Hamsa	Kallappa	SC	15000.00	Salaried
384	353	Pushpa	Late Muttuvelu	SC	10000.00	Regular wage
385	354	Kamala	Karpan	SC	9000.00	Regular wage
386	355	Arathi	Lakshman	SC	13000.00	Salaried
387	356	Lakshmi	Mani	SC	10000.00	Regular wage
388	357	Pramilai	Ramaswamy	SC	10000.00	Regular wage
389	358	Lakshman	Kala	SC	14000.00	Self employed
390	361	Papathi	Raja	SC	13000.00	Salaried
391	362	Anandababu	Velu	SC	12000.00	Self employed
392	363	Kannamma	Thokkaiah. P	SC	11000.00	Regular wage
393	364	Vasanthi	Madhu	SC	13000.00	Salaried
394	365	Sarasu	Armugam	SC	14000.00	Salaried
395	366	Rani	Narayanaswamy	SC	9000.00	Regular wage
396	367	Roopa	Shakthivel	SC	13000.00	Salaried
397	368	Mahal	Murali	SC	9000.00	Regular wage
398	369	Sangeetha	Manu	SC	9000.00	Salaried
399	370	Sumathi	Manjumuttu	SC	8000.00	Regular wage
400	371	Rathnavasu	Elumalai	SC	11000.00	Salaried
401	372	Kadrivelu	Krishnappa	SC	10000.00	Self employed
402	373	Kala	Rajesh	SC	11000.00	Salaried
403	374	Banu	Chakravarthi	SC	9000.00	Regular wage
404	375	Govindaraju	Ramanna	SC	13000.00	Regular wage
405	376	Vallivara	Madhu	SC	12000.00	Regular wage
406	377	Raghava	Sudhakar	SC	12000.00	Regular wage
407	378	Nataraja	Nagaraja	SC	12000.00	Self employed
408	379	Sarojamma	Balaraj	SC	10000.00	Regular wage
409	380	Palani	Periswamy	SC	14000.00	Self employed
410	381	Ramaswamy	Rajendran	SC	15000.00	Self employed
411	382	Uma	Shekhar	SC	10000.00	Regular wage
412	383	Mariyamma	G. Murthy	SC	9000.00	Regular wage
413	384	Mutturaju	Manju	SC	12000.00	Salaried
414	385	Papathi	Basuraj	SC	10000.00	Regular wage
415	386	Uttara	Suresh	SC	9000.00	Regular wage
416	387	Mariyamma	Late Raja	SC	13000.00	Salaried
417	388	Shobha	Jagan	SC	12000.00	Salaried
418	389	Meri	Selvam	SC	10000.00	Regular wage
419	390	Kamamma	Parashuraman	SC	10000.00	Regular wage
420	391	Mahalakshmi	S. Raju	SC	12000.00	Salaried
421	392	Ellis	Natesh	SC	10000.00	Regular wage
422	393	Vijaya	Late. Gopal	SC	12000.00	Salaried
423	394	Velangani	Nataraj	SC	9000.00	Regular wage
424	395	Muniyamma	R. Kodakaran	SC	12000.00	Salaried
425	396	A. Esumeri	Abel abraham	SC	10000.00	Regular wage
426	397	Lakshmi	Late Prabhu	SC	13000.00	Salaried
427	398	Nagaveni	Nagaraj	SC	14000.00	Salaried
428	399	Anjalai	Chandrashekhar	SC	13000.00	Salaried
429	400	K. Pamathi	K. Natarajan	SC	12000.00	Regular wage
430	401	Selvy	Selvam	SC	9000.00	Regular wage
431	402	Bhagyasudha	Anthony	SC	13000.00	Salaried
432	403	Devi	Mallesh	SC	10000.00	Regular wage
433	404	Nallatangal	Vadivelu	SC	9000.00	Regular wage
434	405	Maheswari	Surya	SC	13000.00	Salaried
435	406	Ravi	Manjula	SC	10000.00	Regular wage
436	407	Anandi	Selvi	SC	9000.00	Regular wage
437	408	Maariyamma	Maari	SC	13000.00	Salaried
438	410	Anjaleyamma	Ganesh G	SC	11000.00	Regular wage
439	411	Kolajiyamma	Narayanamma	SC	9000.00	Regular wage
440	412	Rani	Tamilnadan	SC	13000.00	Salaried
441	413	Bhavani	Puraj	SC	14000.00	Salaried
442	414	Memobai	Tangaraj	SC	10000.00	Regular wage
443	415	Devi	VijayRaghvan	SC	9000.00	Regular wage

SI No	H No	Name of the beneficiary	Husband/ Father/ S/o	Caste	Annual Income	Occupation
444	415/1	Velayammal	Maayavel	SC	12000.00	Salaried
445	416	Periyaswamy	Venkatesh	SC	11000.00	Regular wage
446	417	Devi	VijayRaghvan	SC	13000.00	Salaried
447	418	Vasavi	Rajamikyam	SC	9000.00	Regular wage
448	419	Bhuvaneswari	Shankar.K	SC	11000.00	Salaried
449	420	Mangaiarasi	Gunashekhar L	SC	10000.00	Regular wage
450	421	Manjula	Muniswamy	SC	9000.00	Regular wage
451	422	Rekha	Ravi	SC	12000.00	Salaried
452	423	Sarojamma	Murugan	SC	9000.00	Regular wage
453	423/1	Rukkumani	Chandra	SC	12000.00	Regular wage
454	424	Ludharmery	Jhon. F	SC	9000.00	Regular wage
455	425	Anandathayi	Prasantha(Son)	SC	12000.00	Salaried
456	426	Rathna	Swamy Daraman	SC	9000.00	Regular wage
457	428	Chandrashekarn	Muthuraman	SC	14000.00	Salaried
458	428	Shivalingam	Jagadish	SC	10000.00	Regular wage
459	430	V.Shivakumar	Veeranarasappa	SC	12000.00	Salaried
460	431	Lakshmi V	Vettiyappan	SC	11000.00	Regular wage
461	432	Prameela	Vinodkumar	Others	12000.00	Salaried
462	433	Anandamma	Babu	SC	9000.00	Regular wage
463	434	Ramalkshamma	Aswathappa	SC	12000.00	Regular wage
464	435	Shantha	Shankar	Others	12000.00	Salaried
465	436	Bhagyamma	Narashimalu	SC	10000.00	Regular wage
466	437	Gowramma	Anitha(Do)	SC	9000.00	Regular wage
467	438	Rathanamma	Narasappa	SC	13000.00	Salaried
468	439	Munirathamma	Gangaraju	ST	9000.00	Regular wage
469	440	Shanthamma	Somashekhar	SC	13000.00	Salaried
470	441	Nagamani	Manjunatha	Minority	14000.00	Salaried
471	441/1	Loveesh	Kuppuswamy	SC	9000.00	Regular wage
472	443	Radha	R.Murugam	SC	13000.00	Salaried
473	444	Jayalakshamma	Narayanappa	SC	9000.00	Regular wage
474	446	Bachandevi	Mithbadal Sahani	SC	14000.00	Salaried
475	447	Padamapriya	Gopinatha	SC	13000.00	Salaried
476	448	Yashodhamma	Venkatesh	SC	9000.00	Regular wage
477	449	Pdmavathi	Srinivasu	SC	8000.00	Regular wage
478	450	Maala	Kumari	Minority	9000.00	Regular wage
479	451	Dullar Singh	Ramanada Sigh	Others	13000.00	Salaried
480	452	Kanikamery	Jhon Priklan	Minority	9000.00	Regular wage
481	453	Anjana	Gopal	ST	14000.00	Salaried
482	454	Lalaitha	Bhaghvan	Others	9000.00	Regular wage
483	455	Papanna	Sharadhamma	Others	13000.00	Regular wage
484	456	Kyalen Marteen	M.Abil	Others	9000.00	Regular wage
485	457	G.K.Parvathamma	Venkataramaiah.M	Others	8000.00	Regular wage
486	458	Sharadha	Gopaaiah	SC	13000.00	Salaried
487	459	Gayithri	Neelraj	SC	9000.00	Regular wage
488	460	Baby	Francis I.M	SC	13000.00	Salaried
489	461	Uma	Srinivasu	SC	10000.00	Regular wage
490	462	Jayamma	Narashimarao V	Others	8000.00	Regular wage
491	463	Lakshmaiah	Chinnaiah	SC	12000.00	Salaried
492	464	Manjula	Gangappa	Others	13000.00	Salaried
493	466	Rathanamma	Chennarayudu	SC	10000.00	Regular wage
494	467	Srinivasappa	Narayanamma	SC	9000.00	Regular wage
495	468	Venkatanarayanamma	Obaiah	SC	13000.00	Salaried
496	469	Bhumika	Obaiah.C	SC	10000.00	Regular wage
497	470	Lakshmama	Challapathitao.C	SC	12000.00	Salaried
498	417	Maheswari	Obalesh.C	SC	13000.00	Salaried
499	472	Gowramma	Asha.R	SC	10000.00	Regular wage
500	473	Anandamma	Suma	SC	12000.00	Salaried
501	473/1	Hemalatha	T.Surendrababu	SC	10000.00	Regular wage
502	474	Lakshminarayanamma	Adinarayana	SC	9000.00	Regular wage
503	475	Lakshmi	Venunaydu	SC	13000.00	Salaried
504	476	Gowramma	H.V.Venkatesh	Minority	14000.00	Salaried
505	477	Venkaaih	Srihiniya	SC	10000.00	Regular wage
506	478	Sulochana	Suryanarayana	SC	10000.00	Regular wage
507	479	Adhinarayanamma	Papaaih	SC	13000.00	Salaried

SI No	H No	Name of the beneficiary	Husband/ Father/ S/o	Caste	Annual Income	Occupation
508	480	Chodamma	Chandrashekhar	SC	10000.00	Regular wage
509	481	Shushila	Srinivasalu	SC	13000.00	Salaried
510	482	Gangadhara	Obalamma	SC	9000.00	Regular wage
511	483	Vijalakshmi	Ramavikram	SC	13000.00	Salaried
512	484	Pallamma	Bangarappa	SC	12000.00	Regular wage
513	485	Aswathamma	Nagamma	SC	13000.00	Salaried
514	486	Lakshamma	Srinivas	Minority	14000.00	Regular wage
515	487	Lakshmidevi	Obaiah	SC	10000.00	Regular wage
516	488	Gangamma	Venkatesh	SC	9000.00	Regular wage
517	489	Leena	Jhonprakash	SC	12000.00	Salaried
518	490	Thirupathamma	Venkataiaj	SC	11000.00	Regular wage
519	491	Guru	Jainarayan(L)	SC	13000.00	Regular wage
520	492	Majula	Manjunatha	Others	9000.00	Salaried
521	493	Venkatachalam	Paragy kun	Others	11000.00	Regular wage
522	494	Anathalskhmi	Raghvendra P.J	Others	10000.00	Salaried
523	495	Raniyamma	Raghu J	SC	9000.00	Regular wage
524	496	Kamamma	Jayakumar	SC	12000.00	Regular wage
525	497	Jayalakshmi	Thirupathaih	SC	9000.00	Salaried
526	498	Kousalya	R.Moula	SC	12000.00	Salaried
527	499	Rukminidevi	Balakrishna	SC	9000.00	Regular wage
528	499/1	Gangamma	Papamma	SC	12000.00	Salaried
529	500	Shobha	Prakash	SC	9000.00	Regular wage
530	501	Roopa	Narayanprasad	Others	14000.00	Regular wage
531	502	Yashodha	K.Jayakker	Others	10000.00	Regular wage
532	503	Vijalakshmi	Keshavan K	SC	12000.00	Salaried
533	505	Sriilakshmi	Eswaramma	SC	11000.00	Salaried
534	506	Rukmini	Mohanraj	SC	12000.00	Regular wage
535	507	Ravanamma	Maaliyadri	SC	9000.00	Salaried
536	509	Ravanamma	Ramaiah	SC	12000.00	Regular wage
537	510	Anjali	Armugam	SC	12000.00	Regular wage
538	511	Merypupsha.A	Anandaraj	SC	10000.00	Salaried
539	512	Asha	Venkataiah	SC	9000.00	Regular wage
540	513	Venkatamma	Venkataiah	SC	13000.00	Salaried
541	514	Venkatalakshmi	Yangaiah	SC	9000.00	Regular wage
542	515	Rukmini	Suresh	SC	13000.00	Regular wage
543	516	Narasamma	Kondaiah	SC	14000.00	Salaried
544	517	Mali	Mahalkshmi	SC	9000.00	Salaried
545	518	Rathanamma	Keshavalu	SC	13000.00	Regular wage
546	519	Varalakshmi	Janardhan	SC	9000.00	Regular wage
547	521	Venkataramana	Srinivasalu	SC	14000.00	Salaried
548	522	Babykrishna	Suryanarayana	SC	13000.00	Regular wage
549	523	Jayamma	Lakshmidevi(Do)	SC	9000.00	Salaried
550	524	Sukumar	Abhika(L)	SC	8000.00	Regular wage
551	525	Anjinamma	Chinnakrsihna	SC	9000.00	Salaried
552	525/A	Bylamma	Ravikumar	SC	13000.00	Salaried
553	526	Munilakshamma	Muniyappa	SC	9000.00	Regular wage
554	527	Muniyamma	Pradeep	SC	14000.00	Regular wage
555	528	Lakshmi	Armugam	SC	9000.00	Salaried
556	530	Sumathi	Raja	SC	13000.00	Regular wage
557	531	Nagalaskhmi	Girishbabu	SC	9000.00	Regular wage
558	532	Rajeswari	Sharaprasad	SC	8000.00	Salaried
559	533	Pupsha.R	Anilkumar	SC	13000.00	Regular wage
560	534	Ramadevi	Puroshothamma	SC	9000.00	Salaried
561	535	Saraswathi	Kamalesh	SC	13000.00	Regular wage
562	536	R.Nagarathana	Mylarappa	SC	10000.00	Salaried
563	537	Gunashekhar	Chandra	SC	14000.00	Self employed
564	538	Gangamma	Murugha	SC	12000.00	Regular wage
565	539	Lakshamma	Srinivas	SC	13000.00	Regular wage
566	540	Maadamma	Rajagopla	SC	10000.00	Salaried
567	542	Sunadamma	Rajesh	SC	9000.00	Regular wage
568	543	Lakshmidevi	Raja	Others	13000.00	Salaried
569	544	Thirupalamma	Prema	SC	10000.00	Regular wage
570	545	Lakshmidevi	Anilkumar	SC	12000.00	Salaried
571	546	Chennamma	Penchalaiah	SC	13000.00	Regular wage

SI No	H No	Name of the beneficiary	Husband/ Father/ S/o	Caste	Annual Income	Occupation
572	547	Rangalakshmi	Rangaiah	SC	10000.00	Salaried
573	548	Venkataranamma	Prasad	SC	12000.00	Salaried
574	549	Sujatha	Jayaram	SC	10000.00	Regular wage
575	550	Sharadha	Pooja(Do)	SC	9000.00	Salaried
576	551	Usha	Jalan	SC	13000.00	Salaried
577	552	Manju	Prithi	SC	14000.00	Self employed
578	553	Arogyaswamy	Periyanayagam	SC	10000.00	Regular wage
579	554	Faridha	Chandpasha	Minority	10000.00	Regular wage
580	555	Lakshmamma	Mulakondaiah	SC	13000.00	Salaried
581	556	Shushilamma	R.Jeevamurthy	SC	10000.00	Regular wage
582	557	Mahalskhmi	Mahendra A	SC	13000.00	Salaried
583	558	Janakamma	Namuna	OBC	9000.00	Regular wage
584	559	Mariyamma	Jems	SC	13000.00	Salaried
585	560	Isak	Swamynathan	SC	12000.00	Regular wage
586	561	Mani	Naresh	OBC	13000.00	Salaried
587	562	Puttamma	M.Manohar	SC	14000.00	Regular wage
588	563	Venkateshmurthy	Srinivasan	Others	13000.00	Salaried
589	564	Varalakshmi	Narashimmurthy	ST	9000.00	Regular wage
590	565	Saraswathamma	Chandrakala	ST	12000.00	Regular wage
591	566	Vanajakshi	Vijayakumar	SC	11000.00	Salaried
592	567	Rajamma	Munivenkatappa	SC	13000.00	Regular wage
593	568	Yallamma	Nagaraju	SC	9000.00	Salaried
594	569	Eramma	Balappa	SC	11000.00	Salaried
595	570	Anjinamma	Chithra	SC	10000.00	Regular wage
596	571	Anusuyamma	Srinivas	Others	9000.00	Salaried
597	572	Dhanalakshmi	Shekhar	SC	12000.00	Regular wage
598	573	Mahalskhmi	Shankar	SC	9000.00	Regular wage
599	574	Chandramma	Muniswamy	SC	12000.00	Salaried
600	575	Pavanamma	Kannan	SC	9000.00	Regular wage
601	576	Sharadha	Ramesh	SC	12000.00	Regular wage
602	577	Savitha	Siddlingeswara	SC	9000.00	Salaried
603	578	Amudha K	Dharama	SC	14000.00	Regular wage
604	579	Mariyamma	Johnpeter	SC	14000.00	Salaried
605	580	Shusheela	Rambabu	SC	12000.00	Regular wage
606	581	Jallamma	Shankar C.G	SC	11000.00	Salaried
607	583	Hemavathi G.R	Shivakumar.C	SC	12000.00	Salaried
608	584	Sharadha	Sureshbabu V	SC	9000.00	Regular wage
609	585	Bhavya	Srinivas	SC	12000.00	Regular wage
610	586	Engamma	Ganesh	SC	12000.00	Salaried
611	587	Thirupathamma	Obalesh	SC	10000.00	Regular wage
612	588	Revanamma	Penchalakondaiah	SC	9000.00	Salaried
613	589	Annadorai	Maalagi	SC	13000.00	Self employed
614	590	Maadamma	Govindaraj M.V	SC	9000.00	Regular wage
615	591	Penchalamma	Penchalaiah	SC	13000.00	Salaried
616	592	Narayana	Penchalaiah	SC	14000.00	Salaried
617	593	Resinjasi	Pranthasathi	SC	9000.00	Salaried
618	595	Nirmala	Ramanjaneya	SC	13000.00	Regular wage
619	596	Gunavathi	Haridaas	SC	9000.00	Salaried
620	597	Shusheelamma	Chinnaswamy	SC	14000.00	Salaried
621	598	Venkatamma	Deena(L)	SC	13000.00	Regular wage
622	599	Subappa	Chandrika	SC	11000.00	Regular wage
623	600	Narasamma	Hanumatharayappa	SC	8000.00	Regular wage
624	601	Varalakshmi	Lakshminarayana	SC	9000.00	Regular wage
625	602	Narasamma	Venkatarayappa	SC	13000.00	Salaried
626	603	Bharathi	Venkatesh	SC	9000.00	Salaried
627	604	Narasamma	Doddarangaiah	SC	14000.00	Regular wage
628	605	Rathna	Ravi	Others	9000.00	Salaried
629	606	Umadevi	Shivakumar	SC	13000.00	Regular wage
630	607	Bharathi	Nataraj V	SC	9000.00	Regular wage
631	608	Akkayamma	Balappa	SC	8000.00	Salaried
632	609	Bharathi	Narashimmurthy	SC	13000.00	Salaried
633	610	Padamma	Gopalkrishna	SC	9000.00	Regular wage
634	611	Lalitha	Rangaswamy C	OBC	13000.00	Regular wage
635	612	Thimmakka	Avalakondaiah	SC	10000.00	Salaried

**Annexure - A - Check list of Documents / information required in the
DPR of RAY**

1. State : Karnataka
 2. City : Bangalore
 3. Project Name: Construction of 666 (G.F) Du's Housing at Kuvempunagara slum (In-situ development) including infrastructure in Bangalore City in Byatrayanapura Area Under RAY.
 4. Project Cost (Rs in Lacs): 3629.70

Sl No	Description	Yes	No
1	Duly authenticated Admin. & Tech. checklist of DPR is enclosed.	Yes	
2	Duly authenticated Executive Summary is enclosed.	Yes	
3	Duly authenticated Detailed cost estimates are enclosed.	Yes	
4	Following duly authenticated drawings enclosed: <ul style="list-style-type: none"> • Location plans • Survey maps and contour plans • Existing Slum/ Area layout and service plans • Building plans, Architectural & Structural drawings • L- section /Cross-sections/ Elevations as applicable for roads, drains, sewer etc. 	Yes Yes Yes Yes Yes	
5	Following duly authenticated annexure enclosed: <ul style="list-style-type: none"> • Undertaking (signed by ULB/SLNA) • List of Beneficiaries • Sample copy of consent of beneficiaries • Sample copy of household survey • Sample copy of allotment letter indicating ownership rights • Copy of SLSMC approval • Copies of statutory approval required • Photographs of existing slum covering housing and infrastructure conditions and micro-planning • Certificate regarding "As is where is" basis, if there is no Master Plan for the region. 	Yes Yes Yes Yes Yes Yes Yes Yes Yes	

Signature of the State Level Nodal

Name & Designation:

Address:

Fax No:

Telephone No.

Mobile No:

E-mail:

Signature of the CEO/Commissioner of ULB/
Implementing Agency

Name & Designation:

Address:

Fax No:

Telephone No.

Mobile No:

E-mail:

Annexure – B: ADMINISTRATIVE AND TECHNICAL CHECKLIST

For DPR of RAY

1. Name of the State : Karnataka
2. Name of the city : Bangalore
- Name of the Project : Construction of 666 (G.F) Du's Housing at Kuvempunagara slum (In-situ development) including Infrastructure in Bangalore City, Byatarayanapura Area Under RAY
4. Project Cost (Rs in lacs) : 3629.70
5. Nodal Agency : DMA
6. Implementing agency : KSDB
7. Total urban population of the city as per census 2011 : 85,00,000
8. Total slum population of the city as per census 2011 : 15,19,001
9. Slums(S) population as per census 2011 :

S. No.	Description	YES	NO
1. (a)	Has the State adopted a policy towards conferring land tenure rights to Slum Dwellers?	Yes	
(b)	If not, is the legislation for the above in process?And what Stage is it?	-	-
(c)	Have the beneficiaries covered in the DPR been provided with tenure rights?	Yes	
2. (a)	Has Slum Free City Plan (SFCP) been prepared and forwarded to MoHUPA?		No
(b)	If yes, has the Slum Free City Plan (SFCP) been approved by MoHUPA?	-	-
(c)	If not, what is the stage of SFCP preparation?	Under Preparation	
3.	Has the State Slum Policy been prepared and adopted?	Yes	
4.	Has MoA for reforms been signed with MoHUPA?	Yes	
5.	Has State Level Sanctioning and Monitoring Committee (SLSMC) been Constituted?	Yes	
6.	Has DPR been approved by the SLSMC?	-	-
7.	Has the DPR been forwarded by the designated Nodal Agency?	-	-
8.	Is the implementation authority identified with State Govt. approval?	Yes	
9.	Whether elected Local Body is in Place?		No
10.	Does a Valid City Master Plan exist?	Yes	
11. (a)	Has a City Sanitation Plan (CSP) been prepared?	Yes	
(b)	If yes, is the DPR prepared keeping CSP in view?	Yes	
12. (a)	Has a Disaster Management Plan (DMP) been prepared for the City?	Yes	
(b)	If yes, is the DPR prepared keeping City DMP in view	Yes	
(c)	If no, is a DMP for the slums included in the DPR?	-	-
13.	Has the Final List of Slums (with census data) after de-notification prepared?	Yes	
14.	Is this Slum(s) notified or non-notified?	Notified	
15.	If SFCP is not completed has tenability & deficiency assessment of slum(s) and preparation of slum level GIS maps been completed and furnished in the DPR?	Yes	
16. (a)	Is the Project land in possession of implementing agency and free from any encroachments and encumbrance?	Yes	
(b)	If not, provide status of proposed land.	-	-
17.	Has Socio-economic survey of slum(s)been completed as per latest format	Yes	
18.	Has Physical (Total station) survey of slum(s) been completed?	Yes	

19.	Have Environmental sustainability studies for slum(s) covered in DPR been carried out?	Yes	
20.	Have Beneficiaries been identified by bio-metric or UID and is the list enclosed in DPR?		No
21.	Whether caste-wise breakup of beneficiaries furnished	Yes	
22.	Has the entire slum(s) has been taken up for housing and infrastructure improvement while formulating the DPR? (Whole slum approach adopted)	Yes	
23.	Have detailed cost estimates been prepared with State Schedule of Rate. Mention year of SoR?	Yes	
24.	If cost index is applied on old SoR, has it been certified by Competent Authority?		No
25.	Is the DPR for in situ up-gradation?	Yes	
26. (a)	Is the DPR for relocation?		No
(b)	If Yes, Distance of proposed site from existing location		
(c)	Whether beneficiaries consent has been obtained for the proposed project		
27.	Project Cost (Rs in lacs) and in percentage of Housing to Infrastructure <ul style="list-style-type: none"> • Housing • Infrastructure Sub-Total • Contingency • Escalation • Departmental charges • Any other Total 	2897.10 432.90 3330.00 - - - 299.70 3629.70	
28.	Has the Cost sharing among State and ULB been formally agreed upon?	Yes	
29.	Have the tie-ups for beneficiary contribution been indicated?	Yes	
30.	Central share requested (Rs in lacs)		1731.60
31.	State share (Rs in lacs) and in percentage <ul style="list-style-type: none"> • State Grant • ULB/Agency's own funds • Beneficiary contribution • Any other 	1606.74 - 291.36 -	
32.	i) Project Duration ii) Proposed Date of commencement	18 months -	
33.	No. of DUs - <ul style="list-style-type: none"> New Up-gradation Transit Rental Dormitories / Any other If only Infrastructure provided, then give no of DUs benefited	666 - - - -	
34.	Minimum Carpet area of a DU (Sqm)		25.00
35.	Density (DU/hectare)		-
36. (a)	Is the Land use of the proposed site residential as per the Master plan?		
(b)	If not residential, whether notification for change of land use has been issued?		
37.	Coverage area under proposed project components <ul style="list-style-type: none"> • Residential • Commercial • Facilities • Green area 	Area (Sqm)	Area (%)

	<ul style="list-style-type: none"> Roads and Pavements Any other (Specify) 		
38.	Status of statutory approvals from : <ul style="list-style-type: none"> Town &Country Planning Dept. Municipal Corporation Fire Department Pollution Control Board Min. of Environment Coastal Regulatory Authority etc. 		
39.	Have Green Technologies or any cost effective technologies adopted in the project?		No
40.	Has Disaster resistant technology been adopted?		No
41. (a)	Water Supply Is Municipal water supply main available near the slum boundary? If yes how far?	Yes	
(b)	If yes, whether slum water supply system is proposed to be connected to the Municipal water supply main? What is the cost of integration?	48.36 lacs	
(c)	If not, whether independent slum water supply system has been proposed? What is the cost of this system?		
(d)	Whether individual water supply connection proposed?	Yes	
42. (a)	Sewerage Is Municipal sewer line available near the slum boundary? If yes how far?	Yes	
(b)	If yes, Whether slum sewerage line is proposed to be integrated with the Municipal sewer line? What is the cost of integration?	73.26 Lacs	
(c)	If not, whether independent slum sewerage system has been proposed? What is the cost of system?	Yes	
43. (a)	Roads Is Municipal main road is available near the slum boundary? If yes how far	Yes	
(b)	Has Slum road network been proposed? What is the cost?	108.88 Lacs	
(c)	Connectivity with the main peripheral road exists?		
(d)	If not, whether slum road network is proposed to be integrated with city level network? What is the cost of integration?		
44. (a)	Storm Water Drains Municipal Drain is available near the slum boundary? If yes how far	Yes	
(b)	Slum drainage network has been proposed? What is the cost?	115.82 lacs	
(b)	Connectivity with the Municipal drains exists?	Yes	
(c)	If not, whether slum storm water drainage line is proposed to be integrated with city level network? What is the cost of integration?		
45. (a)	Street lighting Internal slum electrification has been proposed? What is the cost?	Yes	
(b)	Whether connectivity with external supply line exists?		No
(c)	If not whether slum level electrification is proposed to be integrated with city level network? What is the cost of integration?	86.58 Lacs	
46.	Has Provision for Solid Waste Management been made?		No
47.	Parks & Open spaces	-	
48. (a)	Whether Health Care facility exists within the site. If not how far is it?	Yes	
(b)	If yes what type of facility exists?	General Hospital	
49. (a)	Whether Educational facility exists within the site. If not how far is it?	Yes	
(b)	If yes what type of facility exists?		
50.	Provision for convergence of the Central and State Government Schemes in the following sectors has been made in the DPR:		No

	i) Health ii) Education iii) Social Security including accidental and medical insurance, old age pension, old age homes etc.		
51.	Provision of other civic amenities (if any) like community centre, livelihood centre, informal market etc.		No
52.	Has Separate provision for upkeep and maintenance of public assets to be created through this project been made?		No
53.(a)	Are Project components on PPP basis?		No
(b)	If yes, what are the components?		
(c)	Whether the works proposed under the DPR have been carried out under any other scheme. If yes, when?		No
54.	Innovative approaches adopted in the project.		No

Signature of the State Level Nodal Officer

Name & Designation:

Address:

Fax No:

Telephone No.

Mobile No:

E-mail:

**Signature of the CEO/Commissioner of KSDB/
Implementing Agency**

Name & Designation:

Address:

Fax No:

Telephone No.

Mobile No:

E-mail:

Annexure C - EXECUTIVE SUMMARY

Project Details :

1	State : Karnataka
2	City : Bangalore
3	Project Name : Construction of 666 (G.F) Du's Housing at Kuvempunagara slum (In-situ development) including infrastructure in Bangalore City in Byatrayanapura Area Under RAY
4	Project Cost (Rs in Lacs) : 3629.70
5	Central Share (Rs in Lacs) : 1731.60
6	State Share (Rs in Lacs) : 1606.74
7	ULB Share (Rs in Lacs) :
8	Beneficiary Share (Rs in Lacs) : 291.36
9	Infrastructure Cost per dwelling unit (Rs in Lacs) : 0.65
10	SOR Adopted : 2013 -14

Project Contribution (Physical + Financial) (Rs in Lacs)

SI No	Scheme Component	Type	Qty in Nos / m	Rate (in Rs / Unit)	Proposed Project Cost	Appraised Project Cost	Central Share	State Govt. Share	ULB Share	Beneficiary Contribution
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A.Housing

1	In-situ development	Single Storied	666 Du's	435000.00	2897.10	-	1448.55	1157.19	-	291.36
2	Up- Gradation									
3	Rental	-	-	-	-	-	-	-	-	-
4	Transit	-	-	-	-	-	-	-	-	-
Total Housing Cost Sub total (A) :					435000.00	2897.10	1448.55	1157.19		291.36

B-1. Physical Infrastructure :

1	Roads									
i	Asphalt Road	Sqm	1736.00	517.28	8.98	-	4.49	4.49	-	-

SI No	Scheme Component	Type	Qty in Nos / m	Rate (in Rs / Unit)	Proposed Project Cost	Appraised Project Cost	Central Share	State Govt. Share	ULB Share	Beneficiary Contribution
ii	C.C. Road	Sqm	6370.00	1568.29	99.90	-	49.95	49.95	-	-
iii	Culverts	-	-	-	-	-	-	-	-	-
2	Water Supply									
i	Service connection	Nos	666.00	3000.00	19.98	-	9.99	9.99	-	-
ii	Pipeline (MWS)	Nos	4.00	709500.00	28.38	-	14.19	14.19	-	-
3	Storm water Drain									
i	Drains	Rmt	4396.00	2634.67	115.82	-	57.91	57.91	-	-
4	Sewerage									
i	Service connection	Nos	666.00	11000.00	73.26	-	36.63	36.63	-	-
5	Street Lighting									
i	Service connection	Nos	666.00	13000.00	86.58	-	43.29	43.29	-	-
Sub Total (B1) :					65000.00	432.90		216.45	216.45	0.00
B-2. Social Infrastructure :										
6	Community centre	-	-	-	-	-	-	-	-	-
Sub Total (B2) :					0.00	0.00		0.00	0.00	0.00
Sub Total (B1 + B2) :					65000.00	432.90		216.45	216.45	0.00
Total (A + B) :					500000.00	3330.00		1665.00	1373.64	291.36
Ratio of Housing to Infrastructure						85 % : 15 %				
C. Operation and maintenance cost										
1	O & M @ 4%			20000.00	133.20	-	66.60	66.60	-	-

SI No	Scheme Component	Type	Qty in Nos / m	Rate (in Rs / Unit)	Proposed Project Cost	Appraised Project Cost	Central Share	State Govt. Share	ULB Share	Beneficiary Contribution	
Sub Total (C) :				20000.00	133.20		66.60	66.60		0.00	
D. Other Cost											
1	A & OE, IEC, DPR Preparation & PMC @ 5%			25000.00	166.50	-	-	166.50	-	-	
Sub Total (D) :				25000.00	166.50		0.00	166.50		0.00	
Grand Total (A + B + C + D) :				545000.00	3629.70		1731.60	1606.74		291.36	
Signature of the KSDB Level Competent Technical Officer		Signature of the CEO / Commissioner of KSDB / Implementing Agency			Signature of the State Level Competent Technical Officer			Signature of the State Level Nodal Officer			
Name & Designation :		Name & Designation :			Name & Designation :			Name & Designation :			
Address :		Address :			Address :			Address :			
Fax No :		Fax No :			Fax No :			Fax No :			
Telephone No :		Telephone No :			Telephone No :			Telephone No :			
Mobile No :		Mobile No :			Mobile No :			Mobile No :			
e-mail id :		e-mail id :			e-mail id :			e-mail id :			
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Annexure - D - Undertaking

(To be signed by ULB and SLNA)

Name of Project : Construction of 666 (G.F) Du's Housing at Kuvempunagara slum
(In-situ development) including infrastructure in Bangalore City in Byatrayanapura Area Under RAY.

Project Cost: Rs in Lacs : 3629.70

1. Title of the project land is clear and under the possession of the Urban Local Body/State Government/Beneficiary.
2. Land use is residential i.e. in conformity with the Town Planning norms. & the land is free from all encumbrances.
3. The estimates have been prepared as per applicable departmental SOR along with current cost index (if required) certified by competent authority .The estimates have been signed by the competent Engineer of the ULB and State. The quantity and estimate calculations as included in the DPR conform to the proposed design / plan with due adequacy & correctness of design.
4. Certified that all statutory approvals (such as Environmental clearance, Fire fighting, Town Planning approval, etc.) as applicable have been obtained from the competent authorities and project components have been designed in line with the applicable Municipal Byelaws.
5. This is to certify that necessary measures will be taken by the Urban Local Body for safeguarding the spaces from further encroachment. The organized green spaces/play grounds/public open spaces shown in the layout plan of the slums shall be developed/ maintained by the ULB.
6. That the houses not taken up in the project are pucca in nature, i.e. structural sound with safe foundation & RCC roof and adequate natural lighting & ventilation having individual toilet and individual tap water supply connection.
7. Slums covered under the scheme shall be de-notified after implementation of all development works and construction of new houses.
8. Allotment of dwelling space shall be made in the name of the wife or in the joint name of wife & husband of the identified beneficiary.
9. Whole slum approach has been adopted while formulating the slum development plan. All Katcha (Temporary) and semi pucca (Semi permanent) houses have been addressed and taken up for reconstruction/ up-gradation. It is ensured that all the basic infrastructure facilities i.e. water supply; sewerage, roads, drains, solid waste management, electrification, etc. have been provided. Other social infrastructure facilities like health, education and other community facilities have been adequately provided / converged with existing schemes.
10. Beneficiaries have given their consent for implementation of the project as proposed in the DPR. All the Beneficiaries have confirmed their willingness to contribute their financial contribution for the Dwelling Units as proposed in the DPR.
11. The beneficiary contribution proposed is minimum 12%(Gen Category)/10% (SC/ST/BC/OBC, PH & Other weaker sections) of Dwelling unit cost. In case of higher contribution it is certified that the EMI burden (bank/soft loan) does not exceed 25% of monthly income of beneficiary household.
12. The project will be implemented in 24 Months from the date of sanction from Govt. of India.
13. All procurement shall be done through a transparent Bidding Process in conformity with guidelines of the State Govt.

14. Required basic infrastructure (water supply, sewerage, roads, drains, solid waste management, electrification) are provided at site through integration with city level network / independent system and in line with master plan.
15. Although comprehensive infrastructure facility within the slum area, covering all the slum dwellers has been proposed in the DPR, however if any part/component is left uncovered that will taken up by the ULB from its own resources and no further demand of funds will be placed with MoHUPA, Govt. of India, for this purpose.
16. Operation and Maintenance of the assets created (housing and infrastructure) shall be done by ULB through involvement of beneficiaries/RWA.
17. ULB shall ensure adequate health and education facilities after assessing the existing facilities in the nearby area of the slum. ULB shall also provide social security to the beneficiaries through ongoing schemes of State/Central Government.
18. ULB undertakes to extend all necessary support in terms of manpower, machineries etc. for smooth operation of all the social infrastructure facilities proposed under the scheme including health & educational facilities as applicable.
19. The structural safety aspects of the buildings and infrastructure components proposed in the project have been ensured by designing the as per the requirements of National Building Code and relevant IS Codes and Manuals.
20. Undertake to constitute a beneficiary committee, which would supervise construction at various levels; foundation, basement, lintel, roof, completion, occupation etc. & undertake social audit of the site after completion of the project. It is also undertaken to ensure quality control systems-both internal and external, so that the constructions are undertaken with utmost quality.
21. Any escalation in the project cost would be borne by State Govt. / ULB.
22. The project components proposed in the DPR were never taken up / funded under any Central / State or any other schemes.

Signature of the State Level Nodal

Name & Designation:

Address:

Fax No:

Telephone No.

Mobile No:

E-mail:

Signature of the CEO/Commissioner of ULB/
Implementing Agency

Name & Designation:

Address:

Fax No:

Telephone No.

Mobile No:

E-mail:

CERTIFICATE

RAJIV AWAS YOJANA (RAY) AT BANGALORE CITY

* * * * *

I hereby certify that the Individual Dwelling units Proposed under RAY 666 (G.F) Du's housing in the Kuvempunagara Slum (in-situ redevelopment) of Bangalore city Byatarayanapura area have not been covered under BSUP scheme nor overlapped under any other governmental scheme & the submitted proposal can be considered as it is as per the deliberations.

Technical Director – 1
Karnataka Slum Development Board
Bangalore

KARNATAKA SLUM DEVELOPMENT BOARD, BANAGALORE

**BENEFICIARIES WILLINGNESS CERTIFICATE FOR (G.F) STRUCTURE AT
BYATARAYANAPURA AREA, BANGALORE CITY**

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Beneficiaries are accepting (G.F) structure model of RCC framed structure conventional methodology subjected to the quality ensured by the Technical experts of the KSDB with proper physical infrastructure at place. They are expressed their willingness to move their bases to the new layout when it is ready for occupancy without any pre- conditions.

Technical Director – 1
Karnataka Slum Development Board
Bangalore

KARNATAKA SLUM DEVELOPMENT BOARD, BANAGALORE

LAND POSSESSION CERTIFICATE

RAJIV AWAS YOJANA (RAY) AT BANGALORE CITY

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The Beneficiaries of this project in Bangalore City are residing in the slums for more than 10 years. The slums are declared and notified as per KSA Act, the ownership of the land vests with the Government without any encumbrances and there is no objection to take up the project.

Technical Director – 1
Karnataka Slum Development Board
Bangalore

CERTIFICATE

Name of the Work :

Construction of 666 (GF) Du's Housing at Kuvempunagara slum (In - Situ redevelopment) including infrastructure in Bangalore City , Byatarayanapura Area under Rajiv Awas Yojana (RAY).

Estimated Cost Rs in Lakhs . 3628.57

- Certified that all the measurements of items of works are verified with respect to the drawings & are found to be correct.
- Certified that the rates are adopted in estimate are as per 2013-14 SR of PWD Bangalore Circle.
- Certified that we have personally visited the site & the items of works included in the estimate & provisions of the works made there quite essential & reasonable as per the filed requirements & in most economical & safe way of executing the work.

Assistant Engineer
No - 4 Sub-Division
KSDB, Bangalore

Assistant Executive Engineer
No - 4 Sub Division
KSDB, Bangalore

Executive Engineer
No - 4 Sub-Division
KSDB, Bangalore