



Guntur Municipal Corporation

CITY DEVELOPMENT PLAN

for

**INTEGRATED HOUSING AND
SLUM DEVELOPMENT PROGRAM**

(IHSDP)

&

**URBAN INFRASTRUCTURE
DEVELOPMENT SCHEME FOR
SMALL & MEDIUM TOWNS**

(UIDSSMT)

APRIL 2006

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1.2 OBJECTIVES OF CDP

The main objectives of the CDP is to have a planned growth of the city in the desired direction and to project Guntur as the “City of Opportunity” guided by a shared vision for city’s development. The CDP would comprise of sectoral plans for the identified sectors for a horizon period of 20 years outlining policy framework and investment interventions to achieve the vision of Guntur.

1.3 SCOPE OF CITY DEVELOPMENT PLAN

The CDP outlines the strategic policy and investment interventions to achieve the vision of Guntur including formulation of sectoral plans for the identified sectors. The scope of work is to

- Assess the existing situation with regards to demographic and economic growth, infrastructure services, municipal finances, etc.
- Identify the gaps in service delivery
- Outline the issues faced by the City’s poor
- Prepare a vision and sectoral strategic framework outlining the goals, strategies, interventions/projects to achieve the vision and
- Formulate a city investment plan with appropriate financing strategies and an implementation action plan.

In addition, the CDP would also focus on the reforms to be carried out at the state and local level in consonance with the vision and strategic plan outlined to sustain the planned interventions.

1.4 STRUCTURE OF THE REPORT

The report is structured into seven chapters viz.:

Chapter 1- Introduction describes the brief profile of Guntur, objectives and scope of City Development Plan.

Chapter 2- provides the CDP framework and the process involving key steps

Chapter 3 - City Assessment describing briefly the existing situation with regards to key elements of city development. It describes the demographic and economic characteristics of Guntur including status of infrastructure provision, environmental aspects, institutional arrangements and the development challenges. This section also lists

out key issues facing each of the elements listed above and presents the current gaps in service levels.

Chapter 4 - Vision & Sectoral Strategic Framework describing the vision and sectoral goals and strategies. The reform agenda is also outlined in this chapter.

Chapter 5- on Basic Services to Urban Poor describes the socio-economic characteristics of urban poor and the challenges facing the urban poverty.

Chapter 6- City Investment Plan and Financing Strategies describes the city investment plan with a prioritisation and phasing of investments along with the financing options.

CDP FRAMEWORK & PROCESS

2.1 APPROACH TO CDP

The preparation of a City Development Plan (CDP) is undertaken by the Guntur Municipal Corporation (GMC) as per the guidelines of IHSDP. The CDP is conceptualised considering the position occupied by Guntur as a strategic destination for various activities and initiatives planned by central and state governments and to guide the planning and investment decisions in future. The CDP took the inputs from various participatory meetings with stake holders held for the purpose and various the studies in addition to the Zonal Master Plan by the VGTMUDA. The CDP envisages development of a sustainable and balanced Guntur for converging into a favourable destination for new economy enterprises.

In order to have planned growth of the city in the desired direction and to project Guntur as the *City of Opportunity*, the CDP prepared sectoral plans for the identified sectors for a horizon period of 20 years and also outlined the strategic policy and investment interventions to achieve the vision of Guntur. The CDP presents the city development issues, deficiency analysis and a management framework outlining strategies and guidelines for future growth.

The approach for the preparation of CDP majorly comprises of an appraisal of existing situation based on inputs from various stakeholders that have a role in provision of city infrastructure and influence city development patterns.

The plan provides a distinctive thrust for introducing enabling rather than restrictive regulatory mechanisms through realistic planning and management interventions within the overall regulatory and institutional framework. The development proposals are being designed within the context of the Zonal Master Plan for Guntur (2020). A development implementation action plan comprising of implementation schedule, role of stakeholders, regulations and institutional strengthening mechanisms are formulated, with special emphasis on institutionalising the monitoring mechanisms.

2.2 PROCESS

The entire exercise was carried out through stakeholder participation at various stages. A core group headed by the Commissioner was formed to manage and drive the process and to look into different elements of urban functions.

The CDP - considered as an inter-sectoral exercise - takes into account the existing situation including assessing the current status of municipal services, its fiscal status, operational and management procedures. The CDP also took into consideration the works and plans of other Government and Quasi- Government agencies contributing towards the growth and development of the city.

The CDP also identified performance-monitoring/ sustainability indicators to assist the Council to review the progress of the CDP on an annual basis and to enable them in setting the agenda for the future.

2.3 KEY STEPS

The City Development Plan (CDP) is a collective effort of all Planning Partners and Key Stakeholders involved in the City's development explicitly setting the agenda for development in terms of growth policy and directions and means of achieving them. The CDP is a forward looking consensus program for the City, for a 20-year horizon, comprising of the following tasks:

1. Visioning Exercise
2. Situation Analysis
3. Formulation of Goals & Strategies
4. Capital Investment Plan & Project Scheduling
5. Generation of Financial & Operating Plan
6. Stakeholder Workshop
7. Presentation and Approval by the Council along with Draft MoA
8. Action & Operating Plan indicating the policy and reform measures for improved service provision and delivery.

CITY ASSESSMENT

Existing situation & Gap Analysis

3.1 Demography

Population explosion is the most crucial and fundamental problem in the context of development. It need prompt attention to facilitate planned development of cities and towns for the social and economic welfare of people. Any development plan is useless unless a judicious study of population growth and its cause is made before undertaking the preparation of the plan.

3.1.1 Population growth and Trend.

Population growth constitutes on of the variables in a model of planned development. A rapid growth of population not only lowers the reach to available facilities but also demands more facilities. Hence, an estimate of demographic trends is necessary for formulating the development plan.

TABLE 3.1.1 POPULATION TREND IN GUNTUR MUNICIPAL CORPORATION

S.No.	Year	Area (Sq.Km)	Population	Growth rate (%)	Density / Sq. Km
1	1971	30.01	269991	-	8996
2	1981	30.01	367699	36.18	12252
3	1991	30.01	471051	28.1	15696
4	2001	45.71	511993	8.69	11201
5	2005 (estimated)	45.71	574251	24.32	12563
6	2011 (projected)	130.29	786509	24.32	6036

The population includes that of the merged villages with the corporation.

TABLE 3.1.2 COMPOSITION OF GROWTH

Composition Year	Population increase during			
	1981-91	% of total	1991-2001	% of total
Natural increase	88039	24.94%	83239	17.67%
In – migration	15313	4.17%	-42297	-8.97%
Total Increase	103352	29.11%	40942	8.70%

Source - Zonal Development plan 2006 by VGT Muda

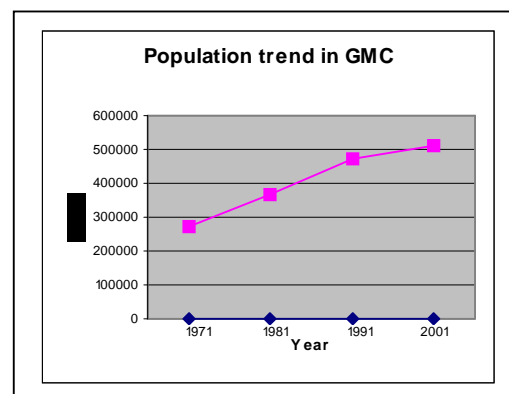
TABLE 3.1.3 ACCESS OF THE SLUM DWELLERS TO BASIC SERVICES

Year	Number of slum dwellers	Percentage of slum dwellers having access to		
		Water supply	Drainage system	Waste service collection
1991	1,76,480	30%	16%	70%
2001	1,91,815	37%	24%	90%
2005 (estimated)	2,15,140	75%	50%	100%

3.1.2 Growth rate

The growth rate during the last four decades is instrumental in assessing any population projections, since the demographic development of the city has taken place during this period. The average growth rate registered during the last four decades was 24.32%.

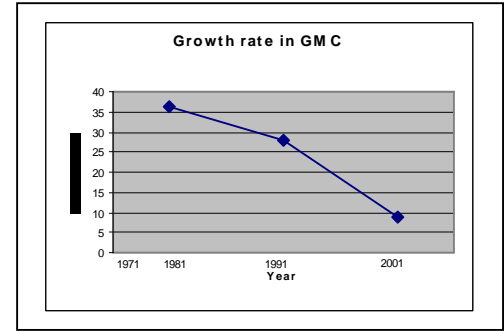
According to 2001 census, the Guntur City has a population of 5,11,993. The Guntur Urban Agglomeration accommodated nearly 1 lakh Population.



3.1.3 Projections

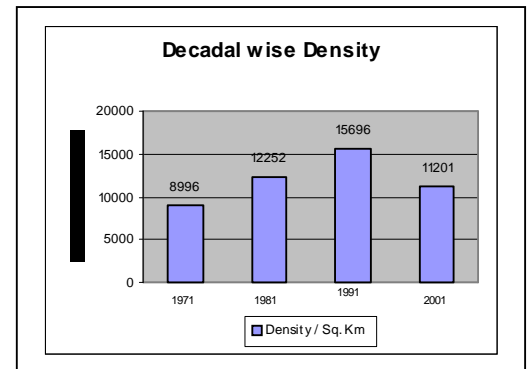
By applying the average growth rate of 24.32 the present population i.e. for the year 2006 is assessed as 5,74,251. The projected population for 2011 is assessed as **636509**. The Guntur Urban Agglomeration also accommodates nearly 1 lakh Population.

Guntur city receives an average of About 1 lakh floating population daily.



3.1.4 Population Density

The city is divided into 52 electoral Wards covering a total area of 45.71 Sq.Km. Average population density of the town is 11,201 Persons/Sq. Km. As of 2001. The 25th ward scores the highest density of 55,806 persons/Sq.Km, and 20th, 21st, 35th, 36th wards also have high densities when compared to other wards.



3.1.5 Spatial Profile

Residential Use :

Seetharam nagar, Thimma reddy Nagar, Vinobha Nagar, Anandapet, Nehru Nagar, Buchaiah Thota, Vidya Nagar, Chandramouli Nagar, Sreenivasarao Thota, Venugopal Nagar, A.T. Agraharam, Cobaldpet, Laxmipuram, Syamala Nagar, Bank Colony, Venkataramana Colony, Nalla Cheruvu, Gandhi Nagar, etc. are localities under residential use.

Commercial Areas:

The major commercial areas are located in the western part of the city. This area consists of numerous wholesale and retail commercial activities catering to the city and its hinterland. The commercial use includes shopping, banking,

institutions, warehouses, markets, cinema theatres and the like. The commercial units of recent origin located in the northern and southern parts along Mangalagiri road, Sreenivasarao thota and Chuttugunta. The “Old Guntur” area on the east is congested from the ever-increasing inflow of traders necessitating redevelopment of the commercial and shopping activities in this area.

All the commercial activities are situated in Old Guntur, Kothapet, Brodipet, Arundelpet, Patnam Bazar, Bus Stand, Collectorate road, Station road, Naaz Center, Vidya Nagar, Laxmipuram, Vegetable Market, Fruit Market, retail and wholesale commercial activities are located in Patnam Bazaar and Old Guntur near the Municipal Office.

Industrial Use

Guntur has served as a marketing and distribution center for agricultural produce for a long time. Thus, the earliest industries of this city have been processing units of rice, pulses, oil seeds and the like. Consequently, there have been no large-scale industries in the region. Planned development of industries was envisaged in the five-year plans and these are being established of late. Being an important commercial center for tobacco, chillies and cotton, numerous cold storages plants have been constructed for their storage. Small-scale industries and agro-based industries like rice mills, oil mills are located in the residential areas of the city and along some main roads. To encourage industrial developments, industrial area has been notified (Auto Nagar) within the city limits.

Public and Semi Public

This category of land includes all the educational and health institutions, government Offices, Municipal offices, offices of the other local authorities and other public institution like temples, churches and mosques. Most of these are found in Collectorate road, Chuttu Gunta, Nagaram Palem and Kothapet, as Guntur is an important junction in the rail network, railway offices occupy a large area within the town.

Institutional

Guntur is an important educational center with a number of arts colleges, institutes of technical education, and a medical and dental college. There are many residential colleges to cater to the needs of the students up to intermediate level of education. Guntur Municipal Corporation maintains 86 primary schools, 18 upper primary schools and 10 high schools.

Regarding health care, there is a Government General Hospital, 3 Ayurvedhic dispensaries, 3 Unani dispensaries and 2 Homeopathic dispensaries besides about 250 private hospital and nursing homes offering specialized care. Guntur Municipal Corporation constructed 9 Urban Health

Centers in slum areas in 2001 to provide medical facilities to the economically weaker sections.

3.2 *Economic base*

TABLE 3.2.1 Economic base, occupational distribution, 2001

Occupation category	Number of workers (lakh)	% of total
Main Workers	160741	31.40%
Agriculture	2052	0.40%
Agriculture labour	7024	1.37%
House hold Industries	5929	1.15%
Other workers	145736	28.46%
Marginal Workers	17864	3.49%
Non-Workers	333388	65.12%
Total	511993	100.00%

Source - Zonal Development plan 2006 by VGTMUDA

Total number of notified poor settlements being served : **143 #**
 Total population of the above poor settlements : **1,91,815**
 Total BPL population of the above poor settlements : **1,04,733**

% of BPL population being served by the off site project proposal : 53.35%

3.3 Financial profile

TABLE 3.3.1 Municipal Revenue Income

Year	Revenue account receipts (Rs in lakhs)			
	Tax	Non –Tax	Transfers including grants	Total
2001/ 02	1293.15	1858.46	528.18	3679.79
2002/ 03	2080.80	1334.06	571.27	3986.13
2003/ 04	2163.15	831.90	687.92	4612.97
2004/ 05	3111.89	2127.91	692.97	5932.77

TABLE 3.3.2 Municipal Revenue Expenditure

Year	Revenue account expenditure (Rs in lakhs)				
	Establishment (wages and salaries)	Operation and maintenance	Interest payment	Others	Total
2001/ 02	1005.57	1149.95	123.53	908.41	3187.46
2002/ 03	1058.28	1197.65	206.33	1359.18	3821.44
2003/ 04	1138.58	1152.80	206.58	695.73	3193.69
2004/ 05	1179.90	567.93	211.98	712.50	2781.55

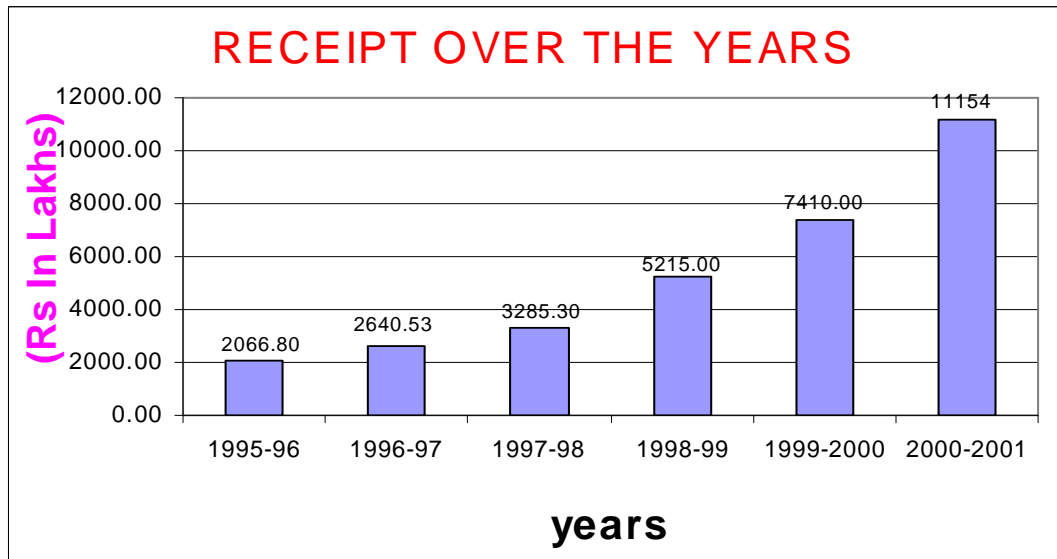
TABLE 3.3.3 Municipal Capital Receipts

Year	Capital Receipts (Rs in lakhs)				
	State Government (Rs in lakhs)		Financing institutions	Market	Total
	Loans	Grants			
2001/ 02	149.20	1353.72	0.00	0.00	1502.92
2002/ 03	239.25	1355.42	15.26	0.00	1633.44
2003/ 04	440.76	1801.28	538.63	0.00	1924.50
2004/ 05	111.00	1441.41	558.70	0.00	1479.41

TABLE 3.3.4 Finances of city level water supply

Year	Expenditure (Rs in lakhs)	Income (Rs in lakhs)
2001/ 02	375.24	451.24
2002/ 03	414.26	486.14
2003/ 04	537.43	442.72
2004/ 05	644.76	479.03

(NOTE: 1999-2000 REVISED BUDGET ESTIMATES AND 2000-2001 BUDGET ESTIMATES AS APPROVED BY CORPORATION)



3.4 Infrastructure

3.4.1 Traffic, Transportation and Roads

Highway traffic

Guntur is connected with NH5 from Chennai to Kolkatta through the city. The city is also connected by network of State highways and District roads. Though NH is bypassed in the Eastern side, the traffic which had to go in the direction of Chilakaluripet, Narasaraopet, Amaravathi, Achampet passes through the heart of the city. Thus the outflow and inflow of heavy vehicular traffic contribution is more. The city is not having any other ring road for this traffic. Further the city is expanding adjoining the NH's and SH's which result in more congestion and accidents on the highways.

Road junctions in the city

The major intersections like Lodge center junction, Municipal T B Junction, Chandana Bros Junction and Naaz Center Junction have to be improved even for the existing traffic volume. Redesigning and improving the islands required to be carried out in order to avoid the turning problems at some of the intersections.

Road Marking

The following road markings, which will guide and control the traffic and improve road safety to a considerable extend, are suggested for Guntur City.

- Centerline marking on all radial roads having minimum two-lane width
- At all intersections, the stop lines and directional arrows are to be painted with white paint.
- Zebra crossing to a width of 3.0 meters (White and Black strips with 50 cm Band) are to be painted at predominant pedestrian crossings.

Traffic Signs

Pedestrian crossing signboards are to be erected at all the locations where zebra crossings are marked. But stop sign boards may be erected at all the bus stops inside the town. Information signboards may be erected at the intersections to provide route directions.

Central Median

Some of the roads in Guntur are provided with medians, but the dimensions of the medians to be checked with the standards according to the type of the road. Some of the main roads are not having the medians, and those roads have to be provided with medians from AC College to Municipal TB and Amaravathi Road.

Parking

Considerable demand for parking of vehicles opposite to the areas of business is found. In order to ease the traffic flow, parking operations are to be regulated. The open space in front of the shops should be paved and on street parking lot, facility to be provided and parking lots are to be duly painted. A nominal parking fee may be collected in order to ensure orderly parking and also to discourage idle parking at the busy locations.

Footpath

At present, there are very less number of raised and paved footpaths to protect the pedestrian from vehicular traffic. Even on the busy roads, only earthen shoulders are provided. This not only creates traffic congestion but also exposes pedestrian to accidents. It is suggested to provide 1.5 to 2.0m wide raised and paved footpaths on either side in stretches of the important roads.

Traffic Education

A study of traffic movement on roads within Guntur city has indicated that significant improvements could be made by imparting traffic education to the road users, especially tow wheeler riders and pedestrians. Adequate traffic education with enhanced traffic enforcement by deploying sufficient manpower at busy location will go a long way in improving the traffic situation in Guntur city. Traffic Park for education children may be developed in Guntur City.

Roads improvements

All the arterial, sub arterial roads and collector streets are to be widened as the traffic volume has surpassed the capacity even for the existing traffic.

Distribution of Road Net Work:

Total Length of Road Network – 1147 km

Lengths of roads, Guntur

TABLE 3.4.1 Distribution of Road Net Work

S.No.	Type of Road	Length (In km)	% to Total length
1	Pucca CC Roads	219	19.14
2	Damaged CC Roads	5	
3	Pucca B T Roads	198	19.73
4	Damaged B T Roads	24	
5	Pucca WBM Roads	100	24.13
6	Damaged WBM Roads	177	

7	Mud Roads	425	37.00
Total		1147	100.00

Problems & issues

- Insufficient width of main roads
- Lack of signals in important junctions
- High percentage of kutcha roads
- High percentage of damaged roads

3.4.2 Water Supply

Present installed capacity	:	122.82 MLD
Present supply	:	73.27 MLD
Transmission losses	:	25 % (estimated)
Water made available for distribution	:	54.95 MLD
Per capita supply	:	96 LPCD
Pro Rata supply as per standards	:	135 LPCD
Number of service reservoirs	:	25 #
Total storage capacity of all ELSRs	:	27000 KL
Number of bore wells	:	1146
Number of open wells	:	110
Number of House service connections	:	45000
Number of public taps	:	3200
Total power charges paid on pumping units month	:	Rs 28.00 lakhs per

Sources

S No	Source and location of raw water drawal	Max Drawal capacity	Dependency
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1	Guntur Channel Drawal at <i>Takkellapadu</i> raw water pump house Distance 4 km from city	45.50 MLD another 45.50 MLD to be commissioned	Dependable for 9 months in the year. During 3 months of summer, water to be pumped from <i>Mangalagiri</i> Pump house.
2	Kommamuru Canal Drawal at <i>Sangam Jagarlamudi</i> Raw water pump house Distance 14 km from city	27.27 MLD	Dependable for 11 months in the year. During 1 month canal closure, storage capacity is available.
3	Infiltration galleries at <i>Vengalaya palem</i> Distance 3 km from city	4.55 MLD	Dependable only during non summer period. During summer drawal comes down to very meager quantity.
Total		122.82 MLD	

Treatment facilities

S No	Treatment plant location	Capacity	Year of installation	Condition
1	Takkellapadu	45.50 MLD	1989	Good
2	Sangam Jagarlamudi	27.27 MLD	1956 & 1975	Good
3	Takkellapadu	45.50 MLD	2006	To be commissioned
Total		118.27 MLD		

Water Coverage

The entire city population is being supplied potable water. But the distribution net work is available for only 88 % of the city area. The pucca distribution lines are available for only 611 KM length (80% of total). Semi pucca distribution lines are available for 53 km length (8% of total) The uncovered area of about 12% of the cit area is being supplied water through tankers.

The distribution network is not covered in the peripheral part of the city i.e. newly extending localities, mostly slums.

The per capita supply of 127 LPCD can be calculated as per the present installed supply of 73.27 MLD and the present estimated population of

574251. But the exorbitant UFW of about 25% in transmission only is bringing down the per capita supply to 96 LPCD.

The consumers are being supplied water at 1hour in a day at daily supply basis.

Problems & issues

- The high percentage of UFW in transmission
- Lack of summer storage facility and dependence on irrigation canals for source
- Though the capacity of ELSRs seems to be sufficient, most of the ELSRs do not fill twice a day
- High expenditure towards power charges on multiple stage pumping
- Non coverage of distribution system on the peripheral areas.
- Lack of scientifically designed distribution system
- Crude methods while making water connections thus damaging the distribution network
- High level of illegal connections

3.4.3 Waste water disposal

Under Ground Drainage

Under ground drainage system is covered partially in the city.

Area covered under sewerage net work	: 6.73 sq km
Area not covered under sewerage net work	: 38.98 sq km
Houses connected to sewerage net work	: 13414
% of houses connected to sewerage net work	: 13%
Total length of sewerage net work	: 87 km

The existing sewerage system could cover only 22 % of the city area and 32% of population. The sewage transmitted daily is about 10.50 MLD though the net work though the installed capacity of the sewage treatment plant is 34 MLD. The sewage treatment plant existing at Suddapalli Donka (eastern part of the city) has become almost defunct. The effluent standards after this plant are not as per standards and this plant is to be revamped immediately.

Waste water generated daily	:	10.50 MLD
Disposal (under ground sewerage) capacity (defunct)	:	34 .00 MLD
Present operating capacity	:	nil

Open drains

Most of the waste water disposal is being done through open drains. In the absence of sewerage system in most parts of the city, the sanitation is being maintained through individual septic tanks and open drains. The length of available sewerage system is only 87 KM as against the total drainage net work of 1276 KM length.

TABLE 3.4.2 Category wise drainage lengths

S No	Category of drain	Length in km	% of total
1	UGD –pucca	44.30	2.90
2	UGD- semi pucca	42.65	2.80
3	Open drain – pucca	838.04	55.70
4	Open drain – semi pucca	350.76	23.30
5	No drains	228.11	15.30
Total		1503.86	100.00

The total 1190 KM length open drain system is to be strengthened. Already a length of 839 KM length of open drains is made pucca. The balance 351 KM drains have to be channelised apart from strengthening several major out fall drains running through the city.

Problems & Issues

1. Insufficient coverage by Under Ground Sewerage System
2. Inadequate Drainage System.
3. Environmental Degradation since the discharge from toilets and septic tanks are let into the storm water drains, which also carry the sewage through length and breadth of the city and finally discharge into the Peekalavagu in the southwest and Suddapalli Donka in the eastern part of the city. Flow of such polluted sewage in the open drains cause environmental degrading particularly in the developed area of the city.
4. High percentage (39%) Kutcha Drains

3.4.4 Sanitation

Problems & Issues

- Lack of sanitary facilities in slums
- Maintenance deficiency at public toilets
- Insufficient number of toilets at public gathering places
- Open defecation along the roads causing nuisance

- Lack of space in slum dwellings for implementing low cost sanitation scheme
- Failure of leach pits as a result of percolation problems due soil type in Guntur

3.4.5 Solid waste

Waste generation daily	:	350 MT	
Bio degradable	:	220 MT	63 %
Recyclable	:	20 MT	6 %
Inert	:	110 MT	31 %
Collection daily	:	310 MT	

Methods of collection :

Street sweeping, cleaning of drains, collection of waste from dust bins, transport through tricycles & deposition of waste in the community Concrete bins and metal dumper bins. Further transportation of garbage through tractors and dumper placers to the dumping yards located at about 6km from city.

TABLE 3.4.3 Solid waste Collection & Transportation Machinery available

Vehicle	Number available	Average capacity (tonnes)	Number of trips /day	Total capacity
Community concrete bins	600	0.3 to 0.6	-	-
Community metal bins	120	2	-	-
Wheel barrows	150	-	-	-
Tricycles	250	0.2	3	-
Truck/ tractor	35	2.5	3	262.50
Dumper placer	6	4	2	48
Total	1161			310.50

Problems & Issues

- Lack of scientific disposal of garbage
- Recycling process though initiated, could not take off effectively.
- Segregation at source is not gaining momentum in the absence of proper recycling of segregated waste

- Inadequate machinery and man power resulting in ineffective collection and disposal of garbage
- Inadequate number of dust bins in residential localities resulting in waste from houses is thrown on roads.
- Only 89% of solid waste is lifted per day.

3.4.6 Lighting

Existing street lights

Street lights fitted	with 4' tube lights	-	10938
„	with 70W SV lamps	-	587
„	with 150W SV lamps	-	861
„	with 125W MV lamps	-	828
„	with 250W MV lamps	-	537
„	with 150W MH lamps	-	60
„	with 250W MH lamps	-	108
„	with 400W MH lamps	-	52
High mast lights		-	25

Average power bill on street lighting month - Rs 25.00 lakhs per

Problems & Issues

- Lack of street lights along internal roads and some main roads especially in fringe areas
- Low voltage due to over load on transformers
- Lack of high mast lights at road junctions
- Low power consumption efficiency
- Delay in replacement of fused bulbs due to inadequate machinery
- Absence of energy audit on street lights

3.5 Community requirements

3.5.1 Education

TABLE 3.5.1 Category wise number of schools

Ownership	Primary school	Upper primary school	High school
Municipal Corporation schools	86	18	10
Aided schools	23	15	15

Un aided schools	5	5	-
Total	114	38	25

TABLE 3.5.2 Distribution of teachers and students

Teaching staff	Primary school	Upper primary school	High school
Teachers working	344	96	186
Student – teacher ratio	32:1	51:1	20:1

Infrastructure

Schools running in rented buildings/ in dilapidated condition

Elementary schools	: 19 nos	22%
U P schools	: 12 nos	67%

Schools having pucca roof buildings

Elementary schools	: 40 nos	46%
U P schools	: 10 nos	56%

Schools having drinking water facility

Elementary schools	: 59 nos	68%
U P schools	: 13 nos	56%

Schools having toilet facility

Elementary schools	: 44 nos	51%
U P schools	: 13 nos	56%

Problems and issues

- Only 57% of school buildings are structurally good
- Most primary schools are not having play grounds
- Shortage of teachers in UP schools
- 19 elementary schools out of 86 are running in rented buildings

3.5.2 Health care

Major Hospitals available for general public

Government General Hospital
 St Josephs Convent Hospital
 Railway Hospital (meant exclusively for railways)

250 private hospitals/ nursing homes

Health care by Municipal Corporation

Urban health centers	-	9
Municipal Dispensaries	-	5

Problems and Issues

- Improper facilities in existing health centers
- Lack of govt. run intermediate hospitals in the city
- Lack of new equipment in existing health centers
-

3.5.3 Parks, play grounds & Recreation

Public parks available	-	19 nos	-	73.49 acres
Play grounds available	-	4 nos	-	18.00 acres
Cinema theatres	-	30 nos		
Auditoriums	-	4 nos		
Swimming pool	-	1 no.		

Problems and Issues

- Lack of sufficient play grounds
- Lack of proper seating facilities even in existing parks
- Inadequate maintenance of municipal parks
- Improper facilities in existing health centers
- Inadequate recreation facilities like cinema theatres, auditoriums, clubs
- Shabby maintenance of cinema theatres

3.5.4 Greenery

Roads medians available for development of greenery

Collectorate road (Municipal TB to Stambhala garuvu)

Bus stand road (Municipal Corporation office to Bus stand)

Koritepadu road (Sankar vilas center to Gujjana gulla)

Parks with greenery provision

Gandhi park opp Municipal Market

Manasa sarovaram on NH bypass road

Problems and Issues

- Water bodies available being unused for development of peripheral greenery
- Absence of local body owned nursery

3.5.5 Markets and Commercial centers

Number of major Municipal shopping complexes	- 26 nos
Number of small Municipal shopping complexes	- 34 nos
Major market complexes	- 3 nos

Problems and Issues

- Inadequate facilities in the market complexes
- Inadequate market complexes to the needs of the city
- Dilapidated condition of the market complexes

3.6 Physical and Environmental aspects

TABLE 3.6.1 Environment service

Environment service	Quality
Air	Suspended particulate matter of 148.90 ug/cum against Indian standard of 140.00 ug/cum
Water	Moderately turbid in the absence of pre-settling tanks / SS Tanks
Waste water	Effluent standards not upto mark due to defunct Sewage treatment plant
Solid waste	Open dumping causing nuisance instead of scientific disposal

TABLE 3.6.2 Land Supply (Hectares)

Year	Developed land (Hectares)	Undeveloped and under developed land under use (Hectares)
2001/ 02	4047.19	1324.85

TABLE 3.6.3 Land use break up

Category	Area	% to developed area	% to total area
Developed Components			
Residential	1170.80	28.93	21.79
Mixed Residential	45.44	1.12	0.85
Un-occupied Residential	1214.23	30.00	22.60
Commercial	279.69	6.91	5.21
Industrial	133.58	3.30	2.49
Public & Semi Public	231.85	5.73	4.32
Educational	128.50	3.18	2.39
Recreational	47.84	1.18	0.89
Roads	781.56	19.31	14.55
Railway	13.70	0.34	0.26
Sub Total	4047.19	100.00	75.35
Un-Developed Components			
Agricultural Area	1266.57	95.60	23.58
Water Bodies	48.75	3.68	0.91
Burial Grounds	9.53	0.72	0.18
Sub Total	1324.85	100.00	24.67
Grand Total	5372.04	200.00	100.00

TABLE 3.6.4 Institutional Responsibility

Urban Infrastructure	Planning and design	Construction	Operation & Maintenance
Water supply	Guntur Municipal Corporation & Public Health Engg Department	Guntur Municipal Corporation & Public Health Engg Department	Guntur Municipal Corporation
Sewerage	Guntur Municipal Corporation & Public Health Engg Department	Guntur Municipal Corporation & Public Health Engg Department	Guntur Municipal Corporation
Storm water drainage	Guntur Municipal Corporation & Public Health Engg Department	Guntur Municipal Corporation	Guntur Municipal Corporation
Solid waste disposal	Guntur Municipal Corporation	Guntur Municipal Corporation	Guntur Municipal Corporation
Municipal roads (Including flyovers)	Guntur Municipal Corporation	Guntur Municipal Corporation	Guntur Municipal Corporation
Street lighting	Guntur Municipal Corporation	Guntur Municipal Corporation	Guntur Municipal Corporation

TABLE 3.6.5 Role of the private sector in urban Infrastructure provision

Urban Infrastructure	Role of the Private sector (specify)
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Water supply	<ul style="list-style-type: none"> a) Investigation, Design & estimation through Consultancy b) Execution of works through contracts c) O & M, if permitted, through maintenance contracts
Sewerage	<ul style="list-style-type: none"> a) Investigation, Design & estimation through Consultancy b) Execution of works through contracts c) O & M, if permitted, through maintenance contracts
Storm water drainage	<ul style="list-style-type: none"> a) Investigation, Design & estimation through Consultancy b) Execution of works through contracts
Solid waste disposal	<ul style="list-style-type: none"> a) Investigation, Design & estimation through Consultancy b) Execution of works through contracts c) O & M, if permitted, through maintenance contracts d) Conversion of solid waste into fuel by BOOT process
Municipal roads (Including flyovers)	<ul style="list-style-type: none"> a) Investigation, Design & estimation through Consultancy b) Execution of works through contracts
Street lighting	<ul style="list-style-type: none"> a) Investigation, Design & estimation through Consultancy b) Execution of works through contracts c) O & M, if permitted, through maintenance contracts

3.7 Natural Environmental Features:

WATER QUALITY:

Guntur Town primarily gets its water supply from two surface sources (Takkellapadu and S.J. Mudi) and one ground water cum surface water source (Vengalayapalem).The coverage of first two sources is about 90% and the third source coverage is only 10%.

The total population covered by piped water supply is about 80% and the rest of the population is covered by water transportation and ground water.

The ground water available in 70% of the area is not fit for human consumption because of high salinity .

The average per capita supply level at present is about 96 LPCD.

AIR QUALITY:

The total number of vehicles in Guntur town are 5900 nos. and of late the air pollution levels have increased enormously causing great public health hazard.

The main factors for increase in air pollution levels are due to number of old vehicles which do not conform to the emission standards prescribed and also due to proximity of the mirch yards which are causing air pollution by releasing pungent gases. In addition to the above, there are number of tobacco grading, threshing and processing plants very close to habitations which are polluting the air quality. There are number of brick kilns in old Guntur area (towards Nandivelugu road) which are not conforming to the emission standards prescribed by MoE & F, GoI thereby deteriorating the quality of air in the surrounding areas.

The air quality has deteriorated on the Nandivelugu and Ponnuru roads side because of ineffective and inefficient functioning of the STP. The BOD of the effluent is about 60 PPM and is being directly used by many farmers for growing grass in a large extent there by deteriorating the air and soil qualities.

Towards the west of the town, i.e., towards NRT road and Madras rd., there are number of cold storage plants which release large amount of CFS's there by contributing to Ozone depletion and attendant risks in environmental degradation

FLOODING:

The Guntur town has a general topography of around +45.00 m on N-W side to around +17.00m on S-E side. many areas on the southern and eastern sides gets flooded/inundated during medium to high intensity rains. there are about five major out fall drains namely; Peekalavagu, Nandivelugu drain, Suddapalli donka drain, Budampadu drain and Kankaragunta drain. All the above drains cross the nh5 bye pass at different chainages and if all these are properly desilted and maintained with proper cross sections, most of the flood discharge can be taken care of.

ENVIRONMENTAL IMPACTS OF EXISTING INFRASTRUCTURE:

SANITATION:

Around 60% of the population are covered by UGD system and the remaining 40% population are covered with septic tanks.

Even in places where UGD is covered, open defecation is being noticed because of people by passing the system and leaving the night soil directly in to the open drains. This has become one of the most vulnerable aspects particularly in rainy season as many water supply lines cross open drains at many places.

In places where septic tanks coverage is there , night soil disposal has become the biggest problem. normally the evacuation of the tank starts in the night and the night soil will be dumped near the road margins or in open drains again causing public hazard.

SOLID WASTE MANAGEMENT:

In Guntur town almost around 350 MT. of garbage is being produced and the present disposal of the majority of the garbage is conveying and dumping in the specified places.

The present system of transportation is mainly through tractors . major dumping sites are situated on the Nandivelugu and Etukuru rd. sides. These are presently causing public health hazard by obnoxious odours, fly nuisance and leachate causing water pollution. Presently there is no system of segregating the biomedical wastes.

Also, GMC has finalized with m/s Shriram Energy, Chennai to set up an MSW pellatisation plant in Etukuru road dumping yard which will start construction of plant from Dec.2001 and once this plant is commissioned around 150 mt of biodegradable garbage will be utilized by the plant.

GMC strictly enforces the ban on pigmented carry bags less than 20 microns as per the norms of MOE &F , GOI. GMC is also implementing the green act which stipulates minimum number of trees in each house hold if there is open site or certain min. number of ornamental/indoor plants in flower pots where there is no space like commercial and shopping complexes.

3.8 Common Grievances from the citizens

1. Polluted water from the taps
2. No protected water supply in Slum areas
3. No sufficient number of bore wells
4. No underground drainage facility
5. No open drains for sullage water disposal
6. Mosquito menace
7. Drains were constructed with out observing gradient, thus causing water stagnation
8. Pig menace is heavy
9. Air pollution is heavy
10. Open defecation
11. Shortage of dust bins
12. No side drains to all the roads
13. Developed high berms on road sides causing stagnation of rain water on roads
14. Encroachments
15. Unclean Public urinals
16. Insufficient public toilets
17. No street lights in slum areas
18. Low voltage problem
19. In sufficient Medical facilities
20. No cement roads
21. No pucca roads in slum areas

3.9 Institutional weaknesses

Insufficient staff.

- a) Shortage of staff for collection of water charges and leases.
- b) Insufficient staff to check unauthorized building activity.
- c) Manpower deficiency to put more effort to cater the needs of poor settlement.
- d) Delay in redressal of grievances in engineering section due to shortage of staff.

Lack of skilled staff

- a) Lack of orientation training programs to officers and staff.
- b) No exposure to the staff on latest technologies.
- c) Lack of training to more percentage of staff in computer operation.

Uneven work distribution

- a) Multi faceted activities without a time- table and un-organised working system.
- b) Unorganised working system.
- c) Uneven distribution of workload to Bill collectors

Improper Accounting system

- a) Unsettled D.C.B. in Revenue Section.
- b) Unsettled ADR.
- c) Unsettled Annual Accounts.

Under utilization of MIS systems

- a) Partial Computerization.
- b) Lack of awareness on MIS systems
- c) No initiative to create data base on inventory and services.

Infrastructural drawbacks

- a) Frequent leakages on water supply lines.
- b) Age-old infrastructure network viz., water supply lines, and drainage lines.
- c) Un planned open drains.

Others

- a) Non-availability of latest equipment to Engineering section for check measurements and recording qualitative data, and to P.H.Section for food sampling activities.
- b) Inadequate accommodations.
- c) Poor record maintenance.
- d) Corporators are not conversant with rules, procedures and system.
- e) Pendency of taxes in litigation.
- f) Heavy expenditure on electricity charges.

VISION**THE VISION**

To make GUNTUR, an *akshaya* city which can welcome any new comer who wish to settle down or to visit, at any point of time, with all the facilities and services, after fulfilling all the needs of the natives.

Thus GUNTUR can be said a ‘**city of opportunity**’ which can provide - abode & employment, water & sanitation, roads & recreation, health & education for every one with reserve resources at any point of time.

4.1 Developing a vision for the City

TABLE 4.1.1 Vision and Goals

Vision and Goals	Year		
	2010	2015	2020
Sectoral Agenda			
Water supply	100% coverage of distribution system	Achieving per capita as per standards	Achieving 24X7 WS for all areas
a) Source	a) Stabilisation of canal for the ultimate requirements	a) Provision of Summer storage tank	a) Exploring and providing the alternate source for 24x7 WS goal.
b) Transmission	b) Minimising Transmission UFW	b) Minimising cost of transmission	b) Implementing the recommendations of Comprehensive studies
c) Storage	c) Completion of additional 5 ELSRs	c) Achieving 100% Zonal reservoirs concept.	c) -do-
d) Distribution net work	d) 100% coverage of distribution system	d) Minimising the distribution losses	d) Providing meters to all connections.
Sewerage	Safe disposal of sewage generated at present.	Coverage of 100% area with sewerage system	100% sewerage system with proper treatment and revenue generation
Sanitation	Stopping the menace of open defecation	100% coverage of all house holds with latrine facilities	100% coverage of all house holds with latrine facilities
Solid waste Management	100% segregation of garbage generated	Development of landfill sites and safe environment concept	Recycling the garbage and power production
Storm water drains	50% development of all outfall drains	100% channelisation of all outfall drains	100% coverage of all storm water drains
Urban Transport	Implementation of short term proposals recommended in Zonal Development plan by VGTMUDA	Implementation of proposals recommended by the Comprehensive Traffic study team.	Development of ring roads and comprehensive proposals under Zonal Development plan and Comprehensive proposals
Heritage	Evolving strategies for economically feasible eco-tourism projects and involving private sectors for conservation of heritage and tourism.	Study the impact and develop major tourism hub for the various heritage places in & around Guntur in a big way.	Development of Tourism as an industry.
Reform Agenda			

Decentralization	Comprehensive study of all activities of the GMC by an independent administrative consultant and evolving strategy and implementation of Administrative reforms		
Land & Housing markets	Implementation of Zonal Master Plan recommendations of VGTMUDA		
Transparency and accountability	Implementation of all Administrative reforms		

4.2 Gaps identified

Infrastructure

4.2.1 WATER SUPPLY :

Source :

Dependence on Irrigation canals is causing ULB to switch between alternate sources, thus investing huge amounts in O&M and capital expenditure.

***Development of permanent, dependable perennial source exclusively for Drinking water for the city and for all surrounding and en route villages which can be economical involving less O&M. This source can either from Krishna River or from NS canals. Suitable source exploration can be done in Comprehensive Water Supply studies under APUSP. As the recommendations will be comprehensive and may involve huge investments, the project has to be taken up under central assistance or under HUDCO loan.**

If the proposal happens to be grounded earlier than expected, the provision of summer storage tank as proposed can be differed with, as the land cost around Guntur is prohibitively high.

Transmission :

The existing transmission mains are the major contributors for the UFW in the form of leakages.

Some of such transmission mains are

- a) 27" CI clear water pumping main from S J Mudi WTP to LLR & HLR
- b) 1200 mm RCC clear water transmission main from Takkellapadu WTP to Nehrunagar sump.
- c) 900 mm PSC raw water pumping main from Mangalagiri pump house to Takkellapadu.
- d) 800 mm PSC transmission main from Nehrunagar to HLR
- e) 600/450 mm RCC main from Manipuram to BR Stadium/ Nallacheruvu.

Further the water is being transmitted from lowest altitude to the highest altitude through multistage pumping, thus involving huge amounts in power charges.

*** A study is necessary on realistic LS and alignments of all the transmission mains and on possible alternatives, by an independent expert water supply consultant on how to minimize UFW, O&M, transmission costs. The comprehensive study by APUSP can include**

the above aspect. The recommendations have to be implemented immediately.

Storage :

The total storage capacity of all the ELSRs in the city is 29770 KL. The requirement for the projected population of 636509 is 43000 KL.

The present water supply pumping to Guntur town is around 17 MGD (13 MGD from Takkellapadu and 4 MGD from S.J. Mudi) and the net quantity being supplied is around 12 MGD and the UFW as per preliminary analysis is around 29.5 %.

There is large UFW in the 1200mm dia RCC P1 CI transmission main which is being repaired more frequently.

4.2.2 WASTE WATER DISPOSAL:

Proposals

- Construction of new open drains over 228.11 km length along the existing roads and streets.
- Up-gradation of existing Kutcha drains (open drains) over 350.76 km length along the existing roads and streets.
- Construction of UGD for 150.91 km length along the main roads and street in 26 wards.
- Up-gradation of existing UGD for 42.64 km length, along the existing roads and streets in 4 wards.
- Construction of new treatment units at identified areas.
- Apart from the open drains proposed in the internal roads, channelisation of major outfall drains is a major task proposed in city development plan.

4.2.3 SANITATION:

Proposals

- Construction of public toilets at public gathering places and leasing out O&M to private agencies
- Construction of sufficient number of community toilets to avoid open defecation and entrusting maintenance to the community groups
- Providing internal sewer net works with independent treatment in the poor settlements

4.2.4 SOLID WASTE MANAGEMENT:

strategies

- Vermicomposting plants to be constructed effectively to manage garbage, treatment is done in available open sites in each colony. This will reduce cost of SWM and rather “wealth from waste”.
- Door to door collection and segregation of waste at source point.
- Community participation in promotion of vermi composting and private participation in recycling of solid waste
- Proper facilities and effective methodology in collection and transportation of solid waste
- Adopting technology intervention in SWM to generate more municipal revenue

Proposals

- Decentralised vermi composting plants
- Acquiring additional machinery for proper collection and transportation.
- Implementation of door to door collection system and segregation at source
- Development of land fill site
- Inviting Public Private Partnerships in recycling and renewal of solid waste.

4.2.5 STREET LIGHTING

strategies

- Providing adequate number of street poles and lights as per standards
- Installation energy efficient light fixtures without reduction in lumens
- Providing adequate machinery for O&M of street lights
- Addressing Transco for provision of sufficient transformers
- Planning and providing high masts where ever required

Proposals

- Conversion of all light fittings to energy efficient fixtures with the technical guidance from IREDA and NEDCAP
- Regular energy audit and energy saving tips by employing suitable HR
- Exploring the feasibility and implementation of remote operation of street lights

Community requirements

4.2.6 EDUCATION

Strategies

- Providing adequate facilities in the schools such as play grounds, water supply, sanitary, electrical facilities.
- Sufficient number of teachers to be engaged as per student strength

Proposals

- Construction of 21 UP schools by 2021
- Construction of 19 schools buildings for primary schools
- Up gradation of 3 existing high schools with all facilities
- Adding two more high schools by 2021

4.2.7 HEALTH CARE

Strategies

- Providing sufficient number of intermediate hospitals at area level
- Providing required facilities in existing and proposed hospitals

Proposals

- 1 General hospital
- 18 intermediate hospitals phase wise
- 31 health care centers phase wise
- 1 veterinary hospital
- 1 sisu sankshema hospital

4.2.8 PARKS, PLAY GROUNDS & RECREATION

Strategies

- Providing adequate play grounds
- Providing basic facilities in the parks
- Proper maintenance of municipal recreation facilities
- Enforcing maintenance code for private cinema theatres

Proposals

- 21 new parks in open spaces available
- Up gradation of 13 existing parks and facilities
- 22 community halls and libraries
- 8 recreation clubs
- 8 music, dance, drama centers
- 8 meditation and spiritual centers
- 2 Multiplex theatres under PPP
- 1 theme park under PPP
- 1 additional swimming & dive pool

4.2.9 GREENARY

Strategies

- Developing more medians with greenery with involvement of private agencies
- Development water bodies with peripheral greenery
- Encouraging Avenue plantation with public participation
- Designation of specific open spaces as parks

Proposals

- Medians development in 7 major roads
- 23 open spaces to be designated as parks
- Development of Smrthivanam concept
- Green belt along National & state highways
- Development of water body fringes as green patches
- Implementing massive plantation movement in seasons
- Establishing municipal nursery

4.2.10 MARKETS AND COMMERCIAL CENTERS

Strategies

- Decentralisation of Markets to make available to public with in reasonable distance & to ease traffic congestion
- Provision of commercial complexes with modern facilities
- Improve municipal revenues by construction of additional shopping complexes

Proposals

- Construction of full pledged market complex in two town area
- Conversion of existing market complex into modern complex
- Conversion of old shopping complexes into multi faceted commercial centers including multiplex theatres

- Construction of shopping complexes in the municipal vacant lands in the commercial zones

4.3 Institutional Reforms

The most important aspect considered before implementation of any major scheme is Institutional Discipline in Financial matters and the Human Resource matters.

Many reforms are under way and the Guntur Municipal Corporation is thriving in implementing these reforms and already could taste the fruits of these reforms.

The mandatory reforms given for implementation of the IHSDP & UIDSSMT schemes are already at several stages of implementation.

The reforms suggested for the implementation of IHSDP have been endorsed by the Corporation for implementation and these reforms are stipulated as below.

Mandatory Reforms :

Urban Local Body Reforms (at ULB Level)

- i) Adoption of modern, accrual-based double entry system of accounting in Urban Local Bodies.
- ii) Introduction of system of e-governance using IT applications like GIS and MIS for various services provided by ULBs.
- iii) Reform of property tax with GIS, so that it becomes major source of revenue for Urban Local Bodies (ULBs) and arrangements for its effective implementation so that collection efficiency reaches at least 85% within **the Mission period**.
- iv) Levy of reasonable user charges by ULBs/Parastatals with the objective that full cost of operation and maintenance is collected within **the Mission period**. However, cities/towns in North East and other special category States may recover at least 50% of operation and maintenance charges initially. These cities/towns should graduate to full O&M cost recovery in a phased manner.
- v) Internal earmarking within local body budgets for basic services to the urban poor.

vi) Provision of basic services to urban poor including security of tenure at affordable prices, improved housing, water supply, sanitation and ensuring delivery of other already existing universal services of the government for education, health and social security.

State Level Reforms

i) Implementation of decentralization measures as envisaged in Seventy Fourth Constitutional Amendment. States should ensure meaningful association/ engagement of ULBs in planning function of Parastatals as well as delivery of services to the citizens.

ii) Rationalisation of Stamp Duty to bring it down to no more than 5% within the Mission period.

iii) Enactment of community participation law to institutionalize citizen participation and introducing the concept of the Area Sabha in urban areas.

iv) Assigning or associating elected ULBs into “city planning function” over a period of five years; transferring all special agencies that deliver civic services in urban areas and creating accountability platforms for all urban civic service providers in transition.

OPTIONAL REFORMS

i) Repeal of Urban Land Ceiling and Regulation Act.

ii) Amendment of Rent Control Laws balancing the interest of landlords and tenants.

iii) Enactment of Public Disclosure Law to ensure preparation of medium-term fiscal plan of ULBs and release of quarterly performance information to all stakeholders.

iv) Revision of bye-laws to streamline the approval process for construction of buildings, development of sites, etc.

v) Simplification of legal and procedural frameworks for conversion of agricultural land for non-agricultural purposes.

vi) Introduction of Property Title Certification System in ULBs.

vii) Earmarking at least 20-25% of developed land in all housing projects (both Public and Private Agencies) for EWS/LIG category with a system of cross subsidization.

viii) Introduction of computerized process of registration of land and property.

ix) Revision of bye-laws to make rain water harvesting mandatory in all buildings to come up in future and for adoption of water conservation measures.

x) Bye-laws on reuse of recycled water.

xi) Administrative reforms, i.e., reduction in establishment by bringing out voluntary retirement schemes, non-filling up of posts falling vacant due to retirement etc., and achieving specified milestones in this regard.

xii) Structural reforms

xiii) Encouraging Public-Private partnership.

NOTE: States/ULBs will be required to implement the Mandatory Reforms and Optional Reforms within the Mission period. The States/ULBs need to choose at least two Optional Reforms each year for implementation. The details of reforms which have already been implemented and/or proposed to be taken up should be included in the detailed project reports.

5

URBAN POOR

Basic services to the Urban Poor :

5.1 Assessment of existing condition:

For the purpose assessment of the condition of urban poor, surveys have been conducted before the launching of APUSP program in notified slums as well as non notified slums. This survey was carried out on the parameters specific for assessing the Socio, Economic and Infrastructural aspects.

The summary of the survey carried out in 109 notified slums and the 24 non- notified slums is as follows.

TABLE 5.1 STATISTICS OF INFRASTRUTURE IN SLUMS

Parameter	Notified slums	Non notified slums	Total
Slums	109	24	133
Population	179653	12162	191815
BPL	96763	7970	104733
SC population	32550	2281	34831
ST population	6550	1646	8196
Water supply Population without own tap facility	137823	11800	120023
Storm Water Drains length of storm water drains needed	361048 mtr	48010 mtr	409058 mtr
Pucca drains existing	91488 mtr	4973 mtr	96461 mtr
Drains to be constructed	269560 mtr	43037 mtr	312597 mtr
Roads Total length of roads	186522 mtr	24320 mtr	210842 mtr
Pucca roads existing	26431 mtr	1835 mtr	28266 mtr
Pucca Roads to be laid	160091 mtr	22485 mtr	182576 mtr
Street lights			

Total required	6326 nos	841 nos	7167 nos
existing	4386 nos	399 nos	4785 nos
to be provided	1940 nos	442 nos	2382 nos

5.2 Ongoing reforms :

Through the implementation of the APUSP scheme under DFID Program some of the slums could be provided with the basic facilities. The selection of the slums is also been done through the scientific approach with the involvement of stakeholders. The survey of the existing scenario has been formulated into the matrix and the prioritization has been done based on the Poverty & Vulnerability condition and the Environmental Infrastructure deficiency aspects.

This APUSP scheme could be implemented in three stages so far and a total 43 slums out of 143 slums could be provided with the basic facilities. The details of works carried out in the three stages of APUSP scheme are as under.

TABLE 5.2 Out come of the schemes meant for urban poor

	B MAPP	C MAPP	C MAPP 2nd cycle	Total
Slums	12	13	12+6	43
Population	15549	14051	13942	43542
Water supply (population benefited)	15549	14051	13942	43542
Storm Water Drains	27108 mtr	29483 mtr	37954 mtr	94545 mtr
Roads	17596 mtr	17003 mtr	22519 mtr	57118 mtr
Street lights	-	-	-	-

5.3 Gap analysis :

Even after due importance is given to provision of basic facilities in the slums there is a lot to be done in this sector. The reason being the large number of slums in Guntur i.e. 143. This figure is huge when compared to many cities in AP.

This is the reason the Guntur needs special attention in addressing the problems of Urban poor even after the schemes like APUSP.

The gaps still to be addressed in providing basic facilities in slums is as follows

TABLE 5.3 Assessment of infrastructure to be provided

	Total to be covered as per survey	Covered in APUSP	Covered with GMC funds	Balance to be covered
Slums	143	43		100
Population	191815	43542		148273
Water supply (population benefited)	120023	43542	30000	46481
Storm Water Drains	312597 mtr	94545 mtr	15000 mtr	203052 mtr
Roads	182576 mtr	57118 mtr	9000 mtr	116458 mtr
Street lights	2382	-	1000	1382

5.4 Housing to the Urban Poor :

Another important sector which to be addressed while providing basic services to the Urban poor is the Housing.

The survey reveals that out of the total 35788 House holds in 143 poor settlements about 22000 house holds are living in kutcha / semi kutcha dwellings. Therefore all the 22000 slum dwellers are eligible for provision of shelter including up gradation and construction of new houses.

6

City Investment Plan

&

Financing Strategies

6.1 Proposals for slum Development

Integrated Housing & Slum Development Program

(IHSDP)

Integrated Housing & Slum Development Program aims at combining the existing schemes of VAMBAY and NSDP under the new IHSDP Scheme for having an integrated approach in ameliorating the conditions of the urban slum dwellers who do not possess adequate shelter and reside in dilapidated conditions

The basic objective of the Scheme is to strive for holistic slum development with a healthy and enabling urban environment by providing adequate shelter and basic infrastructure facilities to the slum dwellers of the identified urban areas.

The components for assistance under the scheme will include all slum improvement/ up gradation/ relocation projects including up gradation/ new construction of houses and infrastructural facilities, like, water supply and sewerage.

6.1.1 Admissible Components

- i) Provision of shelter including up gradation & construction of new houses.
- ii) Provision of community toilets.
- iii) Provision of physical amenities like water supply, storm water drains, community bath, widening and paving of existing lanes, sewers, community latrines, street lights, etc.
- iv) Community Infrastructure like provision of community centers to be used for pre-school education, non-formal education, adult education, recreational activities, etc.
- v) Community Primary Health Care Center Buildings can be provided.
- vi) Social Amenities like pre-school education, non-formal education, adult education, maternity, child health and Primary health care including immunization, etc.
- vii) Provision of Model Demonstration Projects.
- viii) Sites and Services/houses at affordable costs for EWS & LIG categories.
- ix) Slum improvement and rehabilitation projects.
- x) Land acquisition cost will not be financed

Note: DPRs will have to be prepared by the implementing agencies for funding under IHSDP including specific project components, viz, health, education and social security.

However, the schemes of health, education and social security will be funded through convergence of schemes and dovetailing of budgetary provisions available under the programs of the respective sectors (Health, Human Resource Development, Social Justice and Empowerment and Labour, etc.), but will also be monitored by the Ministry of Urban Employment & Poverty Alleviation in so far as urban poor are concerned.

6.1.2 Summary of proposals under IHSDP

TABLE 6.1.1 SUMMARY OF PROPOSALS UNDER IHSDP

Sector	Est Amount (Rs in lakhs)
Water supply	336.08
Roads	2817.12
Drains	1458.12
Street lights	35.00
Community toilets	360.00
Independent sewerage system	653.97
Community infrastructure	665.00
Housing	18024.00
Total	24349.29

Say 243.50 Crores

6.1.3 Financing Pattern

- i) The sharing of funds would be in the ratio of 80:20 between Central Government & State Government/ULB/Parastatal. States/Implementing Agencies may raise their contribution from their own resources or from beneficiary contribution/ financial institutions.
- ii) Funds from MPLAD/MLALAD could be canalized towards project cost and to that extent State share could be suitably reduced. However, MPLAD/MLALAD fund would not substitute beneficiary contribution.
- iii) The scheme will be implemented through a designated State level nodal agency.
- iv) In case Externally Aided Project (EXP) funds are available, these can be passed through as ACA to the State Govt. as funds contributed by State/ULBs/FIs.

6.1.4 Sector wise Proposals under IHSDP

Water supply : Rs 336.08 lakhs

TABLE 6.1.2 WATER SUPPLY PROPOSALS UNDER IHSDP

Description of proposal	Quantity	rate	Est Amount Rs in lakhs
Distribution net work	68990 rmt	Rs 400/ rmt	275.96
Making connections under Rs1200 per tap scheme	10020 nos	Rs 600/ each	60.12
Total			336.08

Roads : Rs 2817.12 lakhs

TABLE 6.1.3 ROADS PROPOSALS UNDER IHSDP

Description of proposal	Quantity	rate	Est Amount Rs in lakhs
Laying of pucca roads	116460 rmt	Rs 2200/ rmt	2562.12
Providing approach roads	8500 rmt	Rs 3000/ rmt	255.00
Total			2817.12

Drains : Rs 1458.12 lakhs

TABLE 6.1.4 DRAINS PROPOSALS UNDER IHSDP

Description of proposal	Quantity	rate	Est Amount Rs in lakhs
Construction of pucca drains	221020 rmt	Rs 600/ rmt	1326.12
Construction of offsite out fall drains	11000 rmt	Rs 1200/ rmt	132.00
Total			1458.12

Street lights : Rs 35.00 lakhs

TABLE 6.1.5 STREET LGHTS PROPOSALS UNDER IHSDP

Description of proposal	Quantity	rate	Est Amount Rs in lakhs
Providing street lights	1400 rmt	Rs 2500/ rmt	35.00
Total			35.00

Community toilets : Rs 360.00 lakhs

TABLE 6.1.6 COMMUNITY TOILETS PROPOSALS UNDER IHSDP

Description of proposal	Quantity	Rate	Est Amount Rs in lakhs
Construction of community toilets	120 nos	Rs 3.00 lakhs	360.00
Total			360.00

Independent sewerage system : Rs 653.97 lakhs

This provision is made for those poor settlements which are distant from the city and where the main stream sewerage system can not be connected due to economical and technical reasons.

TABLE 6.1.7 INDEPENDENT SEWERAGE SYSTEM PROPOSALS UNDER IHSDP

Description of proposal	Quantity	Rate	Est Amount Rs in lakhs
Laying sewerage lines	61330 rmt	Rs 900/ rmt	551.97
Construction of septic tanks	34 nos	Rs 3.00 lakhs	102.00
Total			653.97

Providing accommodation and infrastructure for Schools/ community centers/ Primary Health Care Centers/ Model Demonstration Project
: Rs 665.00 lakhs

TABLE 6.1.8 SCHOOL INFRASTRUCTURE PROPOSALS UNDER IHSDP

Description of proposal	Quantity	Rate	Est Amount Rs in lakhs
Construction of building	133 nos	Rs 4.00 lakhs	532.00
Providing relevant infrastructure	133 nos	Rs 1.00 lakhs	133.00
Total			665.00

Housing : Rs 18024.00 lakhs

TABLE 6.1.9 HOUSING PROPOSALS UNDER IHSDP

Description of proposal	Quantity	Rate	Est Amount Rs in lakhs
Number of houses proposed	22530 rmt	Rs 0.80 lakhs	18024.00
Total			18024.00

6.2 Proposals for Integrated Development of City Infrastructure

Urban Infrastructure Development Scheme for Small & Medium Towns

(UIDSSMT)

Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT) is a convergence scheme for the existing IDSSMT with extended features towards providing urban infrastructure in all sectors for overall integrated development of the city.

The components proposed for assistance under this scheme include all developmental activities in all sectors dealt by the Municipal Corporation. The proposals are made to be implemented in a phased manner to suit the Financing pattern. This enables reviewing the out come of implementation and further improvising the proposals.

6.2.1 Components Proposed

- i) Water supply – achieving self sufficiency as envisaged in the *Vision* and to over come the draw backs in the existing system.
- ii) Traffic & Transportation - implementing Traffic management measures and Traffic engineering measures for easing out congestion for the ultimate population requirements
- iii) Waste water disposal -

Sewerage system - Coverage of entire city with under ground drainage scheme and safe disposal of effluents with proper treatment

Storm water drains - Coverage of entire city with storm water drains to avoid inundation and stagnation of water causing unhygienic conditions.
- iv) Sanitation - Providing sanitation facility to all the citizens as well as floating population to improve the sanitation look of the city
- v) Solid waste management - implementation of effective collection, transportation, disposal of garbage and implementing methods of recycling to attract revenue.
- vi) Street lighting - Provision of effective avenue illumination with appropriate energy savings initiatives and cost cutting methods in O&M.
- vii) Education - Construction of new school building and strengthening of existing one. Providing sanitation, water supply and electricity facilities.
- viii) Health care - Provision of health care centers with infrastructure as per the requirements of ultimate population.
- ix) Parks, play grounds and recreation centers - Development of open spaces into parks, up gradation of existing parks, provision of community halls, recreational clubs, music dance drama centers, meditation and spiritual centers.

- x) Markets, commercial centers - Construction of modern commercial complexes in heart of the city, markets with approach to all parts of the city, Multiplex complexes etc.

6.2.2 Summary of proposals under UIDSSMT

TABLE 6.2.1 SUMMARY OF PROPOSALS UNDER UIDSSMT

Sector	Est Amount (Rs in lakhs)
Water supply	6075.00
Traffic Transportation & Roads	3583.00
Sewerage system	7750.00
Storm water drains	5044.00
Solid waste management	935.00
Street lights	400.00
Sanitation	540.00
Education infrastructure	546.20
Health care	583.00
Parks and Play Grounds	895.00
Greenery and protection of water bodies	700.00
Markets, commercial centers	3200.00
Total	30251.20

say Rs 302.50 crores

6.2.3 Financing Pattern

- i) The sharing of funds is proposed to be in the ratio of 80:20 between Central Government & State Government/ULB/Parastatal. States/Implementing Agencies may raise their contribution from their own resources or from beneficiary contribution/ financial institutions.

ii) The phasing of implementation of the scheme is

short term & immediate needs in all sectors : 50% by
2010

Medium term proposals for prospective
population requirements in all sectors : 30% by
2015

Long term proposals for ultimate
population requirements in all sectors : 20% by
2020

6.2.4 Sector wise Proposals under UIDSSMT

Water supply : Rs 6075.00 lakhs

TABLE 6.2.2 WATER SUPPLY PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Redesigning of distribution system to avoid low pressure in all reservoir zones as short term proposal	200.00
Construction of ELSR at 5 locations i.e SVN Colony, NGO Colony, RTC Colony, IPD Colony and Amaravathi Road with necessary pumping stations and transmission mains	750.00
Providing W.S. distribution feeders to peripheral parts of the city	150.00
Extension of distribution lines in unserved areas	250.00
To provide cement lining and bunding to the Guntur Channel which assures uninterrupted source during summer also	600.00
Construction of Summer storage tank or exploring other alternate perennial source	2200.00
Replacement of Booster Pump sets at various locations including ancillary electrical and civil works	70.00
Improvements to SS Tank (1824 ML) at SJ Mudi like Deepeneing, Strengthening of Bunds, Revetment/Lining, Fencing etc.	400.00
Refurbishing of 27" CI Pumping Main from SJ Mudi to Guntur (2.00 Km)	350.00
Providing flow meters at all strategic points to check UFW	75.00

Providing consumer meters to all connections as part of implementation of 24 x 7 water supply	400.00
Providing water quality monitoring laboratories at WTPs and chlorination plants at all reservoir premises	30.00
Construction of additional storage facilities like sumps and ELSRs as part implementation of 24 x 7 water supply	600.00
Total	6075.00

Traffic, Transportation & Roads : Rs 3583.00 lakhs

TABLE 6.2.3 TRAFFIC, TRANSPORTATION ROADS PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Major roads widening and improvement	535.00
Improvement of road junctions	243.00
Strengthening of existing CC & BT roads	1905.00
Providing Road markings, Traffic signs, Central median, parking, Footpath	250.00
Development of new link roads	650.00
Total	3583.00

Sewerage system : Rs 7750.00 lakhs

TABLE 6.2.4 SEWERAGE SYSTEM PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Coverage of sewerage system for block 3 area of the city with separate treatment plant	6400.00
Strengthening existing sewerage system	650.00
Renovation of existing sewage treatment plant at Suddapalli donka	700.00
Total	7750.00

Storm water drains : Rs 5044.00 lakhs

TABLE 6.2.5 STORM WATER DRAINS PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Construction of new open drains over 228 km length along the existing roads and streets.	1254.00
Up-gradation of existing Kutcha drains (open drains) over 350 km length along the existing roads and streets.	1575.00
Channelisation of major outfall drains	2215.00
Total	5044.00

Solid waste management : Rs 935.00 lakhs

TABLE 6.2.6 SOLID WASTE MANAGEMENT PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Improvement of fleet for collection and transportation of garbage.	250.00
Implementation of door to door collection system and segregation at source	45.00
Promoting vermi composting process by creating facilities	150.00
PPP initiation for recycling process	40.00
Development of land fill site	450.00
Total	935.00

Street lights : Rs 400.00 lakhs

TABLE 6.2.7 STREET LIGHTS PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Provision of 5300 new poles and light fixtures	265.00
Providing adequate machinery for O&M of street lights	30.00
providing 50 high masts lights	75.00
PPP initiation for installing energy savers and remote control operation of street lighting	30.00
Total	400.00

Sanitation : Rs 540.00 lakhs

TABLE 6.2.8 SANITATION PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Construction of 15 public toilets at public gathering places	90.00

Construction 150 community toilets to avoid open defecation 450.00

Total 540.00

Education infrastructure : Rs 546.20 lakhs

TABLE 6.2.9 EDUCATION INFRASTRUCTURE PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Construction of 21 UP schools	168.00
Construction of 19 schools buildings for primary schools	76.00
Up gradation of 3 existing high schools with all facilities	60.00
Construction of two new high schools	100.00
Providing water supply facilities in 31 schools	6.20
Providing sanitation facilities 50 schools	25.00
Providing electrical facilities in 73 schools	22.00
Providing play equipment in all schools	89.00
Total	546.20

Health care : Rs 583.00 lakhs

TABLE 6.2.10 HEALTH CARE PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Provision of one General Hospital	200.00
Provision of 18 intermediate hospitals	162.00
Provision of 31 health care centers	186.00
Provision of 1 veterinary hospital	20.00
Provision of 1 sisu sankshema hospital	15.00
Total	583.00

Parks and Play Grounds : Rs 895.00 lakhs

TABLE 6.2.11 PARKS & PLAY GROUNDS PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
-------------------------	------------------------

up gradation of 13 existing parks	52.00
provision of 22 community halls	198.00
Provision of 8 recreational clubs	80.00
Provision of 8 music dance drama centers	80.00
Development of theme park	50.00
Provision of 8 meditation and spiritual centers	40.00
Provision of one swimming and dive pool	80.00
Provision of 21 new parks	315.00
Total	895.00

Greenery and protection of water bodies : Rs 700.00 lakhs

TABLE 6.2.12 GREENARY PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Medians development in 7 major roads	175.00
Development of Smrthivanam concept	100.00
Green belt along National & state highways	60.00
Development of 8 water body fringes as green patches	240.00
Implementing massive plantation movement in seasons	60.00
Provision of 8 meditation and spiritual centers	40.00
Establishing municipal nursery	25.00
Total	700.00

Markets, commercial centers : Rs 3200.00 lakhs

TABLE 6.2.13 MARKETS & COMMERCIAL CENTERS PROPOSALS UNDER UIDSSMT

Description of proposal	Est Amount Rs in lakhs
Construction of additional full pledged market complex in two town	700.00
Conversion of existing market complex into modern complex	700.00
Conversion of old shopping complexes into multi faceted commercial centers including multiplex theatres	1000.00
Construction of shopping complexes in the municipal vacant lands in the commercial zones	800.00
Total	3200.00

*****THE END*****