

**CITY CORPORATE CUM BUSINESS PLAN**

**FINAL REPORT**

**BODINAYAKANUR MUNICIPALITY**

**August, 2008**

**Sponsored by**

**Tamil Nadu Urban Infrastructure Financial Services Limited**

**Government of Tamil Nadu**

**Consultants**

**FICHTNER Consulting Engineers (India) Private Ltd.**

**Chennai – 600 028**

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## Abbreviation and Acronyms

ANM	:	Auxiliary Nurse Midwife
BOT	:	Build, Operate and Transfer
BPL	:	Below Poverty Line
BSUP	:	Basic Services for Urban Poor
CAA	:	Constitution Amendment Act
CAGR	:	Compounded Annual Growth Rate
CC	:	Cement Concrete
CCP	:	City Corporate Plan
CBED	:	Community Based Energy Development
CDP	:	City Development Plan
CFC	:	Central Finance Commission
CIP	:	Capital Investment Plan
CPHEEO	:	Central Public Health & Environmental Engineering Organization
CPM	:	Consultative Process Meeting
D&O	:	Dangerous and Offensive Trade
DFR	:	Draft Final Report
DPR	:	Detailed Project Report
EAR	:	Environmental Assessment Report
ECR	:	East Coast Road
ESF	:	Environmental and Social Framework
ETRP	:	Emergency Tsunami Reconstruction Project
FY	:	Financial Year
FOP	:	Financial Operating Plan
GLR	:	Ground Level Reservoir
G.S.T Road	:	Grand South Trunk Road
Gm	:	Grams
GoTN	:	Government of Tamil Nadu
Ha	:	Hectares
HP	:	Horse Power
HSC	:	House Service Connection
IHSDP	:	Integrated Housing & Slum Development Programme
IPT	:	Intermediate Public Transport
ISP	:	Integrated Sanitation program
IUDP	:	Integrated Urban Development Project
JNNURM	:	Jawaharlal Nehru National Urban Renewal Mission
Kg	:	Kilogram
Km	:	Kilometer
LAP	:	Local Assistance Programme
LCS	:	Low Cost Sanitation

LI	:	Lakh Litres
LPA	:	Local Planning Area
Lpcd	:	Liters Per Capital per day
M	:	Metres
MIAM	:	Municipal Infrastructure Asset Management
ML	:	Million Litres
MLD	:	Million Litres per day
MSW	:	Municipal Solid Waste
NGO	:	Non Governmental Organisation
NH	:	National Highway
Nos	:	Numbers
OHT	:	Over Head Tank
O&M	:	Operation and Maintenance
PAP	:	Project Affected Persons
PHC	:	Primary Health Center
PPI	:	Pulse Polio Immunization
PPP	:	Public Private Partnership
PWD	:	Public Works Department
SFC	:	State Finance Commission
SH	:	State Highway
SHG	:	Self Help Group
Sq.km	:	Square Kilometers
SST	:	Summer Storage Tank
STP	:	Sewage Treatment Plant
SWM	:	Solid Waste Management
TEAP	:	Tsunami Emergency Assistance Project
TNEB	:	Tamil Nadu Electricity Board
TNRDC	:	Tamil Nadu Road Development Corporation
TNSCB	:	Tamil Nadu Slum Clearance Board
TNUDP	:	Tamil Nadu Urban Development Project
TNUIFSL	:	Tamil Nadu Urban Infrastructure Financial Service Limited
TPD	:	Tonnes Per Day
TUFIDCO	:	Tamil Nadu Urban Finance and Infrastructure Development Corporation
TWAD	:	Tamil Nadu Water Supply and Drainage Board
UA	:	Urban Area
UGD	:	Under Ground Drainage
UIDSSMT	:	Urban Infrastructure Development Scheme for Small & Medium Towns
ULB	:	Urban Local Body
VAMBAY	:	Valmiki Ambedkar Awas Yojana
WBM	:	Water Bound Macadem
WSP	:	Waste Stabilization Pond
WTP	:	Water Treatment Plant

## **EXECUTIVE SUMMARY**

### **BODINAYAKANUR MUNICIPALITY**

The objectives of preparation of City Corporate cum Business Plan (CCCBP) for ULBs are:

- i. To assess the present status of infrastructure facilities available in the ULB and to suggest a comprehensive infrastructure plan with capital investment plan to meet the future needs.
- ii. To outline issues in revenue realization in the ULB and suggest measures for revenue enhancement & financial improvement in the ULB
- iii. In consultations with Stake holders and Council, suggest Action Plan and FOP to implement the infrastructure plan.

### **TOWN PROFILE AND GROWTH POTENTIAL**

Bodinayakanur is a first grade municipal town situated in Theni District. It is located on Theni - Munnar Road (NH-49). The town extends over an area of 7.23 sq.km, holding a population of 73,410 (2001). Agriculture and allied activities form the economic base of the town. About 46% of the total town area is being utilized for agriculture and 42% of the working population is engaged in agriculture and allied activities.

### **INFRASTRUCTURE**

#### **Water Supply:**

The source for water supply is Kottagudi and Sambalar Rivers located 16 km away from the municipal town and the municipality supplies water daily at the rate of 75 lpcd. Inadequate water supply, low pressure in elevated areas and deficiency in storage capacity are some of the issues in the water supply system. For improvement of water supply, the municipality has proposed Improvements at a cost of Rs.241.88 lakhs and the works are nearing completion. In addition to this, it is proposed to construct OHTs and purchase of mini power pumps and water tanker at a cost of Rs.107.00 lakhs.

#### **Sewerage:**

The town does not have an UGSS. Disposal of Sewage is usually by way of individual facility (Septic Tank) and the sullage is discharged through the open drains. The TWAD Board has taken up the preparation of DPR for the UGSS. The estimated cost for the UGSS will be Rs 2828.00 lakhs.

## **Storm Water Drains**

The length of the storm water drain existing in the town is 66.01 km against 68.88 km length of roads. Damaged drains, missing links in network and untreated effluent disposal are some of the issues in storm water drain. To improve the existing situation, it is proposed to upgrade the existing drains at a cost of the Rs.228.00 lakhs. Besides, the ULB proposes to rehabilitate the Raja Vaikkal at a cost Rs.20.00 lakhs to improve the water quality in the town.

## **Solid Waste Management**

It is estimated that the town generates 20.5 MT of solid waste of which about 100% is collected every day. The issues identified are littering of waste along the main roads, absence of infrastructure facilities in compost yard and inadequate municipal staff. For the improvement on solid waste management purchase of tricycle, dumper placer with bin and development of compost yard are proposed at a cost of Rs.38.00 lakhs

## **Roads and Bridges**

The municipality maintains 68.88 km length of roads, besides Highways, BT roads constitute 60%, followed by CC road 18% of the total network. Renewal of BT roads (41.53 km) and upgradation of roads (10km) at a cost of Rs.313.00 lakhs have been proposed. Further, the improvement of the existing bus stand is proposed at a cost of Rs.85.00 lakhs.

## **Street Light**

Of the total street lights (1876), 97.5% are tube lights and the rest are sodium vapour lamps. The proposals are provision of additional energy saver lights and sodium vapour lamps at a cost of Rs 47.00 lakhs.

## **SOCIAL INFRASTRUCTURE:**

### **Slum Improvement:**

On slum improvement, the Municipality under IHSDP has proposed provision of basic amenities in 11 Slums of the town at a cost of Rs.276.00 lakhs.

### **Medicare**

The municipality maintains one Reproductive and child Health Centre. Inadequate staff is the main issue faced by the municipality. Steps can be taken to fill the post of the Health Officer so that number of patients will make use of RCH thereby improving the health facilities available in the town.

## Education

The Municipality owns and maintains 4 schools. The Municipality proposes improvements to educational institutions at a cost of Rs.19.00 lakhs

Further, improvement of parks & play grounds, daily market and other projects are also proposed at a total cost of Rs.337.50 lakhs

## B) Remunerative Projects

Construction of shops, sanitary workers quarters, staff quarters, travellers bungalow and purchase of mobile tax collection vehicle are proposed at a cost of Rs.103.00 lakhs.

## Municipal Finance

The total income of the municipality has increased from Rs. 277.13 lakhs to Rs.410.94 lakhs during the period 2001-02 to 2006-07 and the total expenditure incurred is Rs.307.09 lakhs to 372.94 lakhs during the above period. It is observed that the Municipality has incurred net deficit in three out of the last six years ended 2006-07. This suggests that the Municipality need to undertake lot of fiscal reforms and full leverage of its assets over the next few years to improve its financial strength.

## Capital Investment and Priority Projects

In consultation with the stakeholders of the town and based on their vision statement, the priority projects with capital investment are given below.

### Multi Year Investment Plan

S.No.	Projects	Amount	Year 1	Year 2	Year 3	Year 4	Year 5
		(Rs. in lacs)					
<b>Physical Infrastructure Facilities</b>							
1	Water Supply	107.00		107.00			
2	Sewerage	2828.00		1744.33	1083.67		
3	Storm Water Drains	228.00			50.00	98.00	80.00
4	Water Bodies	20.00				20.00	
5	Solid Waste Management	38.00	38.00				
6	Roads	313.00			70.00	104.42	138.58
7	Bus Stand	85.00	15.00	20.00	50.00		
8	Street Lights	47.00		47.00			
9	Slum Improvement	276.40		81.00	51.40	90.00	54.00
10	Education	19.00	19.00				
11	Parks & Playgrounds	45.00		15.00			30.00

12	Public Convenience	60.00		20.00	20.00	20.00	
13	Burial Ground	10.00		10.00			
14	Market	200.00	100.00	100.00			
15	Slaughter house	20.00	20.00				
16	Urban Greenary	2.50				1.25	1.25
17	Remunerative projects	40.00		40.00			
18	Other Projects	63.00	8.00			30.00	25.00
19	Updation of Database	45.00					45.00
	<b>Total</b>	<b>4446.90</b>	<b>200.00</b>	<b>2184.33</b>	<b>1325.07</b>	<b>363.67</b>	<b>373.83</b>

## Reform Agenda

The proposed municipal reforms are broadly classified under the heads of:

### 1. Reforms in Taxation

- Assessing unassessed and under assessed properties
- Implementation of Property tax revision

### 2. Reforms in resource mobilization

- Implementing metered water supply connections
- Pre-mobilization of deposits for the proposed UGSS project
- Implementing graded tariff for UGSS
- Implementation of Conservancy fee for SWM for hotels, marriage halls, industries and other commercial establishments
- Pre-mobilization of deposit to meet capital cost of the commercial complex

### 3. Reforms in Privatisation of Municipal functions

- Privatisation of Collection mechanism through private operators and SHGs
- Privatisation of O & M of water supply system, O & M of the Sewer network & STP
- Privatisation of door to door collection of solid waste in all wards
- Privatisation of Compost yard management and produce of compost
- Regularisation of parking areas & advertisement boards and collection of fees through private agencies and SHGs
- Privatisation of O & M of street lights

### 4. Reforms in Audit and Accounting

- Timely auditing of accounts - August 30<sup>th</sup> of next fiscal year
- Appointing a private Chartered Accountant as consultant
- Publishing audited statement in municipal website - September 30<sup>th</sup> of next fiscal year

### 5. Regular and mandatory capacity buildings sessions for elected representatives & municipal officials

### **FOP, Borrowing capacity and Investment Capacity**

The borrowing capacity is based on the Income and expenditure projections including debt severing of existing loans as of financial year 2007. The summary of borrowing and investment capacity of the Bodinayakanur Municipality is as follows

Borrowing capacity (BC)	Rs. 1737.52 lakhs
Investment capacity (BC/0.50) (IC)	Rs. 4572.41 lakhs
Investment Requirement (IR)	Rs. 4446.90 lakhs
Sustainable investment Capacity	= 103%

At an aggregate level, assuming loans to be equivalent to 38% of investment, the sustainable investment capacity works out to Rs. 4572.41 lakhs, which is about 103% of the total investment requirement.

Thus while loans and own funds should be used to finance remunerative projects, Bodinayakanur should leverage and utilize Grants from schemes like UIDSSMT and IHSDP to undertake non-remunerative projects relating to slum development, canal desilting etc. Further, Bodinayakanur should also consider involvement of private sector in implementing remunerative projects.

## CONTEXT, CONCEPT AND CONTENTS OF CCCBP

### 1.1 CONTEXT OF THE STUDY

The Government of India has received a loan equivalent to US \$300 millions from the World Bank towards the cost of Third Tamil Nadu Urban Development Project (TNUDP III) which comprises, in turn a number of components including preparation of City Corporate cum Business Plans for eligible urban centres in Tamil Nadu. The Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) of Tamil Nadu Urban Development Fund (TNUDF) is a financial intermediary which, inter alia intends to assist select urban centres in strengthening and improving their resource positions for effective Capital Investment Management and delivery of urban services. TNUIFSL has identified urban local bodies which have good potential for implementation of such financial reforms immediately, and for such towns, TNUIFSL considered it essential to formulate City Corporate cum Business Plans (CCCBP). Incidentally, such urban local bodies had recently prepared the Vision Plans which encompass projects that were felt necessary, and it is broadly required now to assess the need and feasibility of these projects and while updating them, prepare Capital Investment Plan on a sustainable mode.

### 1.2 Objectives

The objectives of the study include:

- Defining the directions of growth and up gradation of services relevant to economic activities and development.
- Examination of the need for the projects identified by the Urban Local Bodies, and assessment of the demand in terms of gaps either as deficiency or as excess.
- Studying the status of essential urban infrastructural services and outlining broadly the needs.
- Defining specific rehabilitation and capital improvement needs of infrastructural facilities and services in all parts of the urban areas including slums.
- Analysis of improvement techniques and methods to enhance the local bodies' resource positions and improve the management system that would sustain the proposed rehabilitation programmes.

- Identification of reforms required in administration and service delivery system of the urban local body.
- Studying improvements / changes required in the ULB setup to improve the O&M of assets.
- Identifying measures to address overall growth measures including service needs in a sustainable mode.

### **1.3 REVIEW MEETING FOR INTERIM REPORTS**

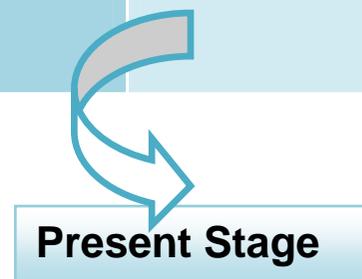
On submission of the Draft Final Report (Stage-III), the review meeting was held at TNUIFSL, T,Nagar, Chennai on 18.5.08 for Cluster II covering Periyakulam, Chinnamanur, Cumbum, Bodinayakanur, Usilampatti, Melur, Tirumangalam, Paramakudi, Devakottai, Aranthangi Municipalities. The minutes of the meeting and the consultants reply are given below:

The consultants were asked to:

Points raised in the minutes of meeting	Reply / Remarks
1. According to the recent order by CMA, deposits and tariffs should be increased by 15% once in 3 years. Hence, the consultants were requested to consider the same in the FOP.	The suggestions have been considered and applied to the FOP projections- We have assumed increase @ 15% once in every 5 years in the financial projections for property tax, profession tax, water and sewerage charges. This is based on the discussions we had in your office at the various meetings.
2. Rate of Taxation is proposed to be increased in all the towns and the expected increase is in the range of 25% to 40%. Hence, it was informed to the consultants that a gradual revision of tax from 25% in the first year, 30% in the second year, 35% in the third year and 40% in the fourth year and thereafter may be considered for the purpose of FOP projections.	The rate of taxation has been analyzed and updated for all the 10 towns - 25% increase assumed in all towns based on Govt. notification. Besides in certain municipalities with very low property tax rates we have assumed further increase based on suggestion by RDMA in the meeting.
3. Maternity centers were suggested by the consultant in towns and it was clarified by RDMA that Maternity centers would be handled by maternity assistants and Maternity homes will be handled by maternity doctors. Hence, the consultants were asked to study and suggest maternity homes wherever required.	Maternity homes in lieu of maternity centres have been suggested for Paramakudi.
4. The consultants were asked to revise the project cost with the latest figures available with the ULB preferably with the current schedule of rates.	The project costs, project status have been updated after discussions with the respective Municipalities.
5. The consultants had considered improved scenario for preparation of FOP projections. In this regard, it was discussed that the consultants may give the base scenario as well in the report and indicate the improvements to the FOP between the two due to implementation of reforms suggested.	The two scenarios as suggested have been worked out and furnished in Chapter-8. The improvement in sustainability of projects due the proposed reforms are given in percentage basis .
6. Wherever funds are tied up for projects, the consultants were asked to incorporate the means of finance in the FOP based on sanctions.	The means of Finance for sanctioned projects have been incorporated accordingly.
7. It was discussed that UGSS projects may be considered only after implementation of WS scheme and the consultants were asked to revise the priorities accordingly.	Since done. Refer Chapter-7 Table 8.2 Multiyear Investment Plan.
8. It was discussed that CWSS will be taken up by TWAD for implementation on a parallel basis and hence the consultants were requested to consider CWSS projects simultaneously in respective towns	The suggestions have been considered and proposed accordingly for the respective towns.
The points raised during the last meeting but not addressed by the consultants in the report are as follows:	
9. Including 24 X 7 water supply proposal for Periyakulam municipality as water is available in adequate.	The feasibility of the proposals was analysed by the Infrastructure specialist and the recommendations have been incorporated in the Draft Final and the Final Reports.
10. Including risk assessment and mitigation plan in the report specific to the town.	Project specific, town specific risks and mitigation measures for key projects included in the Draft Final and the Final Reports. Refer Chapter-7.
11. Identifying and suggesting more improvements to Paramakudi municipality as plenty of lands are available in the municipality unlike other municipalities.	The list of ULB owned lands from Schedule -1 have been identified and projects wherever feasible have been suggested and incorporated in the Draft Final and Final reports. Refer Chapter -9.

**Road map for City Corporate cum Business Plan**

<b>Stage I</b> <b>Inception Report</b>	<b>Stage II</b> <b>Interim Report</b>	<b>Stage III</b> <b>Draft Final Report</b>	<b>Stage IV</b> <b>Final Report</b>
<b>Town reconnaissance and Data collection.</b>	<b>Consultations and Analysis</b>	<b>Finalization of CIP and FOP</b>	<b>Adoption by Council</b>
<b>➡ Modules :</b> - Demand Assessment - Rapid Urban Assessment	<b>➡ Modules :</b> - Strategic Plan, - CIP and - Priority asset management - Project risk, ESR	<b>➡ Modules :</b> - Policy interventions - Technical Assistance - Draft MoA - FOP	<b>➡ Modules:</b> - Council Resolution - MoA
<b>Deliverables</b> <b>9 weeks</b>	<b>Deliverables</b> <b>18 weeks</b>	<b>Deliverables</b> <b>23 weeks</b>	<b>Deliverables</b> <b>24 weeks</b>



## TOWN PROFILE, PHYSICAL PLANNING AND GROWTH MANAGEMENT

### 2.1 REGIONAL SETTING

Bodinayakanur town is situated 88 km west of Madurai city and 15 km west of Theni Allinagaram town along the Theni- Munnar National Highway (NH 49). Bodinayakanur is situated at the foot-hill of Western Ghats and is popularly known as a 'Cardamom town'. It is the Taluk headquarter for the newly formed Bodinayakanur Taluk. It is accessible by road and rail from Dindigul and Madurai. The town is situated at 10° 01' North latitude and 77° 21' East longitude. The town has a population of 73410 as per 2001 census, spread over an area of 7.23 sq.km. The regional setting and the town map is shown in Fig 2.1 & 2.2.

### 2.2 PHYSICAL FEATURES

The location and growth of the town is closely linked to the Kottagudi River, which forms the northern boundary of the town. The Raja channel, natural storm water drainage bisects the town along north - south east. The town is picturesque with a back drop of rolling hills and fertile meadows. The town has developed along the south eastern part, with agricultural lands retained on the north and west. The contour of the town varies from + 340m to + 352m. The soil in the town is generally black soil and red soil. The topography of the terrain slopes from east to west and also from south to north.

### 2.3 CLIMATE AND RAINFALL

Bodinayakanur enjoys a pleasant climate owing to its location along the foot of Western Ghats. The mean temperature of the town is 30°C. The average annual rainfall of the town is 780mm.

### 2.4 HISTORY OF THE MUNICIPALITY

Bodinayakanur Municipality was constituted in 1916 as a Grade III Municipality, which was later upgraded to a Grade II Municipality in 1966. In 1998, Bodinayakanur was upgraded to the present status of Grade I Municipality. At present, the Municipality functions with an elected council of 33 ward councilors and a Chairman.

## 2.5 DEMOGRAPHIC FEATURES

### 2.5.1 Population and its growth

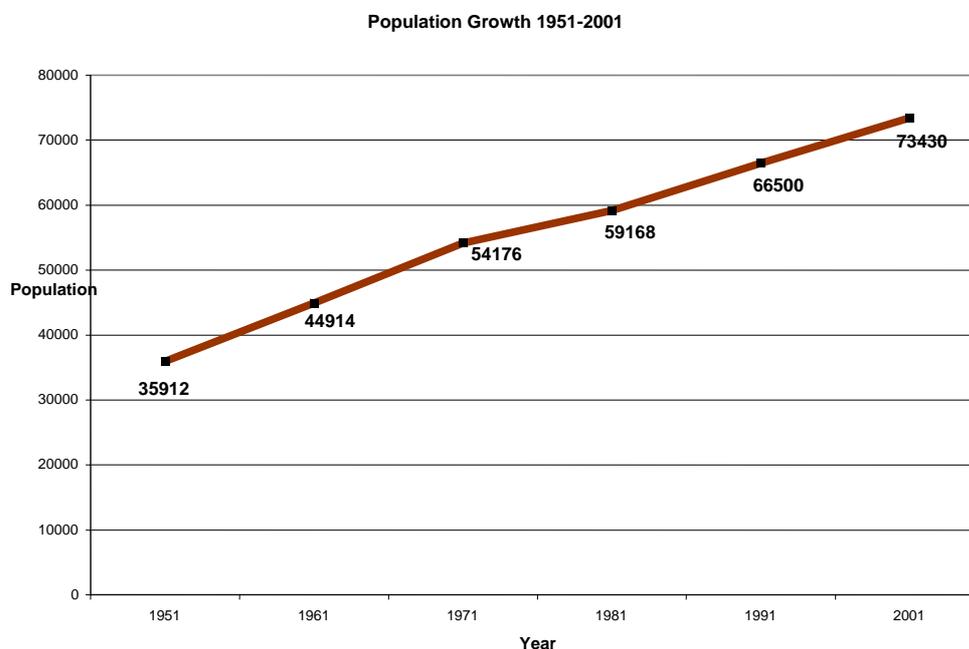
As per the 2001 census, the Bodinayakanur town falls under the category of Class II town with a population of 73410. The population growth rate of the town decreased during the 1991-2001. The details of population growth and the decennial variation from 1951 are furnished in Table 2.1.

**Table 2.1 Population Growth - 1951-2001**

Year	Population	Decadal Variation	Percentage Variation
1951	35912	7477	2.30
1961	44914	9002	25.07
1971	54176	9262	20.60
1981	59168	4992	9.21
1991	66500	7332	12.39
2001	73410	6930	10.42

Source: Census of India, 1951-2001.

Fig.2.2 indicates the population growth in the town over the past five decades.



**Figure 2.3 Population Growth**

## 2.5.2 Population projection

Based on the growth rate for the past few decades, the future population of the town has been projected using various methods and are tabulated as below:

1. Arithmetical Increase Method
2. Geometric Increase Method
3. Incremental Increase Method
4. Method of least square

**Table 2.2 Comparative statement of projected population**

Sl. no.	Method	Projected Population for Bodinayakanur		
		2009	2024	2039
1	Arithmetical Increase	78539	88156	97773
2	Geometrical increase	79586	92601	107744
<b>3</b>	<b>Incremental Increase</b>	<b>79230</b>	<b>91795</b>	<b>106519</b>
4	Method of Least Square	79413	89913	100414

Source: Analysis and calculations

After a detailed analysis and comparison of each method, Incremental increase method is found to be suitable and the population projections are based on the same. The details are given in Annexure-2. Therefore the projected population for Bodinayakanur town is:

1. **Base year 2009** - **79230**
2. **Intermediate year 2024** - **91795**
3. **Ultimate year 2039** - **106519**

## 2.5.3 Sex ratio and Literacy Rate

The sex ratio during the past decades is given in the Table.2.3.

**Table 2.3 Sex Distribution - 1951-2001**

Year	Males	Females	No. of females /1000 males
1951	17935	17997	1003
1961	22521	22303	995
1971	27273	26903	987
1981	30207	28961	963
1991	33832	32668	966
2001	36774	36636	996

Source: Census of India, 1951-2001

The sex ratio of the town shows a decreasing trend in the past few decades and increase during 1991-2001. At present the sex ratio is 996 and literacy rate is 71%.

### 2.5.4 Density pattern

The town has recorded an overall population density of 102 people per hectare.

### 2.6 OCCUPATIONAL PATTERN

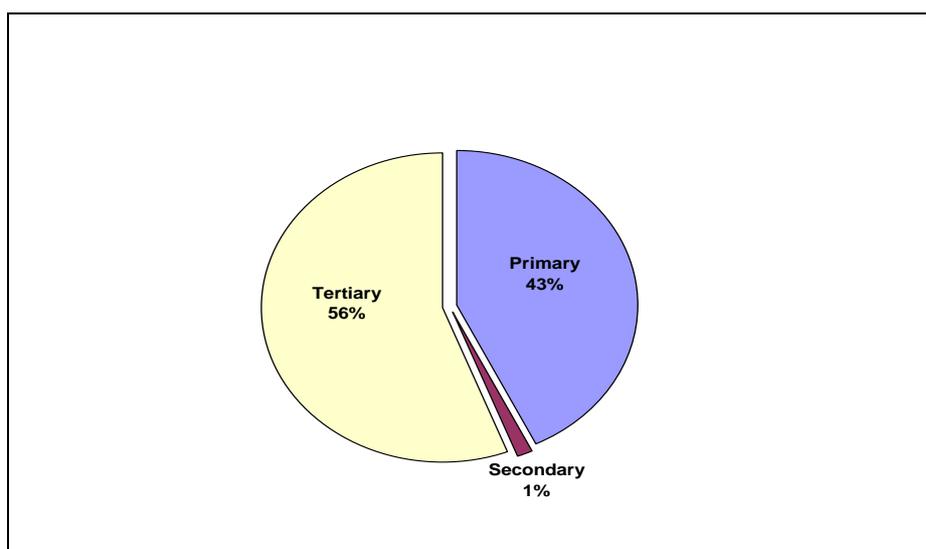
Agriculture and allied activities form the economic base of the town. About 46% of the total town area is being utilized for agriculture and 42% of the working population is engaged in agriculture and allied activities. The agro products are from the estates and fields surrounding the town where spices, cotton, coffee and coconuts are grown.

According to 2001 census, Bodinayakanur registered a working population of 29430 which is about 45% of the total population. The details of occupational pattern are depicted in Table 2.4 given below. An analysis of the census figure indicates that about 42% of the workers are engaged in agriculture and allied activities. Only 2% of the workers depend on industries for their livelihood and the rest 56% is occupied with tertiary sector activities. Fig.2.3 shows of occupational pattern of the town.

**Table 2.4 Occupational Pattern – 2001**

S.No	Sector	Total Workers	% to total Population	% to total Workers
1	Primary	12568	17.00	42.00
2	Secondary	440	6.00	2.00
3	Tertiary	16422	22.00	56.00
	<b>Total</b>	<b>29430</b>	<b>45.00</b>	<b>100.00</b>

Source: Census of India 2001



**Fig.2.4 Occupational Pattern of Bodinayakanur- 2001**

## 2.7 PHYSICAL PLANNING AND GROWTH MANAGEMENT

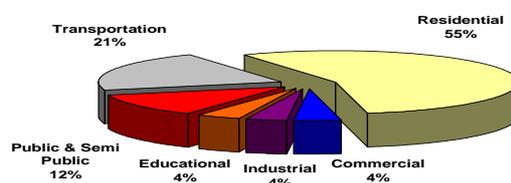
### 2.7.1 Land use and growth management

The total area of the town is 723.55 hectares. As per the 1996 land use map, about 58% of the land is under non-urban use. Agricultural use forms about 46% of the total area of the town. About 56% of the developed area is under residential use. The land use distribution is given in Table.2.5

**Table 2.5 Land Use – Existing & Proposed**

Sl. No	Land Use	Existing 1996			Proposed 2011		
		Extent in Hec.	% of Developed Area	% to the total area	Extent in Hec.	% of Developed Area	% to the total area
1	Residential	165.92	55.45	23.25	275.25	63.04	38.57
2	Commercial	12.75	4.26	1.79	19.77	4.53	2.77
3	Industrial	11.12	3.71	1.58	11.22	2.55	1.57
4	Educational	11.29	3.70	1.58	10.24	2.34	1.43
5	Public & Semi Public	36.10	12.06	5.06	40.95	9.38	5.74
6	Transportation	62.03	20.82	8.69	79.31	18.16	11.11
	<b>Total Developed area</b>	<b>299.21</b>	<b>100.00</b>	<b>41.93</b>	<b>436.64</b>	<b>100.00</b>	<b>61.19</b>
7	Agriculture	328.92		46.10	251.97		35.31
8	Land Under Water	24.94		3.50	24.94		3.50
9	Vacant	60.48		8.47			-
	<b>Total Undeveloped area</b>	<b>414.34</b>		<b>58.07</b>	<b>276.91</b>		
	<b>Total Town Area</b>	<b>723.55</b>		<b>100.00</b>	<b>713.55</b>		<b>100.00</b>

Source: Bodinayakanur Master Plan, 1996.



**Figure 2.5 Land Use Pattern - (% to developed area) – Existing**

## 2.7.2 Growth Direction

The town is found to be developing along the Madurai – Kurangani Road, Uthamapalyam road and Periyandavar Koil road. The residential areas are on the western side of the town. The northern side of the town along the Raja Channel and Kottagudi River still remain undeveloped as these areas are wet lands preferred for agricultural purpose.

## 2.7.3 Land Use Pattern

### 1. Residential

About 56% of the developed area is under residential use. The residential areas have developed along Kottagudi River and Raja Channel. The older settlement lies south of Madurai – Kurangani Road. The new developments of low density are taking place on the southern part and western part of the town.

### 2. Commercial

The commercial occupies about 4% of the total developed area. Since Bodinayakanur is situated at the foot of Western Ghats, the forest and the estate products of the region are marketed in the town. The town acts as a major marketing centre spices, coffee, silk and cotton in south Tamil Nadu. The commercial areas are mainly concentrated along the Bazaar road, without adequate space for loading / unloading and parking..

### 3. Industrial

Since the town is surrounded by agricultural fields, industrial growth is limited. However, agro based industries such as silk & cotton industries, rice & flourmills have been established. The list of industries located in the town are given below:

**Table 2.6 Industries in Bodinayakanur**

Sl. No	Name of Industries	No. of Industries
1	Rice and Oil Mill	9
2	Flour Mill	2
3	Chemical Industry	1
4	Oil, Soda Industry	5
5	Printing Press (Including Offset, Litho works)	8
6	Pepper Industry	1
7	Silk Cotton Industry	35
8	Coconut Fibre	1
9	Cardboard Industry	1
	<b>Total</b>	<b>63</b>

Source: Master Plan, 1996

#### **4. Public and Semi-public**

The area under the public and semi public use forms 12% of the total developed area of the town. The major public and semi-public uses have developed along Madurai-Kurangani road. The Taluk Office, Government Hospital, Police Station , Municipal Office, Panchayat Union Offices are located in the northern part of town.

#### **5. Educational**

The major educational institutions are situated at the southern end and eastern end of the town. The primary and middle schools are distributed amidst residential development. The educational use zone occupies about 4% of the total developed area of the town.

#### **6. Transportation**

The major arterials from the town are the Rameswaram - Cochin National Highway (extension) 49 and the Madurai- Kurangani – Uthamapalayam road. The town is connected with Madurai by a metre gauge railway line terminating at the town.

#### **7. Open Spaces and public Utilities**

There are five parks in the town owned and maintained by the Municipality. The three playgrounds are attached to the higher secondary schools, maintained by the concerned school authorities. The extent of the parks and playfields is 14.39 hectares which is about 2% of the total area of the town.

### 3.1 STAKEHOLDER WORKSHOP AND VISION STATEMENT

The City Corporate Plan is a tool which adapts a corporate approach in planning and implementing projects in a participatory mechanism involving users, elected councilors, line agencies, private organizations, NGOs and CBOs. In this process, residents of various sections of the communities in the town were enquired into at random during reconnaissance survey and visits to all the sites of the projects identified by the Municipality and also otherwise suggested by the elders.

The broad purpose of stakeholders participation is to involve the stakeholders in the development plan for the city. The Vision Statement has been firmed up based on the feed backs received from the stake holders and expert survey of the municipal services for the perspective year of 2030.

The analysis and findings of the study are primarily based on secondary data collected from respective departments and during the course of the study, data gaps if any were supplemented through primary survey.

A detailed analysis to find out the existing status of each admissible sector, cross-referring the norms and standards, demand and gaps based on present and future service requirements is done. A SWOT analysis was done based on the data collected on the resources and consultation with the stake holders in the following section. Accordingly, interventions are suggested.

### 3.2 SWOT ANALYSIS

A SWOT (Strength, Weakness, Opportunities and Threats) analysis illustrates the Stakeholders perception and the consultants' analysis of the town. A brief SWOT analysis for Bodinayakanur town is given below:

**Table 3.1 SWOT Analysis**

STRENGTH	WEAKNESS
Located along NH – 49 to Kumuli	Inadequacy and poor quality of roads
Marketing center for cardamom, coffee, tea, pepper, and silk cotton	Inadequate sanitation facilities
Scenic Seclusion and ideal destination for film industry	Unexploited tourism potential
Well connected by road rail with the surrounding urban centers	Non availability of industrial base
Availability of agricultural produce from surrounding rural areas.	
OPPORTUNITIES	THREATS
Strategic location near Kerala tourism circuit	Endangered species of flora and fauna on the increase.
Conversion of Madurai – Bodinayakanur Meter Gauge rail route to Broad Gauge	Threat to natural resources especially water bodies.
Location amidst exotic tourism spots	Low levels of awareness among town population on entrepreneurship.
Availability of natural water sources	
Immense Food packaging and Export opportunities	

Source: Feed back from stakeholder meeting and analysis.

### 3.3. VISION FOR BODINAYAKANUR TOWN

Bodinayakanur which is popularly known as the **Cardamom City** offers a wide scope for the market of spices like cardamom and pepper. The abundance of spices in the town widens the scope for ‘**Spice Tourism**’ in the town. Other crops like silk cotton, tea and coffee are also cultivated here. Food crops like paddy, banana and maize are found in plenty in Bodinayakanur. The salubrious weather and natural beauty of the surrounding locations often gives Bodinayakanur another name, “Southern Kashmir”.

The plan aims in transforming Bodinayakanur as ***a world class tourist hub and leisure destination enhancing the quality of life and prosperity of the community through sustainable development and as a driving force for the economic growth of Theni.***

### 3.4 STRATEGIES FOR ECONOMIC DEVELOPMENT

Bodinayakanur town is located on the Theni – Munnar National Highway at the foot of Western Ghats. It is a taluk headquarter town. It functions as a service centre to cater the needs of the surrounding villages in this area. Theni – Allinagaram, the district headquarters and cotton centre is situated close to the town.

Owing to the location of the town at the foot of the Western Ghats, the town has picturesque sites, water falls, fertile land and green forests in its vicinity. Due to availability of fertile lands, the town is surrounded by silk cotton fields and cardamom estates. The town functions as a market for cardamom and other spices. The conversion of Madurai –Bodinayakanur metre gauge into broad gauge will increase the traffic flow between Madurai city and Bodinayakanur. This will facilitate easy transportation and handling of goods from Madurai to the town.

To make use of the potentials of the town, the following measures need to be taken:

### 1. Establish Special Eco-tourism zone in the region

The feasibility for setting up a Special Tourism Zone (STZ) in the area is to be studied. The National Tourism Advisory Council (NTAC), the official think tank of Tourism Ministry, has considered setting up a STZ at Munnar. Considering the vast potential of the area in its scenic beauty, Trekking routes to Top station and Kodaikanal, Endogenous spices tourism project, river ways and water bodies, indigenous floral and faunal wealth, Bodi palace a Special tourism zone is proposed.

Refer Special Tourism zone guidelines in Annexure-3.



### 2. Developing an industrial base for the town.

Taking into account the availability of silk cotton and spices like cardamom, tea, pepper etc. available in the surrounding areas of the town, Establishment industries using silk cotton and cardamom as the raw materials will enhance the economic growth of the town.

- Establishing food processing and packaging industries will also provide better livelihood options to the local population. Food processing can be applied to all particular agricultural produce.



Anything we eat undergoes some kind of process. Hence, the potential for food processing in the region is phenomenal. Manpower will be a major requirement to work in this industry.. It can even be more than that is required in the Information Technology sector.

- Bodinayakanur has got good water potential due to the close proximity of Western Ghats. Thus there is a scope for establishing natural water packaging units in the town.

### 3. Improvement of marketing centers

- The market sites have large extent but old and dilapidated exist in the premises. The market sites need to be redeveloped as a modern market complex to enhance the marketing potential of the town. This will function as a trading centre for silk cotton, cardamom and other spices in the town.

### 4. Improvement of rail connectivity

- The conversion of metre gauge railway line to broad gauge connecting Bodinayakanur to Theni will be an added factor for the economic development of the town.



## Nine new trains proposed for State

S. Vydhanathan

**CHENNAI:** Nine new train services have been proposed for Tamil Nadu in the Railway budget 2008, presented by Railway Minister Lalu Prasad in Parliament on Tuesday.

Apart from new trains, doubling of the Villupuram-Dindigul broad-gauge section, new lines between Chennai and Cuddalore via Pudukcherry and Mamallapuram, Attipattu and Puttur, Arakkonam and Tiruvallur fourth line, and Palani to Erode, and conversion of the Madurai-Bodi metre gauge section are some of the new projects announced in the budget.

Following are the new trains to be introduced in the next financial year: Chennai Egmore to Tiruchendur Express (weekly); Varanasi to Rameswaram Express (weekly); Chennai-Gaya Express (weekly); Chennai-Rameswaram Express (daily) via Mayiladuthurai and Karaikudi (after the conversion

between Villupuram and Mayiladuthurai); Chennai-Tiruchi Express (daily) via Mayiladuthurai (after the conversion); Villupuram-Mayiladuthurai Passenger (daily after the conversion); Chennai Egmore-Salem Express (daily) via Vriddhachalam; Madurai-Tenkasi Passenger (daily); and Tiruchendur-Tirunelveli Passenger (daily) (after the conversion).

#### To be extended

In addition to new services, the Chennai-Bangalore (weekly) Express will be extended to Sri Sathyasai Prasasti Nilayam; the Madurai-Manmad Express to Rameswaram on one side and Okha on the other side; the Coimbatore-Kumbakonam Janshatabdi Express to Mayiladuthurai; the Bangalore-Coimbatore Express to Ernakulam; Bangalore-Salem Passenger to Nagore (after conversion); Tuticorin-Tirunelveli Passenger to Tiruchendur (after conversion).

Surveys have been proposed for new lines between Karaikudi and Kanyakumari via Ramanathapuram, and Tuticorin, Thanjavur and Ariyalur, Chidambaram and Attur via Perambalur and Omalur and Mettur Dam (doubling).

The Minister gave an assurance that the conversion of Karaikudi-Manamadurai section of Tiruchi-Manamadurai project and Tiruvarur-Nagore section would be completed soon.

A top railway official told *The Hindu* that a number of new projects had been sanctioned for the State. The Villupuram-Dindigul doubling was a long pending project. Earlier the Railway Ministry was reluctant to sanction the project stating that already an alternative line was being laid from Villupuram to Tiruchi via Mayiladuthurai and there was no need for a second line. Minister of State for Railways R.Velu however got the project sanctioned. Doubling the section would enable

the Southern Railway administration to operate more services from Chennai to southern districts.

The new line from Attipattu (Ennore) to Puttur would meet the growing demand of the Ennore Port.

The new line would reduce the congestion on the Chennai Central-Gudur-Vijayawada section as goods trains from Mumbai to Ennore Port need not come to Chennai Central once the line was completed. The new line proposed from Chennai to Cuddalore via Pudukcherry and Mamallapuram would branch off from Perungudi on the MRTS section.

The fourth line from Tiruvallur to Arakkonam would provide dedicated lines for EMU services between Chennai and Arakkonam. With the sanctioning of Madurai-Bodi conversion, all sections in the State were either converted or were being converted into broad gauge, the official added.

Source: The Hindu dated 27.2.08.

## 5. Places of interest

### Vaigai Dam - 'The Little Brindavan'

Built in 1959, the dam across the majestic Vaigai River is 111 feet high and stores 71 feet of water. Boating inside the dam on the still expanse of water is a great experience. The garden, adjacent to it, is known as 'Little Brindavan' as there is much resemblance to the wholesome experience at the world famous Brindavan gardens of Mysore. There are ample play facilities for children and tourists inside the garden. There is also a menagerie for the entertainment of the visitors.



### Kumbakkarai Falls - The perennial bounty

Against the back drop of an emerald wilderness, the Kumbakkarai falls gushes out of huge rocky recesses at great heights and roars down into an alluring pool of water infused with the goodness of minerals and herbs. It is believed to possess medicinal properties and is a popular bathing spot. Rare fauna and avifauna frequent the forest around the falls and rare specimens of flora are sighted easily around the places.



### Suruli Falls - Extolled in Chilappathikaram

The classic poet Ilangovaligal has described its beauty in the famous Tamil epic, Chilappathikaram. Though it is perennial, the thickness of the water column in the monsoon season of June-October is indeed awesome. There are separate bathing facilities for men and women where the falls form pools of health giving water. The total height of the falls, in two steps, is 190 feet. The forest that forms the backdrop is full of rare flowers, butterflies, birds and animals and the open space that forms the approach is a favorite resting places.



### Sothuparai Dam - The scenic seclusion

It is one of the most picnic spots around Theni. The dam is built across the Varaha River against a setting of majestic verdant hills. The wide expanse of placid water mirroring the green slopes around is an impressive sight. Periyakulam town nearby is called 'the Mango City' where exotic and delicious varieties of mangoes from the orchards around the town are



available at down to earth prices during the seasons.

### **Theertha thotti**

This natural spring is located on the Madurai-Kochi National Highway between Theni and Bodinayakkanur. Lord Subramanya is the main deity worshipped here. It is located 7 kms from Bodinayakanur. The perennial natural spring is the highlight of the temple.



### **Kodaikanal - The misty mysterious mountain resort**

One of the most popular hill stations in South India, Kodaikanal is situated at 7000 ft. above sea level, in the Palani hills of the Western Ghats. It is blessed by a salubrious climate that never goes higher than 20°C and never comes down below 8°C. Charming flower meadows, rocky crags, steep slopes, cascading waterfalls, bountiful orchards, velvety grasslands and a vast expanse of tranquil waters make Kodaikanal a unique and unforgettable experience. There are plenty of opportunities for any type of tourist to fill his soul, whether he is interested in eco tourism, adventure tourism, water sports or nature study.



It is well connected by excellent roads. Besides scenic secluded shola forests and grassy slopes, there are many places of interest to the tourist like a world famous solar observatory, a museum of natural history and an orchidarium, well laid out trekking paths, two lakes with water sports facilities in one and parks with vast meadows and flower beds. There are hundreds of endemic wild varieties of birds, animals and plants which have been preserved for thousands of years in this unparalleled eco system attracting nature lovers and scientists from all over the world



### **Munnar - The spice capital of the world**

Munnar, which literally means 'three rivers', got its name from the confluence of three rivers near the town of Munnar. It has got all the necessary infrastructural facilities for the visitor and is yet beautifully secluded and far from the hustle and bustle of the city life. It is also well connected by road from Theni. The journey to Munnar along Western Ghats is in itself a once-in-a-lifetime experience.

Manicured tea gardens along scenic slopes are indeed a feast to the eyes. There are miles and miles of green tea gardens that cover the rolling hills on both sides of the winding roads. Munnar is the spice capital of the world where the tourist can purchase fresh produces from the plantations of cardamom, pepper, coffee and tea that abound in the hills all around. Munnar is also the dearest destination for the eco tourist and the adventure tourist.

**Explore potentials for agro-tourism and strengthen facility base:**

- The town has a salubrious climate due to its proximity to the Western Ghats and Thekkadi in Kerala. This widens the scope of the town as an attractive spot for international and national tourists. The scenic beauty of the town and its environs already attracts film industry. Provision of facilities to the tourists, i.e boarding and lodging at moderate tariff would attract tourists from Tamil Nadu and Kerala for a stay in the town. Provision of such facilities will obviously give impetus to the economy to the town. Refer 3.4.1.

**Some successful entertainment farming enterprises and techniques in agro – tourism:**

- Arts & Crafts Demonstrations.
- Farm Store: Exhibition of farm equipments
- Roadside Stand selling fresh farm products and craft items
- Processing of farm products and sale
- Demonstration of Agri-activities
- Fee fishing / hunting.
- Farm Vacations.
- Bed and Breakfast
- Farm Tours.
- Cross-country walks and treks.

**3.5 Urban Infrastructure**

Infrastructure (physical and social) provision brings in social and economic development, particularly for women. Improved infrastructure reduces women's work burden and gives them more time, increased more home-based economic activity, improved lighting and better road coverage increase mobility and security at night. Infrastructure provision is perceived to have a significant impact on health, reducing incidence of illnesses which are related to an unhygienic living environment. Thus, infrastructure plays an inevitable role in the economic development and social well being of the town.

### 3.5.1 Sector wise Vision

The sector wise vision for the key infrastructure services are as given in the table below:

**Table 3.2 Sector wise vision for the key Infrastructure**

	<b>Sector</b>	<b>Vision statement</b>
1	<b>Water Supply</b>	<ul style="list-style-type: none"> <li>i. To check wastage and misuse of water</li> <li>ii. To generate more revenue for better operation &amp; maintenance of the system and to supplement the capital works, in order to render the delivery of the service self sustaining over a period of time.</li> </ul>
2	<b>Sewerage and sanitation</b>	<ul style="list-style-type: none"> <li>i. To provide coverage of the sewerage facilities or LCS measures for slum areas.</li> <li>ii. To maintain high level of environmental hygiene generally in the town and particularly the cleanliness of the water bodies</li> </ul>
3	<b>Storm water drainage and improvement to water bodies</b>	<ul style="list-style-type: none"> <li>i. To improve condition of storm water drains to handle run off water and prevent water stagnation.</li> <li>ii. Rejuvenate water bodies and improve recharge of ground water.</li> </ul>
4	<b>Solid Waste management</b>	<ul style="list-style-type: none"> <li>i. To provide a litter free town for the healthy living of the public .</li> <li>ii. To minimize the O&amp;M expenditure of SWM</li> <li>iii. To involve private organizations to the extent possible</li> </ul>
5	<b>Roads and Streets</b>	<ul style="list-style-type: none"> <li>i. To provide safe, comfortable and speedy circulation network for the residents and traffic</li> <li>ii. To relieve congestion by adopting a traffic management plan</li> <li>iii. To channelise by-passable traffic through arteries outside the town limit.</li> </ul>
6	<b>Street lighting</b>	<ul style="list-style-type: none"> <li>i. To provide sufficient illumination to the town, for safety of the people and to adequately cope with the requirements of traffic.</li> <li>ii. To optimize the use of electricity by adapting energy efficient technology</li> </ul>
7	<b>Educational Institutions</b>	<ul style="list-style-type: none"> <li>i. To Provide comfortable conducive physical infrastructure and sound environment for the learning process</li> </ul>
8	<b>Medicare</b>	<ul style="list-style-type: none"> <li>i. To make quality preventive and curative care available and accessible to the Public.</li> <li>ii. To support people for healthy living and environment.</li> </ul>

### 3.6 PERFORMANCE AND DEMAND ASSESSMENT

To assess the indicators of performance in each sector of infrastructure, the existing levels of key Municipal services is benchmarked against their norms and standards to arrive at performance assessment index. The norms and standards are based on SFC recommendation, Planning Commission recommendation, UDPFI guidelines, CPHEEO manual, Best practices etc.

The demand assessment for projects is arrived from the Stake holder consultative meetings, discussions with officials, field visits and service analysis. The improvement needs proposed are based on the demand and performance assessments with reference to short term and long term proposals for each sector.

The Performance assessment index for the existing status against the norms and standards for water supply, sewerage, drainage, solid waste, street lighting and social facilities are illustrated in the table below:

**Table: 3.3 Performance Indicators for key Municipal Services**

SI No	Service Indicators	Unit	Normative Standard	Current Status
<b>Performance of Key Water Supply Service Indicators</b>				
1	Daily per capita supply	lpcd	120	75
2	Roads covered with distribution network	Percent	>100	80
3	Storage Capacity with respect to supply	Percent	33	60
4	Property tax assessments covered by service connections	Percent	85	45
5	Proportion of non – domestic service connections	Percent	>5.00	3
<b>Performance of Key Sewerage and Sanitation Service Indicators</b>				
7	Sewage contribution	lpcd	100	60
<b>Performance of Key Storm water Drainage Service Indicators</b>				
11	Road length covered with storm water drainage	Percent	130	96
<b>Performance of Key Solid Waste Management Service Indicators</b>				
12	Estimated waste generation	Grams /capita/ day	400	262
13	Waste collected as per the estimate of ULB (w.r.t. waste generation)	Percent	100	100
<b>Performance of Key Road Service indicators</b>				
14	Road density	Km/sq.km	10-15	9.52
15	Per capita road length	metres	1.75	0.94
16	Proportion of surfaced roads	Percent	100	78.00
<b>Performance of Key Street Lighting Service indicators</b>				

SI No	Service Indicators	Unit	Normative Standard	Current Status
17	Spacing between lamp posts	Metres	30	37
18	Proportion of fluorescent lamps (tube lights) w.r.t. total fixtures	Percent	≥80	98
19	Proportion of high power fixtures w.r.t. total fixtures	Percent	≤20	2
<b>Performance of Key indicators for Slums</b>				
20	Proportion of slum population to total city population	Percent	<10	32

Source: Municipal Records and analysis.

From the above table, the gap in each infrastructure service is identified after comparison with the benchmarks and standards. The chapters that follow propose projects needed to ensure efficient delivery of the services.

### 3.7 STRATEGIES FOR POVERTY REDUCTION AND SLUM UPGRADATION

#### Towards Building Successful Slum-Upgrading Strategies

##### Youth groups can be very effective.

Youth SHGs can be encouraged and made active participants in developmental activities. Unlike Women SHGs, which are formed originally for social empowerment, Youth SHGs can aim at both economic empowerment and social empowerment as the primary focus. The focus can be on skill training for increasing their employability and promotion of economic activities.

##### Group formation:

The SHGs can be formed with unemployed youth in the age group of 18 to 35 years. Each group may comprise 10 to 20 members drawn from the below poverty line population.

##### Youth SHGs can be beneficial in the following ways

- To engage the communities in development activities through a dialogue with the active participation of the youth (men and women) with a sense of commitment and integrity

- To equip the youth by building their skills, capacity and capability in managing development, so that, they can help build the capacity of the citizens to manage the affairs of the community on their own.

- **Infrastructure provision**

Infrastructure provision brings indirect social and economic development, particularly for women. Improved infrastructure reduces women's work burden and gives them more time, increased space allows for more home-based economic activity, and lighting and better road coverage increase mobility and security at night. Infrastructure provision is perceived to have a significant impact on health, reducing incidence of illnesses which are related to an unhygienic living environment.

- **Community halls** are valuable for project work as well as for private and public social activities, however, halls are prone to capture and maintenance can be a problem. They can also be used as location for health camps, balwadis (pre-schools), vocational training and neighborhood committee meetings. They can be used by the community for a variety of occasion such as religious ceremonies, marriages, political meetings etc. conflicts over use and maintenance are common, and control over the hall give some individuals power in the community.

- **Balwadis (pre-schools) and Schools**

Both these institutions benefit poor and working families, especially working mothers. If timings of balwadis are appropriate, then they have a positive effect on the lives of working women, freeing them of childcare and giving more time to women to do paid as well as non-paid work.

- **Medical facilities**

Frequent illnesses and consequent break from work is a major factor that costs the time and money of the low income group. The availability and accessibility to medical facilities as necessary needs to be addressed as a priority issue.

# 4

## ORGANIZATIONAL STRUCTURE

The organizational structure of the Bodinayakanur Municipality generally consists of administrative and executive wings.

### 4.1 ELECTED BODY

The Municipal Council, the political wing of the Bodinayakanur Municipality consists of 33 elected councilors. Each Councilor represents one electoral ward. The Councilors in turn elect the Chairperson as head of the Municipal Council.

#### Administrative wing

The administrative wing gives overall guidance to the municipal functions through set of committees. Three committees have been formed namely, Appointment Committee, Contract Committee and Taxation and Appeal committee consisting of the Chairman, the Municipal Commissioner and elected Councilors as members. Appointment Committee is a statutory committee, and the Chairman of the Municipality is also the Chairman of the committee. The Committee is responsible for making appointments for posts which fall under the purview of the Appointing Committee. Contract Committee is another statutory committee and quotation of works up to the value of Rs. 50,000/- is finalized by the Contract Committee. The Taxation Appeal Committee is responsible for hearing of appeals of the tax items.

### 4.2 EXECUTIVE BODY

The executive wing is responsible for the Municipal operations and maintenance. The Commissioner is the administrative head of the executive wing and is supported mainly by 5 department heads in the Municipal operation and maintenance. The organization structure of the Municipality comprises of 5 functional departments namely,

1. General Administration
2. Engineering and Water Supply Department
3. Accounts Department
4. Public Health Department, and
5. Town Planning Department

#### **4.2.1 General Administration**

Bodinayakanur Municipality is a First Grade Municipality. The Manager is the head of Administration next to the Commissioner in the section of General Administration, and he is responsible for general supervision and administration of the Office. All establishment matters are dealt by the General Administration Section.

##### **Manager**

Manager is the Head of General Section. His duty includes general supervision of the ministerial staff, and maintenance of discipline in the office premises and to sign receipts for all remittances made in the Municipal Treasury to acknowledge registered *tapals*, Money orders etc on behalf of the Commissioner. The Manager is the custodian of the cash collected by daily-checking of *Chitta* and Cash and Petty cash, payment advance etc, and for the administration report by way of Annual Inspection of the office, checking of Personal Registers of all staff and subsidiary registers in respect of all the sections. All papers are routed through the Manager to the commissioner except the Engineering section and the Health section.

All matters, relating to the Establishment including public health, maintenance of Increment & Punishment registers, maintenance of service registers, register of Probationers; maintenance of temporary and permanent post sanction register, Pension & Gratuity for all Establishment Audit Register, issue of Office order, common office order book, maintenance of stock file, maintenance of personal register & audit objection register etc are looked up by the Manager.

#### **4.2.2 Engineering Department**

The Municipal Engineer is the over-all in-charge of Engineering Section. The Municipal Engineer is controlling the Overseer, Work Inspector, and Road Mazdoor, Water works Superintendent, Wiremen, Helper and Fitter working in the section. The Municipal Engineer looks after the maintenance of roads, street lights, road laying, construction of building, drainage, maintenance of parks, head works and municipal vehicles. The other subordinate officers are assisting the Engineer to look after the above works.

#### **4.2.3 Accounts Department**

The Account Section is included in the General Section. The Accountant is the Head of the Wing controlling financial matters. It involves preparation of Budget and looks after the Accrual based Accounting System.

#### 4.2.4 Public Health Department

Sanitary Officer is the overall in-charge of the Health Section. He looks after conservancy, sweeping streets, maintenance of drainage, controlling of epidemic diseases, ensuring of license to D&O trades, Birth and Death Registration and issuing of certificate to birth and death registration. Sanitary Inspector, Sanitary Supervisor and Sanitary Workers are assisting the Sanitary Officer. The Sanitary Officer is held responsible for the solid waste management. Pulse Polio Immunisation camps are conducted every year under the section.

#### 4.2.5 Town Planning Department

Town Planning Officer/Inspector is over all in-charge of the section. He looks after the work of preparation of Master Plan, Detailed Development Plan and maintains the land use registers as per the approved zoning uses. He is also responsible for licensing of plan approval, booking of unauthorized construction, approval of lay out plans with in the town limit, controlling and removing the encroachment in the town. The Town Planning Inspector helps in planning the future development of the town and allied works.

### 4.3 STAFF STRENGTH POSITION AND VACANCY POSITION

As of now, there are 76 vacancies in the 270 sanctioned strength of the Municipal office. The vacancies are mostly under the Engineering section.

**Table 4.1 Staff Strength**

S. No.	Name of the department	Sanctioned strength	Working strength	No. of posts Vacant
1	General Section	32	27	5
2	Municipal Engineering and Water Supply Service	53	29	24
3	Public Health	177	133	44
4	Town Planning	8	5	3
	<b>Total</b>	<b>270</b>	<b>194</b>	<b>76</b>

Source: Bodinayakanur Municipality, 2008.

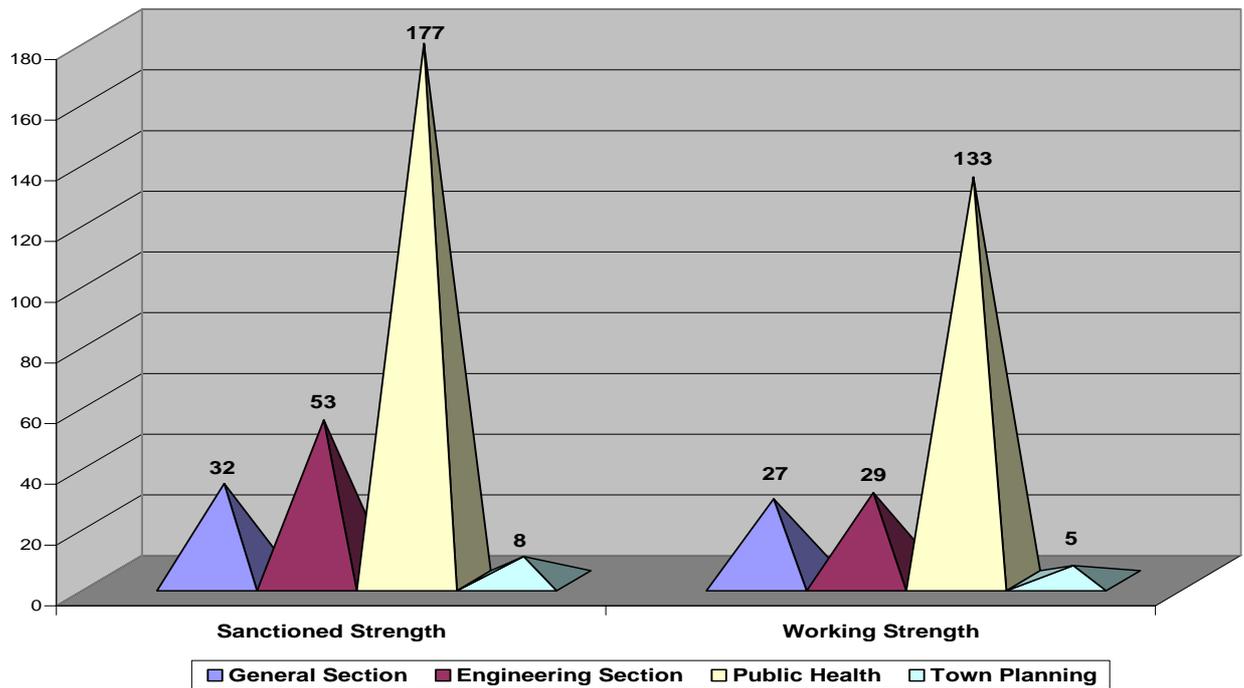


Fig 4.1 Status of Municipal staff strength

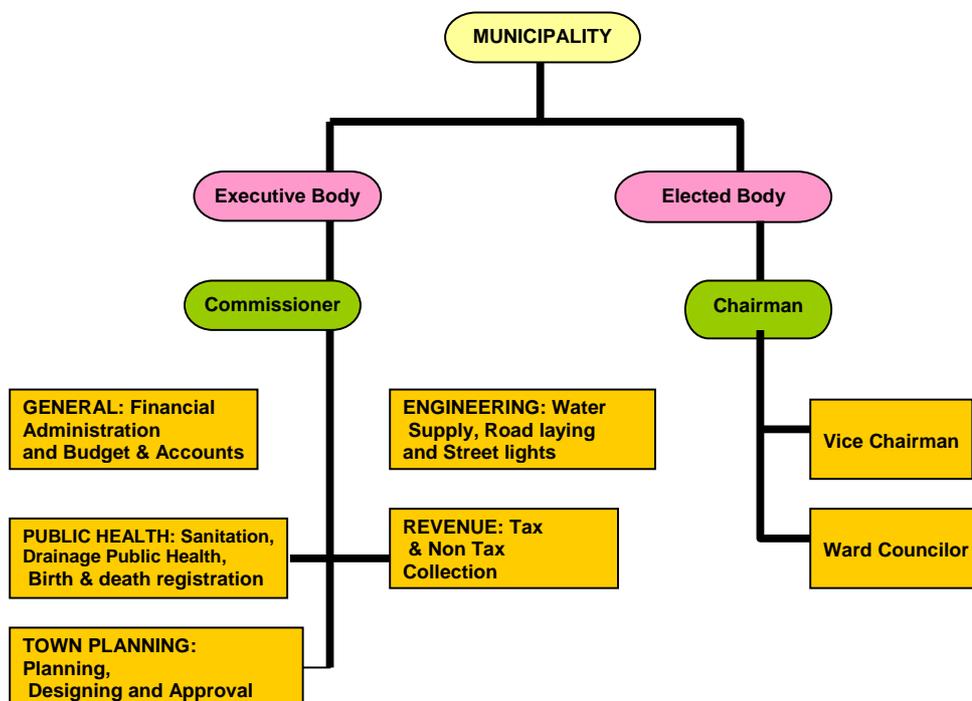


Fig 4.2 Organizational structure of Bodinayakanur Municipality

**Table 4.2 Staff Strength Position – Section Wise**

S.No	Name of the post	Sanctioned Strength	Working Strength	No. of vacant post
<b>General Section</b>				
1	Manager	1	1	-
2	Accountant	1	1	-
3	Assistant	2	2	-
4	Junior Assistant	12	11	1
5	Typist	1	1	-
6	Revenue Inspector	1	1	-
7	Office Assistant	5	3	2
8	Watchman	1	1	-
9	Revenue Assistant	8	6	2
	<b>Total</b>	<b>32</b>	<b>27</b>	<b>5</b>
<b>Engineering Section</b>				
1	Commissioner	1	-	-
2	Municipal Engineer	1	1	-
3	Junior Engineer	1	1	-
4	Junior Engineer	1	-	1
5	Draughts Man	1	1	-
6	Junior Assistant	2	2	-
7	Operator	4	3	1
8	Fitter	2	1	1
9	Fitter II	1	-	1
10	Power ticker driver	1	1	-
11	Roller Driver	1	-	1
12	Jeep Driver	1	1	-
13	Head Work Watchman	1	1	-
14	Head work Gardner	1	-	1
15	G. Main Turn Clerk	1	1	-
16	D. Main Turn Clerk	1	-	1
17	G. Main Lineman	1	-	1
18	Watchman	1	1	-
19	Water Supply Assistant	1	1	-
20	Bus stand watch man	1	1	-
21	Traveler Bungalow	1	1	-
22	Coolie	10	-	10
23	Cleaner	1	-	1
24	Overseer	1	1	-
25	Work Inspector	2	-	2
26	Electrician Assistant	2	2	-
27	Office Assistant	1	1	-
28	Wireman	2	2	-
29	Helper	1	1	-

30	Junior Assistant	1	1	-
31	Writer	1	-	1
32	Lorry Driver	1	1	-
33	Tractor Driver	2	1	1
34	Sullage lorry Driver	1	1	-
35	Officer Assistant	1	-	1
	<b>Total</b>	<b>53</b>	<b>29</b>	<b>24</b>
<b>Public Health Section</b>				
1	Sanitary Officer			
2	Sanitary Inspector	5	4	1
3	Sanitary Supervisor	8	7	1
4	Field Assistant	1	1	-
5	Driver			
6	Cleaner	2	-	2
7	Sanitary Worker	2	3	-
	<b>RCPH</b>			
8	Medical Officer	1	-	1
9	Staff Nurse			
10	Maternity Assistant	3	-	3
11	Medical Officer	1	-	1
12	Health visitor	1	-	1
13	Multipurpose Health Worker	4	2	2
14	Pharmacist	1	-	1
15	Female – Nursing Assistant	1	-	1
16	Maternity Ayah	1	1	-
17	ANM			
18	Computer cum clerk	-	1	-
19	Sanitary Worker	146	114	32
	<b>Total</b>	<b>177</b>	<b>133</b>	<b>44</b>
<b>Town Planning Section</b>				
1	Town Planning Officer	1	-	1
2	Assistant draughtsman	1	-	1
3	Junior Assistant	1	1	-
4	Chain Man	2	2	-
	<b>Total</b>			
<b>Others</b>				
1	Assistant Programmer	1	1	-
2	Fountain Cleaner	2	1	1
	<b>Total</b>	<b>8</b>	<b>5</b>	<b>3</b>
	<b>Grand Total</b>	<b>270</b>	<b>194</b>	<b>76</b>

Source: Bodinayakanur Municipal Records, 2007

#### 4.4 ISSUES IN HUMAN RESOURCE

Out of the Sanctioned posts of 270 in all sections of the Municipality, 76 posts are vacant as shown in Table 4.2. Considering the present quantum of work in the municipality, the vacant posts in Engineering Section, Public Health Section, and Town Planning Section need to be filled up expeditiously.

In view of appointing Project Management Consultant for the proposed water supply and UDSS projects, Privatization of Solid Waste Management and Maintenance of street lights through ESCO/ Private agency, the various sections of the municipality need to be strengthened with the following personnel:

**Table 4.3 Additional Staff Required**

S.No	Name of the Post	Section	No. of Personnel
1	Accountant for Infrastructure Project	General	1
2	Revenue Inspector	General	1
2	Assistant Engineer/ Junior Engineer (UIDSSMT & IHSDP Projects)	Engineering	2
3	Overseers (UIDSSMT & IHSDP Projects)	Engineering	2
4	Sanitary Inspector	Public Health	1
5	Town Planning Inspector	Town Planning	1
	<b>Total</b>		<b>8</b>

Source: Analysis and discussions with Municipal officials

Besides appointing the additional staff, the existing staff in the Administration, Engineering, Public Health and Town Planning sections of the municipality need to be given training in their respective field periodically towards capacity building to take up new assignments.

#### 4.5 Organization Management

As may be seen from various sections of the report particularly relating to service deliveries, there are gaps of various sizes which result in a shortage in the delivery system. This could be over come by certain specific options:

- In most of the service sections of the Municipality, there are only a few vacancies which could be filled up. A totally satisfactory system delivery of the services would require an

efficient personnel management especially assigning the right work to the right person in a time frame.

- The organization and delivery mechanism in some of the important personnel intensive service sectors have to be modernized. To mention the important few relate to solid waste management, where large number of workers and staff are involved, could be privatized. Scientific solid waste management need to be assigned to NGOs, voluntary organizations or even the respective resident associations in the various colonies. This is a remunerative venture as is proved in many places. This process not only will significantly reduce the burden of the Municipality in engaging workers and staff but also will improve its resource position. The town has already taken up the preliminary works related UGSS for safe disposal of the sewage. Privatizing the repair and maintenance of water supply, collection of taxes and fees and maintenance of public assets particularly sanitary and public health units is a well known option. This also could be taken up as joint venture between urban local body and private sector.

# 5

## PHYSICAL AND SOCIAL INFRASTRUCTURE

### 5.1 PHYSICAL INFRASTRUCTURE

#### 5.1.1 WATER SUPPLY

##### i) Existing Status

The existing water supply scheme in the town namely Bodinayakanur Water Supply Scheme is maintained by the Municipality. The source of water is Kottagudi and Sambalar Rivers located 16 km away from the town. The head works is located at Kurangani. Water is pumped from the head works and filtered at the Filter station located at the foot of Paramasivan Temple and then pumped to the two OHTs and one GLR which later supplies water to the town. The salient features of water supply scheme for Bodinayakanur are given in Table.5.1.

**Table 5.1 Indicators for Water supply**

Water Supply Scheme	Bodinayakanur Water Supply Scheme
Source	Kottagudi and Sambalar Rivers
Distance of Source	16 km
Population (2001)	73410
Quantity Supplied	5.54 MLD
Per Capita Supply	75 lpcd
Duration of Supply	2 hours daily
Total Storage Capacity of Reservoirs	3.3 MLD
Length of Distribution main	55 km
No.of HSCs (2007)	9628
No.of hand pumps	82
No.of power pumps	52
No.of public fountains	210

Source: Report on Improvements of WSS in Bodinayakanur, Shah Technical Consultants

##### Source:

The source of raw water for the town is Kottagudi and Sambalar rivers (hill streams) of Kurangani area impounded by a rubble masonry check dam at an elevation of RL 748m. This has created a 3m deep reservoir from where the raw water is being drawn. Two improvised shutters are also provided in the check dam to scour sand and other solid materials as and when required especially during the monsoon. This source was developed in the year 1944.

### **Transmission Main:**

From the above referred impounding reservoir, raw water is being drawn through one CI main of 250mm dia. (lead joint) conveying water by gravity for a length of 12.75km to reach water treatment plant site at RL 368m. To break this high static pressure in the main, 5 no. of break pressure tanks are provided along with control valves, scour valves and air valves.

### **Water Treatment Plant:**

Water Treatment Plant of capacity 3.178MLD, constructed and commissioned in the year 1944 have various units like 2 no. of alum solution storage tanks of 250 gallons capacity, flocculating tank of 13100 gallons provided with rotating paddles, 2 no. of coagulation and sedimentation tanks of capacity 66000 gallons each followed by single rapid gravity filtration bed (22 x 18 ft) treating 35000 gallons per hour i.e. is 7 lakh gallons per day.

### **Wash Water Tank**

A wash water tank of capacity 21528 gallons was located on the hillock nearby at RL 381m for backwashing the filter bed as and when required through 250 mm CI pipe.



### **Chlorination**

A pulsar type Chloronome was also provided to disinfect the treated water at a rate of 1 ppm to impart least 0.2 ppm residual chlorine.

### **Ground Level Reservoir**

A stone masonry clear water reservoir of 9 lakh litre capacity was provided at the ground level within the filter house area at RL 366m with MWL at 369m to command the Municipal area by gravity.

### **Distribution Main**

From the clear water reservoir, water is being drawn through a 300 mm CI Pipe by gravity towards the town. As the population increased and the rate of per capita water supply dwindled, the Municipality laid another raw water main of 250 mm and commissioned in the year 1989 from the same source at Korangani to supplement the additional requirement of water along and adjacent to the same alignment. This main was also a gravity main of AC with coupler joints with rubber rings. In order to break the high static pressure in the main 7 no. of break pressure tanks were provided with control valves, scour valves, air valves, etc.

The water is drawn upto the filter house area and a new water treatment plant of 2.26 MLD was constructed with various units like flash mixer, flocculator-cum-clarifier with 2 nos of rapid sand filter beds to treat ground level reservoir for further distribution towards Municipal area through another main of 350mm dia AC. Now total quantity of water supplied from these two water treatment plants is 5.54 MLD.

### Service Reservoirs

It was felt in the meantime that water could not be distributed with sufficient pressure and quantity due to extensive development within the Municipal area. Two elevated service reservoirs 12 LL capacity each was therefore built at Ammakulam and Kullalarpalayam areas with a staging height of 14 m (LLR) and 11.6 m (HLR). LLR and HLR are fed from ground level reservoir of 9 LL capacity and supply water to Municipal area twice in a day.

### House Service Connections

There are about 18502 property tax assessments in the town of which only 9250 are provided with water connections. 210 public fountains are provided in the streets and 82 no. of hand pumps are also working in the houses where low pressure exists. House service connections are generally GL/PVC pipes of 15 mm and 20 mm dia. as per bye-law of the Municipality. About 3400 consumer meters are also provided in the house service connections.

**Table 5.2 Tariffs and Deposits**

	<b>Deposits</b> (Rs per connection)	<b>Tariff</b> (Rs per month)
<b>Domestic</b>	3000	50
<b>Non Domestic</b>	10000	150

### ii) Issues

The issues in the town regarding water supply can be summarized as follows:-

- Inadequate per capita supply of water (75 lpcd against 120 lpcd as per norms)
- Deficiency in storage capacity.
- Inadequate pressure in supply lines.
- Defective supply lines.
- Only 50% of the properties assessed have water connections.

### iii) Future Requirements

The growth of population of Bodinayakanur town show a gradual and steady development of the town despite the rise and fall in population growth rates during some decades between 1901 to 1991. The population of Bodinayakanur Municipality is projected and the future demand of the water supply for the years 2022 and 2037 is given below.

**Table 5.3 Future Water Requirements**

Year	Population	Supply	Demand @ 120 lpcd	Gap
2001	73430	5.54	8.81	3.27
2009	79230	5.54	9.51	3.97
2024	91795	5.54	11.02	5.48
2039	106519	5.54	12.78	7.24

Source: Analysis and Computation

### iv) Improvement Needs

The existing source is dependable and adequate to meet the ultimate requirements.

#### Proposal by the Municipality

The present water supply scheme has been in operation since 1944. It was augmented in 1989. To meet the growing demand of water supply, a Report on Water Supply improvement system for Bodinayakanur Municipality, sponsored by the TNUIFSL was prepared by Shah Technical Consultants P.Ltd, Chennai with the following components:

**Table 5.4 Components of Water Supply Improvement System 2007**

Component	Amount Rs. in Lakhs
Improvement to raw water transmission	78.46
Improvements to water treatment plants	17.95
Rehabilitation work for water treatment plants	9.13
Improvements to treatment water gravity main	30.03
Improvements to LLR zone D- system	67.89
Replacement of damaged PVC main in D system	22.53
Road restoration charges	15.89
<b>Total</b>	<b>241.88</b>

Source: DPR for Improvements of Water Supply System, 2007

The O&M expenses estimated is **Rs.22.36 lakhs** per annum. The tender has been awarded for an amount of Rs.241.88 lakhs. These works are under execution by the Municipality through a contract and is nearing completion. On completion of the above works, the supply position will improve considerably to standards.

### Proposals under CCCBP

The additional components with water supply proposed are:

- To increase the pressure in supply lines, construction of 2 new OHTs of capacity 2 LL at  
a) Market area and  
b) Uzhavar Sandhai area @ Rs. 6.00 lakhs each.
- To meet the ultimate requirements with one third of daily supply, an additional OHT of 12 LL is proposed at a cost of Rs.50.00 lakhs.
- Mini Power pumps in each ward for increased pressure – Rs 30.00 lakhs
- A water tanker to facilitate uninterrupted supply during summers. – Rs.15.00 lakhs

The estimate for the above proposals is summarized as below.

**Table 5.6 Proposals –Water Supply**

Item	Amount Rs. in lakhs
Construction of 3 no. of OHT	62.00
Mini Power Pumps	30.00
Water tanker	15.00
<b>Total</b>	<b>107.00</b>

Source: Analysis & Discussions with ULB officials & stakeholders

Hence a total cost of **Rs.107.00 lakhs** is required towards improvements of water supply.

## 5.1.2 SEWERAGE

### i) Existing Status

At present the town does not have underground drainage and hence it is dependent on individual septic tanks. The number of house holds in Bodinayakanur Municipality is around 14,400, out of which 8,000 houses are provided with latrines having septic tanks. The sewage and storm water are collected through the open drains and conveyed to open channels leading to Vanji Odai and Raja Vaikkal.

### ii) Improvement Needs

#### Proposal by Municipality

Bodinayakanur Municipality is not provided with an UGSS. The sullage and sewage generated in the town are collected through open drains and let into the nearby channels and irrigation tanks located adjacent to the town. The prevailing unsanitary conditions owing to the open drains and pollution of ponds located around the Municipal limit are to be stopped. Moreover, providing an underground drainage scheme to this town will reduce the mosquito breeding in the open drains and thus mitigate the causes of common diseases.

Bodinayakanur Municipality has requested TWAD Board in its resolution No.3 dated 28-03-2003 to investigate and formulate a proposal for implementing UGSS in this town. The Municipality had remitted an amount of Rs.3.30 lakhs as part of the investigation charges. The abstract estimate for the above proposal for the Municipality is estimated as **Rs.2828.00 lakhs**. This scheme may be taken up under UIDSSMT Scheme. After completion of the project, the scheme will be handed over to the Municipality for operation and maintenance.

The abstract of the UGSS is given below:

**Table 5.7 General Abstract for UGSS for Bodinayakanur Municipality**

S.NO	Description	Amount Rs. in lakhs
1	Collection System	1519.80
2	Pumping Station	104.94
3	Pumping Main	65.18
4	Pump sets	53.00
5	Sewage Treatment Plant	629.20
	Sub Total	2372.12
	Physical Contingency at 2.5 %	59.30
	Price Contingency at 2.5 %	59.30

S.NO	Description	Amount Rs. in lakhs
	Sub Total	2490.72
	Investigation charges @ 1.5%	37.36
	Supervision Charges @ 5%	124.53
	<b>Total</b>	2652.62
	Miscellaneous	
	1. Diversion of Underground Service (EB, Telephone, Water Supply)	60.00
	2. Road Restoration	50.00
	3. Separate Feeder Main for TNEB	49.38
	Sub Total	159.38
	Other Service Charges for Inter Departmental permission for the above @ 1 %s	16.00
	<b>Total</b>	175.38
	<b>Grand Total</b>	2828.00
	<b>Say Rs.</b>	28.28 Crores

Source: DPR for UGSS in Bodinayakanur Municipality

The abstract for the annual O&M expense for the Underground Sewerage System is given in Table.5.8.

**Table 5.8 Abstract for O& M expenses for UGSS**

S. No	Description	Amount Rs. in lakhs
1	Establishment Charges	16.92
2	Electrical energy for pumping station	18.80
3	Annual maintenance Cost for STP	38.72
4	Repairs and Renewals and Lubricants and cost of spares	1.56
	<b>Total</b>	<b>76.00</b>

Source: DPR for UGSS in Bodinayakanur Municipality

### 5.1.3 STORM WATER DRAINS

#### i) Existing Status

In most of the southern and central part of this town, sullage water and sewage are being let into the open drains available on both sides of streets and finally disposed off in a place at Salai Kaliamman Koil on the eastern side of the town, without any treatment. Sewage collected near Salai Kaliamman koil is being used for agriculture by the land owners by paying a marginal amount to the Municipality. The sewage and storm water collected from the western parts, i.e. Subburaj Nagar, Pudukolony, Paramasivam Street are directly let into the Vanji odai which then joins with vaikkal. The Raja Vaikkal which also carries the surplus water from River Kottagudi along with the sewage ends at Vankarusamy tank. The surplus of this tank ultimately joins with River Kottagudi. The open drains of

Northern part of the town covering Valasaithurai Road; Pudur and Boyan thurai area directly let the sewage into the Kottagudi River. As these areas are rapidly developing, the extent of pollution of Kottagudi River will increase in the near future, ultimately leading to the pollution of River Vaigai.

Length of roads in the town : 68.88 km

Length of existing storm water drains : 66.01 km

% of roads with storm water drains : 96%

## ii) Issues

The main issues persisting in the town with respect to storm water drains are:-

- Damaged drains in many stretches:-The surface brick lining of the drains in are damaged at many locations.
- Missing links in many roads and streets: - The drain network lack continuity and hence stagnation of sewage in the drains has become a common scene in the town.
- Disposal of untreated effluent into water bodies and low-lying lands: - The discharge from the drains which include both sullage water and sewage are let out into Kottagudi River without any treatment.

## iii) Improvement Needs

### Proposal under CCCBP

At present the rain water and the sewage are being let out into the road side open drains causing loss of valuable rain water, stagnation, unsanitary conditions and pollution of water bodies. The provision of UGSS would mitigate pollution to a great extent .To prevent stagnation of water during monsoons and capturing the rain water , closed type storm water drains on one or both sides of the road linking them to water bodies as per the natural slope of the town is suggested. The components are as given in Table.5.9

**Table5.9 Improvement Proposals for Storm Water Drainage**

Description	Length (in km)	Amount Rs. in lakhs
Provision of new storm water drains (width from 0.3m to 0.5m)	25.00	50.00
Reconstruction of damaged drains with Plain Cement Concrete	10.00	10.00
Upgrading existing open drains to closed type and Desilting existing drains	56.00	168.00
<b>Total</b>		<b>228.00</b>
<b>Annual O &amp; M Cost</b>		<b>7.00</b>

Source: Analysis and Discussions with Bodinayakanur Municipal Officials & stakeholders

#### 5.1.4 IMPROVEMENT OF WATER BODIES

##### i) Existing Status

Under National River Conservation Programme (NRCP), implementation of under ground sewerage scheme for the towns situated on the River banks are being under-taken and special sewerage projects are formulated to conserve the River. The sewage generated from Bodinayakanur Municipal town leads to pollution of River Kottagudi, one of the tributaries of River Periyar. Along the down stream side of the river, the sources for Boothipuram Special Village Panchayat are located. Hence, it is necessary to implement an Under Ground Sewerage Scheme (UGSS) for Bodinayakanur. As a result, a sewerage scheme is being formulated duly accommodating all other non-core schemes like Low Cost Sanitation, Solid Waste Management etc. This scheme may also be considered for being funded under National River Conservation Programme.

##### ii) Improvement Needs

An amount of **Rs.20.00 lakhs** can be allotted for the desilting and strengthening of Raja Vaikkal running along the north side of the town.

#### 5.1.5 SOLID WASTE MANAGEMENT

##### i) Existing Status

The municipality collects 100 percentage of the waste generated. Door to door mode of primary collection is practiced in 20 out of 33 wards. Three mini lorries have been used to transfer waste from collection points and to the existing dumping yard at Mayanam Road within the Municipal limits. The salient features of Solid Waste Management in the town are given in Table 5.10.

**Table 5.10 Salient features**

Average per capita waste generated	262 gms
Garbage generated per day	20.5 MT
Garbage collected per day	20.5 MT
Total No. of wards	33
Wards covered under door to door collection	33
Total no. of house holds	17731
Total no. of mini lorries	3
Existing push carts	45
No. of sullage tanker	1
<b>Staff Strength</b>	
Sanctioned strength for sanitary workers	146
Present strength	114
Deficiency of Sanitary workers	32

Source: Action Plan for SWM, Bodinayakanur Municipality

## Privatization

Due to the insufficient number of the sanitary workers, the local body has proposed to privatize the cleaning of the bus stand, weekly shandy, the major road network and door to door collection of additional 11 wards (7,10,11,13,14,15,16,17,18,19&20). The above work may be carried out by the Self Help Groups or by the Private operators. Two Self Help Groups have been mobilized for the purpose and the work is expected to commence before the end of this year.

## Compost Yard

The old compost yard of the town at Mayanam Road which extends over an area of 2.43ha has reached its capacity. Hence the Municipality identified a site for location of a new compost yard at Siraikkadu which has an area of 10.00 acres. The Municipality has proposed to practice Windrows method in the new compost yard. The work is under progress.

## ii) Issues

- Littering of waste along the main roads and streets: - Spilling of the waste along the streets and dumping of the waste in open areas is a common scene in the town.
- Inadequacy in number of vehicles for primary and secondary collection
- Absence of suitable infrastructure facilities in the compost yard: - The old compost yard at Mayanam Road can be revamped by modern methods of composting.
- Inadequate Municipal Staff: - Post of 32 sanitary workers is vacant.

## iii) Requirements

Table 5.11 gives the requirement of vehicles for Solid Waste Management vehicles in the Municipality.

**Table 5.11 Requirements for vehicles as per standards**

Primary collection	Vehicles required
At one <b>Push cart</b> / 200 houses for 17331 houses	89
Tri-cycle with 4 bins (50 liter capacity)	44
Bins (to be used in existing carts) 50 litre capacity	170
Secondary Collection	Vehicles reqd
Dumper Placer Bins	
at four bins/ sq.km bins for 7.23Sq. km or	28
at one bin/ 6000 population bins for 73430 or	13
at one bin/ 1.5MT for 20.00 M.T	13
Considering the Max. requirement based on area	28
Dumper Placer Vehicle	
At one vehicle /10 bins for 20 bins (Five trips per day in 8 hours & Two bins per trip)	2

Source: Action Plan for SWM, Bodinayakanur Municipality

For better management of the solid waste in the town, purchase of vehicles for the secondary collection and provision of facilities at the compost yard is necessary. The proposals given in Table.5.16 are under progress utilizing the 12<sup>th</sup> Finance Commission Grants for the years 2006-07. All the development works at new compost yard is expected to be completed shortly for the making of compost. An amount of Rs.32.00 lakhs has been sanctioned as loan and an amount of Rs.25.00 lakhs as grants from TNUIFSL. 80% of this amount has been sanctioned and released to the Municipality. The loan amount is being utilized for improvement in the compost yard and the grant is being utilized for the purchase of pulverizer and windrow turner. The rest of the amount for the improvement of the compost yard will be taken from the 12<sup>th</sup> SFC grant.

**Table 5.12 Proposed Improvements under 12th SFC Grants**

S.N	Name of the work	cost (Rs. in lakhs)	Present stage of work
<b>I.</b>	<b>Compost Yard Development</b>	<b>36.50</b>	
1	Providing windrows	17.50	CC Platform work in progress
2	Providing Bore well and Water supply arrangement	3.00	completed
3	Providing Drainage	4.00	Completed
4	Formation of inner road (B.T)	8.00	Nearing completion
5	Providing Electrification & lighting	3.00	Work in progress
6	Providing live fence	1.00	Work to be commenced
	<b>Works yet to be started</b>		
<b>II.</b>	44 Tri-cycle with 4 bins	6.00	<b>Awaiting for A.S</b>
<b>III.</b>	35000 Household Bins	7.00	<b>Awaiting for A.S</b>
<b>IV.</b>	170 nos of Bins (50 litre) for Primary Collection	1.20	<b>Awaiting for A.S</b>
	<b>Secondary Collection</b>		
<b>V.</b>	1 nos. of Dumper Placer Vehicle	7.80	<b>Awaiting for A.S</b>
	Conversion of a mini lorry to dumper placer vehicle	4.00	<b>Awaiting for A.S</b>
	20 nos. of Dumper Placer Bins	12.00	<b>Awaiting for A.S</b>
	<b>Total</b>	<b>38.00</b>	

Source: Action Plan for SWM, Bodinayakanur Municipality

### iii) Improvement Needs

#### Alternative for Solid Waste Management

At present, the solid waste generated daily in the town is about 20.5 MT. In future years assuming the per capita generation of solid waste in the town at 350 gm and 500 gm/day, there will be corresponding addition of 5 MT and 7 MT. Solid Waste Management is one of the principal sectors

of expenditure in Urban Local Bodies. Hence, there is a need for scientific management of solid waste to cope with future demand.

In places like Namakkal, Pondicherry, certain colonies in Chennai and some zones in other urban centres of the state the technology of vermin-composting is practiced through NGOs and private bodies. In Bangalore, Residents Associations are converting their solid wastes into manure.

In number of towns in Tamil Nadu and also elsewhere, Vermi composting using earth worms in the form of Tiger Worms or imported giant earth worms is in practice. Also using the cow dung, the biodegradable waste is converted into manure. Vermi composting engaging earth worms and worms generated in cow dung take 4 to 6 weeks to convert the garbage into manure.

Of the Municipal waste in Tamil Nadu, minimum 60% of the waste is biodegradable. Of the organic waste, on conversion, nearly 30% by weight forms the manure. Incidentally, the manure generated from the Municipal waste is found to be richer in NPK values compared to the one available in the market. This has resulted in producing better yield of agricultural products both in quantity and quality.

#### **Identification of regional land fill site**

The four project towns in this region i.e. Theni, Bodi, Gudalur, Chinnamanur and Cumbum lie at close proximity to each other. At present there are no major activities in need of a regional land fill site. But a suitable site which is unproductive and uninhabited may be identified for future uses.

Therefore, an amount of **Rs.38.00 lakhs** is needed for the Solid Waste Management improvement proposals for the future year, which will be met out from 12<sup>th</sup> finance grants.

#### **5.1.6 ROADS**

##### **i) Existing Status**

The National Highway 49 (extension) which extends from Rameswaram to Cochin passes through the northern side of the town. Apart from this, a road to Uthamapalayam radiates from the centre of the town. The major roads traversing the town are Periyandavar High Road, Kamaraj bazaar road, Periyakulam road and Kurangani roads and they are maintained by the Highways and Rural Works department. The internal circulation of the town consists of narrow roads and streets in the older settlements. But in the newly developing areas, the roads are fairly wide and properly linked, facilitating free flow of traffic within the town and by passing of heavy vehicles from the thickly built up area. The Municipality maintains 68.88 km of roads in the town. The details of the roads are given in Table 5.13

**Table 5.13 Indicators - Roads**

No. of Roads	Length in km	Percentage
CC Roads	12.48km	18.00
BT Roads	41.53km	60.00
WBM	11.53km	17.00
Earthen Roads	3.34km	5.00
<b>Total</b>	<b>68.88km</b>	<b>100.00</b>

Source: Bodinayakanur Municipal Records, 2007.

## ii) Issues

The issues regarding roads in the town are as follows:-

- Stagnation of rain water on both sides of the major roads
- Damages caused to the roads due to digging undertaken for laying telephone cable, electrical cable, water supply distribution lines etc.
- Potholes present on the roads reducing their usability

## iii) Improvement Needs

### Proposals

The following proposals are recommended for the improvement of roads in the town.

**Table 5.14 Proposals for road improvement**

Description	Length (in km)	Amount Rs. in lakhs
Renewal of BT Roads	41.53	208.00
Upgrading WBM/earthen roads to BT roads	5.00	35.00
Upgrading WBM/earthen roads to concrete roads	5.00	70.00
<b>Total</b>	<b>51.53 km</b>	<b>313.00</b>

Source: Analysis and Discussions with Bodinayakanur Municipal Officials & stakeholders

## 5.1.7 BUS STAND

### i) Existing Status

Bodinayakanur Municipality is maintaining a 'C' class Bus stand with an area of 3.23 acres. There are 115 buses plying through the bus stand every day. At present, the following facilities are provided in the bus stand.

- 9 Bus bays
- 16 Shops
- 2 Hotels
- 1 Cloak room
- 1 Drinking Water
- 1 Passenger waiting hall

- vii. 1 Pay & Use latrine
- viii. 1 Cycle Stand
- ix. 1 Municipal Lodge

The Municipality receives an amount of Rs.5.90 lakhs and Rs.1.91 lakhs as revenue from the shops and bus bays respectively. The proposal for 15 no. of additional bus bays is under implementation. The cost of the project is Rs.55.00 lakhs which was allotted under IUDP Scheme at 16% rate of interest. 20 seated public toilet, 18 shops, two passenger waiting halls and one booking room are also taken up in the proposal. The amount was taken as loan from DTCP.

## ii) Improvement Needs

### Proposals

The proposals for improving the bus stand in the town are given in Table.5.15

**Table 5.15 Proposals - Bus Stand**

Work	Amount (Rs. in lakhs)
Revamping of cycle stand	10.00
Providing CC pavements	50.00
Providing ornamental arch at 3 entrances	15.00
Maintenance of lodge	10.00
<b>Total</b>	<b>85.00</b>

Source: Analysis and Discussion with Bodinayakanur Municipal officials & stakeholders

### 5.1.8 BUS SHELTER

There are no bus shelters within the Municipal area at present. Even though, there is demand and need, construction of bus shelters in the town can be taken up only after the widening of the National Highways are over. The participation of private sector can be sought for construction and maintenance purposes.

### 5.1.9 STREETLIGHTS

#### i) Existing Status

The town has 1876 street lights. The distance between the poles is 37.00m. The break up of the street lights in the town is given in Table.5.16.

**Table 5.16 Indicators for Street lighting**

Type	Number	% to total
Tube Lights	1829	97.50
Sodium Vapour Lamps	33	1.75
High Mast Lights	2	0.10
Mercury Vapour Lamps	12	0.64
<b>Total</b>	<b>1876</b>	<b>100.00</b>

Source: Municipal Records, 2007.

The Street lights are maintained by the Municipal staff and 96% of street lights are functional. Timer Switches have been provided throughout the town. This system ensures energy efficiency and time savings for staff .As per the norms, at every 30m of the road a streetlight has to be provided. Thus Bodinayakanur needs 2295 no. of streetlights. The town has got a deficiency of 431 streetlights. The issues regarding streetlights in the town are the absence of streetlights in certain stretches of roads and spacing between the lights is more than the standard of 30m. Table 5.16 shows the proposals to be undertaken by the Municipality.

## ii) Improvements Needs

Energy savings in street lighting could be achieved through following ways one by replacing existing conventional tube lights with energy efficient retrofit tube lights, installing power saver devices and privatizing the operation and maintenance of street lighting. There are 1182 florescent tube light fixtures installed in Chinnamanur Municipality. These 40 Watt fluorescent tube lights with ballasts will consume an additional 10-13 watts. To reduce the energy consumption, 28 Watt T-5 retrofit tube lights have to be introduced in place of existing conventional tube lights. Based on the best practices followed in other parts of country, retrofit tube lights are proposed in Bodinayakanur also. The new tube-lights have a higher luminary rating, longer life span, lower failure rate and perform better under the highly fluctuating voltage that plagues the town's electricity supply. The salient features of retrofit tube lights are presented in the following table.

**Table 5.17 Salient features of Retro fit tube lights**

Description	Value
Tube type	E+28 W
Power Factor	0.95
Rated life of tube (burning hours)	18,000
Rated life of electronics (burning hours)	50,000
Stroking Voltage	Less than 120 volts

The following table presents the comparison of present conventional florescent tube lights with proposed Retrofit tube lights.

**Table 5.18 Comparison of conventional tube lights with retrofit lights**

Description	40 Watts Tube Light	Retrofit light
Connecting load* (W)	52.5	30
Light output (Lm)	2450	2900
Annual energy consumption ** (KWH)	211	120
Energy charges @Rs. 3.50/-	738	422
Life of lamp (Hours)	4000	18000

\* Including ballast loss of 12.5 W for conventional 40 Watts Tube lights.

\* Calculated for 11 hrs daily average burning.

### Proposals under CCPBP

The proposals may be considered under the ESCO (Energy Saving Company- private sector) scheme, wherein the operation and maintenance of the street lighting system is privatized. The ESCO operates and maintains the system with energy saving techniques and devices for the stipulated period and shares the profit (upto 20%) with the Municipality. To save energy and to reduce the consumption of energy, the proposals given in the Table 5.19 are to be undertaken.

**Table 5.19 Proposals - Street lighting**

Type	Number	Cost (Rs. in lakhs)
Providing new lights	216	22.00
Providing Solar Lamps	215	13.00
Automatic Timer Switches	216	6.00
Retrofitting of existing tube lights	1829	5.50
<b>Total</b>		<b>47.00</b>
<b>Annual O &amp; M Cost</b>		<b>1.50</b>

Source: Analysis and Discussion with Bodinayakanur Municipal officials & stakeholders

## 5.2 SOCIAL INFRASTRUCTURE

### 5.2.1 SLUM IMPROVEMENT

#### i) Existing status

There are 11 slums in the town of which 6 are notified slums. The slums have 5795 households which forms 32% of the total no. of households in the town. About 32% of the town's population lives in the slums. The details regarding the location and population of the slums are given in Table 5.20

**Table 5.20 Details of Slums**

SI No	Name of Slums	Ward No.	No. of House hold	Population
1	Puddar lay out,Sadayandi Nagar	11	532	2128
2	Muthalvar Colony	19	630	2520
3	Church Street	7	248	992
4	T.V.K.K. Nagar	31	436	1744
5	Kalaivanar street	16	397	1588
6	Old Hospital street	9	478	1912
7	Kuppalagiri thottam	18	388	1552
8	V.O.C. Nagar	10	645	2580
9	Subburaj Nagar,New Colony	33	594	2376
10	Pudur	1	943	3772
11	Jameen thoppu	2	504	2016
	<b>Total</b>		<b>5795</b>	<b>23180</b>

Source: Bodinayakanur Municipal Records, 2007

## ii) Improvement Needs

### Proposal by Municipality

The Municipality has put forward proposals under IHSDP for an amount of **Rs.132.40 lakhs**. The proposals put forward are for improving the infrastructure facilities in the six among the 11 slums in the town. The abstract of the proposal is enclosed in Table.5.21

**Table 5.21 Proposals – IHSDP**

BODINAYAKANUR MUNICIPALITY																
S.No	Name of the Slum	Drain			BT Road			House		Power pump		Toilet		Street light		Total
		No. of works taken up	Length (Km)	Estimate cost ( lakhs)	No. of works taken up	Length (Km)	Estimate cost (lakhs)	No. of work taken up	Estimate cost ( lakhs)	No. of work taken up	Estimate cost (lakhs)	No. of work taken up	Estimate cost ( lakhs)	No. of work taken up	Estimate cost (lakhs)	
I	Pudur, Mayanam Road	1		1.50												
		1		5.10	1		2.4	47						3	0.15	9.15
II	Church Street	1		0.45				10		1	0.85	1	5.00	3	0.15	6.45
III	Sadiyandi Nagar	1		1.20				10		1	0.85			4	0.2	2.25
IV	Muthalavar Colony	1		1.75												
		1		1.80				10				1	5	5	0.25	8.80
V	T.V.K.K. Nagar	1		5.50				10		1	0.85			5	0.25	10.60
		1		4.00												
VI	Pudu Colony	1		7.25	1		4.50	10		1	0.85			9	0.45	17.55
					1		4.50									
	<b>Total</b>	9	2.50	28.55	3	0.88	11.40	97	77.60	4	3.40	2	10.00	29	1.45	132.40

Source: Bodinayakanur Municipal Records, 2007.

## Proposals under CCCBP

The infrastructure facilities for the rest five slums, are to be taken up in the next stage (phase II). The amount required for the rest 5 slums on the basis of slum population will be Rs.144.00 lakhs. The funds for the slum improvement proposals will be received under IHSDP Scheme. An amount of Rs.9.00 lakhs will be needed for the maintenance of the slums in the town. The total cost required towards improvement of slums is **Rs.276.40 lakhs.**

### 5.2.2 MEDICARE

The only medical institution managed by the Municipality is the Reproductive and Child Health Centre which was built utilizing the World Bank grants in 2000. In 2003, it was handed over to the Municipality. There are 5 sanctioned posts for Sanitary Inspectors, of which one remains vacant at present. There are 8 sanitary supervisors in the RCH. The Municipal Health Officer post has been vacant for the past 10 years. There are 8 beds available in the maternity centre. The post of the Medical Officer still remaining unfilled is the issue faced by the RCH. Steps can be taken to fill the post of the Health Officer so that number of patients will make use of RCH thereby improving the health facilities available in the town.

### 5.2.3 EDUCATION

#### i) Existing Status

The Municipality owns and maintains 4 schools in the town.

The list of the schools is given below:

- i. Municipal 7th Ward High School
- ii. Municipal 15<sup>th</sup> Ward Anna Mid School
- iii. Municipal 10<sup>th</sup> Ward Girls Mid School
- iv. Municipal 1<sup>st</sup> Ward Elementary School



All these schools are functioning in the buildings owned by the Municipality. The issues relevant in the case of the schools are that all these schools don't have adequate computer facilities and play materials.

#### ii) Improvement Needs

The following proposals are suggested to improve the existing status of the schools. The amount needed for carrying out the improvements in the school can be taken as grants from Education Fund.

**Table 5.22 Proposals - Education**

Item	Amount Rs. in lakhs
Providing computer facilities in the schools	8.00
Providing play materials in the schools	6.00
Providing platform in the playground in 1 <sup>st</sup> Ward elementary school in Subburaj Nagar	5.00
<b>Total</b>	<b>19.00</b>
<b>Annual O &amp; M Cost</b>	<b>0.60</b>

Source: Analysis and Discussion with Bodinayakanur Municipal officials & stakeholders

## 5.2.4 PARKS AND PLAYFIELDS

### i) Existing Status

At present there are three parks serving the town. Three more open spaces in various lay outs have been handed over to the local body for the development of park. The location and area details of the parks and open spaces are given in the table below:

**Table5.23 List of parks in the Municipality**

Name	Location	Area (in acres)
Sonaimuthu Park	Ward No.32 (Subburaj Nagar)	1.00
Venkattammal Park	Ward No.10 (Old Bus Stand)	0.09
Bojan Park	Ward No.6 (Keela Theru)	0.05
Park Land 1		0.56
Park Land 2		0.09
Park Land 3		0.13

Source: Bodinayakanur Municipal Records, 2007

Out of this, only the Sonaimuthu Park over an area of 1 acre is being maintained by the Welfare Association of Subburaj Nagar. The Sonaimuthu Park can be provided with a walkway. The other park areas need to be developed and maintained to meet the recreational needs of the public.

The issues regarding the parks and playgrounds in the town are the lack of greenery and play materials in the parks. The parks in the town are maintained not properly.

### ii) Improvement Needs

The parks can be developed by planting trees along the periphery, trees, play equipments, gym for youngsters, tot lots, seating arrangements, lighting etc. The following proposals are to be undertaken to improve the parks and open spaces in the town.

**Table 5.24 Proposals - Parks & Playfields**

Description	Amount Rs. in lakhs
Providing play materials in Venkattammal Park and Bojan Park	5.00
Providing a walkway in Sonaimuthu Park	10.00
Developing the open spaces in layouts into parks	30.00
<b>Total</b>	<b>45.00</b>
<b>Annual O &amp; M Cost</b>	<b>1.35</b>

Source: Analysis and Discussion with Bodinayakanur Municipal officials & stakeholders

### 5.2.5 PUBLIC CONVENIENCE

All the toilets in the town are functioning at present. They are maintained by Self Help Groups who pay the electricity charges also. All the toilets have water supply facilities. The details of the public toilets in the town are given in Table.5.25

**Table 5.25 Public Convenience**

Type	Number
Pay and Use Toilet	18
ISP Toilet	4
Vambay	5
<b>Total</b>	<b>27</b>

Source: Bodinayakanur Municipal Records, 2007.

Poor structural condition of the existing toilet buildings and inadequate number of toilets are the issues faced by the Municipality. Participation of SHGs and NGOs can be made use of for maintaining the toilets which will make their maintenance effective. The town needs five more new sanitary complexes which will need an amount of Rs.50.00 lakhs and an amount of Rs.10.00 lakhs for the maintenance/ repairs of the existing toilets. The total amount needed is **Rs.60.00 lakhs**.

### 5.2.6 BURIAL GROUND/CREMATORIUM

#### i) Existing Status

The existing burial ground in the town is located at Santhivanam along the Mayanam Road. The burial ground extends over an area of 1.68 hectares. The burial ground is provided with an approach road, compound wall on one side, burning yard and a waiting shed.

## ii) Improvement Needs

### Proposal by the Municipality

The burial ground lacks proper lighting facility and water supply facility. Under Part II Scheme, an amount of Rs.10.00 lakhs has been sanctioned for providing compound wall and another Rs.42.00 lakhs for installing a gasifier crematorium. 50% of this amount is allotted as grants and rest 50% as the local body's own contribution. The work is under progress.

### Proposal under CCPBP

In addition to that the following proposals are put forward to further improve the condition of the burial ground.

**Table.5.26. Proposal under CCPBP**

Description	Amount Rs. in lakhs
Constructing a prayer hall	5.00
Relaying of roads	5.00
<b>Total</b>	<b>10.00</b>
<b>Annual O &amp; M Cost</b>	<b>0.20</b>

Source: Analysis and Discussion with Bodinayakanur Municipal officials & stakeholders

## 5.2.7 MARKET

### i) Existing Status

The weekly market in the town is located near Thendral Nagar. The market extends over an area of 3 acres and 80 cents. Since the town is located at the border of Tamil Nadu and Kerala state, the town acts as the service centre for agricultural products from the hinterland. The market transacts various commodities like vegetables, Mutton, dry fish etc.

### ii) Issues

- Absence of daily market – the town does not have daily market and the people have to resort to the markets in the neighboring towns.
- Absence of permanent structures in the existing weekly market – The weekly market is functioning in an open land owned by the Municipality, where temporary structures are built up during the day when the market functions.

### iii) Proposals

The weekly market in the town is an open site at present. This weekly market can be converted into a daily market by providing permanent structures with proper roofs. This will in turn act as a good source of revenue for the Municipality. The erection of sheds in the weekly market can be done at the cost of an amount of **Rs.200.00 lakhs**.

#### 5.2.8 SLAUGHTER HOUSE

##### i) Existing Status

The existing slaughterhouse of area 100sq.ft at Kamarajar Bazar near town police station is shifted to Periyandavar High Road near the public toilet in ward no.4.(area – 240sq.m). An amount of **Rs.20.00 lakhs** has been sanctioned for providing all the modern facilities in the slaughterhouse. The work is yet to be undertaken. 50% of the amount will be allotted as grants under Part II Scheme and the rest as contribution from the Municipality.



Slaughterhouse

#### 5.2.9 URBAN GREENERY

##### i) Existing Status

Only a stretch of National Highway road passes through the town is lined with trees. Planting trees along the major roads and those with heavy traffic will improve the environment of the town. Tree saplings can hence be planted along the major road margins which will also provide shade to the pedestrians.

##### ii) Improvement Needs

##### Proposals

The greenery of the town can be improved by planting around 1000 saplings in the town. All the roads can be lined with trees. The local body with the co-operation of NGO's, SHGs, welfare associations or other private institutions, can undertake systematic planting of trees with tree guards. Saplings can be planted in the premises of school buildings, Municipal buildings, service reservoir sites, compost yards and STP sites. Planting of 1000 saplings could be done with an amount of **Rs.2.50 lakhs**.

## **5.3 OTHER PROJECTS**

### **5.3.1 E GOVERNANCE**

Electronic Governance is data administration using Computers. Bodinayakanur Municipality is facilitated with latest Pentium systems of high configuration. The computer section has adequate infrastructure as per the requirements. They have internet connection; and hence enabling fast, reliable and secured data communication with the head offices. They have various software modules for data maintenance like Birth & Death, Property tax, Water charges, Profession tax, Building plan, Movable and Immovable registration, Personnel Management System, Financial Accounting System, etc. This facilitates efficient, transparent data keeping and processing. Among the 16 modules of e-governance, Bodinayakanur Municipality practices 14 modules. They have a Municipal office facilitation centre in the Municipal campus.

### **5.3.2 REMUNERATIVE PROJECTS**

#### **i) Existing status**

Other than improving the physical and social infrastructure, there are certain other projects put forward under CCCBP that would help to improve the revenue of the local body. All such buildings can be built as Green buildings. Green buildings demonstrate efficient utilization of energy, sustainable and integrated use of both natural resources and clean and renewable energy technologies, and efficient waste management.

#### **ii) Improvement Needs**

The police quarters located in the heart of the town was vacated two years back. The site with the building is left unused at present. The land can be taken over by the Municipality from the police department. In that case, the site can be utilized by the Municipality for the construction of shopping complex or officers quarters if handed over to them.

The site of the old slaughterhouse can be used for the construction of new shops which will attract revenue to the Municipality in the form of deposits and rent. The site is along Kamarajar Bazar where the development is dense. The area of the site is 550 sq.m. The amount to be spent on this project will be **Rs.40.00 lakhs**.

### **5.3.3 CONSTRUCTION OF MUNICIPAL BUILDINGS**

The Municipal quarters for the sanitary workers and the municipal staff are in dilapidated condition. These buildings can be given a face lift in the form of Green Buildings which will be more eco-friendly. The buildings can be taken up as high rise buildings where the ground floor can be rented

out for commercial purpose thereby improving the revenue of the Municipality. The proposals put forward for the modification of Municipal buildings is given in Table 5.27.

**Table 5.27 Proposals - Remunerative Projects**

S.No	Work	Location	Area	Cost (Rs.in lakhs)
1	Modification of Sanitary workers quarters	-	-	10.00
2	Modification of existing staff quarters	-	-	20.00
3	Mobile tax collection vehicle	-	-	8.00
4	Modernization of Travelers Bungalow	Near Filter house	500 sq.m	25.00
	<b>Total</b>			<b>63.00</b>

Source: Analysis and discussion with Bodinayakanur municipal officials & stakeholders

### 5.3.4 UPDATION OF DATABASE ON GIS PLATFORM

To date there is no entirely dependable and realistic database for the town, in the form of topography, updated base map, assessment of properties in their location, size, use and intensity, assets -lands and structures in their location, status, extent, and quality; topography, land parcels by town survey, numbers and sub divisions and so on. All these can be updated with cent percent precision using high resolution satellite imageries supplemented by cent present primary survey or aerial photographs. All these with spatial and non-spatial data can be had on a GIS format which, on a click at any feature or site on the town map will provide the entire details including the description of the feature / address of the owner including tax paid etc. This is a one time comprehensive exercise to include the updated town map with town survey, land parcels, structures, service network, assets with the relevant details and description on a GIS format.

In this ultra modern age, with high-tech interventions, this is considered a must for easy, efficient and flawless governance, administration and functional operation from local body level to the government level.

This project may cost about **Rs. 45.00 lakhs** including the cost of high resolution satellite imageries. This entire amount may be obtained as grants from the government and it will take maximum one year for completion.

### 5.3.5 IMPROVEMENT TO BODINAYAKANUR PALACE

#### Present Status

The Bodinayakanur Palace situated near the Municipal Building was built during the late 19th century was built by the Rajah of Travancore. The palace and the town was an award of bravery to

Bodayanayakanur, after whom the town was named. It is under the ownership of the current Zamindar.

The splendid structure, the Lakshmi Niwas, with Ramayana depicted on its walls, the royal artifacts and armory exhibits are the major attractions of this palace. At present, the palace is in a dilapidated condition due to negligence and lack of funds. It is being rented out as Cotton godowns and petty shops.



### Proposals

The CCCBP proposes to convert the palace to a Heritage centre of the town, with the involvement of private developers. Facilities for bed and breakfast, folk arts performance centre, Camping gear, Tourism information centre, Spice Sales Centre can also be established as a value addition. The involvement of the Tourism department may be sought for a feasibility study.

### 5.4 PROPOSALS TO BE IMPLEMENTED BY OTHER AGENCIES

To make use of the inherent potential of the resources in the town, there are certain proposals which can be implemented by other agencies. Implementation of these proposals will enhance the development of the town. The proposals are put forward visualizing the optimal utilization of the resources available in and around the town.

**Table 5.28 Proposals to be implemented by other Agencies**

Sl.No	Proposals	Nodal agency
1	Special Eco tourism Zone	ITDC
2	Improvement to water bodies	PWD Dept
3	Food processing ad packaging advisory Centre	Ministry of food processing technology, Govt. of India
4	Feasibility study for conversion of Bodi palace to Heritage tourism centre	Zamindar / Private developer

Source: Discussion with Bodinayakanur municipal officials & stakeholders

**6**

**MUNICIPAL FINANCE**

**6.1 INTRODUCTION**

Bodinayakanur Municipality maintains a municipal fund for managing the finances of the Municipality. The accounts of the municipal fund were maintained on cash based single entry system till the year 1999-2000. From 1.4.2000 onwards, accrual based double entry book keeping system was implemented. The Municipality maintains accounts separately for General Fund, Water Supply and Sewerage Fund and Education Fund.

This Section contains a description of the municipal finances, the sources and uses of funds, and an assessment of municipal finances based on important financial indicators.

**6.2 RECEIPTS**

Receipts under the Revenue Account include taxes and fees, grants, water & sewerage charges, income from properties, service charges & fees and other income.

**6.2.1 Property Tax**

Property Tax is the single largest tax revenue source and accounts for around 22% of the total revenue. This tax is levied on residential, commercial, industrial and vacant lands. The property tax is levied on the basis of Annual Rental Value of the property. The property tax is levied on the annual value of the property, which is determined on the basis of gross rent at which the property can be reasonably expected to be let out.

The Municipality currently charges property tax @ 33% per annum on the basis of Annual Rental Value. The components of property tax are as below :

**Table 6.1 Property Tax Components**

<b>Particulars</b>	<b>% (Per Annum)</b>
General	13.00%
Scavenging	7.00%
Lighting	-
Water Tax	8.00%
Sewerage Tax	-
Education	5.00%
<b>Total</b>	<b>33.00%</b>

The total number of property tax assessments is 15308 Nos. the breakup of which is as below :

**Table 6.2 Property Tax Assessments**

Particulars	Nos.
Domestic	13963
Commercial	1267
Industrial	44
State Government Properties	34
Public Sector Undertakings	-
<b>Total</b>	<b>15308</b>

The total number of unapproved layouts in the Municipality is 27 Nos. and there are no un-approved layouts for which property tax assessment is carried out. The last revision of Property Tax was carried out on 01.10.1998.

The total property tax collections during the last 6 years ended 2006-07 is as below :

**Table 6.3 Property Tax Growth during last 6 years**

Year	Rs. in lakhs	% Growth Rate
2001-02	83.87	-
2002-03	84.99	1.34%
2003-04	86.41	1.67%
2004-05	87.58	1.35%
2005-06	88.39	0.92%
2006-07	90.40	2.27%

It may be observed from the above that the average property tax collection is around Rs. 88-90 lakhs per annum and average growth over the years is only around 1.5%.

The demand and collection of property tax over the last 6 years is as below :

**Table 6.4 Property Tax – Demand Collection %** (Rs. in lakhs)

Property Tax	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
<b>Demand</b>						
- Current	90.86	92.08	93.65	94.91	95.79	97.97
- Arrears	21.02	24.14	29.04	34.82	35.73	41.76
<b>Total</b>	<b>111.88</b>	<b>116.22</b>	<b>122.69</b>	<b>129.73</b>	<b>131.52</b>	<b>139.73</b>
<b>Collection</b>						
- Current	85.53	86.45	86.46	89.37	88.81	87.61
- Arrears	2.19	0.75	0.88	4.10	0.96	5.55
<b>Total</b>	<b>87.72</b>	<b>87.20</b>	<b>87.34</b>	<b>93.47</b>	<b>89.77</b>	<b>93.16</b>
<b>Collection %</b>						
- Current	94%	94%	92%	94%	93%	89%
- Arrears	10%	3%	3%	12%	3%	13%
<b>Total</b>	<b>78%</b>	<b>75%</b>	<b>71%</b>	<b>72%</b>	<b>68%</b>	<b>67%</b>

On the average, the total current collection performance of property tax is 93% and the arrears collection performance is around 8%.

### 6.2.2 Profession Tax

Profession Tax is another source of revenue to ULB. Profession tax is a tax deducted from the salaries of the employees falling within the Municipality and is collected from all registered organizations, companies or firms, public or private, individuals and State & Central Government Departments. Currently profession tax is deducted on a slab basis.

The total number of profession tax assessments is 1500 Nos., out of which state / central / quasi Govt. employees comprise 500 Nos., private employers / companies is 600 Nos. and traders / self employed professionals 400 Nos.

During the last 6 years, it has increased from Rs. 8.16 lakhs to Rs. 16.13 lakhs. It accounts for around 3.5% of the total revenue. The profession tax for the last 6 years is as below:

**Table 6.5 Profession Tax – Growth during last 6 years**

Year	Rs. in lakhs	% Growth
2001-02	8.16	-
2002-03	6.11	(25.12%)
2003-04	8.87	45.17%
2004-05	9.15	3.16%
2005-06	12.23	33.66%
2006-07	16.13	31.89%

The demand and collection of profession tax over the last 6 years is as below :

**Table 6.6 Profession Tax – Demand Collection %** (Rs. in lakhs)

Profession Tax	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
<b>Demand</b>						
- Current	8.15	6.10	8.87	9.15	12.22	16.13
- Arrears	8.69	8.35	2.81	2.81	2.89	0.44
<b>Total</b>	<b>16.84</b>	<b>14.45</b>	<b>11.68</b>	<b>11.96</b>	<b>15.11</b>	<b>16.57</b>
<b>Collection</b>						
- Current	6.70	6.10	8.87	7.36	11.79	13.61
- Arrears	1.80	5.53	-	1.71	0.08	-
<b>Total</b>	<b>8.50</b>	<b>11.63</b>	<b>8.87</b>	<b>9.07</b>	<b>11.87</b>	<b>13.61</b>
<b>Collection %</b>						
- Current	82%	100%	100%	80%	96%	84%
- Arrears	21%	66%	0%	61%	3%	0%
<b>Total</b>	<b>50%</b>	<b>80%</b>	<b>76%</b>	<b>76%</b>	<b>79%</b>	<b>82%</b>

The average current collection efficiency of the Municipality with respect to profession tax is 85% and the arrears collection efficiency is around 20%.

### 6.2.3 Assigned Revenues

This item head comprises of income from Government of Tamil Nadu (GoTN) / State transfers of municipal income collected by the state line department. Transfers are in the form of municipality's share of taxes levied and collected by GoTN from establishments / operations within municipal limits.

Surcharge on transfer of immovable properties and entertainment tax are the major items on which these revenues are realized by municipality.

This income varies from year to year. The items under this category accounted for nearly 7% of the total municipal revenue. The assigned revenue for the last 6 years is as below:

**Table 6.7 Assigned Revenue – Growth & % of Total Income (Rs. in lakhs)**

Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
<b>Assigned Revenue</b>						
Duty on transfer of property	24.08	32.01	29.03	15.99	11.22	14.88
Entertainment Tax	6.58	8.09	6.42	6.42	1.64	1.13
<b>Total</b>	<b>30.66</b>	<b>40.10</b>	<b>35.45</b>	<b>22.41</b>	<b>12.86</b>	<b>16.01</b>
<b>% of Total Income</b>	<b>11%</b>	<b>12%</b>	<b>8%</b>	<b>7%</b>	<b>3%</b>	<b>4%</b>
<b>% Growth</b>	-	<b>30.79%</b>	<b>(11.60%)</b>	<b>(36.78%)</b>	<b>(42.61%)</b>	<b>24.49%</b>

It may be observed that Assigned Revenue has decreased over the last 6 years. In case of entertainment tax, the Commercial Department collects entertainment tax from cinema halls functioning within municipal limit. The CT Department transfers 90% of total tax collection to municipality and retains 10% towards management charges. In case of Cumbum Municipality there are 5 theatres, but income from entertainment tax has reduced over the years.

### 6.2.4 Revenue Devolution Funds in aid of revenue expenditure

Grants in aid of revenue expenditure got boosted up following the 74<sup>th</sup> CAA and the same is reflected in the Municipality Revenue. The item mainly comprises revenue grants and compensations from State Government under various heads. The regular grants include the SFC grants and others include aid grants, grants for services like roads, buildings, maternity and child welfare, public health, contributions for elementary and secondary schools and etc. Grants which are for specific purposes are adhoc in nature.

This income varies from year to year. The items under this category accounted for nearly 35% of the total municipal revenue. The assigned revenue for the last 6 years is as below:

**Table 6.8 Devolution Fund – Growth & % of Total Income** (Rs. in lakhs)

Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Devolution Fund	83.73	122.92	211.65	97.32	198.39	168.41
<b>Total</b>	<b>83.73</b>	<b>122.92</b>	<b>211.65</b>	<b>97.32</b>	<b>198.39</b>	<b>168.41</b>
<b>% of Total Income</b>	<b>30%</b>	<b>36%</b>	<b>48%</b>	<b>31%</b>	<b>48%</b>	<b>41%</b>
<b>% Growth</b>		<b>46.81%</b>	<b>72.19%</b>	<b>(54.02%)</b>	<b>103.85%</b>	<b>(15.11%)</b>

As per SFC recommendation, 12% of state revenue under Pool B is transferred to each local body based on formula recommended by SFC. The fluctuation in SFC grant is due to delay and deduction at source.

### 6.2.5 Water Charges

The water charges and deposits collected by the Municipality are as below :

**Table 6.9 Water Tariff & Deposit**

Category	Tariff	Deposits
Domestic	Rs. 37/- per month	Rs. 3000/-
Commercial	Rs. 152/- per month	Rs. 7000/-
Industrial	-	-

The total number of house service connections (HSC) is 9064 Nos., the breakup of which is as below:

**Table 6.10 House Service Connections**

Particulars	Nos.
Domestic	8866
Commercial	198
Industrial	-
<b>Total</b>	<b>9064</b>

The percentage of water supply connections to property tax assessments is only around 60%. The Municipality should take steps to increase it to atleast 70-75%. This is possible because of adequate water supply in the town.

The water charges for the past 6 years is as below :

**Table 6.11 Water Charges – Growth & % of Total Income** (Rs. in lakhs)

Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Water Charges	23.15	29.43	40.83	41.23	42.56	50.85
<b>Total</b>	<b>23.15</b>	<b>29.43</b>	<b>40.83</b>	<b>41.23</b>	<b>42.56</b>	<b>50.85</b>
<b>% of Total Income</b>	<b>8.35%</b>	<b>8.71%</b>	<b>9.27%</b>	<b>12.99%</b>	<b>10.26%</b>	<b>12.37%</b>
<b>% Growth</b>	-	<b>27.13%</b>	<b>38.74%</b>	<b>0.98%</b>	<b>3.23%</b>	<b>19.48%</b>

It may be observed that water charges account for around 12% of total income. There has been average growth of around 20% over the last 6 years.

The water connection charges for the past 6 years is as below :

**Table 6.12 Water Connection Charges – Growth & % of Total Income** (Rs. in lakhs)

Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Water Connection Charges	3.12	2.46	1.34	3.09	2.85	7.02
<b>Total</b>	<b>3.12</b>	<b>2.46</b>	<b>1.34</b>	<b>3.09</b>	<b>2.85</b>	<b>7.02</b>
<b>% of Total Income</b>	<b>1.13%</b>	<b>0.73%</b>	<b>0.30%</b>	<b>0.97%</b>	<b>0.69%</b>	<b>1.71%</b>
<b>% Growth</b>	-	<b>(21.15%)</b>	<b>(45.53%)</b>	<b>130.60%</b>	<b>(7.77%)</b>	<b>146.32%</b>

It may be observed that water connection charges account for around 1-2% of total income. There has been average growth of around 25% over the last 6 years.

The last date of revision of water charges was in 2003. The demand collection balance statement of water charges for the last 6 years is as below :

**Table 6.13 Water Charges – Demand Collection %** (Rs. in lakhs)

Water Charges	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
<b>Demand</b>						
- Current	23.15	29.43	40.83	41.23	42.57	50.85
- Arrears	0.18	57.70	51.43	37.96	17.07	18.80
<b>Total</b>	<b>23.33</b>	<b>87.13</b>	<b>92.26</b>	<b>79.19</b>	<b>59.64</b>	<b>69.65</b>
<b>Collection</b>						
- Current	21.84	24.97	29.28	36.55	35.29	44.85
- Arrears	0.06	10.72	25.01	25.57	5.54	6.45
<b>Total</b>	<b>21.90</b>	<b>35.69</b>	<b>54.29</b>	<b>62.12</b>	<b>40.83</b>	<b>51.30</b>
<b>Collection %</b>						
- Current	94%	85%	72%	89%	83%	88%
- Arrears	33%	19%	49%	67%	32%	34%
<b>Total</b>	<b>94%</b>	<b>41%</b>	<b>59%</b>	<b>78%</b>	<b>68%</b>	<b>74%</b>

The average current collection performance of water charges is around 85% and in case of arrears the average collection performance is around 35-40%.

### 6.2.6 Drainage Charges

The Municipality does not have Underground Drainage System and the households mainly have septic tank facility.

### 6.2.7 Service Charges & Fees

The Municipality receives service charges and fees in the form of trade licence fees, building licence fees, fees for bays in bus etc. The income in the form of service charges and fees received during the last 6 years is as below:

**Table 6.14 Service Charges & Fees – Growth & % of Total Income** (Rs. in lakhs)

Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Service Charges & Fees	11.21	12.32	15.33	13.29	12.96	10.66
<b>Total</b>	<b>11.21</b>	<b>12.32</b>	<b>15.33</b>	<b>13.29</b>	<b>12.96</b>	<b>10.66</b>
<b>% of Total Income</b>	<b>4%</b>	<b>4%</b>	<b>3%</b>	<b>4%</b>	<b>3%</b>	<b>2.6%</b>
<b>% Growth</b>	<b>-</b>	<b>9.90%</b>	<b>24.43%</b>	<b>(13.31%)</b>	<b>(2.48%)</b>	<b>(17.75%)</b>

It may be observed that service charges & fees accounts for around 3.50% of the total income. There has been no growth of service charges & fees over the last 6 years.

### 6.2.8 Income from Properties & Other Income

The Municipality receives income by way of market fees – daily market, lease of land, rent on shopping complex & buildings, rent on bunk stalls, fees on pay & use toilets etc.

Other income comprises interest from bank & investments, deposits lapsed, income from cable TV operations, project overhead expenses and interest apportioned, misc. recoveries and other income.

The income from properties and other income received during the last 6 years is as below :

**Table 6.15 Income from Properties & Other Income – Growth & % of Total Income** (Rs. in lakhs)

Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Income from Properties & Other Income	29.96	34.58	34.87	41.91	43.86	44.35
<b>Total</b>	<b>29.86</b>	<b>34.58</b>	<b>34.87</b>	<b>41.91</b>	<b>43.86</b>	<b>44.35</b>
<b>% of Total Income</b>	<b>11%</b>	<b>10%</b>	<b>8%</b>	<b>13%</b>	<b>11%</b>	<b>11%</b>
<b>% Growth</b>	<b>-</b>	<b>15.42%</b>	<b>0.84%</b>	<b>20.19%</b>	<b>4.65%</b>	<b>1.12%</b>

It may be observed that income from properties and other income together accounts for around 10% of total income and the same on an average accounts for Rs. 40 lakhs per annum.

The demand collection balance statement of income from properties and other income for the last 6 years is as below :

**Table 6.16 Non Tax Income – Demand Collection %** (Rs. in lakhs)

Other Income	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
<b>Demand</b>						
- Current	61.50	62.56	59.37	44.23	33.40	37.67
- Arrears	10.00	10.11	11.46	14.06	14.51	16.02
<b>Total</b>	<b>71.50</b>	<b>72.67</b>	<b>70.83</b>	<b>58.29</b>	<b>47.91</b>	<b>53.39</b>
<b>Collection</b>						
- Current	59.50	61.19	56.92	42.34	31.63	27.25
- Arrears	0.07	0.04	0.01	1.29	0.25	0.82
<b>Total</b>	<b>59.57</b>	<b>61.23</b>	<b>56.93</b>	<b>43.63</b>	<b>31.88</b>	<b>28.07</b>
<b>Collection %</b>						
- Current	97%	98%	96%	96%	95%	73%
- Arrears	1%	0%	0%	9%	2%	5%
<b>Total</b>	<b>83%</b>	<b>84%</b>	<b>80%</b>	<b>75%</b>	<b>67%</b>	<b>53%</b>

On the average, the total current collection performance of other income is 97% and the arrears collection performance is only around 5%, which has to be improved.

### 6.3 EXPENDITURE

The revenue expenses mainly comprises of establishment charges, power charges for street lighting, water supply, repairs & maintenance and other revenue expenses on account of maintenance of roads, public health etc.

#### 6.3.1 Establishment Expenses

The major revenue expenditure incurred by the Municipality is establishment expenses comprising personnel cost and terminal benefits. The details of establishment expenses for the last 6 years is as below :

**Table 6.17 Establishment Expenses – Growth & % of Total Expenditure** (Rs. in lakhs)

Estb Expenses	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Personnel – Salaries	141.10	126.92	130.83	129.86	140.16	177.17
Terminal & Retirement Benefits	29.08	44.10	36.27	27.59	39.89	28.11
<b>Total</b>	<b>170.18</b>	<b>171.02</b>	<b>167.10</b>	<b>157.45</b>	<b>180.05</b>	<b>205.28</b>
<b>% of Total Expt</b>	<b>55%</b>	<b>59%</b>	<b>45%</b>	<b>40%</b>	<b>37%</b>	<b>56%</b>
<b>% Growth</b>	<b>-</b>	<b>0.50%</b>	<b>(2.29%)</b>	<b>(5.77%)</b>	<b>(14.35%)</b>	<b>(14%)</b>

The establishment expenses constitute around 50% of the total expenditure. The establishment expenditure, which had marginally come down has started rising again during the last 2 years.

### 6.3.2 O&M Expenses – Water Supply

The next major share of expenditure goes for water supply and drainage works. The same accounts for around 3-4% of the total expenditure.

O&M expenses on account of water supply comprises power charges of head works, pumping stations and booster stations, maintenance expenses for water supply works, vehicle maintenance etc.. The O&M expenses on account of water supply for the last 6 years is as below:

**Table 6.18 O&M Expenses (Water Supply) – Growth & % of Total Expenditure** (Rs. in lakhs)

O&M - Water Supply	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Operative Expenses	2.74	3.27	4.37	5.14	5.37	5.62
Repairs & Maintenance	2.91	1.57	8.59	4.00	8.30	8.46
<b>Total</b>	<b>5.65</b>	<b>4.84</b>	<b>12.96</b>	<b>9.14</b>	<b>13.67</b>	<b>14.08</b>
<b>% of Total Expt</b>	<b>1.84%</b>	<b>1.43%</b>	<b>3.49%</b>	<b>2.33%</b>	<b>2.85%</b>	<b>3.78%</b>
<b>% Growth</b>	-	<b>(14.33%)</b>	<b>167.76%</b>	<b>(41.79%)</b>	<b>49.56%</b>	<b>3%</b>

The O&M Expenses – water supply constitute around 3-4% of the total expenditure and the same is on increasing trend over the years.

### 6.3.3 O&M Expenses – Street Lights & Others

The O&M expenses on account of street lights and others comprises power & maintenance charges on street lights & buildings, sanitary & conservancy expenses, vehicle maintenance, repairs & maintenance – buildings, roads and others. The expenses on account of street lights & others for the last 6 years is as below :

**Table 6.19 O&M Expenses (Street Lights & Others) –Growth & % of Total Expt** (Rs. in lakhs)

O&M – Street Lights & Others	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Operative Expenses	11.22	18.32	25.02	21.61	26.63	29.46
Repairs & Maintenance	3.33	3.41	6.82	8.71	8.14	6.47
<b>Total</b>	<b>14.55</b>	<b>21.73</b>	<b>31.84</b>	<b>30.32</b>	<b>34.77</b>	<b>35.93</b>
<b>% of Total Expt</b>	<b>4.74%</b>	<b>6.40%</b>	<b>8.57%</b>	<b>7.72%</b>	<b>7.25%</b>	<b>9.63%</b>
<b>% Growth</b>	-	<b>49.35%</b>	<b>46.53%</b>	<b>(4.77%)</b>	<b>14.68%</b>	<b>3.34%</b>

The O&M expenses – street lights and others constitute around 7.50% of the total expenditure and the same accounts for around Rs. 30 lakhs per annum.

### 6.3.4 Administration & Other Expenses

Besides establishment and O&M expenses, administration expenses form the major part of revenue expenditure. The summary of administration expenditure over the last 6 years is given below :

**Table 6.20 Administration Expenses – Growth & % of Total Expenditure** (Rs. in lakhs)

Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Administration Expenses	14.16	29.56	22.69	40.28	38.71	16.76
<b>Total</b>	<b>14.16</b>	<b>29.56</b>	<b>22.69</b>	<b>40.28</b>	<b>38.71</b>	<b>16.76</b>
% of Total Expt	5%	10%	6%	10%	8%	4%
% Growth	-	108.76%	(23.24%)	77.52%	(3.90%)	(56.70%)

The administration expenses comprise around 8% of the total expenditure. The same has been increasing marginally over the years.

### 6.4 SUMMARY OF FINANCES

We summarise below the finances of Bodinayakanur Municipality for the last 6 years :

**Table 6.21 Summary of Finances for last 6 years** (Rs. in lakhs)

Particulars	Audited					Unaudited
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Income	277.13	337.83	440.51	317.36	414.78	410.94
Expenditure	207.71	227.15	234.73	237.28	266.98	276.45
<b>Surplus before Int &amp; Depreciation</b>	<b>69.42</b>	<b>110.68</b>	<b>205.78</b>	<b>80.08</b>	<b>147.80</b>	<b>134.49</b>
Finance Charges	4.48	12.89	31.39	47.20	113.81	3.44
<b>Surplus / (Deficit) before Depreciation</b>	<b>64.94</b>	<b>97.79</b>	<b>174.39</b>	<b>32.88</b>	<b>33.99</b>	<b>131.05</b>
Depreciation	94.90	50.18	105.61	108.14	98.10	93.05
<b>Net Surplus / (Deficit)</b>	<b>(29.96)</b>	<b>47.61</b>	<b>68.78</b>	<b>(75.26)</b>	<b>(64.71)</b>	<b>38.00</b>

#### Note :

The real autonomy of any organisation depends on its financial autonomy. Weak tax base, inadequate tariff level and poor collection performance have continued to be the salient features of local bodies in India.

- In the case of Bodinayakanur Municipality, it is observed that the Municipality has incurred net deficit in three out of the last six years ended 2006-07. This suggests that the Municipality need

to undertake lot of fiscal reforms and full leverage of its assets over the next few years to improve its financial strength.

- Prior to depreciation, the Municipality has incurred surplus in all the years. The surplus before depreciation has reduced in 2004-05 and 2005-06 on account of high finance charges.
- The summary of finances of the Municipality under the broad heads of income and expenditure for the last 6 years is as below :

**Table 6.22 Head-wise Income & Expenditure for last 6 years** (Rs. in lakhs)

Particulars	Audited					Unaudited
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
<b>Income</b>						
Property Tax	83.87	84.99	86.41	87.58	88.39	90.40
Profession Tax	8.16	6.11	8.87	9.15	12.23	16.13
Water & Drainage	26.30	31.91	42.17	44.32	45.81	57.87
Assigned Revenue	30.66	40.10	35.45	22.41	12.86	16.01
Devolution Fund	83.73	122.92	211.65	97.32	198.39	168.41
Serv. Chgs & Fees	11.21	12.32	15.33	13.29	12.96	10.66
Grants & Cont.	2.78	4.90	5.76	1.38	0.28	7.11
Sale & Hire Chgs	0.46	0.00	0.00	0.00	0.00	0.00
Other Income	29.96	34.58	34.87	41.91	43.86	44.35
<b>Total Income</b>	<b>277.13</b>	<b>337.83</b>	<b>440.51</b>	<b>317.36</b>	<b>414.78</b>	<b>410.94</b>
<b>Expenditure</b>						
Personnel Cost	141.10	126.92	130.83	129.86	140.16	177.17
Terminal Benefits	29.08	44.10	36.27	27.59	39.89	28.11
O&M–Street Lights	14.55	21.73	31.84	30.32	34.77	35.93
O&M – Water	5.65	4.84	12.96	9.14	13.67	14.08
Repairs & Maint.	6.24	4.98	15.41	12.71	16.44	14.93
Programme Exps	3.17	0.00	0.14	0.00	0.25	4.22
Administrative Exp	14.16	29.56	22.69	40.28	38.71	16.76
Finance Expenses	4.48	12.89	31.39	47.20	113.81	3.44
Depreciation	94.90	50.18	105.61	108.14	98.10	93.05
<b>Total Expenditure</b>	<b>307.09</b>	<b>290.22</b>	<b>371.73</b>	<b>392.62</b>	<b>479.49</b>	<b>372.94</b>
<b>Surplus / (Deficit)</b>	<b>(29.96)</b>	<b>47.61</b>	<b>68.78</b>	<b>(75.26)</b>	<b>(64.71)</b>	<b>38.00</b>

- It may be observed that the deficit is more on account of depreciation (non cash expense) over the years. Depreciation of the municipality is around Rs. 100 lakhs per annum.
- But the surplus prior to depreciation is also partly on account of increasing contribution from Devolution Fund. The municipality's own resources has grown marginally over the last 6 years. While profession tax, water charges and water connection charges have increased by around

15-20% per annum, the growth on account of property tax, which is the main source of revenue is only 1.5%.

- The total accumulated surplus of the Municipality as on 31<sup>st</sup> March 2007 stands at Rs. 4455.16 lakhs. As against the same, the total fixed assets comprising land, buildings, plant & machinery, vehicles etc. stands at Rs. 5718.80 lakhs. Out of the total fixed assets, the value of land is Rs. 4622.12 lakhs.
- The total loans of the Municipality as on 31<sup>st</sup> March 2007 stands as below :

**Table 6.23 Status of Borrowings as on 31.3.2007** (Rs. in lakhs)

Loan from	Purpose	Rate of Interest	O/s as on 31.3.07
Government Loan	Water Supply	13.5%	316.11
<b>Total</b>			<b>316.11</b>

- As against the same, the contribution by Municipality, contribution by Government and Grants from Government as on 31<sup>st</sup> March 2007 stands as below :

**Table 6.24 Status of Contributions & Grants**

Particulars	Rs. in lakhs
Contribution by Municipality	38.12
Contribution by Government	397.02
Grants from Government	99.60
<b>Total</b>	<b>534.74</b>

- It is observed from the above that around 60% of the fixed assets excluding Land have been funded by means of Contribution and Grants from Government over the years and the balance 40% from Loans.
- The average current collection efficiency of the municipality is good, but it can be further improved with regard to arrears collection. While the current collection efficiency is between 85-95%, the arrears collection efficiency is between 5-30%. Thus arrears collections need to be improved.
- The broad financial analysis of the Bodinayakanur Municipality finances reveal that the Municipality has further scope for increasing its own sources of income for servicing the additional borrowings in the future.
- To summarise, the overall income pattern of the Bodinayakanur Municipality indicates both positive as well as negative trends. The positive trends are on the income side, where the

Municipality has shown growth of around 15% per annum over the past 6 years with regard to water charges and profession tax. Besides, the municipality's collection efficiency is good, though it can be further improved. On the negative side, the municipality's property tax has shown growth of only 1.50% per annum over the last 6 years. Thus the municipality has to look at various mechanisms to improve its scope of own income to service the additional borrowings in the coming years. With more effective management of resources, there is scope for further enhancing credit worthiness and revenues of the Municipality.

## 6.5 KEY FINANCIAL INDICATORS

A set of key financial indicators has been derived using the financial data procured from the Municipality for the assessment period. These indicators are used to assess the municipal performance with regards to resource mobilization, fund utilization, financial performance and collection efficiencies.

### 6.5.1 Resource Mobilisation Indicators

These indicators summarise the performance of the Municipality with regards sources of funds. Bodinayakanur Municipality derives about 53.39 percent of its revenue income from own sources, while grants account for about 44.88 percent of the revenue income.

**Table 6.25 Resource Mobilisation Indicators**

Indicators	Value
Per Capital Income	Rs. 495/- p.a.
Share of Own Sources in Total Revenue Income	53.39%
Share of Property Tax in Total Revenue Income	22.00%
Share of Revenue Grants & Subsidies in Total Revenue Income	44.88%
Growth in Revenue Income	9.66% p.a.
Growth of Own Sources of Revenue Income	7.43%
Per Capital Own Income	Rs. 265/- p.a.

### 6.5.2 Fund Application Indicators

These indicators are a measure to ascertain the utilization from the municipal fund. Around 55.04% of the revenue expenditure is spent on establishment heads, only 13.46 % for municipal assets and services, leaving around only 32% utilized for debt servicing. Establishment expenditure accounts for about 49.95% of the total revenue generated by the municipality.

**Table 6.26 Fund Application Indicators**

Indicators	Value
Per Capita Expenditure	Rs. 450/- p.a.
Share of Establishment Expenses in Total Revenue Expenditure	55.04%
Share of O&M Expenditure in Total Revenue Expenditure	13.46%
Share of Establishment Expenditure to Total Revenue Income	49.95%
Growth in Establishment Expenditure	4.13% p.a.
Growth in O&M Expenditure	29.69% p.a.
Growth in Total Revenue Expenditure	4.29 p.a.

### 6.5.3 Liability Management Indicators

These indicators are a measure to ascertain the utilization from the municipal fund regarding debt servicing. The ratio of debt servicing to revenue income is only 12.17% during the assessment period. The per capita average debt outstanding works out to Rs. 381/- and the per capita outstanding debt to property tax demand is around 350% of the property tax demand for the current year.

**Table 6.27 Liability Management Indicators**

Indicators	Value
Per Capita Liability	
- Outstanding Debt per Capita	Rs. 381/-
- Outstanding Non Debt Liability per Capita	-
- Total Outstanding Liability per Capita	Rs. 381/-
As a proportion of Property Tax Current Demand	
- Outstanding Debt as % of Property Tax Demand	350%
- Outstanding Non Debt Liability as % of Property Tax Demand	-
- Total Outstanding Liability as % of Property Tax Demand	350%
As a proportion of Property Tax Own Revenue Income	
- Outstanding Debt as % of Own Revenue Sources	144%
- Outstanding Non Debt Liability as % of Own Revenue Sources	-
- Total Outstanding Liability as % of Own Revenue Sources	144%
Non Debt Liability as % of Total Liability	-
Debt Servicing Ratio	12.17%

### 6.5.4 Overall Financial Performance Indicators

These indicators are a measure to assess the overall financial performance of the Municipality with regards operational performance and effective growth in revenue income and expenditure. The average operating ratio during the assessment period was a healthy 68%. The indicators of growth in per capita income and expenditure item heads indicate the effective growth, giving a performance

measure relative to the growing population. Bodinayakanur Municipality has demonstrated only 6.25% annual growth in per capita revenue income during the assessment period, while the per capita revenue expenditure has grown at a negative CAGR of 1.50% during the corresponding period, which indicates that as population increases revenue fund will be surplus.

**Table 6.28 Financial Performance Indicators**

Indicators	Value
Operating Ratio	68%
Growth in Per Capita Own Revenue	4.29%
Growth in Per Capita Grant	15.92%
Growth in Per Capita Total Revenue Income	6.25%
Growth in Per Capital Establishment Expenditure	1.36%
Growth in Per Capita O&M Expenditure	23.99%
Growth in Per Capita Revenue Expenditure	1.50%

#### 6.5.5 Efficiency Indicators

These indicators are essentially a measure to assess municipal efficiency with regards revenue base coverage and utilization. Bodinayakanur Municipality has maintained above average collection performance both with regards property tax and water charges (93% and 85% respectively). The average population per residential assessment at 5.26 persons indicates that the property tax base has a lesser coverage.

**Table 6.29 Efficiency Indicators**

Indicators	Value
Tax Collection Performance	
- Property Tax	93%
- Profession Tax	85%
- Water Charges	-
- Non Tax Income	85%
No. of Property Tax Assessments per Tax Collection Staff	1392 Nos.
Property Tax Demand per Assessment	Rs. 616/- p.a.
No. of Municipal Staff per 1000 Population	3.10 Nos.
Annual Revenue (Own Source) per Municipal Staff	Rs. 0.70 lakh p.a.
Population per Residential Property Tax Assessment	5.26 persons

**Note :**

The detailed financials of Cumbum Municipality comprising Income & Expenditure Statement, Balance Sheet, Demand Collection Balance Statement, Growth in Income and Key Indicators for the last 6 years are given in Annexure 4.

# 7

## ACTION PLAN & POLICY INTERVENTIONS

### 7.1 ACTION PLAN

A City Corporate cum Business Plan is essentially a road map to achieve a set of development objectives within the specific period. This CCCBP has identified and articulated the needs and aspirations of the citizens of concern ULBs through a comprehensive consultative process involving a wide-ranging stakeholder representations from Government, parastatal, NGOs, citizen forums, institutions, commerce and related entities.

The responsibility now rests with **Bodinayakanur Municipality** to take the task forward and commence a development process to achieve a healthy and safe habitat. The following section presents an Action Plan and Implementation strategy for key infrastructural projects and reforms to be followed.

The Action Plan for Water Supply, UGSS, Solid Waste management, Roads, Major projects identified under Public private partnership with implementing agency, year of Implementation, current stage, proposed financing mix, O&M Plan and the expected outcome are detailed out in the Action Plan. Probable risks and mitigate measures for each major project in discussion with the key stakeholders of each Municipality has also been furnished.

The time line and implementation strategy for each of these projects with the various activities gives the project schedule and various steps involved. The risks and mitigation measures for all projects in general is given in Annexure – 6.

### 7.1.1 Water Supply

Table 7.1 Action plan for the proposed Water supply improvement scheme			
Proposals : Improvement to existing supply and distribution system			
Current Status : Concept stage			
Year of Implementation	Implementing Agency	Investment & Financing mix [Loan : Grants: ULB Contribution]	Outcomes
2024-25 (intermediate year)	Project Management Consultants/ Municipality	Rs.107.00 lakhs	Improvement in water supply, reduction in losses, Reduction in O&M.
<b>Operation &amp; Maintenance Plan</b>			
<ol style="list-style-type: none"> <li>1. Revenue enhancement through collection drives, metering, tariff rationalization and apportionment of property tax collected towards water supply fund to raise annual collection.</li> <li>2. Creation of public awareness on water conservation and rain water harvesting practices through IEC activities.</li> <li>3. Preparation of Status report on capital works under taken on a quarterly basis</li> <li>4. Performance monitoring of water supply and distribution system .Initiation of energy audit, leak detection, Non-Revenue water, water quality, etc. if necessary.</li> <li>5. Establishment of GIS inventory mapping and Management Information System.</li> <li>6. Ensure preventive and break down maintenance of the proposed system.</li> <li>7. Registration of break downs, complaints received and Actions Taken Reports.</li> <li>8. Effective tariff collection measures through spot billing.</li> <li>9. Privatization of O&amp;M of Water supply, treatment, distribution systems</li> </ol>			
	Project risks	Mitigation measures	
1	Inadequate staff for O&M of WS system	Privatisation of O&M water supply and distribution	
2	Non-willingness to pay deposits	IEC activities through voluntary organisations, CBOs, Resident welfare organizations	
3	Lack of public awareness and cooperation		
4	Non - availability of Local contractors and labours due to the simultaneous execution of similar project in many ULBs nearby.	Consolidating contract packages and calling tender at state level or National level.	
		Short listing of potential contractors at regional level and Tendering the contract in a planned manner.	

Source: Analysis and research

**Table 7.2 Timeline and implementation strategy for Water Supply**

Sl.no	Bodinayakanur -Water Supply	2008-09	2009-10				2010-11				2011-12				2012-13				2013-14											
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
1	Approval of the council for the project proposal	Completed																												
2	IEC activities & stakeholder consultatlon workshops		Continuous activity																											
3	Fixing meters for all HSCs		Start to finish of activity								Continuous activity																			
4	Training to ULB staff in O&M of the system																													
5	Appointment of private contractor for O&M										Continuous activity																			
Legend																														
		Continuous activity																												
		Start to finish of activity																												

## 7.1.2 Under Ground Sewerage

Table 7.3 Action plan for the proposed UGSS			
Proposals : Under Ground Sewerage Scheme			
Current Status : DPR Submitted – Awaiting for Administrative Sanction			
Year of Implementation	Implementing agency	Investment & Financing mix[Loan : Grants: ULB Contribution]	Outcomes
2010-2012 UGSS	Project Management Consultants/TWAD	Rs.2828.00 lakhs & 55:30:15	Improved health conditions and Environment quality
<b>Operation &amp; Maintenance Plan.</b>			
<ol style="list-style-type: none"> <li>1. Creation of public awareness on the necessity of UGSS as a healthier option through IEC activities.</li> <li>2. Apportionment of property tax collected towards Drainage fund, awareness creation on the need for tariffs and connection deposits for revenue mobilisation.</li> <li>3. Exploring options for privatization, DBOT, DBOOT schemes for STP.</li> <li>4. For good maintenance, preparation of up to date plans for sewer systems showing the location of manholes and appurtenances, direction of flow, house service connections, grades of sewers etc are necessary.</li> <li>5. Regular preventive and break down maintenance of the proposed system.</li> <li>6. Create database on sanitation assets and ensure adequate upkeep of sanitation assets through encouraging community level participation and consumer forums.</li> <li>7. Establishment of GIS inventory mapping and Management Information System.</li> <li>8. Registration of break downs, complaints received and actions taken.</li> </ol>			
	Project risks	Mitigation measures	
1	Inadequate capabilities for project execution	Appointing Project Management Consultancy for implementation.	
2	Inadequate staff for O&M of sewer network	Privatisation of O&M for sewer system including STP	
3	Lack of public awareness and cooperation	IEC activities through voluntary organizations, CBOs, Resident welfare organisations	
4	Non - availability of suitable contractor due to the simultaneous execution of similar project in many ULBs nearby.	Consolidating contract packages and calling tender at state level or National level. Short listing of potential contractors at regional level and Tendering the contract in a planned manner.	

Source: Analysis and research

**Table 7.4 Timeline and Implementation Strategy for proposed UGSS Project**

Sl.no	Bodinayakanur -UGSS	2008-09	2009-10				2010-11				2011-12				2012-13				2013-14							
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
	<b>Activities</b>																									
1	Approval of the council for the project proposal	Completed																								
2	Appointment of consultant for preparation of DPR	TWAD																								
3	Appointment of consultant for Project Management	TWAD																								
4	IEC activities & stakeholder consultation workshops		Continuous activity																							
5	Preparation of DPR	Completed																								
6	Approval/ Sanction of DPR (AS & TS)	Under Progress																								
7	Arrangement of loans and Grants		Start to finish of activity																							
8	Preparation of Tender Documents																									
9	Short listing potential contractors & calling for Tender																									
10	Pre-bid Meeting																									
11	Tender Evaluation																									
12	Award of work																									
13	Collection of Deposits		Start to finish of activity				Continuous activity																			
14	Project Implementation						Start to finish of activity																			
16	Preparation of final inspection reports																									
17	Preparation of statement of completion																									
18	Preparation of as built drawings																									
19	Implementing graded tariff structure																									
20	Training to ULB staff in O&M of the system																									
21	Appointment of private contractor for O&M																		Continuous activity							
Legend																										
			Continuous activity																							
			Start to finish of activity																							

### 7.1.3 Solid Waste Management

Table 7.5 Action Plan for Solid waste Management			
Proposals : Improvement in Solid waste Management			
Current Status : Awaiting administrative sanction			
Year of Implementation	Implementing agency	Investment & Financing mix	Outcomes
2009-10	Municipality	Rs.38.00 lakhs & 12th SFC Grants	Improved Environment
<b>Operation &amp; Maintenance Plan.</b>			
An integrated solid waste management plan for the town involving the following process is needed:			
<ol style="list-style-type: none"> <li>1. The municipality must focus on revenue enhancement by privatizing of waste management of the following components:                             <ol style="list-style-type: none"> <li>a. Primary collection</li> <li>b. Transfer to collection points</li> <li>c. Transfer to compost yard</li> <li>d. Segregation of waste and option of                                     <ol style="list-style-type: none"> <li>i. Selling scraps/recyclable waste.</li> <li>ii. Treatment of biodegradable waste</li> <li>iii. Transfer to identified regional land fill sites</li> </ol> </li> <li>e. Compost yard management</li> </ol> </li> <li>2. The management of biodegradable waste as a revenue generating activity may involve,                             <ol style="list-style-type: none"> <li>f. Vermi-composting</li> <li>g. Installation of bio-gas plant</li> </ol> </li> <li>3. Conducting IEC campaigns to facilitate effective waste segregation at source and proper disposal.</li> <li>4. Implementing collection of conservancy fee for primary collection of waste and levy on residential, commercial and industrial establishments.</li> <li>5. Involvement of voluntary agencies, SHGs in the various components of solid waste management on BOT, BOOT basis.</li> </ol>			
	Project risks	Mitigation measures	
1	Non-willingness to pay conservancy fees	IEC activities through voluntary organisations, CBOs, Resident welfare organizations	
2	Lack of public awareness and cooperation		
3	Lack of bidders for the project	Consolidating contract packages and calling tender at state level or National level.	
		Short listing of potential contractors at regional level and Tendering the contract in a planned manner.	

Source: Analysis and research

**Table 7.6 Timeline and Implementation Strategy for Solid Waste Management**

Sl.no	Bodinayakanur -SWM	2008-09	2009-10				2010-11				2011-12				2012-13				2013-14							
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
	<b>Activities</b>																									
1	Approval of the council for the project proposal	Completed																								
2	Appointment of consultant for preparation of DPR	Completed																								
3	IEC activities & stakeholder consultation workshops																									
4	Preparation of DPR(Integrated SWM Action Plan)	Completed																								
5	Approval/ Sanction of DPR (AS & TS)	Under Progress																								
6	Arrangement of loans and Grants																									
7	Preparation of Tender Documents																									
8	Short listing potential contractors & calling for Tender																									
9	Project Implementation																									
10	SWM conservancy fees(Non-domestic)																									
11	Implementation of source segregation																									
12	Implementation of door to door collection																									
13	Privatisation of compost yard mangement																									
14	Production and sale of compost																									
15	Training to ULB staff in O&M of the system																									
Legend																										

#### 7.1.4 Roads

Table 7.7 Action plan for Roads				
Proposals : Improvement of Roads				
Current Status : Concept stage				
Year of Implementation	Implementing agency	Investment & Financing mix [Grants: Loan : ULB Contribution]	Next step	Outcomes
2011-14	Municipality or Project Management consultants.	Rs.313.00 lakhs & 90:0:10	DPR to be prepared	Improvements in internal circulation, safe pedestrian movements,
<b>Operation &amp; Maintenance Plan.</b>				
<ol style="list-style-type: none"> <li>1. The maintenance of the existing network of municipal roads involves:                             <ol style="list-style-type: none"> <li>a. Routine maintenance – Filling of pot holes, repairing of cracks, maintenance of shoulders, upkeep of drains.</li> <li>b. Periodic maintenance – Renewal of wearing coat and preventive maintenance.</li> <li>c. Rehabilitation, strengthening and special repair – Overlay construction, reconstruction of pavement, widening of roads, repairs of damages caused by floods.</li> </ol> </li> <li>2. Traffic Operation and management study involving widening and strengthening of road structure, removal of encroachments, construction of underpass / over bridges at crossings, study of city wide parking requirements, development of parking infrastructure, segregation of slow and fast moving vehicular traffic, proper realignment of road furniture and utilities, traffic signals with timers, critical junction improvements, establishment of regional linkages considering the future growth potential.</li> <li>3. Provide duct for cables and other utilities along major roads to minimize digging.</li> <li>4. Options for revenue generation involve track rent from cable, telecom, TNEB, lease from avenue trees etc.</li> <li>5. Establishment of GIS inventory mapping and database management system.</li> </ol>				
	Project risks		Mitigation measures	
1	Damages due to the implementation of water supply and UGSS project		Speedy expedition of water supply and UGSS and relaying roads	
2	Relocation of utilities such as water supply lines, electrical installations, telephone lines etc		To reduce inconvenience to the public, the utilities to be relocated in shortest possible time after prior approval from agencies	
3	Delay in sanctions and fund allotment		New avenues in own resource mobilization or alternative mechanisms of funding	

Source: Analysis and research

\*Note: The relaying of roads will be taken up after the completion of Under Ground Sewerage Scheme & Storm water drains.

### 7.1.5 Implementation Strategy- Urban Governance

The study recommends to the Govt. of Tamil Nadu that a **Regional Technical Cell** be established at the seven regions of the state with the following team of specialists

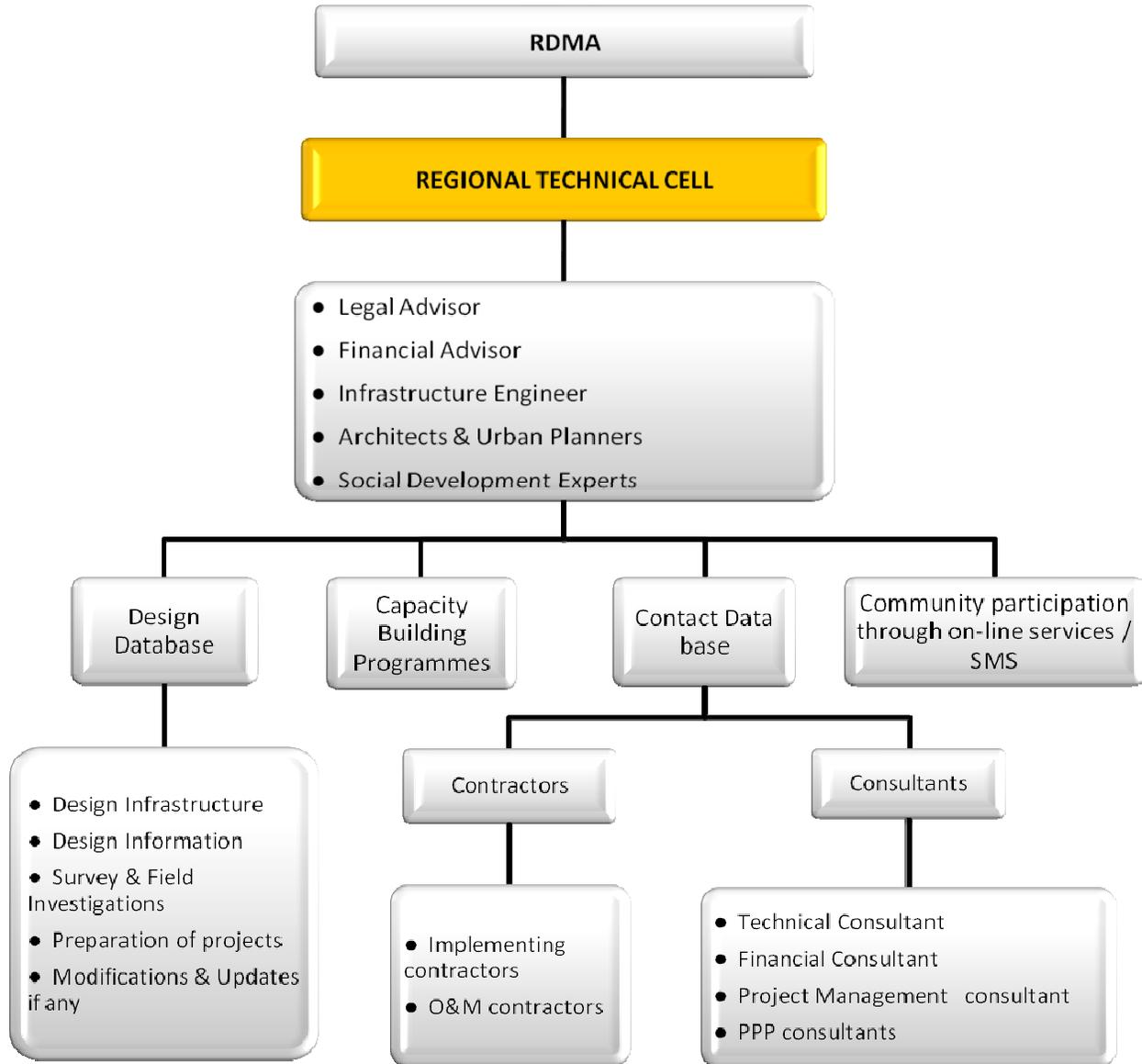
**Table 7.8 Regional Technical Cell – Team of Specialists**

S.No	Specialists	Functions
1	<b>Legal Advisor / Contract Specialist</b>	<ul style="list-style-type: none"> <li>• legal matters related to projects,</li> <li>• finalization of all contractual documents,</li> <li>• Arbitrations</li> <li>• Land acquisitions</li> </ul>
2	<b>Financial Advisor</b>	<ul style="list-style-type: none"> <li>• Financial analysis</li> <li>• Risk Management analysis</li> <li>• Financial modeling of projects</li> <li>• Updating the financial projections</li> </ul>
3	<b>Infrastructure Engineers</b>	<ul style="list-style-type: none"> <li>• Project planning and formulation</li> <li>• Preparation of DPR</li> <li>• Monitoring and management of projects</li> </ul>
4	<b>Architects and Urban planner</b>	<ul style="list-style-type: none"> <li>• Assessing the growth direction</li> <li>• Regional linkages and its impacts</li> <li>• Feasibility and Design of projects</li> </ul>
5	<b>Social Development Expert</b>	<ul style="list-style-type: none"> <li>• Sensitization of Women and youth SHGs</li> <li>• Training to ULB personnel, elected representatives and SHGs.</li> <li>• Formulating and implementing IEC activities for various developmental projects</li> </ul>

Source: Analysis and research

The **Regional Technical Cell** would also co-ordinate with the various parastatal and development authorities such as TWAD, TNEB, TNHB, H & RD, PWD and Town and Country Planning Authorities.

The components and functionalities of the Regional Technical Cell in represented in the Figure Below:



Source: Analysis and research

**Fig: 7.1 Regional Technical Cell**

## 7.2 CAPACITY BUILDING PROGRAMMES:

Capacity Building and Training of Political and Administrative wings of ULBs are an important component in ULB administration. Training of public representatives and officers and staff of ULBs will not only improve their skills but also exposes modern/scientific technological advancement in engineering, management and inter personal communication.

The ULBs in the State by and large have following departments/sections with specified functions;

**Table 7.9 Municipality - Departments and functions**

S.No	Section	Function
1	<b>Engineering</b>	Water supply
		Drainage
		Roads & Bridges/Culverts
		Buildings (& Crematoriums) , Television Rooms , etc
		Street lights
		Parks& Play grounds
2	<b>Town Planning</b>	Approval of land sub-division /Layouts
		Issue of Building Permit & Licenses
		Identification & Process of UAC& Deviated Construction
		Eviction of Encroachments
		Poverty Alleviation Programmes
		Approval of Installation & Issue of Licenses
		Town survey
3	<b>Revenue</b>	Assessment of Vacant Land Tax & Property Tax
		Name transfer of titles
		Lease & rent of markets, stalls & Bunks
		Revenue collection
		Recoveries of loan
4	<b>Public Health</b>	Birth & Death Registration & issue of certificates
		Prevention of epidemic diseases
		Clearing of drainage
		Street sweeping
		Solid waste Management
		Maternity & Child Health
		Family welfare , Family Planning & Medical Aids
5	<b>General</b>	Administration & Accounts
		Computerization & E-governance
		Budgeting,
		Council Meeting , Public grievance, Citizen Charter
		Right to Information Act

Source: Web site of CMA

Training needs to be imparted to elected representatives as well as to the officers & staff working in various sections of the ULBs. Training programmes need to be evolved depending upon whether they are Elected Representatives ( Mayors/Chair person, Deputy Mayor/ Vice chairman, councilors) or Senior level officers , Middle level officers and staff in various sections of the ULBs.

### 7.2.1 Training to elected representatives

- Urban Governance, Management and Planning
- Environment management
- JNNURM, UIDSSMT, IHSDP, IHSDP & Basic Services for Urban Poor.
- Budget preparation

- Visioning, goal setting, Planning
- City Corporate Plan
- Urban Development plans (Master plans, Detailed Development Plans)
- Redressal of public grievances
- Tender procedure
- Tamil Nadu District Municipalities Act, Public Health Act, Town and Country Planning Act.
- Crisis management and Stress management
- E – Governance
- Personality development
- Motivation skill
- Public - Legal Aspects
- Written and Oral Communication skills

### 7.2.2 Training to ULB Staff

Topics to be covered for training for various departments / sections of the ULBs

**Table 7.10 Training for ULB staff**

S.No	Topics to be covered	Areas of training
<b>Engineering</b>		
	Water Supply	Water Supply System <a href="#">Maintenance and Management</a>
		Application of modern technology and development in water treatment process
		Preventive maintenance and leak detection in water distribution system and energy saving techniques
		Computer application in Water Treatment Plants
		Computer application for Water Distribution Management
		<a href="#">Maintenance of electrical and mechanical equipments</a>
		<a href="#">Filter Operation</a>
		Latest techniques in pumping and distribution system
		Yield test for <a href="#">water sources</a>
		Operation & Maintenance of chlorinator (care and use of chlorinator)
		Rain Water Harvesting
		<a href="#">Water and waste water analysis</a>
		Spot billing and collection mechanism
	Sewerage	Maintenance of UGD
		Safety precautions in cleaning drains for blockage and repairs
		Computer Aided Design for sewer network
		Modern practices in waste water <a href="#">management</a>
		<a href="#">Mechanised Sewer maintenance and cleaning</a>
		<a href="#">Preventive maintenance of sewage system</a>
		<a href="#">Maintenance of electrical and mechanical equipments</a>
		Spot billing and collection mechanism
	Storm water	Design applications in storm water drains

	Drains	Maintenance of Storm water drains Repairs of storm water drains
	Street Light	Energy Saving Techniques Application of solar panel bulbs and appliances Maintenance of Street Lighting
	General	Urban Environment Management Structural designs, hydraulic designs and AutoCAD applications Project Preparation, Project Appraisal Natural Disaster Management Recording of M books Project preparation and Estimate preparation Software application for Data Processing and estimation World bank tender procedure and Guidelines for engineering works PERT and CPM techniques Project planning, Scheduling and monitoring Soil testing Bid management and Contract Management Evaluation of technical and financial proposals submitted by consultants and contractors E-tendering Project Cost Center, Cost Benefit Analysis Basic Services to Urban Poor Levy of user charges Basic legal aspects Modalities in Privatisation for O&M and project proposals Right to Information Act
<b>Town Planning</b>		
		AutoCAD Application GIS and Remote Sensing Latest survey techniques for Application of GIS Application of GPS Survey, Land Measurement and Equipment Training Land acquisition procedure Methods for BPL survey Schemes – JNNURM, UIDSSMT, IHSDP Preparation of Master plans, Detailed Development Plans and Regional Plans Traffic Operation and Management Plan Modern techniques of Urban Management Layout Approval and building plan approval Public legal aspects Identification and process on unauthorized / unapproved/deviated constructions Eviction of encroachments E-approval for building plans and Installation plans Right to Information Act
<b>Public Health</b>		
		Preventive methods for epidemics and endemics Low cost sanitation Organizing and sustenance of SHG and community development schemes Training of Animal birth control Destruction of stray dogs and pigs
	Solid waste management	Segregation techniques, Transfer from station, transport of waste to compost yard Land fill and vermin composting

		Street sweeping, clearing of drainage
		Birth and Death registration and issue of certificates
	Medical	Maternity and Child health
		Operation of maternity centers
		Family welfare activities, medical aids and family planning
		Medical Audit
<b>Revenue, Accounts and Administration</b>		
		Financial management and reforms for good Urban Governance
		Good urban governance for funding of infrastructure
		Management of Urban Finance
		Property tax evaluation
		Property tax administration and procedure
		Budgeting outcome budget, Estimation of funds
		Tax assessment methods, <a href="#">Tax revision of assessments</a> , preparation of Income statement,
		Resource Mobilization, implementation and evaluation
		Tally
		Collection of Vacant land tax, Property tax
		Name transfer of titles, lease and rent for markets, stalls and bunks
		Recovery of loans
		Accrual Based Accounting System
		Methods of revenue improvement
		Assessment of tax under fair rent formula
		Reform of Property tax through GIS application
		Tariff fixation, Taxation
		<a href="#">E-Governance including e-tendering</a>
		D&O trade licensing
		Right to Information Act
	E-Governance	Oracle 9i – switching to windows 2007
		Hardware systems Maintenance Networking, Server maintenance, HTML and Web Design and Software
		VB, Dot net network security, Backup/recovery
<b>General</b>		
		Tamil Nadu District Municipalities Act, Town and Country Planning Act, Public Health Act, Tender transparency Act, Government orders on schemes
		Training on Urban Environmental and Social Management
		Capacity Building for Community Development Society (CDS)
		Training on Entrepreneurship program
		Training on participatory planning
		Citizen charter
		Reform Agenda
		Obtaining accreditation such as ISO 9001/ISO 14000 for ULBs
		Right to Information Act

Source: Analysis and research

### 7.3 POLICY INTERVENTIONS

#### Current scenario in Tamil Nadu

Subsequent to the 74th CAA in 1992, a series of steps to improve the financial status and thereby the performance levels of the Urban local bodies were initiated in the various states of India, including Tamil Nadu. The Government of Tamil Nadu, as a forerunner, has been initiating and implementing various Municipal reforms.

The following are the key reforms implemented by the GoTN:

1. **Devolution of funds:** 3.5% of State's total tax revenue passed on to urban local bodies.
2. **State Finance Commissions:** Three consecutive state finance commissions were setup for recommendations to Government.
3. **Setting up of TNUDF:** A successful private-public partnership initiative to tap the capital market.
4. **Accrual Based Accounting System:** The new accounting system has been implemented in all the urban local bodies.
5. **Computerization and E-governance** of select Municipal functions have been successfully implemented in all urban local bodies.
6. **Urban indicators:** Performance assessment of ULBs initiated by CMA
7. **Revision of Property tax :** With effect from April 1.2008, subject to a maximum of 1.25 times the existing tax structure.
8. **Debt monitoring cell:** It has been established with office of CMA with the objective of collecting financial information on individual ULBs, assisting them in making realistic financial projections and facilitating the Urban Local Bodies to access the Capital Markets by information dissemination from CMA office.
9. **GIS for 5 urban local bodies:** Consultancy for Preparation of Property mapping and Utility Mapping for Madurai, Coimbatore and Tiruchirappalli Corporations and Rajapalayam & Gobichettipalayam Municipalities has been initiated as a pilot project by the office of CMA.
10. **ESCO Studies:** TNUIFSL initiative for the Implementation of energy efficiency in Water pumping and Street lighting systems under performance contract.
11. **Right to Information Act, Gol :** An Act to provide for setting out the practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority.

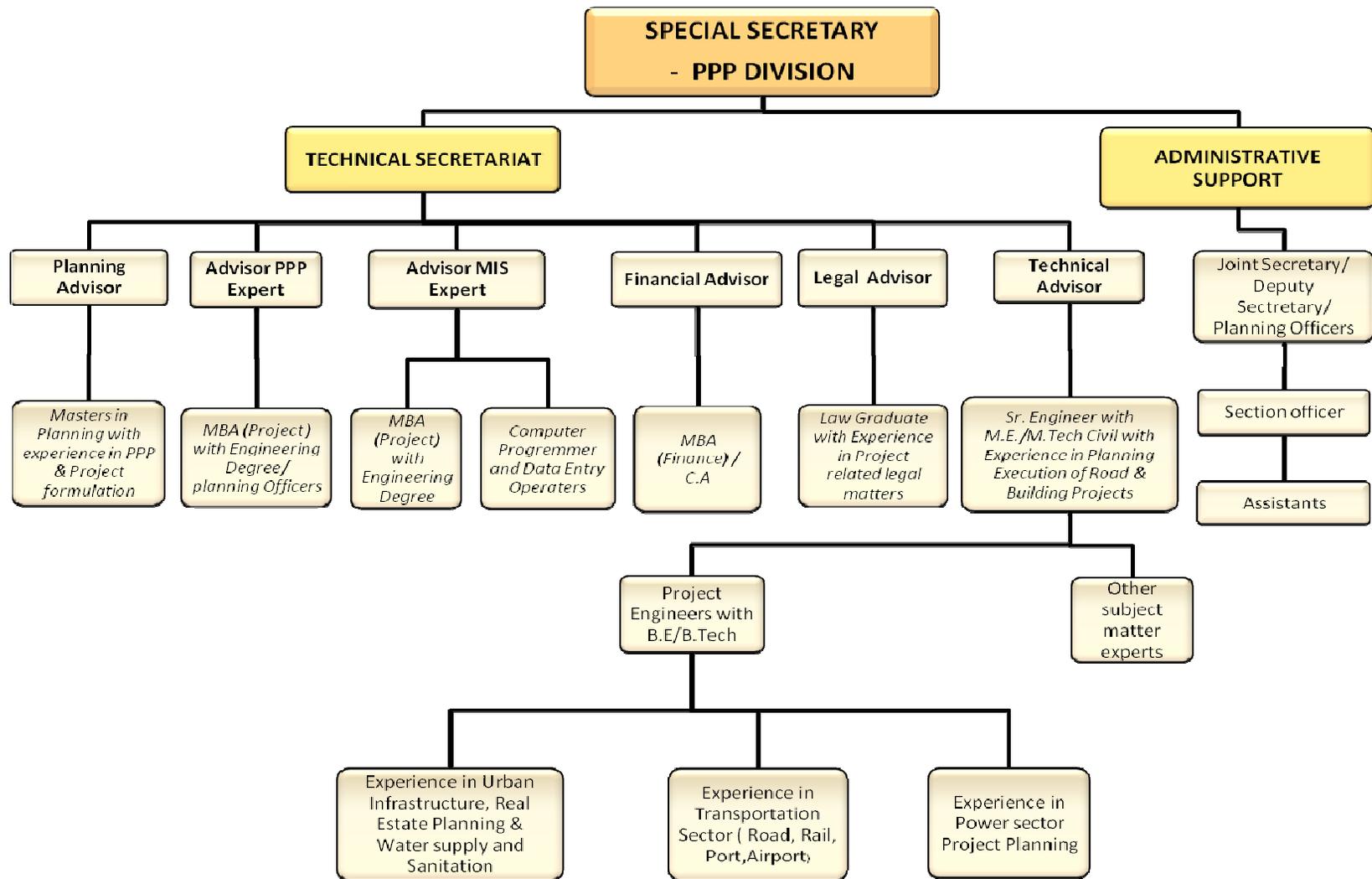


### 7.3.1 Policy interventions at State level

- Establishment of **Tax Mapping** using GIS to assess un-assessed and under-assessed properties in all ULBs.
- **Community participation law**- enacting the “community participation law” that will make it mandatory for the government and its agencies to get the view of citizens, mainly residents’ welfare associations and other citizens’ groups, before starting any project.
- Setting up a **Regional Technical cell** attached to the respective RDMA’s office to assist the ULBs in Techno-legal issues like short listing potential contractors, consultants, project formulation , contract management, tender process, capacity building etc.
- Zone wise review and upgrade **Property guideline values** in line with market prices.
- **Rationalization of stamp** duty to below 5% as per JNNURM guidelines.

#### Policy intervention for PPP ventures:

1. **Frame work law for PPP** as in Gujarat, Punjab and Andhra Pradesh – Enabling and regulatory framework .Capacity building in public institutions and private sectors for handling PPP projects. Identification of bankable infrastructure projects.
2. Setting up a **PPP cell** at the State level and Creating database at the State level listing projects in various sectors of developmental activities for PPP participation



Base source: [www.pppinindia.com](http://www.pppinindia.com)

Fig: 7.2 Organogram of PPP Cell

### 7.3.2 Proposed reforms at Municipal level

The proposed Municipal reforms are broadly categorized under the heads of:

1. Reforms in Resource Mobilisation
2. Reforms in privatisation initiatives
3. Reforms in Audit and Accounting
4. Reforms in Municipal service delivery

#### a. Reforms in Resource Mobilisation

##### i. Property tax reforms

- Empowering municipalities to collect double the property tax from commercial, office and fee collecting educational establishments.
- Interfacing with the TNEB on the details of category and number of new service connections provided.(domestic or non-domestic)
- Levying Vacant Land Tax as per the recommendations of Third State Finance Commission. Empowering the municipality to convert non-claimed lands to socially benefiting uses.

##### ii. Profession Tax Reform

- Revising the profession tax based on the Third State Finance Commission recommendations .Refer Annexure-9.

##### iii. Water supply and sewerage charges

- Approval of the Municipal council for the proposed tariff and deposit structure to enhance the public contribution and meet the entire O&M [cost](#).
- Implementation of the proposed metering of water supply connections
- Implementation of graded tariff structure (UGSS) for domestic and non-domestic connections.
- Privatisation of Operation and Maintenance of the entire Water Supply and Distribution System.
- Privatisation of operation and maintenance of the UGSS.

#### iv. Solid Waste Management

1. Implementing collection of conservancy fee for primary collection of waste and levy on commercial and industrial establishments.
2. Revenue Generation from selling scrap after segregation at secondary collection point or compost yard at Rs.10-Rs.15 per Kg.
3. Revenue Generation from sale of compost at the rate of Rs.300 per Tonne.
4. Involvement of voluntary agencies, SHGs and private operators for the various components of Solid Waste Management on BOT, BOOT basis.

#### vi. Parking Regularisation Plan

Inventory for all roadside parking areas. Initiating time based *pay and park* facilities for vehicles. The proposed parking fee structure is

- ◇ Bicycles - no tax
- ◇ Two wheelers - Rs.2.00
- ◇ Light Vehicles - Rs.5.00
- ◇ Heavy Vehicles - Rs.10.00

#### Vii Advertisement Regularisation Plan

- Identifying strategic locations such as bus shelters, road medians, for hoardings and poster places in Municipal area and levying advertisement tax at the rate of Rs.25 per sq.ft per annum.
- To prepare an inventory of advertisement spaces within their limits with size and type.
- Auctioning the entire rights to a single bidder on annual basis, who in turn can collect revenue from individual advertisers.

#### Viii Regularization of unapproved construction

- Regularization fees for unapproved constructions at the rate of 5 times the existing building license fee.

#### xi. Collection of Annual Tract rent

- From cable T.V operators - (Rs.3.00 per running metre)
- From Telecommunication service providers - (Rs.5.00 per running metre)

The urban local body may be empowered to collect the security deposits at Rs.10, 000 per operator and revise the tract rent every three years. The collection of tract rent and deposits can be handed over to Youth SHGs.

#### **x. Capacity assessment and capacity building**

- Mandatory capacity building and orientation sessions for Municipal Authorities and elected representatives, for which suitable training programs, training manuals and networking with other stakeholders has been initiated by the CMA.

#### **b. Reforms in privatization initiatives**

##### **i. Privatisation of Collection mechanism**

- Providing a computer fitted mobile van with online access to municipal database for spot billing and collection of all taxes.
- Performance based incentives can be given to the private operators at the rate of 5% of total collection .The support of the Youth SHGs or Fan clubs can be sought for the purpose of collection with adequate sensitization programmes.

#### **Privatisation of Collection of**

1. Property tax
2. Profession tax
3. Water - Deposits and tariff
4. UGSS- Deposits and tariff
5. Advertisement spaces/rights as a single contract
6. Parking areas
7. Solid waste conservancy fees(Domestic and non-domestic)

Creating database of all assessments , households and category of assessments:

- ◇ Interfacing with cable operators to arrive at the number of households at ward/zone level.

- ◇ Interfacing with the sub registrars and creating the database of available vacant lands within the ULB.

**c. Reforms in Audit and Accounting**

- Timely Auditing should be performed with the use of private Chartered Accountants for routine audit and local audit to carry out proprietary audit.
- Closing all Auditing before September 30 of the next financial year and publishing the audited statement on the website.
- GoTN and CMA may focus to give technical assistance and training to ULBs for improving the accounting systems and practices.

**d. Reforms in Municipal service delivery**

- Privatizing the maintenance of Water Supply System including the distribution system
- All Head works and OHTs may be fitted with bulk water meter to assess the loss due to non revenue water and unaccounted water.
- Fixing flow control valves and meters for all water service connections.
- Conducting energy audits for water pumping machinery and street lights.
- Conducting leak detection studies, if transmission losses are more than 15%.
- The options for using available local sources (surface water) in lieu of capital intensive projects should be initiated.
- Ensuring 100% coverage of the water distribution network to the existing roads in the town.
- Ensuring 100% coverage of the UGD network to the existing roads in the town.
- Privatizing the operation and maintenance of UGSS and STP
- Privatization of Solid waste Management ensuring 100% collection efficiency and produce of compost.
- Initiating IEC activities through educational institutions and voluntary organizations.
- Provision of energy saving lights, and equipments like dimmer and timer switches to reduce energy consumption.
- Privatizing the maintenance of street lights.
- Levy Reasonable User Charges to recover Full O&M Cost of water supply, UGSS, SWM.

**Table 7.12 Reform Agenda – Municipal Service Delivery**

Sl. No	Particulars	Unit	Benchmark Considered	Existing	Target					
					Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
<b>INFRASTRUCTURE SERVICES</b>										
a	<b>Water Supply</b>									
i	Net Supply per capita	LPCD	120	75	90	120	→			
ii	HSCs - % of assessed properties	%	85%	45	60	80	→			
lii	Frequency of Supply - Hours per day	Hours	24x7	Daily	Daily		→		24 x 7	
b	<b>Sewerage and Sanitation</b>									
i	Access to UGD Network	Yes/No		Not available		Project Implementation	→			
ii	Coverage of UGD network - % of road length	%	100%	Not available	Period of implementation		→ 100%			
c	<b>Solid Waste Management</b>									
i	Availability of Composting facility	Yes/No		Not available	Yes	→				
ii	Collection efficiency (% collected)	%	100	100	100	→				
d	<b>Roads, Storm Water Drains, Street Lights</b>									
i	BT Roads /concrete roads- % of total road length	%	100%	78	→					100
ii	Pucca closed storm water drains - % of total road length	%	130%	96 (open drains)	→					130
iii	Average spacing between Street lights	metres	30	37	-	-	30	→		

Source: Analysis and research

**CAPITAL INVESTMENT PLAN AND FINANCIAL SUSTAINABILITY**

**8.1 CAPITAL INVESTMENT PLAN**

The proposed projects for Bodinayakanur Municipality taking in to account its resources and the existing shortfall in services are given below. The projects have been phased out taking in to account the time-span required for implementation of the project and the availability of the funds (loans, grants and municipality's own resources) for the same.

**Table 8.1 Projects to be executed by Municipality (Rs in lakhs)**

S.No.	Particulars	Funding pattern L:G:M	2009-10	2010-11	2011-12	2012-13	2013-14	Total
<b>A</b>	<b>Physical Infrastructure Facilities</b>							
<b>II</b>	<b>Sewerage</b>							
a)	New Underground Sewerage Scheme	55:30:15	-	1744.33	1083.67	-	-	2828.00
<b>III</b>	<b>Strom Water Drains</b>							
a)	Construction of new drains and providing mesh covers	0:90:10	-	-	50.00	98.00	80.00	228.00
<b>IV</b>	<b>Water Bodies</b>							
a)	Strengthening of Water Bodies	Grants	-	-	-	20.00	-	20.00
<b>V</b>	<b>Solid Waste Management</b>							
a)	Improvements to Collecting System and Compost Yard	Grants	38.00	-	-	-	-	38.00
<b>VI</b>	<b>Roads</b>							
a)	Improvements to Roads - CC Roads, BT Roads, and relaying of roads	0:90:10	-	-	70.00	104.42	138.58	313.00
<b>VII</b>	<b>Bus Stand</b>							
a)	Cycle Stand	ULB	-	10.00	-	-	-	10.00
b)	CC Payment	0:50:50	-	-	50.00	-	-	50.00
c)	Entrance Arch	Grants	15.00	-	-	-	-	15.00
d)	Maintenance of Lodge	ULB	-	10.00	-	-	-	10.00
<b>VIII</b>	<b>Street Lights</b>							
a)	Installation of energy saver lights, sodium lights, high mass lights and retrofitting of existing tube lights	Private	-	47.00	-	-	-	47.00
<b>B</b>	<b>Social Infrastructure Facilities</b>							
<b>I</b>	<b>Slum Improvement</b>							

S.No.	Particulars	Funding pattern L:G:M	2009-10	2010-11	2011-12	2012-13	2013-14	Total
a)	Improvements to Slums	0:90:10	-	81.00	51.40	90.00	54.00	276.40
<b>II</b>	<b>Education</b>							
a)	Computer facilities, play materials	Grants	19.00	-	-	-	-	19.00
<b>III</b>	<b>Parks &amp; Playgrounds</b>							
a)	Improvement of parks, construction of compound wall for play ground & play equipments	0:50:50	-	15.00	-	-	30.00	45.00
<b>IV</b>	<b>Public Convenience</b>							
a)	Construction of 5 Nos. toilets and maintenance of existing toilets	0:50:50	-	20.00	20.00	20.00	-	60.00
<b>V</b>	<b>Burial Ground / Crematorium</b>							
a)	Prayer Hall and relaying of roads	0:50:50	-	10.00	-	-	-	10.00
<b>VI</b>	<b>Market</b>							
a)	Conversion of weekly market to daily market	50:30:20	100.00	100.00	-	-	-	200.00
<b>VII</b>	<b>Slaughter House</b>							
a)	Construction of Slaughter House	0:50:50	20.00	-	-	-	-	20.00
<b>VIII</b>	<b>Urban Greenary</b>							
a)	Plantation of 1000 Nos. new saplings	Grants	-	-	-	1.25	1.25	2.50
<b>C</b>	<b>Other Projects</b>							
<b>I</b>	<b>Remunerative Projects</b>							
a)	Shopping Complex	ULB	-	40.00	-	-	-	40.00
<b>II</b>	<b>Other Projects</b>							
a)	Modification of sanitary workers & staff quarters	ULB	-	-	-	30.00	-	30.00
b)	Travellers Bungalow	Grants	-	-	-	-	25.00	25.00
c)	Mobile tax collection van	ULB	8.00	-	-	-	-	8.00
<b>IV</b>	<b>Updation of Database</b>							
a)	Updation of Database on GIS platform	Grants	-	-	-	-	45.00	45.00
	<b>Total</b>		<b>200.00</b>	<b>2077.33</b>	<b>1325.07</b>	<b>363.67</b>	<b>373.83</b>	<b>4339.90</b>

The initial building blocks of the Corporate Plan are the 'elements' required to sustain the town's growth; public utility, urban environment, economic and social development, land use and transportation, municipal resources, urban governance and capital facilities. The projects in the plan were developed through a consultative process carried out between the Local Body Officials,

Council Staff and Elected Officials, Public Interest Groups, Project Stakeholders and the local citizens.

The projects have been prioritized in the following order :

- a) Water Supply
- b) Sewerage and Sanitation
- c) Solid Waste Management
- d) Storm Water Drains
- e) Urban Service for Poor (Slum Upgradation)
- f) Roads, traffic and transportation
- g) Street Lighting

## 8.2 OTHER PROJECTS AND ON GOING PROJECTS

The details of projects identified to be executed by other departments / agencies and the ongoing projects that are being executed by the Municipality are given below :

**Table 8.2 Projects to be carried out by Other Departments**

S.No	Particulars	Total	Funding By
a)	Special Eco Tourism Zone	N.A.	ITDC
b)	Improvement to Water Bodies	N.A.	PWD
c)	Food Processing and Packaging Advisory Centre	N.A.	Ministry of Food Processing Technology, Govt. of India
c)	Feasibility Study for conversion of Bodi place to Heritage Tourism Centre	N.A.	Zamindar / Private Developer
	<b>Total</b>	<b>N.A.</b>	

The details of ongoing projects being executed by the Municipality along with the means of finance is as below :

**Table 8.3 Details of Ongoing Projects executed by Municipality** (Rs in lakhs)

S.No	Particulars	Total Cost	Loan	Grant	Mun Cont.	Funding By
a)	Water Supply Improvements	242.00	121.34	84.00	36.66	50:35:15
b)	Burial Ground Improvements	10.00	-	5.00	5.00	0:50:50
c)	Gasifier Crematorium	42.00	-	21.00	21.00	0:50:50
d)	Education	15.00	-	-	15.00	Education Fund
	<b>Total</b>	<b>309.00</b>	<b>121.34</b>	<b>110.00</b>	<b>77.66</b>	

## 8.3 MEANS OF FINANCE

The means of finance for each individual project identified taking in to account whether the same is remunerative or non-remunerative and the availability of Grants from various sources is given below

**Table 8.4 Multi Year Investment Plan and Means of Finance**

S.No.	Particulars	Multi Year Investment Plan (Rs in lakhs)					Total
		2009-10	2010-11	2011-12	2012-13	2013-14	
<b>A</b>	<b>Physical Infrastructure Facilities</b>						
<b>1</b>	<b>Water Supply</b>						
	Total Project Cost	-	-	-	-	-	0.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	0.00	0.00	0.00
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	<b>Means of Finance</b>						
	TNUIFSL Loan	0.00	0.00	0.00	0.00	0.00	0.00
	Grant	0.00	0.00	0.00	0.00	0.00	0.00
	Municipality Own Funds	0.00	0.00	0.00	0.00	0.00	0.00
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>2</b>	<b>Sewerage</b>						
	Total Project Cost	-	1744.33	1083.67	-	-	2828.00
	Add : Price Inflation @ 7%	0.00	252.75	243.87	0.00	0.00	496.63
	<b>Total</b>	<b>0.00</b>	<b>1997.08</b>	<b>1327.54</b>	<b>0.00</b>	<b>0.00</b>	<b>3324.63</b>
	<b>Means of Finance</b>						
	TNUIFSL Loan	0.00	1146.83	673.13	0.00	0.00	1819.95
	Grant	0.00	599.13	398.26	0.00	0.00	997.39
	Municipality Own Funds	0.00	251.13	256.15	0.00	0.00	507.28
	<b>Total</b>	<b>0.00</b>	<b>1997.08</b>	<b>1327.54</b>	<b>0.00</b>	<b>0.00</b>	<b>3324.63</b>
<b>3</b>	<b>Storm Water Drains</b>						
	Total Project Cost	-	-	50.00	98.00	80.00	228.00
	Add : Price Inflation @ 7%	0.00	0.00	11.25	30.46	32.20	73.91
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>61.25</b>	<b>128.46</b>	<b>112.20</b>	<b>301.91</b>
	<b>Means of Finance</b>						
	Grant	0.00	0.00	55.13	115.61	100.98	271.72
	Municipality Own Funds	0.00	0.00	6.13	12.85	11.22	30.19
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>61.25</b>	<b>128.46</b>	<b>112.20</b>	<b>301.91</b>
<b>4</b>	<b>Water Bodies</b>						
	Total Project Cost	-	-	-	20.00	-	20.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	6.22	0.00	6.22
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>26.22</b>	<b>0.00</b>	<b>26.22</b>
	<b>Means of Finance</b>						
	Grant	0.00	0.00	0.00	26.22	0.00	26.22
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>26.22</b>	<b>0.00</b>	<b>26.22</b>
<b>5</b>	<b>Solid Waste Management</b>						
	Total Project Cost	38.00	-	-	-	-	38.00
	Add : Price Inflation @ 7%	2.66	0.00	0.00	0.00	0.00	2.66
	<b>Total</b>	<b>40.66</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>40.66</b>
	<b>Means of Finance</b>						
	Grant	40.66	0.00	0.00	0.00	0.00	40.66
	<b>Total</b>	<b>40.66</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>40.66</b>

S.No.	Particulars	Multi Year Investment Plan (Rs in lakhs)					Total
		2009-10	2010-11	2011-12	2012-13	2013-14	
<b>6</b>	<b>Roads</b>						
	Total Project Cost	-	-	70.00	104.42	138.58	313.00
	Add : Price Inflation @ 7%	0.00	0.00	15.75	32.45	55.79	103.99
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>85.75</b>	<b>136.87</b>	<b>194.37</b>	<b>416.99</b>
	<b>Means of Finance</b>						
	Grant	0.00	0.00	77.18	123.19	174.93	375.29
	Municipality Own Funds	0.00	0.00	8.58	13.69	19.44	41.70
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>85.75</b>	<b>136.87</b>	<b>194.37</b>	<b>416.99</b>
<b>7a</b>	<b>Bus Stand (Cycle Stand)</b>						
	Total Project Cost	-	10.00	-	-	-	10.00
	Add : Price Inflation @ 7%	0.00	1.45	0.00	0.00	0.00	1.45
	<b>Total</b>	<b>0.00</b>	<b>11.45</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>11.45</b>
	<b>Means of Finance</b>						
	Municipality Own Funds	0.00	11.45	0.00	0.00	0.00	11.45
	<b>Total</b>	<b>0.00</b>	<b>11.45</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>11.45</b>
<b>7b</b>	<b>Bus Stand (CC Payment)</b>						
	Total Project Cost	-	-	50.00	-	-	50.00
	Add : Price Inflation @ 7%	0.00	0.00	11.25	0.00	0.00	11.25
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>61.25</b>	<b>0.00</b>	<b>0.00</b>	<b>61.25</b>
	<b>Means of Finance</b>						
	Grant	0.00	0.00	30.63	0.00	0.00	30.63
	Municipality Own Funds	0.00	0.00	30.63	0.00	0.00	30.63
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>61.25</b>	<b>0.00</b>	<b>0.00</b>	<b>61.25</b>
<b>7c</b>	<b>Bus Stand (Entrance Arch)</b>						
	Total Project Cost	15.00	-	-	-	-	15.00
	Add : Price Inflation @ 7%	1.05	0.00	0.00	0.00	0.00	1.05
	<b>Total</b>	<b>16.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>16.05</b>
	<b>Means of Finance</b>						
	Grant	16.05	0.00	0.00	0.00	0.00	16.05
	<b>Total</b>	<b>16.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>16.05</b>
<b>7d</b>	<b>Bus Stand (Maintenance of Lodge)</b>						
	Total Project Cost	-	10.00	-	-	-	10.00
	Add : Price Inflation @ 7%	0.00	1.45	0.00	0.00	0.00	1.45
	<b>Total</b>	<b>0.00</b>	<b>11.45</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>11.45</b>
	<b>Means of Finance</b>						
	Municipality Own Funds	0.00	11.45	0.00	0.00	0.00	11.45
	<b>Total</b>	<b>0.00</b>	<b>11.45</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>11.45</b>
<b>8</b>	<b>Street Lights</b>						
	Total Project Cost	-	47.00	-	-	-	47.00
	Add : Price Inflation @ 7%	0.00	6.81	0.00	0.00	0.00	6.81
	<b>Total</b>	<b>0.00</b>	<b>53.81</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>53.81</b>
	<b>Means of Finance</b>						
	Private Sector	0.00	53.81	0.00	0.00	0.00	53.81
	<b>Total</b>	<b>0.00</b>	<b>53.81</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>53.81</b>

S.No.	Particulars	Multi Year Investment Plan (Rs in lakhs)					Total
		2009-10	2010-11	2011-12	2012-13	2013-14	
<b>B</b>	<b>Social Infrastructure Facilities</b>						
<b>1</b>	<b>Slum Improvement</b>						
	Total Project Cost	-	81.00	51.40	90.00	54.00	276.40
	Add : Price Inflation @ 7%	0.00	11.74	11.57	27.97	21.74	73.01
	<b>Total</b>	<b>0.00</b>	<b>92.74</b>	<b>62.97</b>	<b>117.97</b>	<b>75.74</b>	<b>349.41</b>
	<b>Means of Finance</b>						
	Grant	0.00	83.46	56.67	106.17	68.16	314.47
	Municipality Own Funds	0.00	9.27	6.30	11.80	7.57	34.94
	<b>Total</b>	<b>0.00</b>	<b>92.74</b>	<b>62.97</b>	<b>117.97</b>	<b>75.74</b>	<b>349.41</b>
<b>2</b>	<b>Education</b>						
	Total Project Cost	19.00	-	-	-	-	19.00
	Add : Price Inflation @ 7%	1.33	0.00	0.00	0.00	0.00	1.33
	<b>Total</b>	<b>20.33</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>20.33</b>
	<b>Means of Finance</b>						
	Grant	20.33	0.00	0.00	0.00	0.00	20.33
	<b>Total</b>	<b>20.33</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>20.33</b>
<b>3</b>	<b>Parks &amp; Playgrounds</b>						
	Total Project Cost	-	15.00	-	-	30.00	45.00
	Add : Price Inflation @ 7%	0.00	2.17	0.00	0.00	12.08	14.25
	<b>Total</b>	<b>0.00</b>	<b>17.17</b>	<b>0.00</b>	<b>0.00</b>	<b>42.08</b>	<b>59.25</b>
	<b>Means of Finance</b>						
	Grant	0.00	8.59	0.00	0.00	21.04	29.63
	Municipality Own Funds	0.00	8.59	0.00	0.00	21.04	29.63
	<b>Total</b>	<b>0.00</b>	<b>17.17</b>	<b>0.00</b>	<b>0.00</b>	<b>42.08</b>	<b>59.25</b>
<b>4</b>	<b>Public Convenience</b>						
	Total Project Cost	-	20.00	20.00	20.00	-	60.00
	Add : Price Inflation @ 7%	0.00	2.90	4.50	6.22	0.00	13.61
	<b>Total</b>	<b>0.00</b>	<b>22.90</b>	<b>24.50</b>	<b>26.22</b>	<b>0.00</b>	<b>73.61</b>
	<b>Means of Finance</b>						
	Grant	0.00	11.45	12.25	13.11	0.00	36.81
	Municipality Own Funds	0.00	11.45	12.25	13.11	0.00	36.81
	<b>Total</b>	<b>0.00</b>	<b>22.90</b>	<b>24.50</b>	<b>26.22</b>	<b>0.00</b>	<b>73.61</b>
<b>5</b>	<b>Burial Ground / Crematorium</b>						
	Total Project Cost	-	10.00	-	-	-	10.00
	Add : Price Inflation @ 7%	0.00	1.45	0.00	0.00	0.00	1.45
	<b>Total</b>	<b>0.00</b>	<b>11.45</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>11.45</b>
	<b>Means of Finance</b>						
	Grant	0.00	5.72	0.00	0.00	0.00	5.72
	Municipality Own Funds	0.00	5.72	0.00	0.00	0.00	5.72
	<b>Total</b>	<b>0.00</b>	<b>11.45</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>11.45</b>
<b>6</b>	<b>Market</b>						
	Total Project Cost	100.00	100.00	-	-	-	200.00
	Add : Price Inflation @ 7%	7.00	14.49	0.00	0.00	0.00	21.49
	<b>Total</b>	<b>107.00</b>	<b>114.49</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>221.49</b>
	<b>Means of Finance</b>						

S.No.	Particulars	Multi Year Investment Plan (Rs in lakhs)					Total
		2009-10	2010-11	2011-12	2012-13	2013-14	
	TNUIFSL Loan	53.50	57.25	0.00	0.00	0.00	110.75
	Grant	32.10	34.35	0.00	0.00	0.00	66.45
	Municipality Own Funds (From Deposits)	21.40	22.90	0.00	0.00	0.00	44.30
	<b>Total</b>	<b>107.00</b>	<b>114.49</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>221.49</b>
<b>7</b>	<b>Slaughter House</b>						
	Total Project Cost	20.00	-	-	-	-	20.00
	Add : Price Inflation @ 7%	1.40	0.00	0.00	0.00	0.00	1.40
	<b>Total</b>	<b>21.40</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>21.40</b>
	<b>Means of Finance</b>						
	Grant	10.70	0.00	0.00	0.00	0.00	10.70
	Municipality Own Funds	10.70	0.00	0.00	0.00	0.00	10.70
	<b>Total</b>	<b>21.40</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>21.40</b>
<b>8</b>	<b>Urban Greenary</b>						
	Total Project Cost	-	-	-	1.25	1.25	2.50
	Add : Price Inflation @ 7%	0.00	0.00	0.00	0.39	0.50	0.89
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.64</b>	<b>1.75</b>	<b>3.39</b>
	<b>Means of Finance</b>						
	Grant	0.00	0.00	0.00	1.64	1.75	3.39
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.64</b>	<b>1.75</b>	<b>3.39</b>
<b>C</b>	<b>Other Projects</b>						
<b>1</b>	<b>Remunerative Projects (Shopping Complex)</b>						
	Total Project Cost	-	40.00	-	-	-	40.00
	Add : Price Inflation @ 7%	0.00	5.80	0.00	0.00	0.00	5.80
	<b>Total</b>	<b>0.00</b>	<b>45.80</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>45.80</b>
	<b>Means of Finance</b>						
	Municipality	0.00	45.80	0.00	0.00	0.00	45.80
	<b>Total</b>	<b>0.00</b>	<b>45.80</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>45.80</b>
<b>2a</b>	<b>Modification of sanitary workers &amp; staff qtrs</b>						
	Total Project Cost	-	-	-	30.00	-	30.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	9.32	0.00	9.32
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>39.32</b>	<b>0.00</b>	<b>39.32</b>
	<b>Means of Finance</b>						
	Municipality	0.00	0.00	0.00	39.32	0.00	39.32
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>39.32</b>	<b>0.00</b>	<b>39.32</b>
<b>2b</b>	<b>Travellers Bunglow</b>						
	Total Project Cost	-	-	-	-	25.00	25.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	0.00	10.06	10.06
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>35.06</b>	<b>35.06</b>
	<b>Means of Finance</b>						
	Grant	0.00	0.00	0.00	0.00	35.06	35.06
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>35.06</b>	<b>35.06</b>
<b>2c</b>	<b>Mobile tax collection van</b>						

S.No.	Particulars	Multi Year Investment Plan (Rs in lakhs)					Total
		2009-10	2010-11	2011-12	2012-13	2013-14	
	Total Project Cost	8.00	-	-	-	-	8.00
	Add : Price Inflation @ 7%	0.56	0.00	0.00	0.00	0.00	0.56
	<b>Total</b>	<b>8.56</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>8.56</b>
	<b>Means of Finance</b>						
	Municipality Own Funds	8.56	0.00	0.00	0.00	0.00	8.56
	<b>Total</b>	<b>8.56</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>8.56</b>
<b>3</b>	<b>Updation of Database</b>						
	Total Project Cost	-	-	-	-	45.00	45.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	0.00	18.11	18.11
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>63.11</b>	<b>63.11</b>
	<b>Means of Finance</b>						
	Grant	0.00	0.00	0.00	0.00	63.11	63.11
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>63.11</b>	<b>63.11</b>

The consolidated 'Means of Finance' for all the projects put-together is summarized below :

**Table 8.5 Consolidated Means of Finance**

S.No.	Particulars	Multi Year Investment Plan (Rs in lakhs)					Total
		2009-10	2010-11	2011-12	2012-13	2013-14	
<b>I</b>	<b>Project Cost</b>						
	Total Project Cost	200.00	2077.33	1325.07	363.67	373.83	4339.90
	Add : Price Inflation @ 7%	14.00	301.01	298.20	113.03	150.49	876.72
	<b>Total</b>	<b>214.00</b>	<b>2378.34</b>	<b>1623.27</b>	<b>476.70</b>	<b>524.32</b>	<b>5216.62</b>
<b>II</b>	<b>Means of Finance</b>						
	Municipality Own Funds (including Deposits from Public)	40.66	400.13	320.03	90.76	59.27	933.68
	Grant	119.84	742.70	630.11	385.94	465.05	2343.63
	TNUIFSL Loan	53.50	1181.69	673.13	0.00	0.00	1885.50
	Private Sector	0.00	53.81	0.00	0.00	0.00	53.81
	<b>Total</b>	<b>214.00</b>	<b>2378.34</b>	<b>1623.27</b>	<b>476.70</b>	<b>524.32</b>	<b>5216.62</b>

#### 8.4 FINANCIAL SUSTAINABILITY

The sustainability analysis assumes that the Municipality will carry out reforms indicated as assumptions for financial projections. A Financial and Operating Plan (FOP) prepared which evaluates the Municipality Fund status for the Full Project scenario.

The FOP is a cash flow stream of the ULB based on the regular Municipality revenues, expenditures and applicability of surplus funds to support project sustainability. The FOP horizon is determined to assess the impact of full debt servicing liability resulting from the borrowings to meet the identified

interventions. The proposed capital investments are phased over 5 years investment from FY 2009-10 to FY 2013-14.

The full project investment scenario is based on all the proposed investments identified for Bodinayakanur Municipality and the requirement for upgrading the town's infrastructure is estimated and phased based on the construction activity. Implications of this investment in terms of external borrowings required, resultant debt service commitment and additional operation and maintenance expenditure are worked out to ascertain sub-project cash flows. Revenue surpluses of the existing operations are applied to the sub-project cash flows emerging from full project investments – the Municipality fund net surpluses indicates the ULB's ability to sustain full investments.

FY 2009-10 is taken as the base year and FY 2028-29 is assumed as the reference year (20 years) to determine the net surpluses and whether the Municipality maintains a debt / revenue surplus ratio as an indication of the ULB's ability to sustain investments.

## **8.5 BASIC ASSUMPTIONS FOR PROJECTIONS**

The FOP is based on a whole range of assumptions related to income and expenditure. These are critical to ascertain the investment sustenance and would also provide a tool to test certain specific policy decisions regarding revenue and expenditure drivers on the overall Municipality fiscal situation. This section elucidated the key assumptions adopted for the FOP scenario.

The growth rates for the various heads of income and expenditure have been arrived based on the past growth rates and the future estimated population growth. Improvements to the existing current and arrears collection percentages have been assumed for the various revenues directly collected by the Municipality, which implies that the Municipality would have to improve its collection mechanism to sustain full investments. Given below are the various assumptions forming part of the FOP workings:

### **8.5.1 Income**

#### **a) Property Tax**

The population of Bodinayakanur Municipality is estimated to grow at around 1.0% p.a. Based on the same Property Tax Revenue are assumed to increase @ 1.0% per annum. The last revision of Property Tax was carried out on 1-10-98 and it is assumed that the next revision will be carried out in the current year. It is assumed that there will be an increase of 25% due to revision in 2008-09 & that revision would be done @ 15% every 5 years.

It has also been established as per the Survey in 2002 that around 27% of the properties are unassessed and further 20-25% of the properties are unassessed. Considering the above, it is assumed that the same shall be set right and together these shall contribute to increase in property tax revenue by 10% from next year viz. 2009-10. The Property Tax income is divided between Revenue, Water Supply and Education Fund in the following ratio:

**Table 8.6 Assumptions underlying Financial Projections**

Description	Per Annum	
General	13.500%	)
Scavanging	7.000%	) Revenue & Capital Fund
Lighting	4.000%	)
Water Tax	4.000%	} Water Supply & Drainage Fund
Drainage	4.000%	}
Education	5.000%	] Education Fund
<b>Total</b>	<b>37.500%</b>	

**b) Profession tax**

Income from Profession Tax is assumed to increase @ 3% per annum. The Profession Tax was last revised on 1.10.2003 and the next revision is due in 2008-09. It is assumed that every revision would contribute to 15% increase

**c) Assigned revenue**

Assigned Revenue comprises Entertainment Tax and Surcharge on Stamp Duty. It is assumed the same shall increase as under :

Duty on Transfer of Property : 7.5%

Entertainment Tax : 1%

**d) Devolution Fund**

Devolution Fund is also assumed to increase by 10% per annum

**e) Service charges and fees**

Service Charges and Fees are assumed to increase @ 5% per annum

**f) Grant and Contribution**

No Grant has been assumed in the financial projections.

**g) Sales and Hire charges**

Nil income assumed from Sales & Hire Charges.

#### **h) Other Income**

Other Income comprising basically fees and other rental income are assumed to increase @ 5% per annum.

#### **i) Water Supply Charges**

The present connection charges/deposit and tariff for water are as below :

**Table 8.7 Water supply Charges - Existing**

Type of service connections	Deposit	Tariff per month
Residential	Rs. 3000	Rs.50.00
Commercial	Rs. 10000	Rs.150.00
Industrial	Rs. 10000	Rs.150.00

It is assumed that after completion of water supply improvements work, the house service connections will be equal to 80% of property tax assessments.

The water charges shall be revised as below :

Residential - Rs.50.00 p.m

Commercial & industrial – Rs.150.00 p.m

It is also assumed that the water connection charges shall be revised as under :

Residential - Rs.3000

Commercial - Rs.10000

Industrial - Rs.10000

It is assumed that water charges shall be increased as below every 5 years :

Residential - Rs.15.00 p.m

Commercial & industrial – Rs.25.00 p.m

It is assumed that water connection charges shall increase every 5 years as below :

Residential - Rs.1000

Commercial & industrial – Rs.2000

The house service connection as % of property tax assessments is as below:

**Table 8.8 House Service Connections - Percentage**

Year 2004-05	Property tax assessments	House service connections	%
Residential	13963	8866	63%
Commercial	1267	198	15%

Industrial & Govt.	78	0	0%
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The improvements in water supply shall result in increase in operation & maintenance by Rs.15.00 lakhs per annum and the same shall increase @ 5% per annum.

#### j) Drainage Charges

The Municipality does not have Under Ground Sewerage System. A new underground sewerage system is proposed to be built at a cost of Rs. 2828 lakhs. The implementation period is 2 years starting from 2010-11 to 2011-12. On completion of the scheme, it is assumed that around 70% of the property tax assessments would have sewerage connection. It is assumed that the scheme shall be completed 50% in 2010-11 and 50% in 2011-12. The Deposits and Charges shall be collected accordingly. It is assumed that the sewerage charges will be collected as below :

**Table 8.9 Sewerage – Deposits and Tariff**

Assessments	Deposits (in Rs)	Tariff (in Rs)
Residential	5000	50
Commercial	10000	100
Industrial	15000	150

The new connection charges and tariff have been taken on average basis. It is assumed that the drainage charges shall be increased every 5 years as below :

Residential - Rs.15/-

Commercial & industrial – Rs.25/-

It is assumed that the connection charges shall be increased every 5 years as below :

Residential - Rs.1000/-

Commercial – Rs.2000/-

Industrial - Rs.3000/-

The O&M charges shall be Rs.76.00 lakhs per annum and the same shall increase @ 5% per annum.

#### k) Solid waste Management

It has been estimated that solid waste generation per day shall be around 20.25 MTs. 50% out of the same shall comprise Bio-degradable waste and the manure generation would be 1/3<sup>rd</sup> of the same. Thus the estimated saleable manure generation per day would be 3.5 MTs. The same shall increase @ 5% per annum.

The revenue from solid waste disposal shall be Rs.300.00 per MT. The same shall increase by Rs.50.00 every 5 years. The number of assets covered by solid waste management scheme shall be equal to 70% of property tax assessments. The conservancy fees collected shall be as below to be collected after 10 years :

Domestic - Rs.10.00 per month  
Commercial - Rs.25.00 per month  
Industrial/Government - Rs.40.00 per month

The same shall increase as below every 5 years ;

Domestic - Rs.5.00/-  
Commercial/ Industrial/Government - Rs.10.00/-

The cost of the scheme is Rs.38.00 lakhs and the O&M cost shall be equal to around 7.50% of project cost. The same shall increase @ 5% per annum.

#### **l) Bus Stand**

Improvements to Bus Stand by construction of cycle shed, cc payment, entrance arch and lodge shall be undertaken for Rs. 85 lakhs.

It is estimated that the improvements shall increase the revenue of the bus stand by 25% and the same shall increase @ 5% per annum.

The O&M charges of the Bus Stand shall be equal to Rs. 2.25 lakhs per annum. The same shall increase @ 5% per annum.

#### **m) Market**

Improvements to Market shall be carried out at a cost of Rs. 200 lakhs.

The number of shops shall increase as below :

**Table 8.10 Market - Assumptions**

Description	Nos.	Rent (in Rs)	Deposit (in Rs)
Godowns	15	3000/- per month	40000
Shops	75	1500/- per month	15000
Stalls	200	1500/- per month	6000

The rent shall increase @ 25% every 5 years.

Besides, the market will comprise pay and use toilet, parking area and loading / unloading area and the same shall earn revenue of Rs. 1 lac per annum. The same shall increase @ 25% every 5 years.

The O&M charges on market shall be equal to 5% of project cost and the same works out to Rs. 10 lakhs per annum. The same shall increase @ 5% per annum.

**n) Remunerative Projects**

A Shopping Complex shall be constructed at a cost of Rs. 40 lakhs. It shall comprise the following :

**Table 8.11 Remunerative - Assumptions**

Description	Shops	Rent (Rs)	Deposit (Rs)
Shops	10	2500	400000

Considering the huge deposit collected, rent holiday of two years shall be provided to the shop owners. The rent shall increase @ 25% every 5 years. The annual O&M charges shall be equal to 25% of revenue earned.

**o) Advertisements**

Bill Boards would be put at 20 places through out the Municipality. Rent shall be earned @ Rs.500.00 per Bill board per month. The rent shall increase @ Rs. 100/- every 3 years.

**p) Parking Fees**

Parking Lots would be developed and income from parking is estimated at Rs.3.00 lakhs per annum. The same would increase @ 3% per annum.

**8.5.2 Expenditure**

**a) Increase in Expenditure**

The expenses are assumed to increase as under :

**Table 8.12 Increase in Expenditure - Assumptions**

Accounts Head	% Assumed
Personnel Cost - Salaries & Others	5.00%
Terminal & Retirement Benefits	5.00%
Operative Expenses	15.00%
Repairs & Maintenance	15.00%
Program Expenses	2.50%
Administrative Expenses	7.50%

**b) Operation and Maintenance**

The additional operation & maintenance expenses to be incurred are as below:

**Table 8.13 Additional Operation and Maintenance charges**

<b>Ongoing Projects</b>	Rs. in lakhs
Burial Ground Improvement	0.50
Gasifier Crematorium	2.10
Eductaion	0.75
<b>New Projects (other than Sewerage &amp; Water supply)</b>	Rs. in lakhs
Strom Water Drains	7.00
Water Bodies	1.00
Solid Waste Management	2.85
Roads	10.00
Bus Stand	2.25
Slum Improvement	13.82
Education	1.00
Parks	1.50
Public Convenience	3.00
Burial Ground / Crematorium	0.50
Market	10.00
Urban Greenery	0.05
Staff Quarters	1.00
Travellers Bunglow	1.00
Vehilces	0.50
<b>Total</b>	<b>58.82</b>

The same shall increase @ 5% per annum.

### **c) Power charges**

There will be a savings of around 40% in power charges due to installation of energy saving lights. As the same will be installed by private players, the savings in power charges have not been factored in the financial projections. It is assumed that the savings in power charges would be utilised towards returns of the private player towards capital cost and interest.

### **d) Interest**

Interest on loan have been provided based on the sanction rate for each loan. Repayment of loans are based on the repayment schedule of each loan.

#### **Sewerage & Water Supply Loan**

It is assumed that all new loan shall carry interest rate of 9.5% per annum.

The loan from TNUIFSL shall be repaid over a period of 20 years with 5 years moratorium.

### Other Projects Loan

It is assumed that all new loan shall carry interest rate of 9.5% per annum.

The loan from TNUIFSL shall be repaid over a period of 10 years with 2 years moratorium.

### e) Depreciation

Depreciation is provided based on the rates adopted by the Municipality for previous years.

### f) Provision of doubtful debts

Doubtful debts have been provided as under :

**Table 8.14 Provision of doubtful debts**

Description	% Assumed
On total revenue for Revenue Fund	2%
On total revenue for Water Fund	1%
On total revenue for Education Fund	0%

## 8.5.3 Collections

### a. Income from tax

The target assumed for the current and arrear collection of property tax, profession tax, rental/lease charges, water charges and drainage charges over next 5 years are given in the table below.

**Table 8.15 Target assumed for tax collection**

S.No	Description	Present Status	Target over next 5 years
1	Current Property Tax collection	93%	97%
	Arrear Property tax collection	7%	40%
2	Current profession tax collection	92%	97%
	Arrear profession tax collection	25%	60%
3	Current rental / lease collection	63%	90%
	Arrear rental / lease collection	3%	40%
4	Current water charges collection	85%	95%
	Arrear water charges collection	39%	70%
5	Current drainage charges collection	Nil	80%
	Arrear drainage charges collection	Nil	60%

### b) Other income

The collection % of all other income is taken at 100%

**c) Others**

The collection % of all other items of income is taken at 100%

**8.5.4 Annuity Factor**

The Annuity Factor for the new loans works out as under :

**Table 8.16 Annuity factor for new loans**

<b>Tenure</b>	<b>20 years</b>	<b>10 years</b>
Interest Rate	9.50%	9.50
Repayment Period	15 years	8 years
Moratorium	5 years	2 years
Repayment Factor	0.13	0.18
Conversion Factor Calculation		
a. Rate of Interest	9.5%	9.5%
b. Repayment Period	15	8
c. Loan Amount	35.00	3.00
<b>Conversion Factor</b>	<b>4.47</b>	<b>0.55</b>
<b>Total Conversion Factor</b>	<b>4.48</b>	

**Note :** Water Supply & Sewerage Loan works out to 35% of total project cost identified. Other Loans works out to 3% of total project cost identified.

**8.6 PROJECT CASH FLOWS AND FOP RESULTS**

Detailed cash flows are worked out for each of the sub projects based on the assumptions with regards investment phasing, financing pattern, additional operation and maintenance expenditure and additional income out to proposed capital investments for the full project scenario. The net project cash flows are then loaded on the existing revenues to test their impact on the overall Municipality fiscal situation.

**a) Income and Expenditure projections**

Table captures the Income and Expenditure projections for the next 20 years with potential improvements and borrowings :

**Table 8.17 Consolidated Income & Expenditure for next 20 years (up to FY 2028-29)**

(Rs in lakhs)

S.No	Particulars	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
<b>I</b>	<b>Income</b>											
a)	Property Tax	91.30	114.13	125.54	126.80	128.07	129.35	148.75	150.24	151.74	153.26	154.79
b)	Other Taxes	16.61	19.11	19.68	20.27	20.88	21.50	24.73	25.47	26.24	27.02	27.83
c)	Assigned Revenue	13.72	14.64	15.63	16.69	17.83	19.06	20.37	21.79	23.31	24.94	26.69
d)	Devolution Fund	218.23	240.05	264.06	290.46	319.51	351.46	386.61	425.27	467.79	514.57	566.03
e)	Service Charges & Fees	182.83	97.40	102.01	109.92	118.00	354.27	219.01	221.93	224.92	259.97	288.98
f)	Grants & Contribution	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g)	Sale & Hire Charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
h)	Other Income	22.54	33.34	28.97	44.13	66.03	78.56	72.51	85.48	77.08	99.37	89.61
	<b>Total Income</b>	<b>545.24</b>	<b>518.67</b>	<b>555.89</b>	<b>608.27</b>	<b>670.32</b>	<b>954.20</b>	<b>871.98</b>	<b>930.17</b>	<b>971.08</b>	<b>1079.13</b>	<b>1153.93</b>
<b>II</b>	<b>Expenditure</b>											
a)	Personnel Salaries Cost	147.17	154.53	162.25	170.37	178.88	187.83	197.22	207.08	217.43	228.31	239.72
b)	Terminal & Ret Benefits	44.09	45.41	46.77	48.17	49.62	51.11	52.64	54.22	55.85	57.52	59.25
c)	Operating Expenses	36.95	45.84	72.39	103.25	138.44	227.83	246.65	267.53	290.74	316.58	345.40
d)	Repairs & Maintenance	18.91	21.74	25.00	28.75	33.07	38.03	43.73	50.29	57.83	66.51	76.49
e)	Program Expenses	0.26	0.26	0.27	0.28	0.28	0.29	0.30	0.30	0.31	0.32	0.33
f)	Administration Expenses	41.61	44.73	48.09	51.70	55.57	59.74	64.22	69.04	74.22	79.78	85.77
g)	Finance Expenses	8.79	20.53	26.26	139.49	202.12	204.46	202.77	202.21	197.35	187.90	175.78
h)	Depreciation	114.61	97.88	91.12	129.10	201.57	261.45	319.38	322.60	271.29	234.01	206.17
	<b>Total Expenditure</b>	<b>412.37</b>	<b>430.93</b>	<b>472.16</b>	<b>671.11</b>	<b>859.56</b>	<b>1030.74</b>	<b>1126.91</b>	<b>1173.27</b>	<b>1165.02</b>	<b>1170.93</b>	<b>1188.91</b>
	<b>Surplus / (Deficit)</b>	<b>132.86</b>	<b>87.74</b>	<b>83.73</b>	<b>(62.84)</b>	<b>(189.24)</b>	<b>(76.54)</b>	<b>(254.93)</b>	<b>(243.10)</b>	<b>(193.95)</b>	<b>(91.80)</b>	<b>(34.98)</b>
	Profit before Depreciation	247.47	185.62	174.85	66.26	12.33	184.91	64.44	79.50	77.34	142.21	171.19

(Rs in lakhs)

S.No	Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
<b>I</b>	<b>Income</b>											
a)	Property Tax	178.01	179.79	181.59	183.40	185.24	213.02	215.15	217.30	219.48	221.67	254.92
b)	Other Taxes	32.01	32.97	33.96	34.98	36.03	41.43	42.67	43.95	45.27	46.63	53.62
c)	Assigned Revenue	28.57	30.59	32.77	35.10	37.61	40.31	43.20	46.32	49.66	53.26	57.12
d)	Devolution Fund	622.63	684.90	753.39	828.72	911.60	1002.76	1103.03	1213.34	1334.67	1468.14	1614.95
e)	Service Charges & Fees	292.76	296.62	318.69	356.54	388.05	393.07	398.19	412.90	453.69	487.84	494.17
f)	Grants & Contribution	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g)	Sale & Hire Charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
h)	Other Income	104.37	94.22	110.58	111.00	127.29	116.39	133.87	123.84	155.49	144.08	163.47
	<b>Total Income</b>	<b>1258.35</b>	<b>1319.09</b>	<b>1430.97</b>	<b>1549.74</b>	<b>1685.81</b>	<b>1806.97</b>	<b>1936.12</b>	<b>2057.65</b>	<b>2258.26</b>	<b>2421.61</b>	<b>2638.25</b>
<b>II</b>	<b>Expenditure</b>											
a)	Personnel Salaries Cost	251.71	264.29	277.51	291.38	305.95	321.25	337.31	354.18	371.89	390.48	410.00
b)	Terminal & Ret Benefits	61.03	62.86	64.74	66.69	68.69	70.75	72.87	75.05	77.31	79.63	82.01
c)	Operating Expenses	377.62	413.69	454.15	499.59	550.71	608.32	673.31	746.73	829.80	923.87	1030.54
d)	Repairs & Maintenance	87.96	101.15	116.32	133.77	153.84	176.92	203.45	233.97	269.07	309.43	355.84
e)	Program Expenses	0.34	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43
f)	Administration Expenses	92.20	99.11	106.55	114.54	123.13	132.36	142.29	152.96	164.43	176.77	190.02
g)	Finance Expenses	164.41	152.58	142.43	132.43	122.83	113.07	103.60	93.98	85.58	76.50	68.62
h)	Depreciation	184.82	168.01	154.45	143.24	133.80	125.70	118.62	112.36	106.74	101.65	96.99
	<b>Total Expenditure</b>	<b>1220.08</b>	<b>1262.05</b>	<b>1316.50</b>	<b>1382.00</b>	<b>1459.32</b>	<b>1548.74</b>	<b>1651.84</b>	<b>1769.63</b>	<b>1905.22</b>	<b>2058.74</b>	<b>2234.47</b>
	<b>Surplus / (Deficit)</b>	<b>38.27</b>	<b>57.04</b>	<b>114.47</b>	<b>167.74</b>	<b>226.49</b>	<b>258.23</b>	<b>284.28</b>	<b>288.02</b>	<b>353.04</b>	<b>362.87</b>	<b>403.78</b>
	Profit before Depreciation	223.09	225.06	268.91	310.98	360.29	383.93	402.90	400.38	459.78	464.52	500.77

It may be observed from the above table that the Municipality has surplus prior to depreciation in all the future 20 years and the cumulative cash flows are positive for all the years.

**b) Balance Sheet**

**Table 8.18 Consolidated Balance Sheet for next 20 years (up to FY 2028 – 29) (Rs in lakhs)**

S.No	Particulars	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
<b>I</b>	<b>Liabilities</b>											
<b>a)</b>	<b>Liabilities</b>											
	Loans	0.00	121.34	174.84	1356.53	2000.15	1986.31	1972.46	1950.53	1853.63	1713.38	1573.14
	Contn from Municipal Fund	38.12	115.78	156.44	556.57	899.43	990.19	1049.46	1049.46	1049.46	1049.46	1049.46
	Contn from Government	713.13	713.13	713.13	713.13	713.13	713.13	713.13	713.13	713.13	713.13	713.13
	Grant	99.60	209.60	329.44	1072.14	1702.25	2088.18	2553.23	2553.23	2553.23	2553.23	2553.23
	Accumulated Depreciation	793.04	912.38	1019.65	1196.96	1499.41	1879.89	2314.06	2747.45	3125.72	3463.07	3769.08
<b>b)</b>	<b>Current Liabilities</b>											
	Reserve for Doubtful Colln	25.04	34.00	43.60	54.17	65.90	80.94	95.61	111.42	128.01	146.41	166.02
	Tender Deposits – Conts	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
	Security Deposits	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
	Deposit Others	112.00	112.00	112.00	112.00	112.00	112.00	112.00	112.00	112.00	112.00	112.00
	IT & ST Ded - Contractors	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
	Interest Payable Account	26.42	26.42	26.42	26.42	26.42	26.42	26.42	26.42	26.42	26.42	26.42
	Survey Fees Payable	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08
	Library Cess Payable	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39
	Water Cess Payable	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45
	GIS Management Contrn.	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77
	Contn to CDMS / LPA Pay	8.11	8.11	8.11	8.11	8.11	8.11	8.11	8.11	8.11	8.11	8.11
	Staff Recoveries Payable	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00
	Other Recoveries / Pay	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
	Initial Deposit	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91
	Inter Funds Transfer	43.32	43.32	43.32	43.32	43.32	43.32	43.32	43.32	43.32	43.32	43.32
<b>c)</b>	<b>Accumulated Surplus</b>	4976.86	5064.77	5189.42	5163.59	5012.09	4935.85	4681.26	4438.56	4245.08	4153.80	4119.42
	<b>Total</b>	<b>7126.24</b>	<b>7651.45</b>	<b>8106.97</b>	<b>10593.55</b>	<b>12372.80</b>	<b>13154.94</b>	<b>13859.67</b>	<b>14044.23</b>	<b>14148.71</b>	<b>14272.94</b>	<b>14423.93</b>

(Rs in lakhs)

S.No	Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
<b>I</b>	<b>Liabilities</b>											
<b>a)</b>	<b>Liabilities</b>											
	Loans	1432.89	1299.32	1172.92	1046.51	920.11	793.70	667.29	540.89	414.48	288.08	161.67
	Contn from Municipal Fund	1049.46	1049.46	1049.46	1049.46	1049.46	1049.46	1049.46	1049.46	1049.46	1049.46	1049.46
	Contn from Government	713.13	713.13	713.13	713.13	713.13	713.13	713.13	713.13	713.13	713.13	713.13
	Grant	2553.23	2553.23	2553.23	2553.23	2553.23	2553.23	2553.23	2553.23	2553.23	2553.23	2553.23
	Accumulated Depreciation	4050.38	4311.63	4556.20	4786.57	5004.59	5211.71	5409.06	5597.53	5777.86	5950.67	6116.47
<b>b)</b>	<b>Current Liabilities</b>											
	Reserve for Doubtful Colln	187.58	210.31	235.24	262.17	291.51	323.10	357.23	393.73	433.85	476.90	524.07
	Tender Deposits – Conts	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
	Security Deposits	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
	Deposit Others	112.00	112.00	112.00	112.00	112.00	112.00	112.00	112.00	112.00	112.00	112.00
	IT & ST Deduction – Conts	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
	Interest Payable Account	26.42	26.42	26.42	26.42	26.42	26.42	26.42	26.42	26.42	26.42	26.42
	Survey Fees Payable	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08
	Library Cess Payable	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39
	Water Cess Payable	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45
	GIS Management Contn	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77
	Contn to CDMS / LPA Pay	8.11	8.11	8.11	8.11	8.11	8.11	8.11	8.11	8.11	8.11	8.11
	Staff Recoveries Payable	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00
	Other Recoveries / Pay	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
	Initial Deposit	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91
	Inter Funds Transfer	43.32	43.32	43.32	43.32	43.32	43.32	43.32	43.32	43.32	43.32	43.32
<b>c)</b>	<b>Accumulated Surplus</b>	4158.39	4216.23	4331.62	4500.42	4728.12	4987.76	5273.64	5563.51	5918.68	6284.00	6690.59
	<b>Total</b>	<b>14625.50</b>	<b>14833.77</b>	<b>15092.25</b>	<b>15391.94</b>	<b>15740.60</b>	<b>16112.54</b>	<b>16503.49</b>	<b>16891.93</b>	<b>17341.14</b>	<b>17795.91</b>	<b>18289.06</b>

(Rs in lakhs)

S.No	Particulars	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
<b>II</b>	<b>Assets</b>											
<b>a)</b>	<b>Fixed Assets</b>	6103.02	6412.02	6626.02	9004.36	10627.62	11104.32	11628.64	11628.64	11628.64	11628.64	11628.64
<b>b)</b>	<b>Current Assets</b>											
	Stock	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
	Property Tax Rec - Current	6.39	5.71	3.77	3.80	3.84	3.88	4.46	4.51	4.55	4.60	4.64
	Property Tax Rec - Arrears	37.69	36.54	31.29	22.54	17.33	14.24	12.42	11.92	11.66	11.55	11.53
	Profession Tax - Current	1.66	0.96	0.59	0.61	0.63	0.65	0.74	0.76	0.79	0.81	0.83
	Profession Tax - Arrears	2.22	2.99	2.45	1.57	1.24	1.12	1.09	1.18	1.24	1.28	1.32
	Rent on Buildings - Current	0.66	0.43	0.27	0.29	1.22	1.23	1.34	1.35	1.37	1.64	1.66
	Rent on Buildings- Arrears	3.39	3.37	2.79	1.95	1.45	2.09	2.49	2.83	3.05	3.20	3.56
	Licence Fees Rec - Arrears	6.00	3.00	-	-	-	-	-	-	-	-	-
	Water Charges - Current	11.80	7.94	4.37	4.73	5.09	5.15	5.20	5.25	5.30	6.80	6.87
	Water Charges - Arrears	6.85	15.23	14.03	8.58	7.30	7.28	7.33	7.40	7.47	7.54	9.06
	Drainage Chgs - Current	0.00	0.00	0.00	0.00	0.00	16.74	16.91	17.08	17.25	17.42	22.71
	Drainage Chgs - Arrears	0.00	0.00	0.00	0.00	0.00	0.00	16.74	23.60	26.52	27.85	28.56
	Specific Grant Receivable	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77
	Deposits Recoverable	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
	Staff Advance Recoverable	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
	Adv to Con / Suppliers	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
	Advances Rec - Expenses	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
	Other Advances - Rec	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00
	Inter Funds Transfer	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67
	Others	51.00	52.00	53.00	54.00	55.00	56.00	57.00	58.00	59.00	60.00	61.00
<b>c)</b>	<b>Cash &amp; Bank Balances</b>	614.62	830.31	1087.44	1210.19	1371.14	1661.30	1824.37	2000.79	2100.95	2220.67	2362.60
	<b>Total</b>	<b>7126.24</b>	<b>7651.45</b>	<b>8106.97</b>	<b>10593.55</b>	<b>12372.80</b>	<b>13154.94</b>	<b>13859.67</b>	<b>14044.23</b>	<b>14148.71</b>	<b>14272.94</b>	<b>14423.93</b>

(Rs in lakhs)

S.No	Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
<b>II</b>	<b>Assets</b>											
<b>a)</b>	<b>Fixed Assets</b>	11628.64	11628.64	11628.64	11628.64	11628.64	11628.64	11628.64	11628.64	11628.64	11628.64	11628.64
<b>b)</b>	<b>Current Assets</b>											
	Stock	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
	Property Tax Rec - Current	5.34	5.39	5.45	5.50	5.56	6.39	6.45	6.52	6.58	6.65	7.65
	Property Tax Rec - Arrears	11.56	12.28	12.76	13.10	13.36	13.58	14.54	15.18	15.62	15.96	16.23
	Profession Tax - Current	0.96	0.99	1.02	1.05	1.08	1.24	1.28	1.32	1.36	1.40	1.61
	Profession Tax - Arrears	1.36	1.51	1.59	1.66	1.71	1.77	1.95	2.06	2.14	2.22	2.28
	Rent on Buildings - Current	1.68	1.70	1.72	2.06	2.08	2.11	2.13	2.16	2.59	2.62	2.65
	Rent on Buildings - Arrears	3.79	3.96	4.07	4.16	4.56	4.82	5.00	5.13	5.24	5.73	6.06
	Water Charges - Current	6.94	7.01	7.08	8.67	8.75	8.84	8.93	9.02	10.71	10.81	10.92
	Water Charges - Arrears	9.59	9.81	9.95	10.06	11.69	12.26	12.52	12.69	12.82	14.55	15.18
	Drainage Charges - Current	22.93	23.16	23.39	23.63	29.24	29.53	29.83	30.12	30.42	36.38	36.74
	Drainage Charges - Arrears	34.13	36.59	37.80	38.51	39.03	44.85	47.47	48.81	49.65	50.28	56.49
	Specific Grant Receivable	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77
	Deposits Recoverable	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
	Staff Advance Recoverable	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
	Adv to Conts / Suppliers	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
	Adv Recoverable – Exps	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
	Other Advances – Rec	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00
	Inter Funds Transfer	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67
	Others	62.00	63.00	64.00	65.00	66.00	67.00	68.00	69.00	70.00	71.00	72.00
<b>c)</b>	<b>Cash &amp; Bank Balances</b>	2555.64	2758.81	3013.85	3308.96	3647.96	4010.58	4395.82	4780.35	5224.42	5668.73	6151.68
	<b>Total</b>	<b>14625.50</b>	<b>14833.77</b>	<b>15092.25</b>	<b>15391.94</b>	<b>15740.60</b>	<b>16112.54</b>	<b>16503.49</b>	<b>16891.93</b>	<b>17341.14</b>	<b>17795.91</b>	<b>18289.06</b>

The full projects investment scenario indicates that Bodinayakanur Municipality would end up with a positive cumulative cash surplus of Rs. 6151 lakhs by the end of FY 2028-29 (after 20 years)

## 8.7 IMPACT OF POTENTIAL IMPROVEMENTS

This Chapter provides a snapshot of the areas and order of improvement in revenue that Bodinayakanur Municipality could potentially achieve.

Specific interventions with respect to revenue realization and cost management are detailed in Section V of the report. On 'Full Project Investment Scenario' basis, Bodinayakanur's own revenues (comprising taxes, user charges and other income) could grow from Rs. 313 lakhs in FY 2006-07 to Rs. 966 lakhs by FY 2028-29, implying an absolute growth of 10%. Bodinayakanur has limited potential for increasing its own sources of revenue due to small resource base and focused intervention are required in the following areas :

- Property Tax – through an enhanced revision in ARV, widening assessee base and closer scrutiny. Besides periodic increase (every 5 years) in property tax rates.
- Professional Tax – sustaining a higher assessment growth.
- User Charges – periodic increases in user charges for water connections and sewerage connections. The Municipality could generate additional Rs. 600 lakhs of income per annum by FY 2028-29 by providing water connections to 80% of property tax assessments and sewerage connections to 70% of property tax assessments.

Bodinayakanur needs to explore scope for private sector participation for development of remunerative projects and heritage preservation / city beautification projects that have been identified by Bodinayakanur. It also needs to explore land development as a revenue enhancement mechanism and should focus on attracting private sector participation through appropriate BOT / SPV structures.

While there is potential for expenditure control in certain areas (as in the case of energy costs and leakage in water supply), the focus of cost management should be to shift expenditure from administration to better asset management and service levels. We have not factored in any cost reduction in the FOP and have assumed that any savings generated from cost reduction would go into augmenting service levels and better asset management.

A comprehensive energy audit is required, given that 60% of its operations and maintenance expenditure is spent on electricity charges. Plugging leakage in the water supply network and installation of timers and energy savers on the street light network are important interventions needed in the context of Bodinayakanur's high power costs.

## 8.8 ESTIMATION OF BORROWING AND INVESTMENT CAPACITY

We have arrived at the borrowing capacity based on the income and expenditure projections including debt servicing of existing loans as of FY ending 2007. We have arrived at the borrowing capacity of Bodinayakanur Municipality as the minimum of:

- 30% of revenue projections
- Primary Operating Surplus (Surplus before Interest & Depreciation)

The overall financing mix has been arrived to include 37% Loans, 45% Grants and 18% own funds. The repayment period of loans has been taken at 5+15 years for Sewerage Loan and 2+8 years for other project loans. The above factors have been taken in to account for arriving at the Annuity Factor, which has been applied on the lowest of the above to arrive at the overall borrowing capacity and investment capacity.

<b>Table 8.18 Summary of Borrowing and Investment Capacity</b>	
Borrowing Capacity	Rs. 1693.33 lakhs
Investment Capacity (BC/0.37)	Rs. 4576.57 lakhs
Investment Requirement	Rs. 4446.90 lakhs
Sustainable Investment Capacity % - IC / IR	103%

At an aggregate level, assuming loans to be equivalent to 37% of investment, the sustainable investment capacity works out to Rs. 4576.57 lakhs, which is about 103% of the total investment requirement.

Thus while loans and own funds should be used to finance remunerative projects, Bodinayakanur should leverage and utilize Grants from schemes like UIDSSMT and IHSDP to undertake non-remunerative projects relating to slum development, canal desilting etc. Further, Bodinayakanur should also consider involvement of private sector in implementing remunerative projects.

## 8.9 KEY INDICATORS

The key Indicators of the Municipality based on the financial projections works out as below :

**Table 8.19 Key indicators based on financial projections**

Description	Minimum	Maximum	Average
<b>Existing (2001-02 to 2006-07)</b>			
Operating Ratio	0.60	0.92	0.76
Debt Service Ratio	0%	11%	7%
Category			<b>1</b>

<b>Short Term (2009-10 to 2013-14)</b>			
Operating Ratio	0.69	0.98	0.86
Debt Service Ratio	2%	23%	14%
Category			<b>1</b>
<b>Long Term (2009-10 to 2028-29)</b>			
Operating Ratio	0.69	0.98	0.83
Debt Service Ratio	2%	30%	16%
Category			<b>1</b>

**Note : 1 – Financially Sound; 2 – Financially Fragile; 3 – Financially Insolvent**

It may be observed that the Municipality is financially sound in both short and long term due to reduced borrowings for the proposed projects.

### 8.10 INVESTMENT CAPACITY WITHOUT FINANCIAL REFORMS

We also carried out the exercise of arriving at the Investment and Borrowing Capacity in the scenario where the following financial reforms are not being undertaken by the Municipality :

- No increase in property tax rates every 5 years.
- No exercise is being carried out by the Municipality for bringing the un-assessed and under assessed properties in to property tax net.
- No increase in profession tax rates every 5 years.
- No increase in Water and Drainage chares every 5 years.
- No increase in prices of manure sold from solid waste management.
- Conservancy fee on solid waste management is not collected after 5 years.
- No additional income from parking fees and advertisement.
- Increase in collection efficiency is not considered and the present collection rates continue.

In such a scenario, the Investment and Borrowing Capacity works out as below :

<b>Table 8.20 Summary of Borrowing and Investment Capacity</b>	
Borrowing Capacity	0
Investment Capacity (BC/0.38)	0
Investment Requirement	Rs. 5740.50 lakhs
Sustainable Investment Capacity % - IC / IR	0

Thus both the investment and borrowing capacity works out negative in case the financial reforms are not carried out. It can thus be concluded that the Municipality cannot consider taking up the projects identified in the City Corporate Plan incase the financial reforms for augmenting its own sources of revenue are carried out by the Municipality.

9

**ASSETS MANAGEMENT PLAN**

Management of municipal assets is an essential part of urban management activity. This asset management has the objective of defining and describing the key elements, and principles of a Municipal Infrastructure Asset Management (MI-AM) System. This chapter will deal with the elements that are essential in an asset management program for movable and immovable infrastructure, more specifically road networks, water supply networks, pumping, storage, treatment facilities and storm water drains. Immovable assets are of great importance as the indicators for the Municipality's financial worth, which would help in its borrowing capacity and credit worthiness. Bodinayakanur Municipality owns the following movable and immovable assets:

**9.1 LAND AND BUILDING ASSETS**

There are remunerative and non-remunerative assets of the municipality, on which the municipality incur considerable expenditure for operation and maintenance. The commercial complexes in the town, Shops in the bus stand, Markets, Slaughterhouse, Pay and Use toilets, etc are all remunerative. Non-remunerative assets of the municipality are the burial ground, public toilets, compost yard, parks, playfields etc. The list of land assets are given in the tables below:

**Table 9.1 Assets in Bodinayakanur Municipality- Land**

Asset	No.	Area	Location
Compost Yard	2	Old – 6.00 acres New – 10.00 acres	Old – Mayanam Road New – Siraikkadu
Bus Stand	1	3.23 acres	Along Uthamapalayam Road
Parks & Play Fields (Open Spaces)	6	1.00 0.09 0.50 0.56 0.5 0.13	Sonaimuthu Park Venkattammal Park Bojan Park Park Land 1 Park Land 2 Park Land 3
Burial ground	1	4.16 acres	Santhivanam along Mayanam Road
Public Convenience	27		Town area
Education	4		Town area
Medicare	1		Thendral Nagar
Market	1		Thendral Nagar
Slaughter house	1	240 sq.m	Periyandavar High Road

Source: Bodinayakanur Municipal Records

## 9.2 INFRASTRUCTURE ASSETS

Infrastructure Assets will include all movable and immovable equipments and properties including water supply, drainage, sewerage, solid waste management, roads, street lighting etc. Unlike other assets of the municipality, these assets undergo constant use, wear and tear, addition, repair etc. This correspondingly changes their values and hence a constant value updating is necessary.

### 9.2.1 Water Supply

The water supply assets basically comprise of all the assets from the headworks, treatment plant, sump, transmission mains, pumping mains, feeder mains, distribution mains and sub mains, including all valves, connections, meters and all related facilities for the efficient delivery service of water. The assets of Bodinayakanur Municipality during 2005-06 are listed in the table below:

**Table 9.2 Water supply asset details**

Asset	Units
Distribution system pipes	55 km
Service reservoirs	3 nos
House service connections	8284 nos
Public fountains	210 nos
Power pumps	52 nos
Hand pumps	82 nos

Source: Bodinayakanur Municipal Records

### 9.2.2 Other Assets

Other assets of the municipality include drains, solid waste management facilities and street light arrangements.

**Table 9.3 Other assets**

<b>STORM WATER DRAINS</b>	
Existing open storm water drain	66.01 km
<b>SOLID WASTE MANAGEMENT</b>	
Mini Lorry	3 nos.
Sullage Tanker	1nos.
Push Carts	45 nos.

<b>STREET LIGHTS</b>	
Tube Lights	1829 nos.
Sodium Vapour Lamps	33 nos.
Mercury Vapour Lamps	12 nos.
High mast lights	2 nos.

Source: Bodinayakanur Municipal Records

### 9.3 ASSETS MANAGEMENT IN THE LOCAL BODY LAND ASSET

The management of assets in the local bodies is at the initial stage where, only the assets are listed and status is described. Invariably, in all the cases, the management component is missing as to the techniques and methods of managing the assets either in improving their state and value or in sustaining them with a growth motive. There is hardly any case where a local body has made use of its immovable assets for raising loans or improving its borrowing capacity. It requires an overall approach outlining the alternative options of maintaining and managing the assets in a worthwhile mode.

The land varies in its value from location to location and time to time as per the weightage of the area arrived at based on various factors. It is invariably found that, the value of the municipal land varies substantially from that of the adjacent private land for obvious reasons. These differences need a practical moderation to estimate the true credit worthiness of the local body.

Bodinayakanur Municipality has furnished a statement giving the land assets and their values for March 2007. The rate of increase of the Municipal land in its value, vis-à-vis that of the adjacent private land at the various locations will be useful in drawing up a reasonable assets management technique.

The proposals for efficient utilization of land assets is given in the table below:

**Table 9.4 Proposed Use – Land Asset**

<b>Location of Land Asset</b>	<b>Area</b>	<b>Present Use</b>	<b>Proposed Use</b>
Siraikkadu	10.00 acres	Compost Yard	Compost Yard (improvement works in progress)
Along Uthamapalayam Road	3.23 acres	Bus Stand & Commercial Complex	Providing cycle stand, CC pavements and entrance

			arch.
Sonaimuthu Park	1.00 acres	Not used efficiently	Parks with landscaping, play equipments, lighting etc
Venkattammal Park	0.09 acres		
Bojan Park	0.50 acres		
Park land 1	0.56 acres		
Park Land 2	0.50 acres		
Park Land 3	0.13 acres		
Santhivanam along Mayanam Road	4.16 acres	Existing burial ground with vacant land	Constructing prayer hall, Relaying roads.
Thendral Nagar	-	Existing weekly market without any permanent structures	Mordern market complex
Periyandavar High Road	240 sq.m	Dilapidated buildings	Modern slaughterhouse
Site Near Filter House	500 sq.m	Filter House (not in use)	Travelers Bungalow

#### 9.4 MANAGEMENT OPTIONS

The foregoing account of the movable and immovable assets of the Municipality includes basically lands parts of which are occupied by construction of structures for various uses. The structural elements in the form of buildings including OHTs, flow elements relating to essential services such as water supply, drainage, UGD, street lights and the like are designed with a design life time. The lands however as a base have no such limiting factor in terms of time. Thus the super structures and the constructed elements below the ground are depreciating in their values as they age. But the lands both constructed and un-constructed keep appreciating both in standard and market values. In fact, the rate of appreciation of the lands is of great significance from the point of worthiness of the concerned local body and, it is invariably much faster in its appreciating value compared to the rate of depreciation of structures imposed on them. Also, the rate of depreciation standardized for various items of the structures is much more than the actual while taking into consideration the life time of such structures till the point of their condemnation.

The assets particularly the lands owned by the local body could be used for borrowing loans showing them as the properties of the local body and / or leasing where possible. Certain land parcels may be leased / rented for private uses for a specific period of time. Moreover, the rate of depreciation may have to be considered from the actual life time of such structural elements instead of taking their design life time for valuation. Rationalizing both the aspects as mentioned may give the real value and worthiness of the assets of the local body. This may require a comprehensive re-

look item-wise, pertinent to the locality and for valuating in terms of both appreciation and depreciation.

Generally, the assets of the local body, particularly the lands are rarely maintained and their values in the management of the resources of the local body are little considered. There must be a scientific approach town wise to evolve a dynamic model of the changing values of the assets both in terms of appreciation and depreciation from time to time, particularly when sizable developments take place. It is important to keep in view that as per the objectives of the devolution of functions and powers to the urban local bodies under the 74<sup>th</sup> Constitutional Amendment Act, the value of the lands and properties are necessarily to be assessed depending on their location, land use and intensity of development over a time scale. In order to systemize the highly dynamic factor of values of the properties under local body, it is essential for an efficient management of the total assets owned by local body.

The suggestions for the improvement of land asset management are listed below:

1. Create up to date land asset register with details on location , extent, value etc.
2. Establishment of GIS inventory mapping and database management system for Municipality owned lands.
3. Use of land assets for borrowing loans from capital market.
4. Identifying the most remunerative activity by public–private participation, BOT, BOOT initiatives.
5. Lease or rent out of land parcels for a period of time.
6. Removal of encroachments or levy of rent on Municipal land parcels.
7. Explore possibilities of acquiring additional land parcels for Municipality.

Since every year there is an addition to such assets, an indication of the values is a must in calculating the present values and also projecting to the future. In the absence of any trend, the values of the structural assets have become difficult to be computed. However, the values of the proposed projects in the form of assets both for structural elements and certain movable items are indicated in the statement.

The assets creation by way of the projects proposed under CCCBP for implementation in the years to come are indicated with the capital investment values as in table below:

**Table 9.5 New Assets for the year - 2009-10 to 2013-2014**

S.N	Physical Infrastructure Facilities	Rs in lakhs
1	Water Supply	107.00
2	UGSS	2828.00
3	Storm Water Drains	228.00
4	Water Bodies	20.00
5	Solid waste Management	38.00
6	Roads	313.00
7	Bus Stand - Cycle stand	10.00
	CC pavement	50.00
	Entrance Arch	15.00
	Maintenance of Lodge	10.00
8	Street Lights	47.00
	<b>Social Infrastructure Facilities</b>	
9	Slum improvement	276.40
10	Education	19.00
11	Parks and Playgrounds	45.00
12	Public Convenience	60.00
13	Burial Grounds	10.00
14	Market	200.00
15	Slaughter House	20.00
	<b>Other Projects</b>	
16	Urban Greenery	2.50
17	Remunerative Project – shopping complex	40.00
18	Modification sanitary workers quarters and staff quarters	30.00
19	Travelers Bungalow	25.00
20	Mobile tax collection vehicle	8.00
21	Updation of GIS	45.00
	<b>Total</b>	<b>4446.90</b>

Source: Analysis and calculation

All these assets are elements that drive the business plan and ensure the timely availability of resources to sustain the assets in an acceptable condition for better service delivery. In addition to increasing the revenue potential, it is equally important to manage the assets in terms of their maintenance and rehabilitation. This would ensure reducing costs, improving reliability, and ensuring sustainability. Hence it is imperative for the municipality to have a highly simplified approach with a long-term schedule of delivery of actions and a set of short-term measures.

## PUBLIC CONSULTATION MEETING

The City Corporate Plan is a tool which adapts a corporate approach to plan and implement projects in a participatory mechanism involving users, elected councilors, line agencies, private organizations, NGOs and CBOs. In this process, residents of various sections of the communities in the town were enquired into at random during reconnaissance survey and visits to all the sites of the projects identified by the Municipality and also otherwise suggested by the elders. The broad purpose of stakeholder's participation is to involve the stakeholders in the development plan for the city.

As an initial stage, the Councillors, the Chairman and the Municipal Officials were individually discussed with and the ward and town level requirements relating to, especially the Municipal services and other promotive projects have been gathered.

The next stage of this exercise in preparing the CCCBP for the town, as an underlining essential principle of consultation with the beneficiaries of the plan, a stake holder consultative meeting at the town level was initiated under the guidance of the RDMA, Madurai at the meeting held at RDMA office at Madurai with the participation of the commissioners of all concerned Municipalities.

The stakeholder Consultation meeting for Tirumangalam was set for 31.1.08. and was successfully completed, with the participation of the stake holders . The stake holders include

1. Councilors of the town Council including the Chairman
2. Municipal officials including the Commissioner
3. NGOs, CBOs, Clubs, Associations,
4. Representaatives from educational institutions



5. Representatives from the health sector
6. Government offices located in the town,
7. town elders, ladies' forums, SHGs

The context, concept and contents of the CCCBP were explained to them by the FICHTNER project team leaders.



The stakeholders have been invariably very co-operative and practical about the needs of the town at ward and town levels. During the meeting, participants were asked to describe the vision for a desired future of their town. The participants were given a chance to comment on the strategic options put forth in broad terms and on the local strength and weaknesses affecting city's future development. These comments were considered while developing strategic options for the plan.



Following the presentation on the information about the CCCBP, each participant were given an opportunity to express his views and was asked to give his suggestions in the given questionnaire format. The outcome of the consultative process in the form of their requirements, comments, suggestions and opinions for the future, the orientation of the plan structure has been treated. Thus, the outcome of this exercise in the form of Corporate Plan is conscious consent and with the approval of the town Council and other stakeholders of the town.

This plan focuses largely on the totally implementable urban infrastructure and other projects to adequately meet the present and future demands of the growing town. The attendant results and concomitant effects in terms of town's economic development, societies' standard of living, improvement in the living environment, equality in the access to the necessary services, facilities and amenities for all the sections of people largely sub-serving alleviation of the urban poverty element, on the completion of the project proposals.

After the workshop, consulting team organized the discussion points and the written portion based on which the vision for the town was arrived. The suggestions of the stakeholders are listed and a sample copy of the questionnaire is annexed for reference.

(Annexure - 9).

**Table 10.1 Suggestions at Stakeholder Consultation Meeting**

No	Major Issues raised	Solution initiatives
1	Shopping complexes on Municipal lands	Proposal for construction of shops is included.
2	To improve water supply for ultimate stage	Proposal for improved water supply is included
3	Necessity for Under Ground Drainage	Proposal for UGSS is included.
4	Conversion of Madurai to Bodinayakanur Metre Gauge rail to Broad Gauge	Proposal for conversion is approved by Central Government.
5	More number of public conveniences needed.	Proposal for new sanitary complexes is included.
6	Setting up of new industries to create job opportunities.	Proposal for providing a new industrial base is put forward.
7	Filling up of vacant post in Municipality	Proposal for reconsidering the staff strength is included.
8	Preventing the pollution in the water bodies	Proposal for strengthening water bodies is included.
9	Provisions for more number of OHTs	Proposal for constructing new OHTs is included.
10	Improvement to parks and open spaces	Proposal for developing the open spaces and parks is included.
11	Resurfacing of roads in the town	Proposal to relay the roads is included.
12	Mini Power pump in various parts of the town.	Provisions for mini power pumps are included.
13	Improvements to Bus Stand.	Proposal to improve bus stand conditions is included.
14	Provisions for BT and CC roads.	Proposal to lay new BT and CC roads is included.

**1. Ward No.1 - Ward Councilor – Ms. B. Eswari**

1. Under Ground Drainage required at Valasai thurai road
2. Road required at Kulasekara pandyan street
3. Road required at Rahamathullah street and Sheikh Meeran street
4. Mini Power pump at Valasai thurai road
5. Street lights

**2. Ward No 2. - Ward Councilor – Mr. Jeyaraj. D**

1. Road transport
2. Under Ground Drainage
3. Industries and Technical Institutes
4. Engineering College and High school
5. Extension of General Hospital and increasing the number of doctors.

**3. Ward No 5 - Ward Councilor – Ms. M. Murugeswari**

1. Daily market required
2. ESI hospital necessary
3. Under Ground Drainage
4. Separate fish and meat market
5. Removal of obstacles like Electric Posts, telephone poles and eviction of encroachments on Municipal lands.

**4. Ward No 7 - Ward Councilor – Ms. Rani.G**

1. a. Under Ground Drainage  
b. Restriction on wandering animals along the roads
2. Provision of 2 OHTs and increasing the dam height at Kottagudi.
3. Shifting of railway station and fire station to the centre of the town.
4. Shopping complexes on Municipal lands
5. Four lane roads and bye pass road to reduce traffic congestion.

**6. Ward No. 8 - Ward Councilor – Ms. G. Dhavamani**

1. Water supply during forenoon and afternoon

- 
2. BT roads and Cement Concrete roads
  3. Streetlights
  4. Pesticide to control mosquitoes to be applied twice a week.

**7. Ward No. 9 - Ward Councilor – Ms. P. Raja**

1. Improvement of bus stand
2. Road and Under Ground Drainage
3. Park and Playfields
4. Health and environmental pollution prevention
5. Cleaning of roads.

**8. Ward No. 10 - Ward Councilor – Mr. Ravikumar .M**

1. UGD and prevention of wandering of animals
2. Provision of 2OHTs and increasing the dam height at Kottagudi.
3. Shifting of railway station and fire station to the centre of the town.
4. Shopping complexes in Municipal lands
5. Four lane roads and bye pass road to reduce traffic congestion.

**9. Ward No.11 - Ward Councilor – Ms. T. Eswari**

1. Under Ground Drainage
2. Roads
3. Shopping complex in Municipal areas
4. Privatization of health department

**10. Ward No. 12 - Vice chairman – Mr. M. Sankar**

1. To improve water supply for ultimate stage
2. Under Ground Drainage
3. Bus stand
4. Weekly market and shifting of daily market to the centre of town.
5. Shopping complex at Kamarajar Bazaar.

**11. Ward No. 13 - Ward Councilor – Ms. Gowsalya. A**

1. Solid waste management
2. Storm Water Drains and Small Culverts

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3. Road maintenance and health improvements.
  4. Sorting out problems in discussion with Municipal councilors.
  5. Equal priority should be given to all the wards while preparing plans

**12. Ward No.16 - Ward Councilor – Mr. Jawahar. M**

1. Under Ground Drainage
2. Eviction of encroachments
3. Inclusion of Thirumalapuram eastern side Panchayat houses under Municipality.
4. Introduction of speed breaker in selected locations of Municipality.

**13. Ward No. 19 - Ward Councilor – Ms. R. Rajammal.**

1. Under Ground Drainage
2. Daily market and shopping complex near veterinary hospital.
3. OHT in the park near old bus stand.
4. Panchayat area on the southern side of 19<sup>th</sup> ward to be included in the Municipality.
5. Conversion of Madurai to Bodinayakanur Metre Gauge rail to Broad Gauge.

**14. Ward No. 20 – Chairman - Ms. Radiya Banu.S**

1. Government Medical college and Government engineering College
2. Extension of General Hospital.
3. Public Toilet in adequate numbers
4. Setting up of new industries to create job opportunities.
5. Improvements in railway and road facilities.

**15. Ward No. 21 - Ward Councilor – Mr. R. Barathan**

1. Roads
2. Water supply
3. Under Ground Drainage
4. Street lights
5. Industries

**16. Ward No. 22 - Ward Councilor – Mr. S. Paramasivan.**

1. Under Ground Drainage
2. Extension of Municipal limits

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3. Government industrial units
  4. Filling up of vacant Government posts
  5. Eviction of police quarters and building up shops in the same.

**17. Ward No. 23 - Ward Councilor – Mr. Sivanandi. V**

1. 18<sup>th</sup> canal Project
2. Roads
3. Eviction of encroachment
4. Setting up of schools and colleges
5. Shifting of railway station to the outer of town.

**18. Ward No. 24 - Ward Councilor – Mr. M. Murugan**

1. Eviction of encroachment and construction of platform in their place
2. Under Ground Drainage
3. Storm Water Drains.
4. Road facilities.
5. Drinking water.

**19. Ward No 26. - Ward Councilor – Ms. G. Naliniji**

1. Under Ground Drainage
2. Slum clearance
3. Vacant posts in Municipality to be filled up
4. Storm Water Drains
5. Public Health

**20. Ward No. 27 - Ward Councilor – Ms. B. Jayarani**

1. Under Ground Drainage
2. Equitable supply of water to all areas
3. Roads Improvements
4. Increase in No. of Street lights
5. Water supply and light facilities in **Santhivanam burial** ground and Electrical crematorium.

**21. Ward No. 28 - Ward Councilor – Ms. V. Jothimani**

1. Under Ground Drainage
2. Slum Clearance

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3. Filling up of vacant post in Municipality.
  4. Shopping complex in Municipal land
  5. Train facility from Bodinayakanur to Chennai

**22. Ward No. 31 - Ward Councilor- Ms. Jothi. M**

1. Provision of Vanji Odai Bridge and rivetment
2. Mini Power pump in 1<sup>st</sup> street, 7<sup>th</sup> street and 9<sup>th</sup> street
3. BT Roads
4. Rejuvenation of noon meal centre
5. Separate toilet facilities for males.

**23. Ward No. 33 - Ward Councilor – Mr. O. Chandrasekaran**

1. Platform along roads
2. 2 OHTs
3. Market near bus stand
4. Shopping complex in Municipal land
5. Municipal fiscal status should be intimated to the public.

**General Public**

**1. Mr. N. Parameswaran – Subburaj Nagar**

1. Storm Water Drains.
2. Bus Shelters
3. Equitable distribution of water supply
4. Environmental protection from near by cotton mills

**2. Mr. M. Singaraj – Lions Club**

1. Water supply
2. Under Ground Drainage
3. Road and street lights
4. Public toilet for males
5. Requirement for Vanji Odai

**3. Mr. R. Prabhunathan - Youth Congress**

1. Improvement of Bus stand

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2. Eviction of encroachments
  3. Storm Water Drains
  4. Stopping illegal collection of fees from public toilet
  5. Cleaning of roads.

**4. Mr. S.T Subburaj – Consulting Engineer**

1. Parking facility for 2 wheelers
2. Storm Water Drains
3. Solid Waste Management
4. Removal of hoardings and posters at important junctions
5. Water supply to be regulated

**5. Mr. Azhagarasan - Ward 4**

1. Storm Water Drains
2. Under Ground Drainage