

CITY CORPORATE CUM BUSINESS PLAN

FINAL REPORT

ARANTHANGI 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

ARANTHANGI MUNICIPALITY-CITY CORPORATE CUM BUSINESS Plan

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

Aranthangi is a second grade municipal town situated in Pudukottai District. It is located on the SH-26 connecting Pudukottai and Avudaiyar koil and SH – 28 connecting Karaikudi and Puttukottai. The town extends over an area of 7.56 sq.km, holding a population of 34,134(2001). The town is an agricultural town and service centre to the surrounding villages.

PHYSICAL INFRASTRUCTURE

Water Supply:

The source for water supply is the bore wells located within the municipal limits and the municipality supplies water daily at the rate of 85 lpcd. Low pressure in elevated areas, absence of distribution line in the extension areas of the town and old and damaged machineries in pumping stations are some of the issues in the water supply system. For improvement of water supply, replacement of damaged machineries, construction of OHTS, extension of Distribution mains and Replacement of existing pump sets are proposed at a cost of Rs.458.00 lakhs

Sewerage:

The town does not have an UGSS. The Municipality has proposed to construct the UGSS at an estimated cost of Rs 3107.00 lakhs.

Storm Water Drains

The total length of the open drain is 17.441 km against 60.59 km total length of roads. Discharge of sewage into water bodies, unhygienic and squalid condition, water born diseases and water

clogging are the issues in the town. To improve the existing situation, it is proposed to construct new drains with mesh cover (60km) and reconstruction of open drains (3) for an estimated cost of Rs.630.00 lakhs. Besides, the ULB proposes to construction of retaining walls and rehabilitate Ooranies at a cost Rs.115.00 lakhs to improve the ground water level in the town.

Solid Waste Management

It is estimated that the town generates 12 MT of solid waste in a day. The main issue in Solid Waste Management (SWM) is inadequate staff for segregating the waste, inadequate collection vehicles. To improve the present situation, it is proposed to construction of compound wall and dumper placer bins at a cost of Rs 31.00 lakhs

Roads and Bridges

The municipality maintains 60.59 km length of roads, besides Highways. B.T. roads constitute 65.50%, followed by earthen road 25.53% of the total network. Pavement of BT/CC road (15 km), Upgradation of B.T (30 km), upgradation of C.C road (2km), and construction of culverts at a cost of Rs 500 lakhs have been proposed. Further the improvement of the existing bus stand at a cost of Rs.150.00 lakhs is also proposed.

Street Light

Of the total street lights (1903), 77% are tube lights and the rest are sodium vapour lamps. The proposals are provision of additional energy sewer lights, sodium vapour lamps at a cost of Rs 39.00 lakhs.

SOCIAL INFRASTRUCTURE:

Slum Improvement:

On slum improvement, the Municipality under IHSDP has proposed provision of basic amenities in 9 slums of the town at a cost of Rs.370.00 lakhs.

The improvement of parks, play grounds, daily market and other projects are proposed at a cost of 213.50 lakhs

B) E-Governance

It is proposed to provide touch screens and computers at the cost of Rs. 3.00 lakhs.

C) Remunerative Projects

Towards remunerative projects, the municipality proposed construction of a shopping complex at a cost of Rs. 90 lakhs.

Municipal Finance

The total income of the municipality has increased from Rs. 185.63 lakhs to Rs.255.85 lakhs during 2001-02 to 2006-07 and the total expenditure incurred is Rs.393.12 lakhs to 192.30 lakhs during the above period. It is observed that the Municipality has reduced its deficit from 2002-03 and is showing surplus for the last 2 years, which is a very positive sign. But the Municipality needs 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	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	Total
		(Rs. in lacs)					
	Physical Infrastructure Facilities						
1	Water Supply	458.00					458.00
2	Sewerage	932.10	1553.50	621.40			3107.00
3	Strom Water Drains			230.00	252.00	148.00	630.00
4	Water Bodies				50.00	65.00	115.00
5	Solid Waste Management	15.00	16.00				31.00
6	Roads			50.00	270.00	180.00	500.00
7	Bus Stand			50.00	100.00		150.00
8	Bus Shelters	-	-	1.00	-	-	1.00
9	Street Lights	39.00					39.00

	Social Infrastructure Facilities						
10	Slum Improvement		74.00	148.00	148.00		370.00
11	Burial Ground	25.00	15.00				40.00
12	Parks & Playgrounds					22.00	22.00
13	Public Convenience	20.00	24.00				44.00
14	Market	50.00	30.00				80.00
15	Urban Greenary					7.50	7.50
	Other Projects						
16	E-Governance	3.00					3.00
17	Remunerative Projects		90.00				90.00
18	Mobile Collection Van	8.00	-	-	-	-	8.00
19	Updation of Database					45.00	45.00
	Total	1550.10	1802.50	1100.40	820.00	467.50	5740.50

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 30th of next fiscal year
- Appointing a private Chartered Accountant as consultant
- Publishing audited statement in municipal website - September 30th 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 Aranthangi Municipality is as follows

Borrowing capacity (BC)	Rs. 1171.46 lakhs
Investment capacity (BC/0.51) (IC)	Rs. 6541.44 lakhs
Investment Requirement (IR)	Rs. 5740.40 lakhs
Sustainable investment Capacity	= 114%

At an aggregate level, assuming loans to be equivalent to 18% of investment, sustainable investment capacity works out to Rs. 6541.44 lacs, which is about 114% of the total investment requirement.

Thus the Municipality has the capacity to absorb additional loans and therefore more projects can be undertaken by the Municipality.

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 18.6.08 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

Stage I Inception Report	Stage II Interim Report	Stage III Draft Final Report	Stage IV Final Report
Town reconnaissance and Data collection.	Consultations and Analysis	Finalization of CIP and FOP	Adoption by Council
➡ Modules : <ul style="list-style-type: none"> - Demand Assessment - Rapid Urban Assessment 	➡ Modules : <ul style="list-style-type: none"> - Strategic Plan, - CIP and - Priority asset management - Project risk, ESR 	➡ Modules : <ul style="list-style-type: none"> - Policy interventions - Technical Assistance - Draft MoA - FOP 	➡ Modules: <ul style="list-style-type: none"> - Council Resolution - MoA
Deliverables 9 weeks	Deliverables 18 weeks	Deliverables 23 weeks	Deliverables 24 weeks

Present Stage

2

TOWN PROFILE, PHYSICAL PLANNING AND GROWTH MANAGEMENT

2.1 REGIONAL SETTING

Aranthangi, a Grade II Municipality functions as the headquarters of Aranthangi taluk in Pudukkottai District. It is the second largest urban centre in Pudukkottai District. Aranthangi town is located on the State Highway -26 connecting Pudukkottai and Avudaiyar Koil and State Highway 28 connecting Karaikudi and Pattukottai. It is situated at a distance of 34km from Pudukkottai, the district head quarter and 35 km from Karaikudi. The economic driver of the town is agriculture and allied commercial activities. Aranthangi town spreads over an area of 7.56 sq.km and is divided into 27 wards. The details of the town are given in the table below.

Table 2.1 Salient Features of Aranthangi Town

TOWN	ARANTHANGI
District	Pudukkottai
Area	7.56 sq.km
Geographic Location	10°10' N & 79°E
Census population	34134 (2001)
Connectivity	Road –The SH connects Pudukkottai, Pattukottai, Karaikudi and other urban centres in the region.
	Rail – Nearest railway station is Aranthangi which lies between Karaikudi and Pattukottai.
Climate	Temperature – Max-32°C and Min-25°C Average Annual Rainfall – 930.11 mm

Source: Municipal Records, 2007

2.2 PHYSICAL FEATURES

The altitude of the town is 32.31m above MSL. The contour of the town falls gently from north to south. The ground level variation is about 6m. The soil type in the town is predominantly graveled. The water table ranges from 15m to 35m in summer and monsoons.

2.3 CLIMATE AND RAINFALL

Aranthangi town has a hot and dry climate throughout the year, with the period from April to June as the hottest months. The maximum rainfall occurs in the month of September. The average wind velocity is 60 km per hour and it is predominantly oriented towards North West and north east directions.

2.4 HISTORY OF THE MUNICIPALITY

Aranthangi is the only municipal town for three taluks viz. Aranthangi, Avudaiyar kovil and Alangudi. Aranthangi Municipality was constituted as a Grade III Municipality in 1977 and later upgraded to Grade II Municipality in 1998. The population of the town is 34134 as per the census 2001 spread over an area of 7.56 sq.km.

2.5 DEMOGRAPHIC FEATURE

2.5.1 Population and its Growth

The population of the town was 34134 according to the Census 2001. The population growth rate of 42% in 1981 sharply declined to 13 % in 2001. Table 2.2 gives the growth of population of Aranthangi from 1951 to 2001.

Table.2.2 Population Growth 1951 – 2001

Sl. No	Year	Aranthangi population	Decadal Growth Rate (%)
1	1951	10941	-
2	1961	12860	17.54
3	1971	16350	27.14
4	1981	23227	42.06
5	1991	30327	30.57
6	2001	34134	12.55

Source: Census of Tamil Nadu 1951-2001

Fig.2.2 shows the variation in the population in the town during the past six decades.

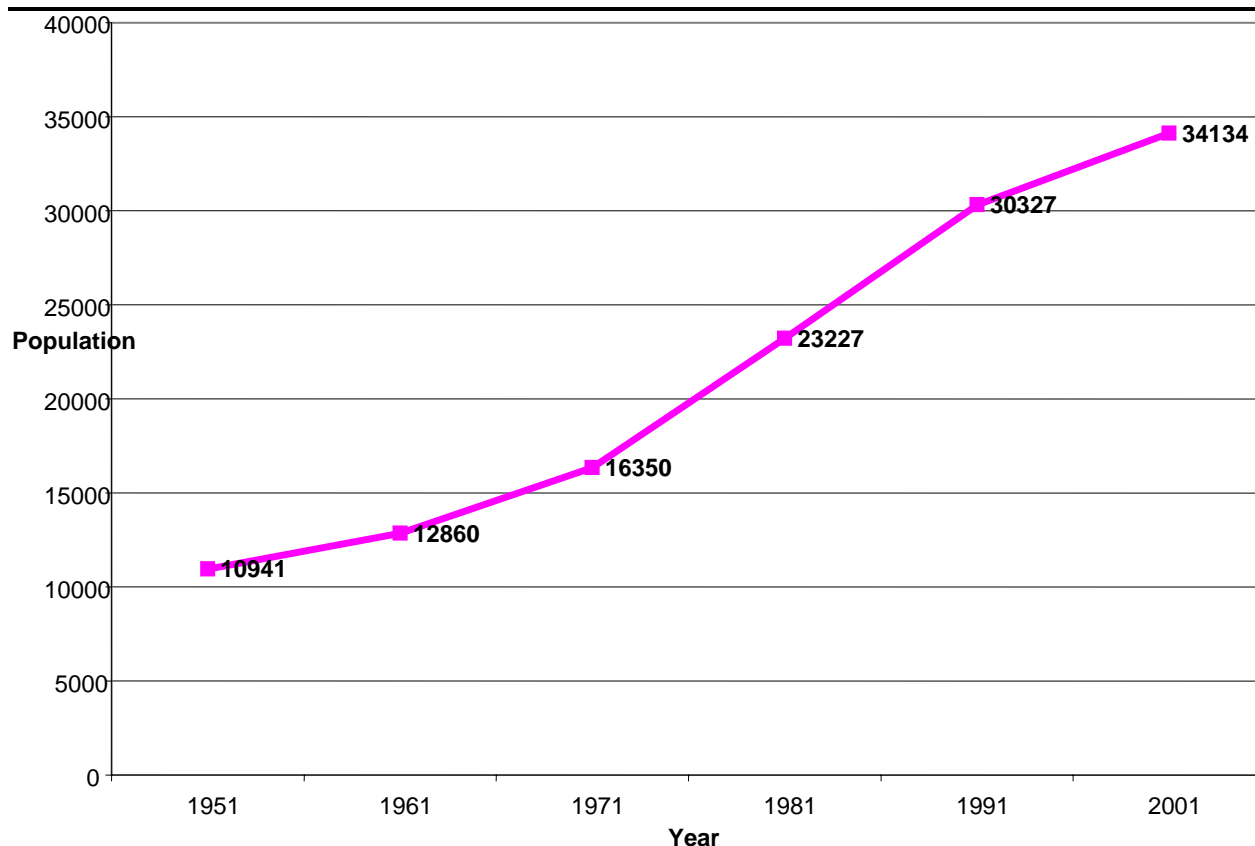


Figure 2.2 Population growth of Aranthangi 1951-2001

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 2.3 Comparative statement of projected population

Sl. no.	Method	Projected Population for		
		2009	2024	2039
1	Arithmetical Increase	38876	47768	56660
2	Geometrical increase	40889	57363	80475
3	Incremental Increase	37771	41943	42661
4	Method of Least Square	42109	52610	63109

Source: Analysis and computation

After a detailed analysis and comparison of each method, Method of least Squares 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 Aranthangi town is:

1. **Base year 2009** - **42109**
2. **Intermediate year 2024** - **52610**
3. **Ultimate year 2039** - **63109**

2.5.3 Sex ratio and Literacy Rate

The sex ratio of the town as per 2001 census is 1028.

2.5.4 Density pattern

The town has recorded an overall population density of 48 people per hectare. Maximum density occurs in the central area of the town and decreases towards the peripheral areas of the town.

2.6 OCCUPATIONAL PATTERN

The work force in the town constitutes 30% of the total population. The major work force is involved in the tertiary sector i.e., trade and commerce. The occupational pattern of the town is given in the table 2.4 below:

Table 2.4 Occupational Pattern – Aranthangi 2001

Category of Workers	Total	% to total Population	% to total work force
Total Workers	10152	30.00	-
Main Workers	9725	28.50	96.00
Cultivators	119	0.35	1.17
Agricultural labourers	197	0.58	1.94
Workers in household industries	234	0.69	2.31
Other Workers	9175	26.88	90.40
Marginal Workers	427	1.25	-
Non Workers	23982	70.25	-

Source: Census of India 2001

2.7 PHYSICAL PLANNING AND GROWTH MANAGEMENT

2.7.1 Land use and Growth Management

The total area of the town is 756 hectares. The latest land use pattern available on records with the Municipality relates to the year 2001. As per the 2001 land use map, about 50% of the land is under non-urban use. The agricultural use zone occupies about 38% of the total area of the town. About 66% of the developed area is under residential use. The land use distribution is given in Table.2.5

Table.2.5 Existing land use 2001

SI No	Land Use	Area in Hectares	% to total developed area	% to total area of the town.
1	Residential	236.45	66.26	33.27
2	Commercial	27.10	7.60	3.81
3	Industrial	10.99	3.08	1.55
4	Educational	6.90	1.93	0.97
5	Public & Semi Public	15.54	4.35	2.18
6	Transportation	59.86	16.78	8.43
	Total developed area	356.84	100.00	50.21
7	Wet lands	127.78	-	17.98
8	Dry lands	149.93	-	21.10
9	Water bodies	66.72	-	9.39
10	Vacant	9.36	-	1.32
	Total	756.63		100.00

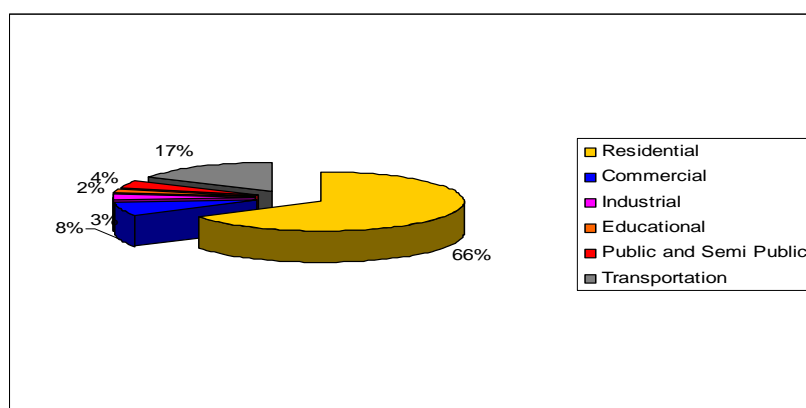


Figure 2.3 Land use pattern - 2001

2.7.2 Growth Direction

The town is functioning as the centre for agricultural produces. Major developments are found to take place along Pattukkottai road, Pudukkottai road and Karaikudi road. The predominant developments are only residential in nature. Commercial developments are found in a few stretches along Pattukkottai and Pudukkottai roads. The future growth directions are towards the southeast and northeast sides of the town.

2.7.3 Land Use Pattern

1. Residential

Residential area has developed on the western side of the railway line, along the north south axis of the town. Apart from these, residential pockets are scattered along Karaikudi and Pattukkottai roads. The total land under the existing residential use zone is 236.45 hectares i.e. 66% of the total developed area.

2. Commercial

The area occupied by this use is 27.10 hectares which accounts for 7.6% of the developed area. Commercial use is mainly concentrated along Karaikudi and Pattukkottai roads

3. Transportation

About 17% of the developed area of Aranthangi town is under transportation use. The urban stretches maintained by the Highway Department is given below

Pudukkottai - Avudaiyar koil road (SH)

Karaikudi - Pattukkottai road (SH)

The main roads radiating from the town are leading to i) Karaikudi on the southwest, ii) Pudukkottai and Alangudi on the north and iii) Avudayar koil on the southeast. The BG railway line passing through this town connects the town with Karaikudi and Mayavaram.

4. Public and Semi-public

The public and semi public uses are scattered and occupy an area of 15.54 hectares i.e. 2% of the total town area. The Government buildings are located on the eastern side of the town.

5. Industrial

The industrial area occupies 10.99 hectares i.e.3% of the developed area of the town. No large scale industries exist in Aranthangi town.

3.1 Stakeholders 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 Aranthangi town is given below:

Table 3.1 SWOT Analysis

STRENGTH	WEAKNESS
Well connected by road and rail.	Inadequate infrastructure services
Lies in the pilgrimage circuit of Tamil Nadu with numerous temples and tanks.	Absence of major industries
Historical town with monuments and forts.	Poor road surface qualities
Efficient and enterprising Municipal authorities.	Inadequate sanitation facilities
OPPORTUNITIES	THREATS
Located amidst major pilgrimage centers.	Congestion in central area
A service town to the surrounding tourist / pilgrimage centers	Threat to historical temples and monuments
Efforts to improve the service delivery from the Municipality	Infrastructure insufficiency in the slums that can lead to very poor living conditions.
Opportunities for development of trade and commerce	

Source: Feedback from stakeholders meeting and analysis.

3.3. VISION FOR ARANTHANGI MUNICIPALITY

Aranthangi is a service town, providing access to administration, health care, education agricultural equipments and commodities to the predominantly rural hinterland. The major agricultural produce from the region are paddy, sugarcane, cotton and pulses.

The town of Aranthangi is visualized as *‘as an urban sub- center amidst pilgrimage centres, serving its rural neighborhood, with good social and physical infrastructure, and a healthy living environment.’*

3.4 STRATEGIES FOR ECONOMIC DEVELOPMENT

1. Strengthening the economic base of the town capitalizing on the local produces and inherent talents of the local population.

Agriculture and related trade activities is the backbone of the



economy of the town. The industrial base of the town is weak with only a few coconut fiber industries, a sugar factory, cotton industries etc.

The following services can be offered to the people, among others for effective trade and commerce in the region:-

- Identification of products which are produced locally
- Assistance for sourcing of the products and components;
- Providing import/export and internal trade data at micro level
- Providing on demand up to date information on trade to industries, Importers and Exporters, Chambers of Commerce, government departments, Export Promotion Councils, Embassies etc.
- Providing product/process ideas to entrepreneurs based on the information collected through research.

2. Establishment of a sea food processing and packaging resource centre in the region.

Aranthangi, though not a coastal town, is close to the coast and the total inland fish catch of the Aranthangi block is 1300 tonnes/ year, the highest in Pudukottai district. Establishment of a resource centre for sea food processing and packaging is relevant for the improvement of the region.

3. Improvement of Thondaiman fort & Sivan temple to establish a historical tourist centre

The ruined fort and the Ancient Shiva temple are the foot prints of the historical era in the town. These places of interest can be developed into historic tourism spots, to attract both domestic and international tourists. This would in turn serve as a revenue generator to the town. The other places of interest in the region are: Sithanavaasal, Avudayar kovil, Manora fort, Thirumayam and Gokarneswara temple.



4. Improvement of existing market area

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

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

	Sector	Vision statement
1	Water Supply	<ul style="list-style-type: none"> i. To check wastage and pilferage of water ii. To generate more revenue for efficient operation & 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.
2	Sewerage and sanitation	<ul style="list-style-type: none"> i. To provide coverage of the sewerage facilities or LCS measures for slum areas. ii. To maintain high level of environmental hygiene generally in the town and particularly the cleanliness of the water bodies
3	Storm water drainage and improvement to water bodies	<ul style="list-style-type: none"> i. To improve condition of storm water drains to handle run off water and prevent water stagnation. ii. Rejuvenate water bodies and improve recharge of ground water. iii. To provide Rain Water Harvesting to improve the quality and quantity of Ground water.
4	Solid Waste management	<ul style="list-style-type: none"> i. To provide a litter free town for the healthy living of the public . ii. To minimize the O&M expenditure of SWM iii. To involve private organizations to the extent possible
5	Roads and Streets	<ul style="list-style-type: none"> i. To provide safe, comfortable and speedy circulation network for the residents and traffic ii. To relieve congestion by adopting a traffic management plan iii. To channelise by-passable traffic through arteries outside the town limit.
6	Street lighting	<ul style="list-style-type: none"> i. To provide sufficient illumination to the town, for safety of the people

		<p>and to adequately cope with the requirements of traffic.</p> <p>ii. To optimize the use of electricity by adapting energy efficient technology</p>
7	Educational Institutions	<p>i. To Provide comfortable conducive physical infrastructure and sound environment for the learning process</p>
8	Medicare	<p>i. To make quality preventive and curative care available and accessible to the Public.</p> <p>ii. To support people for healthy living and environment.</p>

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
Performance of Key Water Supply Service Indicators				
1	Daily per capita supply	lpcd	120	85
2	Roads covered with distribution network	Percent	>100	61
3	Storage Capacity with respect to supply	Percent	33	65
4	Property tax assessments covered by service connections	Percent	85	71
5	Proportion of non – domestic service connections	Percent	>5	4
Performance of Key Sewerage and Sanitation Service Indicators				
6	Sewage contribution	lpcd	100	68
Performance of Key Storm water Drainage Service Indicators				
11	Road length covered with storm water drainage (open)	Percent	130	30
Performance of Key Solid Waste Management Service Indicators				

12	Estimated waste generation	Grams per capita /day	400	350
13	Waste collected as per the estimate of ULB (w.r.t. waste generation)	Percent	100	92
Performance of Key Road Service indicators				
14	Road density	Km/sq.km	10-15	8.53
15	Per capita road length	meters	1.75	1.76
16	Proportion of surfaced roads	Percent	100	74.5
Performance of Key Street Lighting Service indicators				
17	Spacing between lamp posts	Meters	30	31
18	Proportion of fluorescent lamps (tube lights) w.r.t. total fixtures	Percent	>80	77
19	Proportion of high power fixtures w.r.t. total fixtures	Percent	<20	13
Performance of Key indicators for Slums				
20	Proportion of slum population to total city population	Percent	<10	18

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.

3.8 INCOME GENERATION ACTIVITIES

a. Upliftment of Trade and commerce

There should be efforts to build a data base on the following areas in all the regions

- Nature of internal trade;
- Nature of services of wholesalers to manufactures and retailers;

- Nature of retailers;
- Nature and classification of the types of retailers;
- Nature of forms of small scale and large scale retailers; and

Effective trade and commerce depends on

- Empowering the people with socio-economic activities.
- Training on management of income generating activities
- Technology upgradation in existing industries.
- Scientific land management programme for sustainable livelihood.
- Reforms in land use planning on water resources, natural resources & sanitation.

Training can be undertaken in the following areas in all the regions:

- Areas of functional capability development,
- Occupational health,
- Animal health care and livestock promotion,
- Bakery science and fruit and vegetable preservation,
- Basket weaving and hand-woven technology for SC women empowerment,
- Sustainable biodynamic farming.
- Training in computer science and information technology.
- The training on block printing and embroidery on paper and paper products. The products could be jewelry boxes, carry bags, diaries, dustbins, lampshades,

Involvement of the local manpower for collection of house hold waste, vegetable /fruit waste, agro & forestry waste, etc.

4

ORGANIZATIONAL STRUCTURE

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

4.1 ELECTED BODY

The Municipal Council, the political wing of the Aranthangi Municipality consists of 27 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

Aranthangi Municipality is a second 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, and 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 approved, 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 10 vacancies in the 170 sanctioned strength of the Municipal office. The vacancies are mostly under the Sanitation section.

Table 4.1 Staff Strength position

S. No.	Name of the department	Sanctioned strength	Working strength	No. of posts Vacant
1	General Section	18	16	2
2	Revenue	6	6	-
3	Municipal Engineering and Water Supply Service	26	20	6
4	Public Health	16	14	2
5	Street Lighting	4	4	-
6	Sanitary Workers	100	100	-
	Total	170	160	10

Source: Aranthangi Municipality, 2008.

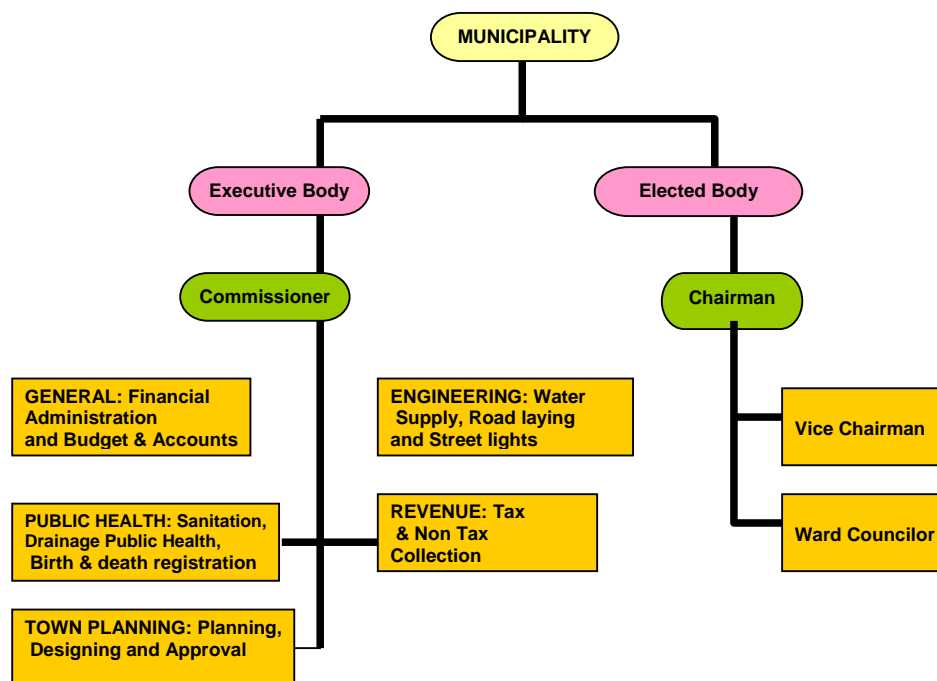
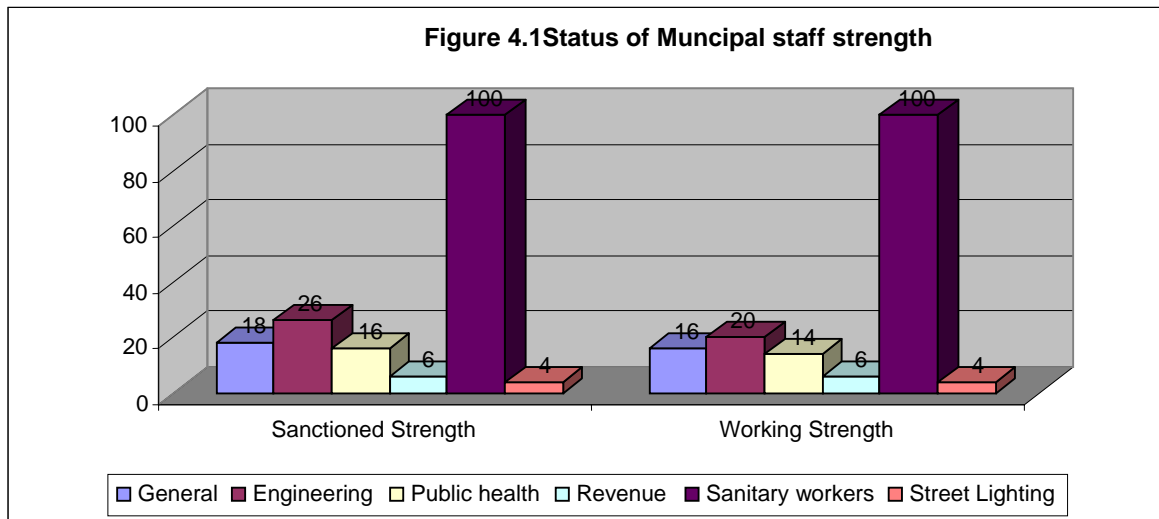


Fig 4.2 Organizational structure of Aranthangi Municipality

4.4 ISSUES IN HUMAN RESOURCES

Out of the sanctioned strength of 170, in all the section of the municipality, 10 posts are vacant at present as shown in Table 4.2 In the Public Health Section, 2 posts out of 16 is vacant. Considering the present quantum of work in the municipality, additional posts in Town Planning section, Engineering section and public health section need to be sanctioned.

In view of appointing project management consultancy for infrastructure projects in the municipality, Privatization of solid waste management maintenance of street light through ESCO/ Private agencies, the vacant section of the municipality need to be strengthen with the following personnel .

Table 4.2 Additional Staff Required

SI No	Name of the Post	Section	No. of personnel Proposed
1	Assistants/Engineer/ Junior Engineer	Engineer	2
2	Sanitary Inspector	Public health	2
3	Town Planning Officer	Town planning	1
	Total		5

Source: Analysis and research.

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 system.
- 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. 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

INFRASTRUCTURE STATUS, ISSUES AND IMPROVEMENT NEEDS

5.1 PHYSICAL AND SOCIAL INFRASTRUCTURE

5.1.1 WATER SUPPLY

i. Existing Status

This town has a protected water supply scheme maintained by the local body for the past 20 years. The sources of supply are 8 local bore wells. The total quantity drawn from these wells is 3.16 MLD. The water from 5 of the source bore wells is pumped to the 5 OHTs of total capacity 20.65 LL, wherefrom the water is supplied to the public through HSCs and public fountains. From the rest of the 3 bore wells water is directly pumped to the distribution mains. The rate of supply is at 85 lpcd. The tables 5.1 and 5.2 give the details of bore wells and service reservoirs.

Table 5.1 List of bore wells in the Municipality

Sl. No	Location	Quantity Supplied (MLD)
1	Nadimuthu Park	0.4
2	Near Veerama Kaliamman Koil	0.4
3	L.N.Puram	0.4
4	Periyar Nagar	0.4
5	N.G.G.O Colony	0.3
6	Vellar river bed	0.4
7	Near G.H	0.4
8	Gopalasamudram	0.46
	Total	3.16

Source: Municipal records

Table 5.2 List of service reservoirs in the Municipality

Sl. No	Location	Capacity in lakh litres
1	Nadimuthu Park	4.65
2	Near Veerama Kaliamman Koil	5.00
3	L.N.Puram	4.00
4	Periyar Nagar	4.00
5	N.G.O Colony	3.00
	Total	20.65

Source: Municipal records

Indicators for water supply

Existing Population (2001)	: 34,134
Frequency of supply	: 1.5 hours daily
Quantity of supply	: 3.16 MLD
Per Capita supply	: 85 lpcd
Length of Distribution main	: 36.87 km

Total Number of service connections - 5074

Domestic connection	: 4873
Non domestic connection	: 201
Stand points	: 121
Hand pumps	: 76
Mini power pumps with tank	: 15

Water Tariff and deposits

The existing Water supply deposit for domestic and non-domestic are Rs.3000 and Rs.5000 respectively. The tariff for domestic and non-domestic are Rs.50 and Rs.100 respectively.

ii. Issues

The issues broadly relate to

1. Inadequacy of pressure in L.N Puram, Manivillan, Vadukkuvadi and Pattukkottai road as these are located in elevated areas.
2. Absence of piped water supply to the unapproved layouts and peripheral areas.
3. Pumping machinery with reduced efficiency.

iii. Demand for Water Supply

The intermediate and ultimate demand for the future population for water supply is shown in the table below adopting a pro rate of supply of 120 lpcd.

Table: 5.3. Estimated population and Water Supply Demand-2039

Year	Population	Supply in MLD	Demand in MLD	Deficiency in MLD
2009	42109	3.16	5.05	1.89
2024	52610	3.16	6.31	3.15
2039	63109	3.16	7.57	4.41

Source: Analysis and computation

iv. Improvement Needs

Proposals by the Municipality

To overcome the deficiency and to meet the future need, the Kollidam combined water supply scheme to 706 habitations (including Aranthangi Municipality) at an estimated cost of Rs. 42.22 crores was proposed by TWAD Board. The work is under progress and is expected to be completed by December 2008. Of the total amount proposed for the implementation of the CWSS, Aranthangi Municipal components works out to **Rs.366.00 lakhs**. A bulk provision of 20 lpcd is expected from the above scheme.

Proposals under CCCBP

The town level proposals identified by the Municipality for the improvement of the Distribution system are listed in the table below and are considered and recommended for improvement under CCCBP.

Table 5.4 Proposals- Water supply

SI No	Description	Rs. in lakhs
1	Construction of a new OHT at Gopalasamudram of 5 lakh litres capacity to increase pressure at elevated areas	40.00
2	Extension of distribution main in unapproved layout areas (13 km Length)	13.00
3	Provision of bore wells with hand pumps - 15 Nos at Rs. 75000/- Nos	15.00
4	Replacement of existing submersible pump sets (20 H.P each , 8 nos)	6.00
5	Purchase of inspection vehicle for water supply	8.00
6	Construction of compound wall to head works at Gopalasamuthiram and Veerakaliammankoil	10.00
	Total	92.00

Source: Analysis and discussions with Municipal officials & stakeholders

Therefore, the total amount proposed for the improvement of water supply to the town is **Rs.458.00 lakhs**. After completion of Kollidam CWSS and the proposals under table 5.4, Aranthangi town will be self sufficient in the field of water supply. The annual Operation and Maintenance cost needed for the project will be Rs.13.00 lakhs.

5.1.2 SEWERAGE

i. Existing Status

The town is absent of underground system at present. The Municipality has proposed the construction of the under ground sewerage system at an estimated cost of **Rs.3107.00 lakhs**. The design criteria and the salient features are briefly given below. The GoTN has recently given approval in the budget for this project.

The sewerage scheme for the town is designed for a period of 30 years, 2008-2038. The ultimate population to be served is estimated as 56400. The per capita sewage contribution of 100 lpcd is adopted for this proposal. The length of the existing streets is about 60.59 km. It is proposed to provide a network of underground sewers for a length of 55.163 km over the town area.

The town is segregated into 3 zones based on the topography and physical barriers. The collected combined sewage from the 3 zones is pumped to the STP at distance of 3 km from the town. After treatment, the effluent will be used for agricultural purposes and social forestry. The salient features of the proposed UGSS for the Aranthangi Municipal town is as follows:

Table 5.5 .Salient features

Town area	15.36 sq.km
Total length of Streets	60.59 km
No of zones	3
Variation in GL contour ranges from	29.m to 35m
Sewage contribution (1DWF)	100 lpcd
Total Population	
Present (2008)	38400
Intermediate (2023)	47400
Ultimate (2038)	56400
Number of Houses	10347
Present level of water supply	85 lpcd
Sewage Contribution	
Present (2008)	3.84 MLD
Intermediate (2023)	4.74 MLD
Ultimate (2038)	5.64 MLD

Length of sewer proposed	53.53 km
Total No. of manholes	1992
Cost of Installation	Rs.3107.00 lakhs
Annual O&M Cost	Rs.40.80 lakhs

The estimated cost of construction of the UGSS for Aranthangi Municipality is **Rs. 3107.00 lakhs**. The project has been approved by GoTN.

5.1.3 STORM WATER DRAINS

i. Existing Status

The sewage and the drainage in the town are discharged directly into 6 ooranies in the town. This causes increased occurrence of water borne disease. The total length of open drains is 17.441 km against the total road length of 60.59 km.

ii. Issues

The issues broadly relate to

- Discharge of sewage into the water bodies, which in turn pollute the ground water table.
- Unhygienic and squalid condition prevails in the town.
- Water borne diseases are an endemic to the town.
- Clogging and damaged condition of existing drains.

iii. Improvement Needs

Proposal under CCCBP

The total length of the existing open drains constitutes 30% of the total length of streets, against the normative standard of 130%. Apart from the proposals for new construction; the existing drains are in damaged condition and need improvement. The proposed works in storm water drains is given in Table 5.6.

Table 5.6 Proposals- Storm water drains

SI No	Schemes	Quantity	Estimated Cost (Rs. In lakhs)
1	Construction of New drain with mesh cover	60 km	600.00
2	Reconstruction of open drain	3 km	30.00
	Total		630.00

Source: Analysis and discussions with Municipal officials & stakeholders

To sum up, the estimated amount for the improvement of the storm water drainage system and protection of water bodies is estimated as **Rs.630.00 lakhs.**

5.1.4 IMPROVEMENT OF WATER BODIES

i. Existing Status

The town is endowed with numerous *ooranies*, occupying 10% of the total town area. The list of *ooranies* is given below:

1. Venavel kulam
2. Suriyamurthy kulam
3. Pappan kulam
4. Pudu kulam
5. Odai kulam
6. Mandi kulam
7. Theppakulam
8. Perumal koil kulam
9. Sivan koil kulam
10. Aruagan kulam

The major issues related to these *ooranies* are discharge of domestic sewer, usage as bathing and washing ghats and silting. The provision of UGSS would reduce the discharge of sewage and the quality of water would improve by the inflow from storm water drains. The following are the proposals suggested for the improvement of these traditional water bodies.

ii. Improvement Needs

Proposals under CCCBP

	Rs. in lakhs
1. Construction of retaining walls & Desilting of municipal owned tanks (1 to 6)	: 30.00
2. Beautification and greening with trees	: 15.00
3. Fencing and desilting of kulam (no. 7 to 10)	: 20.00
4. Improvements to inlets and outlets of Pudukulam, Arugankulam and Kuttaikulam for a length of 2kms	: 50.00
Total	: 115.00

Therefore, the estimated amount for the improvement of water bodies is **Rs.115.00 lakhs.** The involvement of private sector, temple authorities and NGOs could be sought for the rejuvenation and maintenance of water bodies.

5.1.5 SOLID WASTE MANAGEMENT

i. Existing Status

The total quantity of waste generated in the town is 12 MT per day. The various sources of waste generation in Aranthangi are detailed out in table 5.7 below.

Table 5.7 Sources of solid waste generation

Source	Quantity in kg
Domestic waste	9370
Shops and market waste	1390
Office and institutional waste	380
Others	1060
Total	12000

Source: Municipal records

Primary Collection: The Municipality has implemented door to door collection in all the wards. 40 nos. of push carts and 40 sanitary workers are engaged in door to door collection. The garbage is then dumped in the collection points at various locations in the town.

Secondary Collection: The secondary collection refers to collection of waste from community dustbins and collection points to the disposal site. There are 40 collection points within the town. The solid waste collected is carried to compost yard at Pudukottai road (at Survey no 4) by sanitary vehicles. The number of sanitary staff and vehicles is listed below:

1. Lorries - 3
2. Tractor - 1
3. Push carts - 48
4. Sanitary workers - 100
5. Sanitary Inspectors - 5

Compost Yard

The waste collected is disposed at compost yard of extent 6.5 acre area, located at Pudukottai road. Partial segregation of solid waste is done at compost yard. At present construction of windrows and provision of basic facilities is under progress.

ii. Issues

1. Inadequate staff for segregating and composting solid waste
2. Inadequate collection vehicles for secondary collection
3. Absence of compound wall in the compost yard
4. The site is not flat but undulating.

ii. Improvement Needs

For better management of solid waste in the town the ULB has proposed for the privatisation of Solid Waste Management in 10 wards including Bus stand and Market. The cost involved in privatization of Solid Waste Management for 10 wards is Rs.36.00 lakhs per annum. Various awareness programmes have been conducted in this town like wall paintings, video CD play in schools, essay, speech and drawing competition among school students, rallies, paper advertisements and hand outs distribution.

Alternative for Solid Waste Management

At present, the solid waste generated daily in the town is about 12 MT. In future years assuming the per capita generation of solid waste in the town raises from 350 gm and 500 gm/day, there will be corresponding addition of 30% to 40% in Solid Waste Management. 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 Corporations and towns the technology of vermi-composting is practiced through NGOs and private bodies. In Bangalore, Residents Associations are managing their solid wastes converting them 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 (of around 1 meter long) is in practice. Also using the cow dung, the garbage 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 bio-degradable. Of the organic waste, on conversion, nearly 30% by weight forms the manure. Incidentally, the manure generated from Municipal garbage 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.

Proposals under CCCBP

The improvement of the compost yard to undertake segregation and composting is under progress under the SFC fund. The collection, segregation and composting may be privatised to SHGs or private operators. The additional proposals are as tabulated below:

Table 5.8 Proposals-Solid Waste Management

SI No	Description	Amount Rs. in lakhs
1	Construction of compound wall around the compost yard	20.00
2	Provision of (CFL) lights 10 Nos	1.00
3	Leveling and filling of compost yard site	5.00
4	Dumper placer bins	5.00
	Total	31.00

Source: Analysis and discussions with Municipal officials & stakeholders

Therefore, an amount of **Rs.31.00 lakhs** is estimated for the improvement of compost yard and secondary collection.

5.1.6 ROADS

i. Existing Status

The town has grown in a linear pattern along the major district roads. The major district roads within the town were the road to Avudaiyar kovil on the south, Pudukottai and Karaikudi road on the west, Pattukottai road on the east. The roads (MDR) to Pudukottai, Pattukottai, and Karaikudi have been recently upgraded to State Highways. The total length of the State highways within the town is 9.20 km. Apart from this a total length of 60.59 km provides the internal road network. The distribution of roads as per surface is given in the table below:

Table 5.9 Distribution of roads

Types of road	Length in km
C.C. road	5.43
B.T. road	39.69
Earthen road	15.47
Total	60.59

The issues broadly relate to poor surface quality and encroachment along the major roads.

ii. Improvement Needs

Proposals by Municipality

The Municipality has initiated a traffic operation and management plan for Aranthangi Municipality. The proposals identified for the improvement scheme are listed below:

Table 5.10 Proposals – Traffic improvement scheme

SI No	Name of Work	Rs. in lakhs
1	Providing Foot Path for Pedestrian (Side Platform at SH28 Kattumavadi Road to Anna statue in Aranthangi)	15.00
2	Providing Foot Path for Pedestrians (Side Platform at SH28 Kattumavadi junction to culvert in Aranthangi.)	12.50
3	Providing Foot path for Pedestrians (Side platform at Kattumavadi road from junction to Chathirakumal road)	6.50
	Total	34.00

Proposals under CCCBP

Additional proposals for the improvement of road surface and provision of culverts may be taken up after the completion of the proposed UGSS and storm water drains. The proposals are listed below:

Table 5.11 Proposals - Roads

Sl. No.	Description	Quantity	Rs. in lakhs
1	Pavement of B.T./CC road @12lakhs/km	15 km	180.00
2	Upgradation of B.T. road @Rs.9.00 lakh /km	30 km	270.00
3	Up gradation of C.C. Road	2 km	30.00
4	Construction of Culverts with R.C.C. cover slabs	20 Nos.	20.00
	Total		500.00

Source: Analysis and discussions with Municipal officials & stakeholders

Therefore, the estimated cost for the improvement of roads is **Rs. 500.00 lakhs**

5.1.7 BUS STAND

The existing municipal C-class bus stand is located in the central area of the town at the junction of Peravoorani and Pattukottai road. It was constructed in the year 1967. Renovations to drive ways were carried out in the year 2001. The basic details pertaining to the bus stand are given below:

Location	: Peravoorani Road
Class	: C
No .of bays	: 11

Year of Construction	: 1967
Buses entering/day	: 182
No .of Shops	: 101
Revenue from shops/ bus fee	: Rs. 25.00 lakh / annum
SV lights (250w)	: 6 Nos
Drive way	: CC Road (Constructed 2001)

The issue is inadequate space leading to congestion and has proposed new B-class bus stand. The Municipality is in the process of acquisition of a land parcel of extent 4 acres in survey no 4. The cost of land is estimated to be Rs.50.00 lakhs. The estimated cost of construction for the B-Class modern bus terminus is Rs.100.00 lakhs. Therefore, the cost of construction of a modern bus terminus including the cost of land is **Rs.150.00 lakhs.**

5.1.8 BUS SHELTERS

The town has 6 bus stops as listed below:

1. Pattukkottai Main Road
2. Peravoorani Road
3. Avudaiyar Koil Road
4. Pudukottai Road
5. Karaikudi Road
6. Kattumavadi Road

Improvement to bus shelters in terms of seating facilities, display boards and roofing may be taken up with the involvement of the private sector. The estimated cost of improvement works is **Rs.1.00 lakhs.**

5.1.9 STREET LIGHTS

i. Existing Status

Out of the 1903 street lights, the major share of 77% is tube lights and the rest is sodium vapour lamps

Tube lights	: 1465
Sodium Vapor lamps (70, 125, 250 watts)	: 438
Total	: 1903

The issues related to street lighting is

1. Insufficient lighting at bus stand premises and Kattumavadi road junction.
2. Insufficient street lights in peripheral areas.

ii. Improvement Needs

Energy savings in street lighting could be achieved through following ways, (a) by replacing existing conventional tube lights with energy efficient retrofit tube lights, (b) installing power saver devices and privatizing the operation and maintenance of street lighting. There are 1465 florescent tube light fixtures installed in Aranthangi 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 the place of existing conventional tube lights. Based on the best practices followed in other parts of country, retrofit tube lights are proposed in Aranthangi 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 5.12 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 5.13 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 CCCBP

To overcome the issues, the Municipality identifies the following proposals as listed in the table below:

Table 5.14 Proposals-Street lighting

Sl.No	Description	Amount Rs. in lakhs
1	Provision of high mast lights at bus stand , Kattumavadi junction ,check post and VOC thidal-4nos	24.00
2	Provision new street lights in extension areas (100 Nos)	10.00
3	Retrofitting the existing lights with energy efficient lights	5.00
	Total	39.00

Source: Analysis and discussions with Municipal officials & stakeholders

The proposals may be considered under the ESCO scheme, for economy and energy efficiency.

5.2 SOCIAL INFRASTRUCTURE

5.2.1 SLUMS

i. Existing Status

The total population of the town is 34,134, of which 6110 (18%) live in slums. There are 9 notified slums in the Municipal area as given in the table below:

Table 5.15 Slum details

Sl No	Name of the Slum	Population
1	Anna nagar	827
2	Indira nagar	623
3	Vadakkuvadi	948
4	Gandhi Nagar	752
5	Gopalamuthiram	862
6	Avuliya nagar	648
7	NSK Nagar	250
8	Manivillan area	750
9	Kalappakadu	450
	Total	6110

Source: Municipal records

ii. Issues

As in the case of most towns, the issues in slums broadly relate to inadequate delivery of urban basic services. The details are as below:

1. Inadequate water supply in the slums at Anna nagar, Indira nagar, Vadakkuvadi, Gandhi Nagar, Gopalamuthiram, NSK Nagar, Manivillan and Kalappakadu.
2. Absence or inadequacy of drainage and sewerage facilities in all the 9 slums.
3. Water logging during monsoons leads to unhygienic conditions and spread of disease .The areas worst affected are the slums at Indira nagar, Vadakkuvadi, Gandhi Nagar, Gopalamuthiram and NSK Nagar.
4. Poor road conditions or absence of paved roads at Vadakkuvadi, Gandhi nagar, Gopalamuthiram, Manivillan and Kalappakadu.
5. Inadequate and irregular collection of waste leading to overflow and spilling of garbage.

iii. Improvement Needs

Proposal by Municipality

The Municipality proposes the improvement of all the 9 notified slums under the Integrated Housing & Slum Development Programme (IHSDP). IHSDP aims at combining the existing schemes of VAMBAY and NSDP for an integrated approach in ameliorating the conditions of the urban slum dwellers. The scheme is to enhance public and private investments in housing and infrastructural development in urban areas.

The proposed components and the estimate under the IHSDP are given in the table below:

Table 5.16 IHSDP Proposals-Slums

No.	Description	Amount Rs. in lakhs
1	Anna nagar	16.43
2	Indira nagar	6.95
3	Vadakkuvadi	16.49
4	Gandhi nagar	44.76
5	Gopalamuthiram	19.04
6	NSK nagar	3.93
7	Manivillan area	11.02
8	Kalappakadu	11.05
9	Avuliya nagar	6.97
	Sub Total	136.64
II)	Components	
	New construction (232 units)	232.00
	IEC activities	1.36
	Grand Total	370.00

Therefore, an amount of **Rs.370.00 lakhs** is estimated for the improvement of slums under the IHSDP scheme.

5.2.2 PARKS and PLAYFIELDS

i. Existing Status

The two parks owned by the Municipality are the Arugankulam park and the Brindavanam park. The issues related to parks are absence of fencing, basic amenities, play equipments and lack of maintenance. The proposals for the improvement of parks are given below:

Table 5.17 Proposals-Parks

Sl.No	Description	Rs in lakhs
1	Construction of compound wall	8.00
2	Provision for bore well and water supply arrangement	3.00
3	Provision for lighting arrangement	1.00
4	Improvement of the existing pathways	2.00
5	Construction of toilets	3.00
6	Provision of play equipment	1.00
7	Greening and gardening	4.00
	Total	22.00

Source: Analysis and discussions with Municipal officials & stakeholders

Parks are the major contributors to the physical and aesthetic quality of urban neighborhoods. It will also improve the ambient environment quality of the town. Thus the local body may take up Improvements of the existing parks for an estimated cost of **Rs.22.00 lakhs**. The participation of the NGOs, Resident welfare associations and private sectors may be sought for the purpose.

5.2.3 PUBLIC CONVENIENCE

i. Existing Status

The Municipality owns and maintains 13 public toilets in the town. Most of the public toilets are in damaged condition and needs to be revamped. Apart from this, the number and distribution of public toilets is inadequate. The Municipality proposes to revamp the existing toilets and construct an additional complex in the central area of the town.

Table 5.18 Proposals-Public convenience

Sl. N	Description	Rs in lakhs
1	Renovation of existing damaged toilets (8 Nos) at Pattukkottai road, Annanagar road, Bus stand, L.N. Puram and Pudukkottai road.	24.00
2	Construction of sanitary complex at Veeramalaiammann koil, Peravoorani road, Vadakkuvadi and Kuttakulam	20.00
	Total	44.00

Source: Analysis and discussions with Municipal officials & stakeholders

Therefore, an amount of **Rs.44.00 lakhs** is proposed for the improvement of public convenience facilities in the town.

5.2.4 BURIAL GROUND

i. Existing Status

There are 4 Municipal burial grounds located on the Pudukottai Road, Pattukottai Road, Peravoorani Road and L.N Road. Burning sheds are being constructed under part II scheme (Grant by Govt) in all the above burial grounds. The issues broadly relate to absence of fencing and basic amenities. The Municipality has identified the need for the gasifier crematorium, which is proposed in the Pudukottai road burial ground. The proposals for improvement are as follows:

Table 5.19 Proposals- Burial grounds

Sl. No	Description	Amount Rs. in lakhs
1	Construction of compound wall in Pudukottai road burial ground	5.00
2	Construction of compound wall in Peravoorani burial ground	5.00
3	Construction of compound wall in L.N Puram burial ground	5.00
4	Provision Gasifier plant in Pudukottai Road burial ground	25.00
	Total	40.00

Therefore, an amount of **Rs.40.00 lakhs** is estimated for the improvement of burial grounds.

5.2.5 MARKETS

DAILY MARKET

The daily market was constructed in Vannaankulam area under the IDSMT scheme in 1995. There are 84 stalls and 30 petty shops earning an income of Rs.2.50 lakhs per annum to the Municipality. The issues are water stagnation and poor surface quality. The Municipality proposes land filling with gravel and construction of retaining wall to overcome the issues and modification of existing daily market at an estimated cost of **Rs.20.00 lakhs**.

WEEKLY MARKET

The weekly market with front open shopping sheds, basic amenities like water supply, sanitation, Solid Waste Management, lighting , approach and internal roads, loading and unloading platform are proposed at a cost of **Rs.60.00 lakhs**.

5.2.6 SLAUGHTER HOUSE

At present there is no slaughter house in the Municipal area. Proposals by the Municipality for the construction of modern slaughter house near compost yard has been approved by C.M.A. An amount of **Rs. 20.00 lakhs** has been sanctioned and the work is in progress.

5.2.7 URBAN GREENERY

i. Existing status

The road margins, urban open spaces, residential avenues and park areas are not provided with adequate greenery. The participation of educational institutions, resident associations and private sectors may be sought for the purpose of planting and maintenance of trees. The planting of about 3000 saplings with tree guards at the rate of Rs.250/sapling is estimated to cost **Rs.7.50 lakhs**.

5.3 OTHER PROJECTS

5.3.1 E – GOVERNANCE

E-governance at Aranthangi Municipality is aimed to provide on-line citizen services and monitor the performances. It is in practice that citizen's approach to Local Bodies to pay their revenues, get certificates etc., Adopting E-governance, the above activities are simplified and made possible at their counters and information and Facilitation counter at the Municipality.

Modules Online

1. Birth & Death
2. Property Tax

3. Water Charges
4. Non-tax
5. Profession tax
6. Building license
7. Vehicle modules
8. Solid Waste Management
9. Financial Accounts
10. Pay Roll
11. Grievances
12. Stores and inventory
13. Movable and immovable assets of Municipality
14. D&O Trades
15. Grievance petitions and actions
16. Financial A/C System
17. Family remuneration

The Municipality proposes air conditioning and partitioning the hall to facilitate efficient functioning of the system. The estimated cost is **Rs.3.00 lakhs**.

5.3.2 REMUNERATIVE PROJECTS

To increase the remunerations, Municipality has identified a land of extent of 8 acres at survey no. 4 for the construction of the weekly market, commercial complex and bus stand. The Municipality is in the process of acquiring the lands for lease/rent.

Construction of shopping complex

The Municipality proposes to construct a shopping complex within the land identified for the bus stand, with 60 shops. The estimated cost of construction for the shopping complex is estimated as **Rs.90.00 lakhs**

5.3.3 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 percent 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. The annual operation and maintenance cost of the proposed project is Rs.0.45 lakhs. This entire amount of the proposed project may be obtained as grants from the government and it will take maximum one year for completion.

5.4 PROPOSALS TO BE IMPLEMENTED BY OTHER AGENCIES

To make use of the inherent potential of the resources in the town, proposals for implementation by agencies other than the Municipality are identified. 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 5.20 Proposals to be implemented by other Agencies

Sl.No	Proposals	Nodal agency
1	Improvement of fort and Shiva temple	TTDC
2	Establishment of a regional resource centre of sea food processing and packaging	-

Source: Analysis and discussions with Municipal officials & stakeholders

6

MUNICIPAL FINANCE

6.1 INTRODUCTION

Aranthangi 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 20% 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 @ 15.50% per annum on the basis of Annual Rental Value. The components of property tax are as below:

Table 6.1 Property Tax Components

Particulars	% (Per Annum)
General	4.00%
Scavenging	2.00%
Lighting	2.00%
Water Tax	1.50%
Sewerage Tax	0.50%
Education	2.50%
Total	15.50%

The total number of property tax assessments is 11138 Nos. the breakup of which is as below:

Table 6.2 Property Tax Assessments

Particulars	Nos.
Domestic	9006
Commercial	2046
Industrial	-
State Government Properties	86
Public Sector Undertakings	-
Total	11138

The total number of unapproved layouts in the Municipality is 5 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	48.87	-
2002-03	50.88	4.11%
2003-04	54.22	6.56%
2004-05	63.95	17.95%
2005-06	61.51	(3.82%)
2006-07	64.24	4.44%

It may be observed from the above that the average property tax collection is around Rs. 60-65 lakhs per annum and average growth over the years is around 6%.

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
Demand						
- Current	52.17	115.09	115.56	129.86	127.48	137.16
- Arrears	51.25	136.45	142.15	169.55	208.97	213.45
Total	103.42	251.54	257.71	299.41	336.45	350.16
Collection						
- Current	37.06	76.94	70.34	71.28	80.19	94.29
- Arrears	10.73	30.46	24.35	32.54	36.17	29.55
Total	47.79	107.40	94.69	103.82	116.36	123.84
Collection %						
- Current	71%	67%	61%	55%	63%	69%
- Arrears	21%	22%	17%	19%	17%	14%
Total	46%	43%	37%	35%	35%	35%

The current collection performance of property tax is very poor at around 65% and the arrears collection performance is around 20%.

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 1304 Nos., out of which state / central / quasi Govt. employees comprise 939 Nos., private employers / companies is 13 Nos. and traders / self employed professionals 554 Nos.

During the last 6 years, it has increased from Rs. 6.06 lakhs to Rs. 12.48 lakhs. It accounts for around 4% 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	6.06	-
2002-03	6.45	6.44%
2003-04	6.91	7.13%
2004-05	6.54	(5.35%)
2005-06	6.39	(2.29%)
2006-07	12.48	95.31%

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
Demand						
- Current	6.06	16.00	19.76	22.25	21.88	26.88
- Arrears	7.83	20.00	23.15	25.38	25.68	27.25
Total	13.89	36.00	42.91	47.63	47.56	54.13
Collection						
- Current	5.15	13.84	14.80	20.51	20.20	25.58
- Arrears	0.30	1.24	2.73	1.43	0.11	0.42
Total	5.45	15.08	17.53	21.94	20.31	26.00
Collection %						
- Current	85%	87%	75%	92%	92%	95%
- Arrears	4%	6%	12%	6%	0%	2%
Total	39%	42%	41%	46%	43%	48%

The Municipality has average current collection performance of 90% and the average arrears collection performance is around 6%.

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 10% 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
Assigned Revenue						
Duty on transfer of property	26.11	40.61	34.06	18.61	21.08	18.49
Entertainment Tax	5.05	15.36	12.87	8.02	2.81	0.52
Total	31.16	55.97	46.93	26.63	23.89	19.01
% of Total Income	16.79%	20.36%	14.22%	9.11%	10.56%	7.43%
% Growth	-	79.62%	(16.15%)	(43.26%)	(10.29%)	(20.43%)

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 Aranthangi Municipality there are 3 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 74th 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 25% 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	50.02	57.36	81.11	60.74	61.89	58.61
Total	50.02	57.36	81.11	60.74	61.89	58.61
% of Total Income	26.95%	20.87%	24.58%	20.78%	27.36%	22.91%
% Growth	-	(14.67%)	41.41%	(25.11%)	1.89%	(5.30%)

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. 50/- p.m.	Rs. 3500/-
Commercial	Rs. 100/- p.m.	Rs. 5000/-
Industrial	Rs. 125/- p.m.	Rs. 10000/-

The total number of house service connections (HSC) is 4757 Nos., the breakup of which is as below:

Table 6.10: No. of House Service Connections

Particulars	Nos.
Domestic	4546
Commercial	211
Industrial	-
Total	4757

The percentage of water supply connections to property tax assessments is only around 43%. 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 are 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	10.29	10.38	27.08	28.08	28.42	28.52
Total	10.29	10.38	27.08	28.08	28.42	28.52
% of Total Income	5.54%	3.78%	8.21%	9.61%	12.57%	11.15%
% Growth	-	0.87%	160.89%	3.69%	1.21%	0.35%

It may be observed that water charges account for around 10% of total income. There has been average growth of around 30% over the last 6 years.

The water connection charges for the past 6 years are 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	2.22	3.64	3.90	4.08	1.10	9.27
Total	2.22	3.64	3.90	4.08	1.10	9.27
% of Total Income	1.20%	1.32%	1.18%	1.40%	0.49%	3.62%
% Growth	-	63.96%	7.14%	4.62%	(73.04%)	742.73%

It may be observed that water connection charges account for around 1-2% of total income. There has been average growth of around 60% 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
Demand						
- Current	10.29	29.19	28.09	38.72	28.79	28.79
- Arrears	14.16	22.90	21.92	29.64	28.33	30.04
Total	24.45	52.09	50.01	68.36	57.12	58.83
Collection						
- Current	5.92	21.53	19.25	30.02	18.29	14.31
- Arrears	2.74	8.65	3.86	7.48	8.79	6.66
Total	8.66	30.18	23.11	37.50	27.08	20.97
Collection %						
- Current	58%	74%	69%	78%	64%	50%
- Arrears	19%	38%	18%	25%	31%	22%
Total	35%	58%	46%	55%	47%	36%

The municipality has very low collection performance, with current collection charges at around 60%. The arrears collection % is between 25-30%.

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	22.02	33.23	43.97	45.86	46.11	59.11
Total	22.02	33.23	43.97	45.86	46.11	59.11
% of Total Income	11.86%	12.09%	13.33%	15.69%	20.39%	23.10%
% Growth	-	50.91%	32.32%	4.30%	0.55%	28.19%

It may be observed that service charges & fees accounts for around 20% of the total income. There has been no growth of around 25% 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	26.02	70.52	96.81	88.32	26.39	42.40
Total	26.02	70.52	96.81	88.32	26.39	42.40
% of Total Income	14.02%	25.66%	29.34%	30.21%	11.67%	16.57%
% Growth	-	171.02%	37.28%	(8.77%)	(70.12%)	60.67%

It may be observed that income from properties and other income together accounts for around 20% of total income and the same has grown at average rate of 15% p.a.

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
Demand						
- Current	25.33	44.26	47.76	50.69	49.88	52.86
- Arrears	17.18	17.44	20.19	21.38	26.36	26.52
Total	42.51	61.70	67.95	72.07	76.24	79.38
Collection						
- Current	19.26	39.79	44.79	44.74	48.82	50.88
- Arrears	10.85	1.73	1.78	0.96	0.90	2.69
Total	30.11	41.52	46.57	45.70	49.72	53.57
Collection %						
- Current	76%	90%	94%	88%	98%	96%
- Arrears	63%	10%	9%	4%	3%	10%
Total	71%	67%	69%	63%	65%	67%

On the average, the total current collection performance of other income is 90% and the arrears collection performance is around 10%. But the amount of arrears is nominal.

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 are 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	76.63	75.98	77.39	77.35	82.60	121.32
Terminal & Retirement Benefits	10.54	18.42	13.09	16.37	8.24	1.03
Total	87.17	94.40	90.48	93.72	90.84	122.35
% of Total Expt	22.17%	32.14%	35.17%	29.89%	56.08%	63.62%
% Growth	-	8.29%	(4.15%)	3.58%	(3.07%)	34.69%

The establishment expenses constitute around Rs. 80 lakhs per annum. The establishment expenditure, which had marginally come down has started rising again from 2006-07.

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 18% 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 are 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
Power Charges	10.19	22.16	22.31	23.07	20.97	19.07
Maintenance Exps	1.56	2.00	0.77	1.41	0.50	1.41
Vehicle Maint.	0.87	0.68	1.46	1.09	1.71	1.82
Others	3.02	4.74	5.14	5.46	6.32	1.49
Total	15.64	29.58	29.68	31.03	29.50	23.79
% of Total Expt	3.98%	10.07%	11.54%	9.90%	18.21%	12.37%
% Growth	-	89.13%	0.34%	4.55%	(4.93%)	(19.36%)

The O&M Expenses – water supply constitutes around Rs. 30 lakhs per annum and the same has stabilized over the last 4-5 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 are 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	11.87	25.77	15.61	16.62	18.82	19.03
Repairs & Maintenance	7.25	8.15	7.03	9.20	11.16	12.51
Total	19.12	33.92	22.64	25.82	29.98	31.54
% of Total Expt	4.86%	11.55%	8.80%	8.23%	18.51%	16.40%
% Growth	-	77.41%	(33.25%)	14.05%	16.11%	5.20%

The O&M expenses – street lights and others constitute around Rs. 30 lakhs per annum and the same has been growing @ 5-10% p.a.

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	23.31	49.81	36.98	85.76	9.74	13.33
Total	23.31	49.81	36.98	85.76	9.74	13.33
% of Total Expt	5.93%	16.96%	14.38%	27.35%	6.01%	6.93%
% Growth	-	113.69%	(25.76%)	131.91%	(88.64%)	36.86%

The administration expenses comprise around 10% of the total expenditure. The administration expenses, which was very high between 2002-03 and 2004-05 has reduced during the last 2 years.

6.4 SUMMARY OF FINANCES

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

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

	Audited					Unaudited
Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Income	185.63	274.86	329.95	292.31	226.18	255.85
Expenditure	146.80	207.89	179.78	236.39	160.12	192.09
Surplus before Int & Depreciation	38.83	66.97	150.17	55.92	66.06	63.76
Finance Charges	193.07	28.83	18.51	25.37	0.00	0.00
Surplus / (Deficit) before Depreciation	(154.24)	38.14	131.66	30.55	66.06	63.76
Depreciation	53.25	57.00	58.96	51.83	1.85	0.21
Net Surplus / (Deficit)	(207.49)	(18.86)	72.70	(21.28)	64.21	63.55

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 Aranthangi Municipality, it is observed that the Municipality has reduced its deficit from 2002-03 and is showing surplus for the last 2 years, which is a very positive sign. But the Municipality needs 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 for the last 5 years and the surplus is on the increasing trend over the years, which is a good sign of recovery.
- 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)

	Audited					Unaudited
Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Income						
Property Tax	48.87	50.88	54.22	63.95	61.51	64.24
Profession Tax	6.06	6.45	6.91	6.54	6.39	12.48
Water & Drainage	10.29	10.38	27.08	28.08	28.42	28.52
Assigned Revenue	31.16	55.97	46.93	26.63	23.89	19.01
Devolution Fund	50.02	57.36	81.11	60.74	61.89	58.61
Serv. Chgs & Fees	22.02	33.23	43.97	45.86	46.11	59.11
Grants & Cont.	1.48	0.45	0.00	0.27	0.00	0.00
Sale & Hire Chgs	0.00	0.00	0.00	0.00	0.00	0.00
Other Income	26.02	70.52	96.81	88.32	26.39	42.40
Total Income	185.63	274.86	329.95	292.31	226.18	255.85
Expenditure						
Personnel Cost	76.63	75.98	77.39	77.35	82.60	121.32
Terminal Benefits	10.54	18.42	13.09	16.37	8.24	1.03
O&M—Street Lights	11.87	25.77	15.61	16.62	18.82	19.03
O&M – Water	13.21	26.29	26.94	28.16	26.03	19.47
Repairs & Maint.	9.68	11.44	9.77	12.08	14.69	16.83
Programme Exps	1.56	0.18	0.00	0.05	0.00	1.08
Administrative Exp	23.31	49.81	36.98	85.76	9.74	13.33
Finance Expenses	193.07	28.83	18.51	25.37	0.00	0.00
Depreciation	53.25	57.00	58.96	51.83	1.85	0.21
Total Expenditure	393.12	293.72	257.25	313.59	161.97	192.30
Surplus / (Deficit)	(207.49)	(18.86)	72.70	(21.28)	64.21	63.55

- It may be observed that the surplus during the last 2 years is more on account of reduced depreciation in these years. Depreciation during the last 2 years has reduced from around Rs. 50 lakhs p.a. to less than Rs. 2 lakhs p.a.
- The assigned revenue of the municipality has been on reducing trend over the years. As regards Devolution Fund, the same has stabilized at around Rs. 60 lakhs per annum.
- The municipality's own resources have also shown increase over the years, which is a positive sign. The municipality's own revenue comprising property tax, profession tax, water charges and income from properties have all shown growth of around 10-15% over the last 6 years.
- The total accumulated surplus of the Municipality as on 31st March 2007 stands at Rs. 616.05 lakhs. As against the same, the total fixed assets comprising land, buildings, plant & machinery, vehicles etc. stands at Rs. 1251.09 lakhs. Out of the total fixed assets, the value of land is only Rs. 260.96 lakhs.
- The total loans of the Municipality as on 31st March 2007 stands as below :

Table 6.23 Borrowings of the Municipality

(Rs. in lakhs)

Loan from	Purpose	Rate of Interest	O/s as on 31.3.07
Government Loan	Water Supply	11%	36.46
Other Institutions	-	14%	84.81
TNUDF Loan	Services	12%	15.20
Total			136.47

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

Table 6.24 Status of Contributions & Grants

Particulars	Rs. in lakhs
Contribution by Municipality	2.49
Contribution by Government	164.67
Grants from Government	66.78
Total	233.94

- It is observed from the above that around 50% of the fixed assets excluding Land have been funded by means of Contribution and Grants from Government over the years and the balance 50% from Loans.
- The average current collection efficiency of the municipality is poor, with 65% efficiency in property tax, 60% efficiency in water charges and 90% in all other cases. The arrears collection performance is also poor.
- The broad financial analysis of the Aranthangi Municipality finances reveal that the Municipality has further scope for increasing its own sources of income and collection efficiency for servicing the additional borrowings in the future.
- To summarise, the overall income pattern of the Aranthangi 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 10-15% over the past 6 years. The income from Assigned Revenue and Devolution Fund has infact marginally reduced over the years.
- On the negative side, the municipality has a very poor collection performance in respect of property tax and water charges and there is enough scope for improvement. The surplus during the last 2 years is mainly on account of 'NIL' depreciation from high of around Rs. 50 lakhs p.a. Therefore 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. Aranthangi Municipality derives about 70 percent of its revenue income from own sources, while grants account for just about 30 percent of the revenue income.

Table 6.25 Resource Mobilisation Indicators

Indicators	Value
Per Capital Income	Rs. 664/- p.a.
Share of Own Sources in Total Revenue Income	69.66%
Share of Property Tax in Total Revenue Income	33.41%
Share of Revenue Grants & Subsidies in Total Revenue Income	30.34%
Growth in Revenue Income	14.62% p.a.
Growth of Own Sources of Revenue Income	7.57% p.a.
Per Capital Own Income	Rs. 462/- p.a.

6.5.2 Fund Application Indicators

These indicators are a measure to ascertain the utilization from the municipal fund. Around 64% of the revenue expenditure is spent on establishment heads, only 29% for municipal assets and services, leaving around 7% utilized for debt servicing. Establishment expenditure accounts for about 48% of the total revenue generated by the municipality.

Table 6.26 Fund Application Indicators

Indicators	Value
Per Capita Expenditure	Rs. 499/- p.a.
Share of Establishment Expenses in Total Revenue Expenditure	63.62%
Share of O&M Expenditure in Total Revenue Expenditure	28.77%
Share of Establishment Expenditure to Total Revenue Income	47.82%
Growth in Establishment Expenditure	8.07% p.a.
Growth in O&M Expenditure	11.84% p.a.
Growth in Total Revenue Expenditure	-10.22% 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 low at 3.91% during the assessment period. The per capita average debt outstanding works out to Rs. 354/- and the per capita

outstanding debt to property tax demand is around 212% 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. 354/-
- Outstanding Non Debt Liability per Capita	-
- Total Outstanding Liability per Capita	Rs. 354/-
As a proportion of Property Tax Current Demand	
- Outstanding Debt as % of Property Tax Demand	212%
- Outstanding Non Debt Liability as % of Property Tax Demand	-
- Total Outstanding Liability as % of Property Tax Demand	212%
As a proportion of Property Tax Own Revenue Income	
- Outstanding Debt as % of Own Revenue Sources	77%
- Outstanding Non Debt Liability as % of Own Revenue Sources	-
- Total Outstanding Liability as % of Own Revenue Sources	77%
Non Debt Liability as % of Total Liability	-
Debt Servicing Ratio	3.91%

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 75%. 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. Aranthangi Municipality has demonstrated only 4.50% annual growth in per capita revenue income during the assessment period, while the per capita revenue expenditure has grown at a negative CAGR of 11.30% 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	75.08%
Growth in Per Capita Own Revenue	10.77%
Growth in Per Capita Grant	0.23%
Growth in Per Capita Total Revenue Income	4.50%
Growth in Per Capital Establishment Expenditure	4.95%
Growth in Per Capita O&M Expenditure	8.30%
Growth in Per Capita Revenue Expenditure	-11.30%

6.5.5 Efficiency Indicators

These indicators are essentially a measure to assess municipal efficiency with regards revenue base coverage and utilization. Aranthangi Municipality has low collection performance both with regards property tax and water charges (65% and 60% respectively). The average population per residential assessment at 3.80 persons indicates that the property tax base has a high coverage.

Table 6.29 Efficiency Indicators

Indicators	Value
Tax Collection Performance (Current)	
- Property Tax	65%
- Profession Tax	90%
- Water Charges	60%
- Non Tax Income	90%
No. of Property Tax Assessments per Tax Collection Staff	2228 Nos.
Property Tax Demand per Assessment	Rs. 271/- p.a.
No. of Municipal Staff per 1000 Population	5.28 Nos.
Annual Revenue (Own Source) per Municipal Staff	Rs. 0.98 lakh p.a.
Population per Residential Property Tax Assessment	3.8 persons

Note:

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

ACTION PLAN & POLICY INTERVENTIONS

7.1 ACTION PLAN

A City Corporate cum Business Plan (CCCBP) is essentially a road map to achieve a set of development objectives within a specific period. This CCCBP has identified and articulated the needs and aspirations of the citizens of concerned 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 **Aranthangi Municipality** is 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 mitigate 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 : 1. Kollidam CWSS and 2. Improvement to Existing Distribution system			
Current Status : 1. Work under progress 2. Concept stage			
Year of Implementation	Implementing agency	Investment & Financing mix [Loan: Grants: ULB contribution]	Outcomes
2009-10	TWAD/ Municipality	Rs.366.00 lakhs & Rs.92.00 lakhs 0:90:10	Improvement in water quality and quantity Increase in no. of HSCs
Operation & Maintenance Plan <ol style="list-style-type: none"> 1. Revenue enhancement through collection drives, metering, tariff rationalization and apportionment of property tax collected towards water supply fund to raise annual collection. 2. Creation of public awareness on water conservation and rain water harvesting practices through IEC activities. 3. Exploring options for privatization, BOT, BOOT schemes for treatment plants. 4. Preparation of Status report on capital works under taken on a quarterly basis 5. Performance monitoring of water supply and distribution system .Initiation of energy audit, leak detection, Non-Revenue water, water quality, etc. if necessary. 6. Establishment of GIS inventory mapping and Management Information System. 7. Ensure preventive and break down maintenance of the proposed system. 8. Registration of break downs, complaints received and actions taken. 9. Effective tariff collection measures through spot billing. 			
	Project risks	Mitigation measures	
1	Lack of co-operation from the public and their representatives in increasing the deposits and tariffs.	I.E.C. Activities/ Public consultation meetings	
2	Staff inadequacy or technically unqualified staff to maintain the Kollidam CWSS	Privatisation of O&M of the water supply system.	

Source: Analysis and research

Table 7.2 Time line and Implementation strategy for Water Supply – Improvement works

Sl.no	Aranthangi -Water Supply- Improvement works	2008-09	2009-10				2010-11				2011-12				2012-13				2013-14			
	Activities		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	Appointment of consultant for preparation of DPR	TWAD																				
3	Appointment of consultant for Project Management	TWAD																				
4	IEC activities & stakeholder consultaton workshops																					
5	Preparation of DPR																					
6	Approval/ Sanction of DPR (AS & TS)																					
7	Arrangement of loans and Grants																					
8	Preparation of Tender Documents																					
9	Short listing potential contractors & calling for Tender																					
10	Pre-bid Meeting																					
11	Tender Evaluation																					
12	Award of work																					
14	Project Implementation																					
Legend																						
		Continuous activity																				
		Start to finsh of activity																				

Table 7.3 Timeline and implementation strategy – Water supply – Kollidam CWSS

Sl.no	Aranthangi - Kollidam CWSS-Water Supply	2008-09	2009-10				2010-11				2011-12				2012-13				2013-14							
	Activities		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	Appointment of consultant for preparation of DPR	Completed																								
3	Appointment of consultant for Project Management	Completed																								
4	IEC activities & stakeholder consultation workshops																									
5	Preparation of DPR	Completed																								
6	Approval/ Sanction of DPR (AS & TS)	Completed																								
7	Arrangement of loans and Grants	Completed																								
8	Preparation of Tender Documents	Completed																								
9	Short listing potential contractors & calling for Tender	Completed																								
10	Pre-bid Meeting	Completed																								
11	Tender Evaluation	Completed																								
12	Award of work	Completed																								
13	Collection of Deposits																									
14	Project Implementation																									
15	Fixing meters for all HSCs																									
16	Preparation of final inspection reports																									
17	Preparation of statement of completion																									
18	Preparation of as built drawings																									
19	Training to ULB staff in O&M of the system																									
20	Appointment of private contractor for O&M																									
Legend																										
						Continuous activity																				
						Start to finish of activity																				

7.1.2. UGSS

Table 7.4 Action plan for the proposed UGSS

Proposals : Under Ground Sewerage Scheme			
Current Status : DPR approved			
Year of Implementation	Implementing agency	Investment & Financing mix [Loan: Grant : ULB contribution]	Outcomes
2009-2012 UGSS	TWAD/Municipality	Rs.3107.00 lakhs 00:90:10	Improved health conditions and Environment
Operation & Maintenance Plan. <ol style="list-style-type: none"> 1. Performance monitoring of the existing sewerage system .Initiation of energy audit, quality of treated effluent, etc. if necessary. 2. Creation of public awareness on the necessity of UGSS as a healthier option through IEC activities. 3. Apportionment of property tax collected towards water supply fund, awareness creation on the need for tariffs and connection deposits for revenue mobilization. 4. Exploring options for privatization, BOT, BOOT schemes for sewage treatment plants. 5. For good maintenance 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. 6. Regular preventive and break down maintenance of the proposed system. 7. Create database on sanitation assets and ensure adequate upkeep of sanitation assets through encouraging community level participation and consumer forums. 8. Establishment of GIS inventory mapping and Management Information System 9. Registration of break downs, complaints received and actions taken. 			
	Project risks	Mitigation measures	
1	Inadequate staff for O&M of sewer network.	Privatization of O&M for sewerage network	
2	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.	
3	Lack of co-operation from the public and their representatives in increasing the deposits and tariffs.	I.E.C. Activities	

Source: Analysis and research

Table 7.5 Timeline and Implementation Strategy for UGSS.

Sl.no	Aranthangi -UGSS	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
	Activities		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	Appointment of consultant for preparation of DPR	TWAD					
3	Appointment of consultant for Project Management	TWAD					
4	IEC activities & stakeholder consultation workshops						
5	Preparation of DPR	Completed					
6	Approval/ Sanction of DPR (AS & TS)	Completed					
7	Arrangement of loans and Grants	Completed					
8	Preparation of Tender Documents	Completed					
9	Short listing potential contractors & calling for Tender	Under Progress					
10	Pre-bid Meeting						
11	Tender Evaluation						
12	Award of work						
13	Collection of Deposits						
14	Project Implementation						
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						

Legend

Continuous activity

Start to finish of activity

Source: Analysis and research

7.1.3 Solid Waste Management

Table 7.6 Action plan for Solid Waste Management

Proposals : Improvement in Solid waste Collection and Compost yard.			
Current Status : Concept stage			
Year of Implementation	Implementing agency	Investment & Financing mix	Outcomes
2009-11	Municipality	Rs.31.00 lakhs & 12th SFC grants	Improved Environment, income to the ULB
<p>Operation & Maintenance Plan.</p> <p>An integrated solid waste management plan for the town involving the following process is needed:</p> <ol style="list-style-type: none"> The municipality must focus on revenue enhancement by privatizing of waste management of the following components: <ol style="list-style-type: none"> Primary collection Transfer to collection points Transfer to compost yard Segregation of waste and option of <ol style="list-style-type: none"> Selling scraps/recyclable waste. Treatment of biodegradable waste Transfer to identified regional land fill sites Compost yard management The management of biodegradable waste as a revenue generating activity may involve, <ol style="list-style-type: none"> Vermi-composting Installation of bio-gas plant Conducting IEC campaigns to facilitate effective waste segregation at source and proper disposal. Implementing collection of conservancy fee for primary collection of waste and levy on residential, commercial and industrial establishments. Involvement of voluntary agencies, SHGs in the various components of solid waste management on BOT, BOOT basis. 			
	Project risks	Mitigation measures	
1	Non-willingness to pay conservancy fees	IEC activities through voluntary organisations, CBOs, Resident welfare organisations	
2	Lack of public awareness and cooperation		
3	Opposition from existing sanitary staff	Retaining the identified zones or reallocate existing sanitary staff for other municipal functions	

Source: Analysis and research

Table 7.7 Time line and Implementation Strategy for SWM

[illegible]

Source: Analysis and research

7.1.4 Roads

Table 7.8 Action plan for Roads

Proposals : Improvement of Roads			
Current Status : Concept stage			
Year of Implementation	Implementing agency	Investment & Financing mix [Grants: loan: ULB contribution]	Outcomes
2011-14	Municipality	Rs.500.00 lakhs & 30:60:10	Improvements in internal circulation, safe pedestrian movements,
Operation & Maintenance Plan. <ol style="list-style-type: none"> The maintenance of the existing network of municipal roads involves: <ol style="list-style-type: none"> Routine maintenance – Filling of pot holes, repairing of cracks, maintenance of shoulders, upkeep of drains. Periodic maintenance – Renewal of wearing coat and preventive maintenance. Rehabilitation, strengthening and special repair – Overlay construction, reconstruction of pavement, widening of roads, repairs of damages caused by floods . Comprehensive Traffic and transportation 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 potentials. Provide duct for cables and other utilities along major roads to minimize digging. Options for revenue generation involve track rent from cable, telecom, TNEB, lease from avenue trees etc. Establishment of GIS inventory mapping and database management system. 			
	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	

Source: Analysis and research

Note: The relaying of road works will be taken up after the completion of Water supply project, UGSS, and Storm water drains.

7.1.5 PPP project – Bus Terminus & Shopping complex

Table 7.9 Action plan for Construction of Bus Terminus under PPP model

Proposals : 1. Construction of Modern Bus Terminus 2. Construction of shopping complex			
Current Status : 1. Concept stage 2. Concept stage			
Year of Implementation	Implementing agency	Investment & Financing mix	Outcomes
1.2012-13 2.2010-11	Private contractor under PPP model	1. Rs.100.00 lakhs 2. Rs.90.00 lakhs Build, Finance, Operate and Transfer mode	Reduction in capital investment, O&M. Speedy expedition of the project.
<p>Technical assistance:</p> <ol style="list-style-type: none"> 1. Orientation sessions for Municipal authorities and elected representatives on PPP modalities & options. 2. Public consultation/stakeholder meeting for the proposed project. 3. Technical assistance needed from PPP consultants. 4. Legal and technical support for drafting, formulating and reviewing tender documents. 			
	Project risks	Mitigation measures	
1	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.	
2	Lack of awareness and public co-operation for the proposed project	Public consultation meetings to gain trust of stake holders	
3	Delays in Land Acquisition	Community consultations to ensure least resistance from local population	
		Ensuring Approval of the Council and local Public representative.	

Source: Analysis and research

Table 7.10 Time line and Implementation Strategy for Modern Bus Terminus

Sl.no	Aranthangi -PPP- Modern Bus Terminus	2008-09	2009-10				2010-11				2011-12				2012-13				2013-14			
	Activity		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Negotiations & Acquisition of site for the proposed bus terminus																					
2	Approval of the Council for the Proposals of PPP Project and for preparation of DPR																					
3	Appointment of PPP Consultant																					
4	Preparation of DPR defining the roles & responsibilities of the ULB & private operator																					
5	Approval/Sanction of DPR																					
6	Shortlisting potential private operators																					
7	Preparation of Tender document																					
8	Calling for Tender																					
9	Prebid Meeting																					
10	Tender Evaluation																					
11	Appointing to Private operator and award of contract																					
12	Project Implementation																					
13	O& M of the bus terminus																					

Legend

Continuous activity

Start to finish of activity

Source: Analysis and research

Table 7.11 Timeline and Implementation Strategy for Shopping Complex

Sl.no	Aranthangi -PPP- Shopping complex	2008-09	2009-10				2010-11				2011-12				2012-13				2013-14			
	Activity		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Negotiations & Acquisition of site for the proposed shopping complex																					
2	Approval of the Council for the Proposals of PPP Project and for preparation of DPR																					
3	Appointment of PPP Consultant																					
4	Preparation of DPR clearly defining the roles and responsibilities of the ULB and the private operator																					
5	Approval/Sanction of DPR																					
6	Shortlisting potential private operators																					
7	Preparation of Tender document																					
8	Calling for Tender																					
9	Prebid Meeting																					
10	Tender Evaluation																					
11	Appointing to Private operator and award of contract																					
12	Project Implementation																					
13	O& M of the bus terminus																					

Legend

Continuous activity

Start to finish of activity

Source: Analysis and research

7.1.6 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

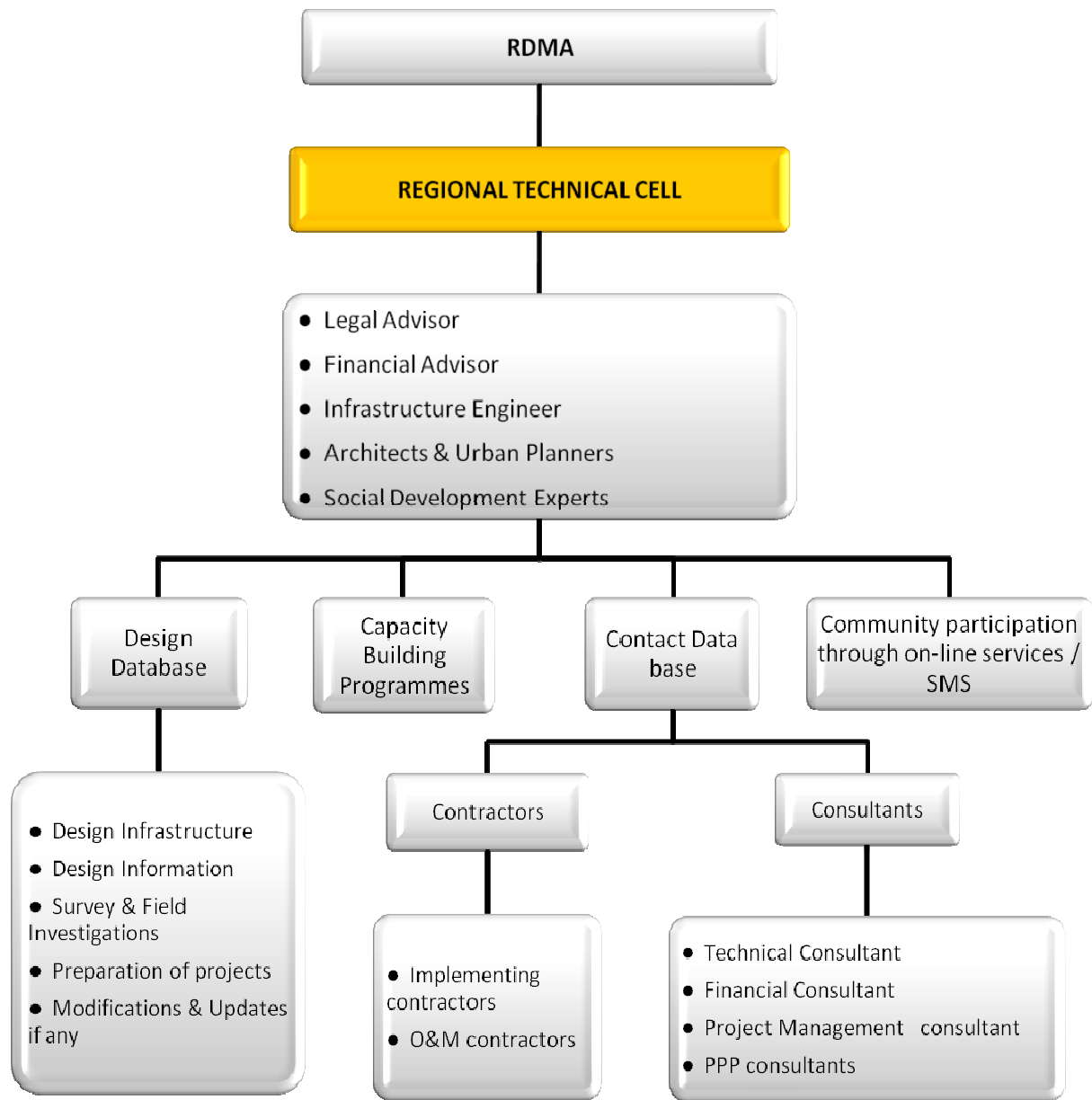
Table 7.12 Regional Technical Cell – Team of Specialists

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

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 is 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 7.13 Municipality - Departments and functions

S.No	Section	Function
1	Engineering	Water supply
		Drainage
		Roads & Bridges/Culverts
		Buildings (& Crematoriums) , Television Rooms , etc
		Street lights
		Parks& Play grounds
2	Town Planning	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	Revenue	Assessment of Vacant Land Tax & Property Tax
		Name transfer of titles
		Lease & rent of markets, stalls & Bunks
		Revenue collection
		Recoveries of loan
4	Public Health	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	General	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 7.14 Training for ULB staff

S.No	Topics to be covered	Areas of training
Engineering		
	Water Supply	Water Supply System Maintenance and Management
		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
		Maintenance of electrical and mechanical equipments
		Filter Operation
		Latest techniques in pumping and distribution system
		Yield test for water sources
		Operation & Maintenance of chlorinator (care and use of chlorinator)
		Rain Water Harvesting
		Water and waste water analysis
		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 management
		Mechanised Sewer maintenance and cleaning
		Preventive maintenance of sewage system
		Maintenance of electrical and mechanical equipments
		Spot billing and collection mechanism
	Storm water Drains	Design applications in storm water 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
		Town Planning
		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
		Public Health
		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
		Revenue, Accounts and Administration
		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, Tax revision of assessments , 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
		E-Governance including e-tendering
		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
General		
		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.

Table 7.15 Reform Agenda for Mandatory Reforms – Aranthangi Municipality

Sl.no	Activity	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
A	State level Initiatives																					
i	Zone wise Review & updation of guideline values as per market value																					
ii	Initiating GIS based tax mapping for all ULBs																					
iii	Reassessing unassessed & under assessed properties																					
iv	Rationalisation of stamp duty to 5% & below	Under progress																				
v	Enactment of Community participation law																					
vi	Legal framework for PPP projects																					
vii	Establishing regional technical cell at RDMA office																					
viii	Establishing PPP cell interfaced with TNUIFSL																					
B	Municipal level Initiatives																					
1	Revenue enhancement measures																					
i	Parking regularisation Plan																					
ii	Advertisements regularisation Plan																					
iii	Conservancy fees for Non-domestic assessments																					
2	Reforms in Privatisation																					
i	O&M of the supply and distribution system																					
ii	O&M of the Sewer network & STP																					
iii	Door to door collection of solid waste																					
iv	Compost yard management & sale of compost & scrap																					
v	O & M of Street lights																					
vi	Purchase of mobile collection vehicle																					
vii	Formation and sensitisation of youth & women SHGs																					
viii	Privatisation of tax collection mechanism through SHGs																					
3	Reforms in audit and accounting																					
i	Appointing a private chartered accountant as consultant																					
ii	Closing & auditing of accounts (Aug 30)																					
iii	Publishing audited statement online(Sept 30)																					

Legend

	Continuous activity
	Start to finish of activity

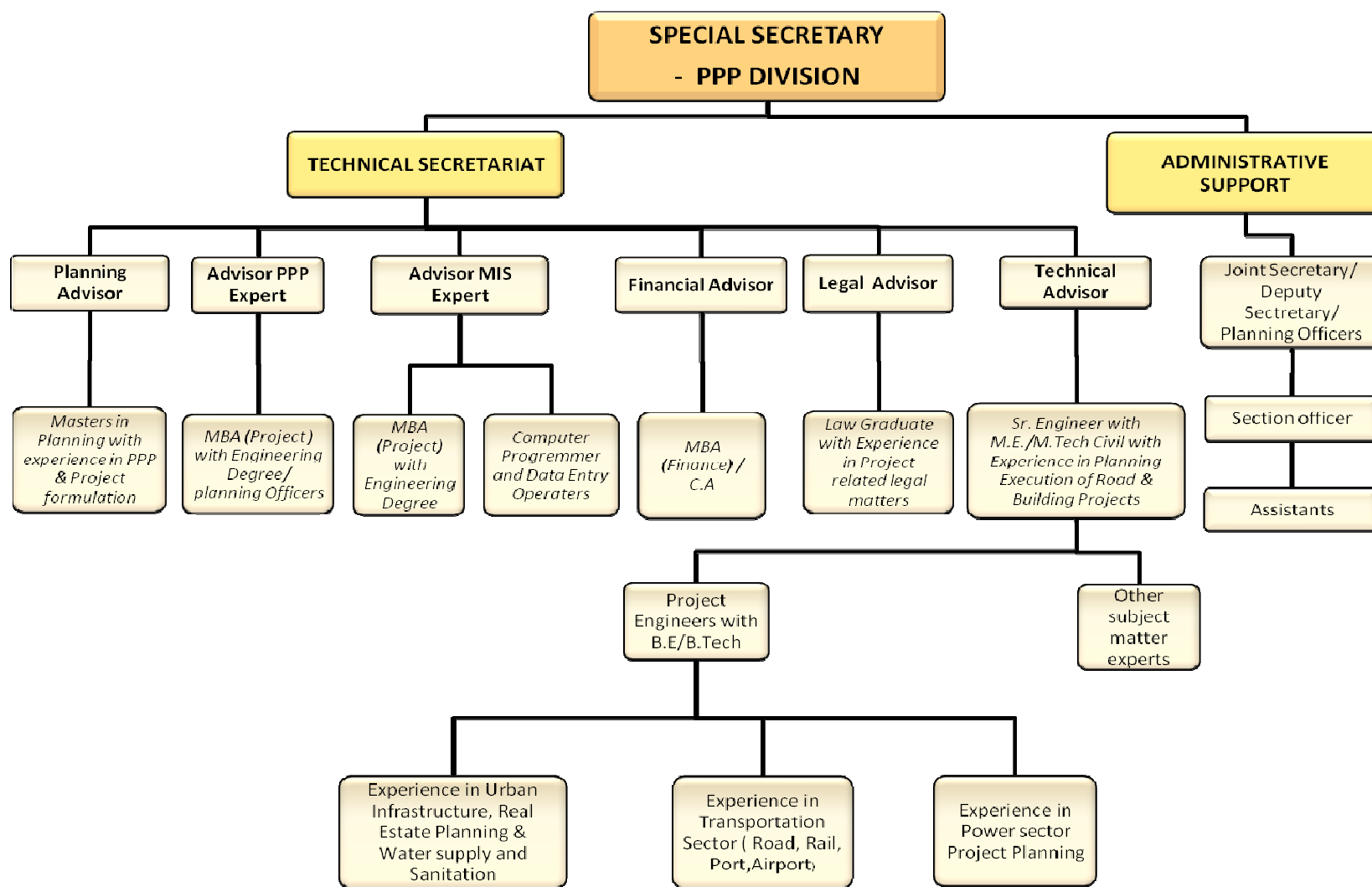
Source: Analysis and research

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

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

7.3.3 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.

7.3.4 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.

7.3.5 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.

7.3.6 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 7.16 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
	INFRASTRUCTURE SERVICES									
a	Water Supply									
	Net Supply per capita	LPCD	120	85	85	120	<div><div></div></div>			
	HSCs - % of assessed properties	%	85%	71	85	<div><div></div></div>				
	Frequency of Supply - Hours per day	Hours	24x7	Daily	Daily		<div><div></div></div>		24 x 7	
b	Sewerage and Sanitation									
	Access to UGD Network			Not available	<div><div></div></div>		100%			
	Coverage of UGD network - % of road length	%	≥ 100%	Not available	Project implementation <div><div></div></div>		100%			
c	Solid Waste Management									
	Availability of Composting facility	Yes/No		Not available		<div><div></div></div>				
	Collection efficiency (% collected)	%	100	92	100	<div><div></div></div>				
d	Roads, Storm Water Drains, Street Lights									
	BT Roads /concrete roads- % of total road length	%	100%	75	<div><div></div></div>					100
	Pucca closed storm water drains - % of total road length	%	130%	30			60	90	100	≥100
	Average spacing between Street lights	metres	30 m	31	<div><div></div></div>				30	30

Source: Analysis and research

8

CAPITAL INVESTMENT PLAN AND FINANCIAL SUSTAINABILITY

8.1 CAPITAL INVESTMENT PLAN

The proposed projects for Aranthangi 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 the Municipality

Rs in lakhs

S.No.	Particulars	Funding pattern L:G:M	2009-10	2010-11	2011-12	2012-13	2013-14	Total
A	Physical Infrastructure Facilities							
I	Water Supply							
a)	Proportionate cost of Kollidam CWSS and strengthening D-system	0:90:10	458.00	-	-	-	-	458.00
II	Sewerage							
a)	Proposed Underground Sewerage Scheme	0:90:10	932.10	1553.50	621.40	-	-	3107.00
III	Strom Water Drains							
a)	Construction and upgradation of existing drains	60:30:10	-	-	230.00	252.00	148.00	630.00
IV	Water Bodies							
a)	Improvements to Water Bodies	0:90:10	-	-	-	50.00	65.00	115.00
V	Solid Waste Management							
a)	Improvements to Compost yard	Grants	15.00	16.00	-	-	-	31.00
VI	Roads							
a)	Improvements to Roads - CC Roads, BT Roads, relaying of roads.	60:30:10	-	-	50.00	270.00	180.00	500.00
VII	Bus Stand							
a)	Moderb Bus Terminus	BOOT	-	-	-	100.00	-	100.00
b)	Purchase of land as identified by ULB	Mun.Cont	-	-	50.00	-	-	50.00
c)	Bus Shelters - Improvements	Grant	-	-	1.00	-	-	1.00
VIII	Street Lights							
a)	Installation of energy saver		39.00	-	-	-	-	39.00

S.No.	Particulars	Funding pattern L:G:M	2009-10	2010-11	2011-12	2012-13	2013-14	Total
	lights, sodium lights, high mass lights and retrofitting of existing tube lights	Private						
B	Social Infrastructure Facilities							
I	Slum Improvement							
a)	Improvements to Slums	0:90:10	-	74.00	148.00	148.00	-	370.00
II	Burial Ground							
a)	Construction of Gasifier and compound walls	0:50:50	25.00	15.00	-	-	-	40.00
III	Parks & Playgrounds							
a)	Improvement of parks, construction of compound wall and play equipments	0:50:50	-	-	-	-	22.00	22.00
IV	Public Convenience							
a)	Construction of 4 Nos. New Toilets and renovation of existing toilets	0:50:50	20.00	24.00	-	-	-	44.00
V	Market							
a)	Improvements to existing market	ULB	20.00	-	-	-	-	20.00
b)	Construction of Weekly Market	BOLT	30.00	30.00	-	-	-	60.00
VI	Urban Greenary							
a)	Plantation of 15000 Nos. new saplings	Grant	-	-	-	-	7.50	7.50
C	Other Projects							
I	E-Governance							
a)	Purchase of hardware and software	Grant	3.00	-	-	-	-	3.00
II	Remunerative Projects							
a)	Construction of Shopping Complex	BOOT	-	90.00	-	-	-	90.00
III	Miscellaneous Projects							
a)	Mobile Collection Van	ULB	8.00	-	-	-	-	8.00
IV	Updation of Database							
a)	Updation of Database on GIS platform	Grant	-	-	-	-	45.00	45.00
	Total		1550.10	1802.50	1100.40	820.00	467.50	5740.50

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 executed by Other Agencies

S.No	Proposals	Total	Funding By
a)	Improvement of fort and Shiva Temple	N.A.	TTDC
b)	Establishment of a regional resource centre of sea food processing and packaging	N.A.	-
	Total	N.A.	

Table 8.3: Projects under Implementation by the Municipality

Rs in lakhs

S.No	Proposals	Cost	Grant	Own Funds	Funding Pattern
a)	Roads (II SFC)	33.00	33.00	-	Grant
b)	Roads (12 Finance)	14.00	14.00	-	Grant
c)	Slaughter House	20.00	10.00	10.00	0:50:50
d)	Roads & Drains (Flood Works)	22.00	22.00	-	Grant
	Total	89.00	79.00	10.00	

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 (Rs in lakhs)
		2009-10	2010-11	2011-12	2012-13	2013-14	
A	Physical Infrastructure Facilities						
1	Water Supply						
	Total Project Cost	458.00	-	-	-	-	458.00
	Add : Price Inflation @ 7%	32.06	0.00	0.00	0.00	0.00	32.06
	Total	490.06	0.00	0.00	0.00	0.00	490.06
	Means of Finance						
	Grant	441.05	0.00	0.00	0.00	0.00	441.05
	Municipality Own Funds	49.01	0.00	0.00	0.00	0.00	49.01
	Total	490.06	0.00	0.00	0.00	0.00	490.06
2a	Sewerage						
	Total Project Cost	932.10	1553.50	621.40	-	-	3107.00
	Add : Price Inflation @ 7%	65.25	225.10	139.84	0.00	0.00	430.19
	Total	997.35	1778.60	761.24	0.00	0.00	3537.19
	Means of Finance						
	Grant	897.61	1600.74	685.12	0.00	0.00	3183.47
	Municipality Own Funds (Deposits from Public)	99.73	177.86	76.12	0.00	0.00	353.72
	Total	997.35	1778.60	761.24	0.00	0.00	3537.19
3	Storm Water Drains						
	Total Project Cost	-	-	230.00	252.00	148.00	630.00
	Add : Price Inflation @ 7%	0.00	0.00	51.76	78.32	59.58	189.66
	Total	0.00	0.00	281.76	330.32	207.58	819.66
	Means of Finance						
	TNUIFSL Loan	0.00	0.00	169.06	198.19	124.55	491.79
	Grant	0.00	0.00	84.53	99.10	62.27	245.90
	Municipality Own Funds	0.00	0.00	28.18	33.03	20.76	81.97
	Total	0.00	0.00	281.76	330.32	207.58	819.66
4	Water Bodies						
	Total Project Cost	-	-	-	50.00	65.00	115.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	15.54	26.17	41.71
	Total	0.00	0.00	0.00	65.54	91.17	156.71
	Means of Finance						
	Grant	0.00	0.00	0.00	58.99	82.05	141.04
	Municipality Own Funds	0.00	0.00	0.00	6.55	9.12	15.67
	Total	0.00	0.00	0.00	65.54	91.17	156.71

S.No.	Particulars	Multi Year Investment Plan (Rs in lakhs)					Total (Rs in lakhs)
		2009-10	2010-11	2011-12	2012-13	2013-14	
5	Solid Waste Management						
	Total Project Cost	15.00	16.00	-	-	-	31.00
	Add : Price Inflation @ 7%	1.05	2.32	0.00	0.00	0.00	3.37
	Total	16.05	18.32	0.00	0.00	0.00	34.37
	Means of Finance						
	Grant	16.05	18.32	0.00	0.00	0.00	34.37
	Total	16.05	18.32	0.00	0.00	0.00	34.37
6	Roads						
	Total Project Cost	-	-	50.00	270.00	180.00	500.00
	Add : Price Inflation @ 7%	0.00	0.00	11.25	83.91	72.46	167.63
	Total	0.00	0.00	61.25	353.91	252.46	667.63
	Means of Finance						
	TNUIFSL Loan	0.00	0.00	36.75	212.35	151.48	400.58
	Grant	0.00	0.00	18.38	106.17	75.74	200.29
	Municipality Own Funds	0.00	0.00	6.13	35.39	25.25	66.76
	Total	0.00	0.00	61.25	353.91	252.46	667.63
7a	Bus Stand						
	Total Project Cost	-	-	-	100.00	-	100.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	31.08	0.00	31.08
	Total	0.00	0.00	0.00	131.08	0.00	131.08
	Means of Finance						
	BOOT	0.00	0.00	0.00	131.08	0.00	131.08
	Total	0.00	0.00	0.00	131.08	0.00	131.08
7b	Bus Stand						
	Total Project Cost	-	-	50.00	-	-	50.00
	Add : Price Inflation @ 7%	0.00	0.00	11.25	0.00	0.00	11.25
	Total	0.00	0.00	61.25	0.00	0.00	61.25
	Means of Finance						
	Municipality Own Funds	0.00	0.00	61.25	0.00	0.00	61.25
	Total	0.00	0.00	61.25	0.00	0.00	61.25
7c	Bus Shelter						
	Total Project Cost	-	-	1.00	-	-	1.00
	Add : Price Inflation @ 7%	0.00	0.00	0.23	0.00	0.00	0.23
	Total	0.00	0.00	1.23	0.00	0.00	1.23
	Means of Finance						
	Grant	0.00	0.00	1.23	0.00	0.00	1.23
	Total	0.00	0.00	1.23	0.00	0.00	1.23
8	Street Lights						
	Total Project Cost	39.00	-	-	-	-	39.00
	Add : Price Inflation @ 7%	2.73	0.00	0.00	0.00	0.00	2.73
	Total	41.73	0.00	0.00	0.00	0.00	41.73

S.No.	Particulars	Multi Year Investment Plan (Rs in lakhs)					Total (Rs in lakhs)
		2009-10	2010-11	2011-12	2012-13	2013-14	
	Means of Finance						
	Private Sector	41.73	0.00	0.00	0.00	0.00	41.73
	Total	41.73	0.00	0.00	0.00	0.00	41.73
B	Social Infrastructure Facilities						
1	Slum Improvement						
	Total Project Cost	-	74.00	148.00	148.00	-	370.00
	Add : Price Inflation @ 7%	0.00	10.72	33.31	46.00	0.00	90.03
	Total	0.00	84.72	181.31	194.00	0.00	460.03
	Means of Finance						
	Grant	0.00	76.25	163.18	174.60	0.00	414.02
	Municipality Own Funds	0.00	8.47	18.13	19.40	0.00	46.00
	Total	0.00	84.72	181.31	194.00	0.00	460.03
2	Burial Ground						
	Total Project Cost	25.00	15.00	-	-	-	40.00
	Add : Price Inflation @ 7%	1.75	2.17	0.00	0.00	0.00	3.92
	Total	26.75	17.17	0.00	0.00	0.00	43.92
	Means of Finance						
	Grant	13.38	8.59	0.00	0.00	0.00	21.96
	Municipality Own Funds	13.38	8.59	0.00	0.00	0.00	21.96
	Total	26.75	17.17	0.00	0.00	0.00	43.92
3	Parks & Playgrounds						
	Total Project Cost	-	-	-	-	22.00	22.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	0.00	8.86	8.86
	Total	0.00	0.00	0.00	0.00	30.86	30.86
	Means of Finance						
	Grant	0.00	0.00	0.00	0.00	15.43	15.43
	Municipality Own Funds	0.00	0.00	0.00	0.00	15.43	15.43
	Total	0.00	0.00	0.00	0.00	30.86	30.86
4	Public Convenience						
	Total Project Cost	20.00	24.00	-	-	-	44.00
	Add : Price Inflation @ 7%	1.40	3.48	0.00	0.00	0.00	4.88
	Total	21.40	27.48	0.00	0.00	0.00	48.88
	Means of Finance						
	Grant	10.70	13.74	0.00	0.00	0.00	24.44
	Municipality Own Funds	10.70	13.74	0.00	0.00	0.00	24.44
	Total	21.40	27.48	0.00	0.00	0.00	48.88
5a	Existing Market						
	Total Project Cost	20.00	-	-	-	-	20.00
	Add : Price Inflation @ 7%	1.40	0.00	0.00	0.00	0.00	1.40
	Total	21.40	0.00	0.00	0.00	0.00	21.40

S.No.	Particulars	Multi Year Investment Plan (Rs in lakhs)					Total (Rs in lakhs)
		2009-10	2010-11	2011-12	2012-13	2013-14	
	Means of Finance						
	Municipality Own Funds	21.40	0.00	0.00	0.00	0.00	21.40
	Total	21.40	0.00	0.00	0.00	0.00	21.40
5b	Weekly Market						
	Total Project Cost	30.00	30.00	-	-	-	60.00
	Add : Price Inflation @ 7%	2.10	4.35	0.00	0.00	0.00	6.45
	Total	32.10	34.35	0.00	0.00	0.00	66.45
	Means of Finance						
	BOLT	32.10	34.35	0.00	0.00	0.00	66.45
	Total	32.10	34.35	0.00	0.00	0.00	66.45
6	Urban Greenary						
	Total Project Cost	-	-	-	-	7.50	7.50
	Add : Price Inflation @ 7%	0.00	0.00	0.00	0.00	3.02	3.02
	Total	0.00	0.00	0.00	0.00	10.52	10.52
	Means of Finance						
	Grant	0.00	0.00	0.00	0.00	10.52	10.52
	Total	0.00	0.00	0.00	0.00	10.52	10.52
C	Other Projects						
1	E-Governance						
	Total Project Cost	3.00	-	-	-	-	3.00
	Add : Price Inflation @ 7%	0.21	0.00	0.00	0.00	0.00	0.21
	Total	3.21	0.00	0.00	0.00	0.00	3.21
	Means of Finance						
	Grant	3.21	0.00	0.00	0.00	0.00	3.21
	Total	3.21	0.00	0.00	0.00	0.00	3.21
2	Remunerative Projects (Comm Hall)						
	Total Project Cost	-	90.00	-	-	-	90.00
	Add : Price Inflation @ 7%	0.00	13.04	0.00	0.00	0.00	13.04
	Total	0.00	103.04	0.00	0.00	0.00	103.04
	Means of Finance						
	BOOT	0.00	103.04	0.00	0.00	0.00	103.04
	Total	0.00	103.04	0.00	0.00	0.00	103.04
3	Mobile Collection Van						
	Total Project Cost	8.00	-	-	-	-	8.00
	Add : Price Inflation @ 7%	0.56	0.00	0.00	0.00	0.00	0.56
	Total	8.56	0.00	0.00	0.00	0.00	8.56
	Means of Finance						
	Municipality Own Funds	8.56	0.00	0.00	0.00	0.00	8.56
	Total	8.56	0.00	0.00	0.00	0.00	8.56
4	Updation of Database						

S.No.	Particulars	Multi Year Investment Plan (Rs in lakhs)					Total (Rs in lakhs)
		2009-10	2010-11	2011-12	2012-13	2013-14	
	Total Project Cost	-	-	-	-	45.00	45.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	0.00	18.11	18.11
	Total	0.00	0.00	0.00	0.00	63.11	63.11
	Means of Finance						
	Grant	0.00	0.00	0.00	0.00	63.11	63.11
	Total	0.00	0.00	0.00	0.00	63.11	63.11

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	
I	Project Cost						
	Total Project Cost	1550.10	1802.50	1100.40	820.00	467.50	5740.50
	Add : Price Inflation @ 7%	108.51	261.18	247.64	254.85	188.19	1060.37
	Total	1658.61	2063.68	1348.04	1074.85	655.69	6800.87
II	Means of Finance						
	Municipality Own Funds (including Deposits from Public)	202.78	208.66	189.81	94.38	70.55	766.17
	Grant	1382.00	1717.64	952.42	438.85	309.12	4800.04
	TNUIFSL Loan	0.00	0.00	205.81	410.54	276.02	892.37
	Private Sector	73.83	137.39	0.00	131.08	0.00	342.30
	Total	1658.61	2063.68	1348.04	1074.85	655.69	6800.87

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 Aranthangi 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 Aranthangi Municipality is estimated to grow at around 2.3% p.a. Based on the same Property Tax Revenue are assumed to increase @ 2.5% 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. Besides, the property tax demand per assessment is very less at Rs. 270/-. Considering the above factors, it is assumed that the same shall be set right and together these shall contribute to increase in property tax revenue by 20% 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

	Per Annum	
General	4.000%) Revenue & Capital Fund
Scavanging	2.000%	
Lighting	2.000%	
Water Tax	1.500%	} Water Supply & Drainage Fund
Drainage	0.500%	
Education	2.500%] Education Fund
Total	12.500%	

b) Profession tax

Income from Profession Tax is assumed to increase @ 5% 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 : 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 @ 7.5% 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
Residential	Rs. 3500	Rs.50.00 Per month
Commercial	Rs. 5000	Rs.100.00 per month
Industrial	Rs. 10000	Rs.125.00 per month

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.75.00 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.5000

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	9006	4873	54%
Commercial	2046	201	9%
Industrial & Govt.	86	0	0%

The improvements in water supply shall result in increase in operation & maintenance by Rs.13.00 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.3107 lakhs. The implementation period is 4 years starting from 2009-10 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 as below:

Table 8.9 Sewerage – Assumptions in collection of deposits

Year	Property tax assessments in %
2009-10	30%
2010-11	40%
2011-12	30%

The Deposits and Charges shall be collected accordingly.

It is assumed that the sewerage charges will be collected as below :

Table 8.10 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.41.00 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 12 MTs. 50% out of the same shall comprise Bio-degradable waste and the manure generation would be 1/3rd of the same. Thus the estimated saleable manure generation per day would be 2.0 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 5 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.31.00 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

A modern bus terminus shall be constructed on BOOT basis at a cost of Rs. 100 lakhs. The revenue from the new modern bus terminus shall comprise the following :

It is estimated that around 182 buses shall use the bus terminus every day. The charges collected per bus shall be Rs. 12/- per day. The same shall increase @ 10% every 3 years.

It shall also comprise the following shops :

Table 8.11 Bus stand - Assumptions

Shops	Nos	Rent (in Rs)	Deposit (in Rs)
Rent	10	2500	25000
Deposit	15	1500	10000

The same shall increase @ 25% every 5 years.

The O&M charges of the Bus Terminus shall be equal to 25% of revenue generated. The income from the Bus Terminus shall accrue to the BOOT Operator for the first 15 years and thereafter to the Municipality.

m) Market

Renovation of Daily Market shall be carried out at a cost of Rs. 20 lakhs. The improvements shall result in increase in existing income by 25% on completion. The market income shall otherwise increase by 3% every year.

The weekly market shall be constructed on BOLT basis at a cost of Rs. 60 lakhs. It shall comprise the following :

Table 8.12 Market - Assumptions

Description	Nos	Rent (in Rs)	Deposit (in Rs)
Stalls	150	500	10000

The rent shall increase @ 25% every 5 years. The O&M charges on market shall be equal to 25% of revenue generated.

The income from the weekly market shall accrue to the BOOT operator for the first 15 years and thereafter to the Municipality.

n) Remunerative Projects

The Shopping Complex shall be constructed on BOOT basis at a cost of Rs. 90 lacs. It shall comprise the following :

Table 8.13 Shopping complex - Assumptions

Description	Nos	Rent (in Rs)	Deposit (in Rs)
Shops	60	2000	50000

The rent shall increase @ 25% every 5 years. The annual O&M charges shall be equal to 25% of revenue earned.

The income from the Shopping Complex shall accrue to the BOOT operator for the first 15 years and thereafter to the Municipality.

o) Advertisements

Bill Boards would be put at 20 places through out the Municipality. Rent shall be earned @ Rs.600.00 per Bill board per month. The rent shall increase @ 10% 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 @ 5% per annum.

8.5.2 EXPENDITURE

a) Increase in Expenditure

The expenses are assumed to increase as under:

Table 8.14 Increase in Expenditure - Assumptions

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

b) Operation and Maintenance

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

Table 8.15 Additional Operation and Maintenance charges

Ongoing Projects	Rs. in lakhs
Roads	2.35
Slaughter House	1.00
Roads & Drains	1.10
New Projects (other than Sewerage & Water supply)	Rs. in lakhs
Strom Water Drains	20.00
Water Bodies	5.00
Solid Waste Management	2.33
Roads	15.00
Bus Stand / Shelters	0.25
Slum Improvement	18.50
Burial Ground	2.00
Parks	1.10
Public Convenience	2.20
Market	1.00
Urban Greenery	0.05
E-Governance	0.15
Mobile Van	0.25
Updation of Database	0.50
Total	72.78

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 has been provided based on the sanction rate for each loan. Repayments 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 8.16 Provision of doubtful debts

Description	% Assumed
Revenue Fund	1%
Water Fund	0.5%
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 is given in the table below.

Table 8.17 Target assumed for tax collection

S.No	Description	Present Status	Target over next 5 years
1	Current Property Tax collection Arrear Property tax collection	64% 18%	90% 60%
2	Current profession tax collection Arrear profession tax collection	88% 5%	95% 50%
3	Current rental / lease collection Arrear rental / lease collection	63% 4%	90% 50%
4	Current water charges collection Arrear water charges collection	65% 26%	90% 60%
5	Current drainage charges collection Arrear drainage charges collection	Nil Nil	80% 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 8.18 Annuity factor for new loans

Tenure	20 years	10 years
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	Nil	18.00
Conversion Factor	Nil	3.31
Total Conversion Factor	3.31	

Note: Sewerage Loan works out to Nil % of total project cost identified. Other Loans works out to 18% 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 8.19 captures the Income and Expenditure projections for the next 20 years with potential improvements and borrowings:

Table 8.19: 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
I	Income											
a)	Property Tax	65.85	79.02	94.82	97.19	99.62	102.11	117.43	120.36	123.37	126.45	129.62
b)	Other Taxes	13.10	15.07	15.82	16.61	17.44	18.32	21.06	22.12	23.22	24.39	25.60
c)	Assigned Revenue	24.97	26.11	27.30	28.55	29.86	31.23	32.67	34.19	35.78	37.44	39.19
d)	Devolution Fund	64.98	68.23	71.65	75.23	78.99	82.94	87.09	91.44	96.01	100.81	105.85
e)	Service Charges & Fees	56.31	58.98	53.98	153.32	176.44	263.76	281.89	289.69	330.30	357.54	397.15
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	44.15	47.24	53.05	56.55	60.37	64.43	66.48	70.74	73.19	78.28	80.90
	Total Income	269.37	294.65	316.62	427.45	462.72	562.78	606.62	628.54	681.88	724.91	778.32
II	Expenditure											
a)	Personnel Salaries Cost	75.99	79.79	83.78	87.97	92.36	96.98	101.83	106.92	112.27	117.88	123.78
b)	Personnel Cost - Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c)	Terminal & Ret Benefits	8.65	9.08	9.54	10.02	10.52	11.04	11.59	12.17	12.78	13.42	14.09
d)	Operating Expenses	20.23	26.20	52.49	83.35	99.79	105.46	111.46	117.81	124.54	131.67	139.22
e)	Repairs & Maintenance	12.00	12.90	13.86	14.90	16.02	17.22	18.51	19.90	21.40	23.00	24.73
f)	Program Expenses	1.11	1.13	1.16	1.19	1.22	1.25	1.28	1.32	1.35	1.38	1.42
g)	Administration Expenses	9.99	13.84	10.48	14.53	11.01	15.26	11.56	16.02	12.14	16.82	12.74
h)	Finance Expenses	12.01	10.52	9.45	8.63	27.39	65.58	89.82	84.13	74.38	63.18	52.28
l)	Depreciation	158.43	122.26	106.01	93.17	117.76	225.10	335.54	322.98	245.48	190.38	150.45
	Total Expenditure	298.41	275.72	286.78	313.77	376.07	537.89	681.60	681.26	604.34	557.75	518.71
	Surplus / (Deficit)	(29.04)	18.93	29.84	113.68	86.65	24.89	(74.98)	(52.72)	77.54	167.17	259.61
	Profit before Depreciation	129.39	141.19	135.85	206.85	204.41	249.99	260.56	270.26	323.02	357.55	410.06

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
I	Income											
a)	Property Tax	149.06	152.78	156.60	160.52	164.53	189.21	193.94	198.79	203.76	208.85	240.18
b)	Other Taxes	29.45	30.92	32.46	34.09	35.79	41.16	43.22	45.38	47.65	50.03	57.53
c)	Assigned Revenue	41.02	42.95	44.97	47.09	49.31	51.64	54.09	56.66	59.36	62.19	65.16
d)	Devolution Fund	111.15	116.70	122.54	128.66	135.10	141.85	148.95	156.39	164.21	172.42	181.04
e)	Service Charges & Fees	408.09	419.37	467.84	490.96	538.22	553.11	568.48	626.03	654.97	711.32	748.75
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	86.13	89.08	94.62	98.64	104.71	108.45	115.21	119.40	156.36	161.22	186.73
	Total Income	824.89	851.80	919.03	959.96	1027.66	1085.43	1123.89	1202.65	1286.31	1366.04	1479.40
II	Expenditure											
a)	Personnel Salaries Cost	129.97	136.46	143.29	150.45	157.97	165.87	174.17	182.88	192.02	201.62	211.70
b)	Personnel Cost - Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c)	Terminal & Ret Benefits	14.80	15.54	16.31	17.13	17.99	18.89	19.83	20.82	21.86	22.96	24.10
d)	Operating Expenses	147.23	155.71	164.70	174.23	184.33	195.05	206.41	218.46	231.24	244.80	259.19
e)	Repairs & Maintenance	26.58	28.57	30.72	33.02	35.50	38.16	41.02	44.10	47.41	50.96	54.78
f)	Program Expenses	1.45	1.49	1.53	1.56	1.60	1.64	1.68	1.73	1.77	1.81	1.86
g)	Administration Expenses	17.66	13.38	18.55	14.05	19.47	14.75	20.45	15.49	21.47	16.27	22.54
h)	Finance Expenses	41.98	31.55	21.14	12.07	6.56	5.30	5.54	5.78	6.44	6.71	7.57
i)	Depreciation	120.97	98.81	81.90	68.79	58.50	50.32	43.74	38.40	34.02	30.39	27.36
	Total Expenditure	500.63	481.52	478.13	471.31	481.92	489.98	512.84	527.65	556.23	575.53	609.11
	Surplus / (Deficit)	324.26	370.28	440.90	488.65	545.73	595.44	611.06	675.00	730.08	790.52	870.29
	Profit before Depreciation	445.23	469.09	522.80	557.44	604.23	645.76	654.80	713.40	764.10	820.91	897.66

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 8.20: 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
I	Liabilities											
a)	Liabilities											
	Loans	83.93	67.85	59.37	50.89	248.21	650.27	892.09	806.56	686.54	566.51	454.96
	Contn from Mun Fund	2.49	12.49	215.27	423.92	613.73	708.11	778.66	778.66	778.66	778.66	778.66
	Contn from Government	201.13	201.13	201.13	201.13	201.13	201.13	201.13	201.13	201.13	201.13	201.13
	Grant	66.78	145.78	1527.78	3245.42	4197.84	4636.69	4945.82	4945.82	4945.82	4945.82	4945.82
	Accumulated Depreciation	378.66	512.26	642.49	810.98	1043.51	1392.20	1848.63	2289.60	2648.73	2948.72	3204.95
b)	Current Liabilities											
	Res for Doubtful Colln	10.34	12.84	15.55	18.88	22.44	26.56	30.98	35.56	40.48	45.78	51.42
	Tender Deposits – Conts	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
	Security & Deposit Others	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50
	Library Cess Payable	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70
	GIS Contribution Payable	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12
	Interest Payable Account	125.43	125.43	125.43	125.43	125.43	125.43	125.43	125.43	125.43	125.43	125.43
	Audit fees – payable	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	IT & ST Deduction –Conts	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
	Recoveries – Staff	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
	Accounts Payable -Claims	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Accounts Payable – Supp	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Accounts Payable – Exps	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Other Recoveries	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
	Other Payables	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Mun Contn to Spec Schs	29.34	29.34	29.34	29.34	29.34	29.34	29.34	29.34	29.34	29.34	29.34
	Inter Funds Transfer	902.02	902.02	902.02	902.02	902.02	902.02	902.02	902.02	902.02	902.02	902.02
c)	Accumulated Surplus	540.90	511.26	779.21	955.64	923.30	857.41	537.27	234.88	59.06	-31.44	-34.70
	Total	2520.35	2699.72	4676.91	6942.97	8486.28	9708.49	10470.68	10528.32	10596.53	10691.28	10838.35

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
I	Liabilities											
a)	Liabilities											
	Loans	343.42	231.87	120.32	34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Contn from Mun Fund	778.66	778.66	778.66	778.66	778.66	778.66	778.66	778.66	778.66	778.66	778.66
	Contn from Government	201.13	201.13	201.13	201.13	201.13	201.13	201.13	201.13	201.13	201.13	201.13
	Grant	4945.82	4945.82	4945.82	4945.82	4945.82	4945.82	4945.82	4945.82	4945.82	4945.82	4945.82
	Accumulated Depreciation	3428.07	3625.57	3802.85	3963.86	4111.54	4248.11	4375.29	4494.41	4606.54	4712.51	4813.00
b)	Current Liabilities											
	Res for Doubtful Colln	57.42	63.64	70.28	77.27	84.71	92.59	100.78	109.48	118.93	128.91	139.84
	Tender Deposits – Conts	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
	Security & Deposit Others	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50	98.50
	Library Cess Payable	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70
	GIS Contribution Payable	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12
	Interest Payable Account	125.43	125.43	125.43	125.43	125.43	125.43	125.43	125.43	125.43	125.43	125.43
	Audit fees – payable	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	IT & ST Deduction –Conts	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
	Recoveries – Staff	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
	Accounts Payable -Claims	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Accounts Payable – Supp	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Accounts Payable – Exps	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Other Recoveries	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
	Other Payables	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Mun Contn to Spec Schs	29.34	29.34	29.34	29.34	29.34	29.34	29.34	29.34	29.34	29.34	29.34
	Inter Funds Transfer	902.02	902.02	902.02	902.02	902.02	902.02	902.02	902.02	902.02	902.02	902.02
c)	Accumulated Surplus	20.86	115.88	273.96	471.62	717.16	1002.50	1292.61	1634.65	2018.93	2449.55	2944.87
	Total	11011.48	11198.67	11429.13	11708.97	12075.12	12504.91	12930.39	13400.26	13906.11	14452.68	15059.42

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
II	Assets											
a)	Fixed Assets	1281.11	1370.11	2954.89	4881.18	6229.22	7172.99	7828.68	7828.68	7828.68	7828.68	7828.68
b)	Current Assets											
	Stock	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
	Prop Tax Rec - Current	23.05	19.75	14.22	9.72	9.96	10.21	11.74	12.04	12.34	12.65	12.96
	Prop Tax Rec - Arrears	51.62	59.18	55.26	41.85	26.46	20.55	18.43	19.11	19.68	20.21	20.73
	Profession Tax - Current	1.57	1.51	0.79	0.83	0.87	0.92	1.05	1.11	1.16	1.22	1.28
	Profession Tax - Arrears	8.34	9.08	8.77	6.93	4.99	3.37	2.60	2.35	2.28	2.30	2.37
	Water Chgs Rec - Current	11.52	8.56	5.34	13.30	13.63	13.97	14.32	14.68	17.89	18.34	18.80
	Water Chgs Rec - Arrears	10.79	18.00	17.56	12.36	18.24	20.93	22.34	23.25	23.98	27.48	29.33
	Drainage Chgs - Current	0.00	0.00	0.00	0.00	0.00	16.40	16.58	17.00	17.42	17.86	23.50
	Drainage Chg - Arrears	0.00	0.00	0.00	0.00	0.00	0.00	16.40	23.14	26.25	27.92	29.02
	Specific Grant Receivable	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
	Daily Market - Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Daily Market - Arrears	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Advt Fee - Arrears	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01
	Rent & Building - Current	4.13	3.33	1.99	1.43	1.55	3.12	3.27	3.43	3.60	3.79	3.97
	Rent & Building - Arrears	35.19	32.29	25.92	17.55	10.20	6.65	6.45	6.49	6.68	6.94	7.26
	Deposits Recoverable	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
	Staff Advance Rec	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
	Advance Rec - Exps	75.50	75.50	75.50	75.50	75.50	75.50	75.50	75.50	75.50	75.50	75.50
	Other Advance – Rec	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	Adv to PWD - Highways	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45
	Inter-Fund Transfer	640.72	640.72	640.72	640.72	640.72	640.72	640.72	640.72	640.72	640.72	640.72
	Prepaid Expenses	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Others	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
c)	Cash & Bank Balances	261.20	346.12	760.35	1126.00	1339.35	1607.58	1697.00	1745.22	1804.74	1892.08	2028.63
	Total	2520.35	2699.72	4676.91	6942.97	8486.28	9708.49	10470.68	10528.32	10596.53	10691.28	10838.35

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
II	Assets											
a)	Fixed Assets	7828.68	7828.68	7828.68	7828.68	7828.68	7828.68	7828.68	7828.68	7828.68	7828.68	7828.68
b)	Current Assets											
	Stock	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
	Prop Tax Rec - Current	14.91	15.28	15.66	16.05	16.45	18.92	19.39	19.88	20.38	20.89	24.02
	Prop Tax Rec - Arrears	21.25	23.41	24.64	25.52	26.26	26.96	29.70	31.28	32.39	33.33	34.22
	Profession Tax - Current	1.47	1.55	1.62	1.70	1.79	2.06	2.16	2.27	2.38	2.50	2.88
	Profession Tax - Arrears	2.47	2.70	2.90	3.07	3.24	3.41	3.76	4.04	4.29	4.53	4.77
	Water Chgs Rec - Current	19.27	19.75	23.46	24.05	24.65	25.27	25.90	30.19	30.95	31.72	32.51
	Water Chg Rec - Arrears	30.53	31.48	32.34	36.40	38.61	40.10	41.31	42.42	47.16	49.81	51.65
	Drainage Chgs - Current	24.08	24.68	25.30	25.93	32.46	33.27	34.10	34.95	35.83	43.37	44.45
	Drainage Chgs - Arrears	35.11	38.12	39.93	41.28	42.44	49.44	53.04	55.32	57.08	58.66	66.83
	Specific Grant Receivable	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
	Advt Fee - Arrears	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01
	Rent & Building - Current	4.17	4.38	4.60	4.83	5.07	5.33	5.59	5.87	6.17	6.47	6.80
	Rent & Building - Arrears	7.60	7.97	8.37	8.79	9.22	9.68	10.17	10.68	11.21	11.77	12.36
	Deposits Recoverable	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
	Staff Advance Rec	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
	Advance Rec - Exps	75.50	75.50	75.50	75.50	75.50	75.50	75.50	75.50	75.50	75.50	75.50
	Other Advance – Rec	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	Adv to PWD - Highways	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.45
	Inter-Fund Transfer	640.72	640.72	640.72	640.72	640.72	640.72	640.72	640.72	640.72	640.72	640.72
	Prepaid Expenses	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Others	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
c)	Cash & Bank Balances	2190.13	2368.84	2589.80	2860.85	3214.42	3629.99	4044.76	4502.86	4997.79	5529.13	6118.45
	Total	11011.48	11198.67	11429.13	11708.97	12075.12	12504.91	12930.39	13400.26	13906.11	14452.68	15059.42

The full projects investment scenario indicates that Aranthangi Municipality would end up with a positive cumulative cash surplus of Rs. 6118.45 lakhs by the end of FY 2028-29 (after 20 years)

8.7 IMPACT OF POTENTIAL IMPROVEMENTS

Aranthangi's ability to improve on its financial performance hinges primarily on its ability to sustain and improve on the revenue growth noticeable in recent years.

Specific interventions with respect to revenue realization and cost management are detailed in Section 8.5 of the report. On 'Full Project Investment Scenario' basis, Aranthangi's own revenues (comprising taxes, user charges and other income) could grow from Rs. 179 lakhs in FY 2006-07 to Rs. 1233 lakhs by FY 2028-29, implying an absolute growth of 29%. Aranthangi has vast potential for increasing its own income given the growth achieved in the last few years. Areas for revenue enhancement in own revenue include :

- 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. 1000 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.

Aranthangi also needs to explore scope for private sector participation for development of remunerative projects and heritage preservation / city beautification projects that have been identified by Aranthangi.

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 65% 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 Aranthangi'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 Aranthangi Municipality as the minimum of :

- 30% of revenue projections
- 50% of Primary Operating Surplus less Debt Service

The overall financing mix has been arrived to include 18% Loans, 71% Grants and 11% 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.

Table 8.21: Summary of Borrowing and Investment Capacity	
Borrowing Capacity	Rs. 1171.46 lakhs
Investment Capacity (BC/0.18)	Rs. 6541.44 lakhs
Investment Requirement	Rs. 5740.50 lakhs
Sustainable Investment Capacity % - IC / IR	114%

At an aggregate level, assuming loans to be equivalent to 18% of investment, sustainable investment capacity works out to Rs. 6541.44 lacs, which is about 114% of the total investment requirement.

Thus the Municipality has the capacity to absorb additional loans and therefore more projects can be undertaken by the Municipality.

8.9 KEY INDICATORS

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

Table 8.22 Key indicators based on financial projections

	Minimum	Maximum	Average
Existing (2001-02 to 2006-07)			
Operating Ratio	0.48	0.72	0.61
Debt Service Ratio	3%	25%	13%
Category			1
Short Term (2009-10 to 2013-14)			
Operating Ratio	0.52	0.57	0.55
Debt Service Ratio	3%	20%	10%
Category			1

Long Term (2009-10 to 2028-29)			
Operating Ratio	0.39	0.57	0.47
Debt Service Ratio	0%	28%	10%
Category			1

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 charges 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 :

Table 8.23: Summary of Borrowing and Investment Capacity	
Borrowing Capacity	Rs. 659.45 lakhs
Investment Capacity (BC/0.30)	Rs. 3663.64 lakhs
Investment Requirement	Rs. 5740.50 lakhs
Sustainable Investment Capacity % - IC / IR	64%

Thus both the investment and borrowing capacity reduce by around 40% 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

ASSET 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. Aranthangi 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 and playfields etc, which are listed below.

Table 9.1 Land Assets in Aranthangi Municipality – Land and Building

Asset	Area	Location
Bus Stand	1.64 acres	Junction of Peravoorani and Pattukottai road
Park (Puramboke land)	0.85 cents	Opposite to bus stand
Vacant Land	8.0 acres	Survey no.4
Daily Market	1.45 acres	Vannaankulam
OHT	18 cents	Nadimuthu OHT Tank
Municipal Office	32 cents	
OHT	4.6 cents	L.N.puram Water Tank
OHT	30.25 cents	L.N.puram Water Tank
OHT	15.50 cents	Periyar Water tank
OHT	24.90 cents	N.G.O colony water tank
Water tank	85.53 cents	Veerali Amman koil water Tank

Vellar Headworks		Karaikudi Road
Radio Room	10.50 cents	Puduvayal (not in use)
	10.50 cents	Chatirakulam
	10.50 cents	Vadakkuvadi
	10.50 cents	Veeramakali Amman Koil st (not in use)
	10.50 cents	Brindavanam, AVK Road
Public Meeting Stage	120 cents	Kottai
East School	242.00 cents	
L.N.Puram School	561.00 cents	
Public conveniences	17.60 cents	Indira Nagar
	37.41 cents	Pudukottai Road
	37.41 cents	L.N Puram Road
	37.41 cents	Avuliya Nagar
	37.41 cents	Opp. To Government hospital
	37.41 cents	Agnibazzar
	37.41 cents	Kuttai kulam
	17.60 cents	Anna Nagar
Noon Meal Centers	60.00 cents	Near Government Hospital
	60.00 cents	L.N Puram
	60.00 cents	Near Municipal Office
	10.00 cents	-
	60.00 cents	Near Housing Unit
	60.00 cents	Angalamman Koil St
	60.00 cents	Brindavanam
Pump Room	20.00 cents	Arugankulam (used as Public convenience)
School Buildings	518.00 cents	-
Dobhi Kana Building	56.25 cents	Perumal Patti village

Source: Aranthangi 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 under go 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 headwork's, 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.

Table 9.2 Water supply asset details

S.No	Asset	Units
1	Distribution Main	36.87 km
2	Service reservoirs	5 nos
3	Bore wells	8 nos
4	Public taps	121 nos
5	Hand Pumps	76 nos
6	Mini power pumps	15 nos

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

S.No	Asset type	Units
	STORM WATER DRAINS	
1	Open pucca drains	17.441 km
	SOLID WASTE MANAGEMENT	
2	Collection bins	40
3	Push carts	48
4	Tractor	1
5	Lorries	3
	ROADS	
6	Total length of Municipal roads	60.59 km
7	Non-surfaced roads	15.47 km
8	Surfaced roads	45.12 km
	STREET LIGHTS	
9	Tube Lights	1465
10	Sodium Vapour Lamps	438

Source: Aranthangi Municipality

9.3 ASSETS MANAGEMENT IN THE LOCAL BODY- LAND ASSETS

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. Aranthangi Municipality has furnished a statement giving the land assets and their values for March 2005-06. 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

Location of Land Asset	Area	Present Use	Proposed Use
Pudukottai road	6.50 acres	Compost Yard	Windrows in progress
Junction of Peravoorani and Pattukottai road	1.64 acres	Bus Stand & Commercial Complex –Inadequate Area	Proposed shifting to land identified by Municipality
Arugankulam park Brindavanam park		Not used efficiently	Parks with landscaping, play equipments, lighting etc
Pudukottai Road		Existing burial grounds	Gasifier crematorium and compound wall.
Vannaankulam	1.45 acres	Existing Market complex	Improvements

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. Depreciation statement given in Annexure – 4. 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 74th 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.

9.5 PROPOSED NEW ASSETS

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

Sl.No	Physical Infrastructure facilities	Rs. In lakhs
1	Water Supply	458.00
2	Sewerage System	3107.00
3	Storm water drains	630.00
4	Improvement Water bodies	115.00
5	Solid Waste Management	31.00
6	Roads	500.00
7	Bus stand	150.00
8	Bus shelter	1.00
9	Street Lights	39.00
	Social Infrastructure facilities	
8	Slum Improvement	370.00
9	Parks and Playfields	22.00
10	Public Convenience	44.00

11	Burial Ground	40.00
12	Market	80.00
13	Slaughter House	20.00
14	Urban Greenery	7.50
	Other Projects	
15	E-Governance	3.00
16	GIS	45.00
	Commercial complex	90.00
	Mobile collection vehicle	8.00
	Total	5760.50

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.

10

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 stakeholders 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 stakeholder consultative meeting at the town level was initiated.

The stakeholder Consultation meeting for Aranthangi was set for 12.02.2008 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 CCPBP, 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 Stakeholders Consultation Meeting

SI No	Major Issues raised	Solution initiatives
1	The bus stand may be shifted to the land owned by Thanjavur Choultry Trust after acquisition.	Proposal to build the new bus stand is included.
2	All slums to be provided with basic services.	Proposal for improving the basic services available in slums is included.
3	Underground drainage scheme should be implemented soon.	UGSS sanctioned and is expected to be completed before 2011
4	High mast lights should be installed at major junctions.	Proposal for providing high mast lamps is included.
5	Storm water drains should be constructed further to cover major roads and streets.	Proposal for providing storm water drains in all the streets is included.
6	Tree saplings are to be planted to have greenery to the town.	Proposals for planting saplings is included.
7	Recreational facilities should be improved by developing parks.	Proposal to improve the conditions of existing park is included.

Suggestions of stake holders consultative process meeting held at Aranthangi

1. As municipality does not have its own land for expansion of bus stand, the municipality is trying to purchase or to take on lease a land of about 8 acres from Thanjavur Choultry Trust. As soon as land is acquired the present bus stand may be shifted to this pocket of land.
2. All slum areas should be provided with basic service and amenities.
3. Underground drainage scheme should be implemented as early as possible.
4. Funds for the projects should be given to the municipality on low interest rate.

5. A ring road connecting near by traffic arterial roads should be formed.
6. Burning ghats should be provided with gasifier plant
7. A community Hall/ Kalyanamandapam should be constructed in the town by the Municipality so that poor people can also use it.
8. Storm water drains should be repaired/ constructed afresh to drain storm water at least from market areas.
9. Industry which can convert solid waste into manure should be created in and around the town.
10. All Ooraries should be desilted, bunds strengthened and inlets and outlets to be cleaned.
11. Road facility, protected water supply, Storm water drains and Underground drainage system should be extended to extended areas.
12. Parks should be developed with necessary infrastructure facilities and amenities.
13. Proposed Cauvery water combined water supply scheme should be implemented
14. A Government Arts College/ A Government Engineering College Should be established.
15. High mast lights may be installed at the important points/ road junction.

ISSUES RAISED BY STAKEHOLDERS IN THE CONSULTATIVE PROCESS MEETING HELD ON 12.02.2008

1. Chairman, Aranthangi Municipal Council

1. Water supply scheme, Strom water drainage, underground drainage, Solid Waste management and resurfacing of roads should be effectively carried out.
2. As municipality does not own land for the expansion of bus stand, the municipality is trying to purchase or to take on lease a land parcel of about 8 acres of land from Thanjavur choultry Trust and it would soon get it. As soon as land is acquired, the bus stand may be shifted is this pocket of land.
3. All slums should be provided with basic services

2. Vice Chairman, Aranthangi Municipal Council

1. Underground drainage scheme should be implemented soon.
2. Funds for the projects should be released on low interest rate.

3. Mr. Ramasamy, Councillor, Ward No 7

1. A new bus stand should be constructed

2. A Government hospital should be established
3. High mast lights should be installed 1) Near Peria Hospital 2) Near Bus stand 3) At Kattumavadi and 4) At Karaikudi road

4. Mr. N. Murugesan, Councillor, Ward No 5

1. A big playground is essential to this town.
2. Underground sewerage system should be constructed
3. Storm water drains should be constructed further to cover major roads and streets

5. Mr. K. Narayanasamy, councillor, Ward No 12

1. Ring road is to be constructed
2. Double track railway line is to be formed in the place of single track line
3. Aranthangi Kattumavadi road should be widened to 3 lane width.

6. Mr. G. Ilangovan, Councillor, Ward No 3

1. Storm water drainage should be followed up by treatment plant
2. Road signals should be installed
3. Tree saplings are to be planted to have greenery to the town.

7. Mr. V. Parthiban, Councillor, Ward No 27

1. During rainy season, Storm Water drains spill over and spoil the area. Hence storm water drains should be built considering shops and other aspects
2. During rainy season, drinking water gets mixed up with various impurities. Hence clean and potable water should be supplied all the time to avoid water borne diseases.
3. Veeramakaliamman Teppakulam should be desilted and strengthened with retaining walls so that people should use the water for bathing purposes.

8. Ms. P. Amirthavalli, Councillor, ward No 15

1. Environment should be kept clean so that it will be free from pollution.

9. Ms. N. Muthulatha, Councillor, Ward No 26

1. Water supply distribution should be effectively done without any problem
2. A higher secondary school should be constructed in this town.

3. Recreational facilities should be improved by developing park and introducing boating facilities in the Ooranies
4. An Arts College and an Engineering College may be created
5. Taxi stand may be constructed by which municipal income may be increased

10. Ms. Suba Seetha Lakshmi. Councillor, Ward No 4

1. New bus stand should be created
2. Ring road is essential

11. Mr. Kailasam. Councillor, Ward No 22

1. Burning ghat should be provided with gasifier plant.
2. A kalyanamandapam should be constructed

12. Mr. L. Muralidharan, Councillor, Ward No 24 and Member District of Planning Committee

1. Storm Water drains should be constructed and drain should reach the water bodies.
2. Underground sewerage scheme should be implemented as early as possible
3. Industries or machineries which convert solid waste into manure should be installed atleast in 4 places
4. Parks and Pedestrian platforms should be constructed.
5. Reverse Osmosis plant should be installed is convert waste water in to usable water.

13. Ms. Stella Rani, President, Social Welfare association

1. All Ooranies should be desilted and made usable.
2. Road, water supply lines and electrical cables should be extended to the extension areas.
3. Sale of fish has to be restricted to a few locations rather than being spread throughout the town.

14. Mr. S.Yasar Hameed:

1. Cauvery water combined water supply scheme should be implemented
2. A Government Engineering college should be established. There is space in the Govt. Polytechnic campus.
3. Industries should be established to improve the economy of the town.

15. Mr. Ramesh, Councillor, Ward No 19:-

1. Underground Drainage scheme should be implemented as soon as possible.
2. Storm water drains are essential especially in the bazaar area.

16. Ms.C.Kalyani, Councilor Ward No:23

1. A new bus stand should be constructed
2. Underground drainage scheme should be implemented as soon as possible

17. Ms .K.TamilSelvi, Councilor, ward No:25:

1. Parks should be developed to spend leisure time.
2. A Government Arts College should be constructed
3. High mast Lights are essential.

18. Ms.S. Fathima beevi, Councillor, Ward 16

1. As municipal area is limited, new area is to be added for expansion of municipal limits
2. Gasifier plant is to be fitted in the burning ghat
3. Weekly market- land should be purchased for the municipality

19. Ms.S.Sumathi, Ward No:9

1. New electric posts should be created replacing the ones that are not in working condition.
2. Bus Stand area should be expanded