



SEPTEMBER 2009
STAGE - IV
CLUSTER - V

Final Report
for
City Corporate cum Business Plan
for
Arani Town
(Thiruvannamalai District)

TAMIL NADU
TIRUVANNAMALAI Road Network (Tamilnadu)
ARANI TOWN MAP

Submitted by:



Voyants Solutions Pvt. Ltd
Level - 4, "Diamond Dune"
323, P.H. Road, Chennai - 600 029
Tele: 044 4269 8584 Fax: 044 2668 1180
E-mail: vsp@chennai.voyants.in

EXECUTIVE SUMMARY – ARANI MUNICIPALITY

1. CITY CORPORATE CUM BUSINESS PLAN – CONTEXT and CONTENT

The Tamil Nadu Urban Infrastructure Financial Services (TNUIFSL) aims to assist municipality in strengthening and improving its financial position for effective capital investment management and urban service delivery. The CMA and TNUIFSL have initiated the process of preparing the CCCBP for the municipality to enhance the vision of stakeholders in the growth of the town. The objective of this study is

1. 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.
2. To outline issues in revenue realization in the ULB and suggest measures for revenue enhancement & financial improvement in the ULB
3. In consultations with Stake holders and Council, suggest Action Plan and FOP to implement the infrastructure plan.

2. SWOT and VISION

Arani, a Grade I Municipality in Tiruvannamalai district, is one of the important silk centres Tamil Nadu. The area of the town is 11.62 sq. km and the population is 60815 as per census 2001. The latitude and longitude of this town are 12°39'N and 79°16'E respectively.

The town is situated 132 km from Chennai, 40 km from Vellore and 60 km from Tiruvannamalai. The nearest Railway Station is at Katpadi about 45 km away from Arani.

Arani has been one of the historical silk and cotton weaving centres in India. It is famous for its light weight and affordable handloom silks. Agriculture, bee keeping, poultry are the other major economic activities in the town. The town is also well known for its Paddy and Rice trade.

A town level SWOT analysis, with reference to its regional context has been done based on feedback from stakeholder workshops and analysis of the status of various sectors of the city.

SWOT Analysis for Arani Municipality

Strength	Weakness
Traditional city and hub for handloom silk and cotton products in India.	Absence of direct rail connectivity and National Highway linkages to region
Initiatives by State Govt. through Co-optex, Khadi Kraft for encouraging sale of handloom products.	Huge back log of existing stocks at co-operative societies creating adverse situation for handloom business
Well established co-operative silk and handloom weavers' societies.	Weak financial position - societies are running under loss.
Linkages through road network and access to rail network.	Limited access and exposure to international markets and trends.
Government to establish hi-tech weaving park at Tiruvannamalai districts to support & encourage handloom textiles.	Lack of awareness in the use of information and technology in handloom industry.
	Inadequate Municipal service delivery in the sectors of solid waste management and sanitation.
Opportunities	Threat
'Centrally-sponsored Integrated Handloom Cluster Development Programme' in Tiruvannamalai District.	Market pressure due to consumer preference for power looms and mass produced garments in lieu of handlooms.
Appointment of professional agency to explore the possibility of marketing silk products -Initiated by Go TN	Slow adaptability to innovative approaches in promoting handloom products
Proposals to develop new designs in coordination with the National Institute of Design for the benefit of silk weaving societies.	Mass shift in workforce from handloom weaving to other tertiary sector activities
Existing base of skilled master weavers would facilitate knowledge transfer.	Loss of traditional skills in weaving and designing of silk and cotton fabrics.
Extension of National Highway and railway connectivity to Arani	Threat to water bodies due to dumping of slaughter waste and domestic wastes.
	Absence of recreational facilities

Source : Feedback from stakeholders meeting and analysis.

The town of Arani is visualized as '**An economically sustainable town, maintaining its cultural image, providing better quality of life and safe environment to all sectors of the society**'.

Supporting this vision is a set of development objectives, defined along various sectors of infrastructure. It covers the current status, issues in the sector, likely future demand, strategies for improvement and identified projects to meet these objectives. The sectors covered in the report for Arani include water supply, sewerage and sanitation, solid waste management, storm water drains, street lights, slum improvement and other remunerative and social projects.

3. CITY INVESTMENT PLAN

The summary of sector-wise investment requirements and prioritisation is given in the following table. The total investment required would be over **Rs. 8376.06 lakhs**.

Capital Investment Needs for Arani

Sl.No	Description	Estimate cost (Rs. In Lakhs)
1	Water Supply	1351.00
2	Sewerage	3100.01
3	Storm Water Drain	603.00
4	Solid Waste Management	658.85
5	Roads	1160.00
6	Bus Stand	615.00
	Old bus stand improvement	60.00
	Construction of new bus stand	375.00
	Shops at new bus stand	150.00
	Parking at new bus stand	30.00
7	Streetlight	52.00
8	Slum	395.20
9	Market	115.00
	Rejuvenation of market	30.00
	Flower and fruit market	85.00
10	Shopping Complex at new bus stand	60.00
11	Park	127.00
12	Public Convenience	42.00
13	Slaughter House	27.00
15	E-Governance	20.00
16	GIS Mapping for Comprehensive Property Database	40.00
17	Mobile tax collection vehicle	10.00
	Total	8376.06

4. FINANCIAL PERFORMANCE OF ARANI MUNICIPALITY

The summary of the financial status of Arani municipality is as follows:

- It is observed that the Municipality has shown surplus for the years 2004-05 to 2006-07. The same is because interest and depreciation has not been charged. Prior to 2004-05, the Municipality has incurred deficit in all the years.
- The average current collection efficiency of the municipality is low as compared as to other municipalities in the district and is around 65% efficiency for property tax, 70% efficiency in profession tax, 40% in water charges and 70% efficiency in case of non tax revenue. The arrears collection performance needs to be improved.

- The broad financial analysis of the Arani Municipality finances reveal that the Municipality has to necessarily increase its own sources of income and collection efficiency for servicing the additional borrowings in the future.
- The Municipality borrowings are high at Rs. 226 lacs, and the outgo on account of interest is very high. The municipality has the capacity of further borrowings and can resort to further borrowings for new project identified based on the additional income to be generated and existing income flows.

To summarise, the overall income pattern of the Arani Municipality indicates both positive and negative features. The positive trends are on the income side, where the Municipality has higher growth rate in income than growth in expenditure.

5. PROPOSED REFORMS

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

a. Reforms in resource mobilization

i. Reforms in Taxation

- Property mapping - Onetime assessment of all unassessed and under assessed properties.
- Regular and periodic increment of property tax at the rate of 15% every 5 years

ii. Improving revenue from user charges

- The Municipal council may assume charge of increase in water charges, to recover full O&M Cost of water supply and UGSS.
- Increase in the connections to at least 85% of total assessments.
- Pre-mobilization of deposits for the proposed WS or UGSS project
- Implementation of Conservancy fee for SWM for hotels, marriage halls, industries and other commercial establishments
- Revenue Generation from sale of compost and scrap.

Reforms in Energy and Resource efficiency

- Conducting energy audits, leak detection studies, Enforce regulations on illegal tapping of water, Fixing flow control valves and meters.
- Provision of energy saving lights and equipments, Privatizing the maintenance of street lights to ESCO companies.

iii. Formation of new sustainable revenue sources

- The remunerative proposals identified are
 - Improvement in Old bus stand with two wheeler parking shed
 - Construction of New 'A' grade bus stand near bye pass
 - Construction of 100 no. of shops in proposed new bus stand
 - Two wheeler and four wheeler parking shed at the Existing New bus stand

- Construction of shops(FF) at existing new bus stand
- Construction of flower and fruit market at western side of new bus stand
- Construction of new Slaughter house with modern facilities

iv. 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

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

6. BORROWING AND INVESTMENT CAPACITY

The borrowing and investment capacities of the town are arrived considering the revenue income and expenditure under the sustainable scenario, after implementation of the mandatory reforms proposed in this report.

The investment capacity for the sustainable scenario can be summed up as below:

Summary of Borrowing and Investment Capacity

Description	Base case Scenario 1	Sustainable Scenario 2
Borrowing Capacity	Rs. 2338.46 lacs	Rs. 3108.09 lacs
Investment Capacity (BC/0.04)	Rs. 9353.86 lacs	Rs. 5977.10 lacs
Investment Requirement	-	Rs. 8376.06 lacs
Sustainable Investment Capacity % - IC / IR	-	71.36%

- The investment capacity of Arani Municipality on 'As is Where Basis' works out to Rs. 9354 lacs.
- The investment capacity of Arani Municipality works to 71% in case of Scenario II with all projects identified in CCP taken in to consideration.
- In value terms the investment capacity works out to Rs.5977 lacs in case of Scenario II, with all projects taken in to consideration.
- The investment capacity has got reduced from Rs. 9354 lacs in Scenario I (As is Where Basis) to Rs. 5977 in Scenario II (with all projects), mainly on account of high operation & maintenance and interest cost in case of certain projects like roads and storm water drainage etc.
- Thus taking in to consideration the investment capacity of Rs. 5977 lacs, the following projects can be implemented by the Municipality :

Projects Identified for Implementation based on financial position

S.N.	Particulars	Total	Priority	Means of Finance	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
A	Physical Infrastructure Facilities			L : G : M					
I	Water Supply								
a)	Improvements to Water Supply	1351.00	A	60:30:10					
II	Sewerage & Sanitation								
a)	Sewerage Scheme	3100.01	A	60:30:10					
III	Solid Waste Management								
a)	Cost of land fill site and compost yard	158.85	A	100% Grant					
b)	Land fill site & compost yard development	377.00	A&B	0:50:50					
c)	Vehicles & Equipment	123.00	A	0:50:50					
VI	Bus Stand								
a)	Improvements in Old Bus Stand	60.00	A	0:50:50					
b)	Construction of New Bus Stand & Shops	525.00	A	0:90:10					
c)	Two & Four Wheeler parking	30.00	A	BOOT					
VII	Street Lights								
a)	Proposed new HM Lights and fittings	35.00	A	100% ULB					
b)	Retrofitting & energy saving devices	17.00	A	ESCO					
B	Social Infrastructure Facilities								
III	Market								
b)	Construction of Flower & Fruit market	85.00	A	0:90:10					
V	Shopping Complex								
a)	Construction of shops at existing new bus stand	60.00	A	0:90:10					
C	Other Projects								
I	Vehicles								
a)	Mobile Tax Collection Vehicle	10.00	A	100% ULB					
II	E-Governance								
a)	E-Governance	20.00	B	100% Grant					
III	GIS Mapping for comprehensive property database								
a)	Property mapping	5.00	A	0:90:10					
b)	GIS Database	35.00	C	0:90:10					
	Total	5991.85							

- As regards other projects, more support from the Government would be required towards both capital cost and operation & maintenance expenses.

TABLE OF CONTENTS

1	BACKGROUND AND METHODOLOGICAL FRAMEWORK OF THE STUDY	1
1.1	BACKGROUND	1
1.2	OBJECTIVES	1
1.3	SCOPE OF WORK:	1
1.4	STAGE III: DRAFT FINAL STAGE	3
1.5	PRESENTATION AND DISCUSSION WITH REVIEW COMMITTEE	3
1.6	DISCUSSION WITH STAKEHOLDERS	4
2	TOWN PROFILE	6
2.1	ARANI . . . TOWN PROFILE	6
2.2	REGIONAL CONNECTIVITY	6
2.3	HISTORY OF THE MUNICIPALITY	6
2.4	POPULATION CHARACTERISTICS	7
2.4.1	POPULATION DISTRIBUTION	7
2.4.2	POPULATION GROWTH	7
2.4.3	POPULATION PROJECTIONS	8
2.4.4	POPULATION DENSITY	9
2.4.5	SLUM POPULATION	9
2.4.6	SEX RATIO	9
2.4.7	LITERACY	9
3	ECONOMIC DEVELOPMENT & PHYSICAL PLANNING.....	10
3.1	URBAN ECONOMIC DEVELOPMENT - SITUATION ANALYSIS.....	10
3.1.1	OCCUPATIONAL PATTERN	10
3.2	PHYSICAL PLANNING	11
3.2.1	PHYSICAL GROWTH TREND	11
3.2.2	LAND USE ANALYSIS.....	12
3.2.3	LAND RATES	14
3.2.4	GROWTH MANAGEMENT ISSUES	14
4	STAKEHOLDERS CONSULTATIONS.....	15
4.1	CITY OPINION SURVEY	15
4.2	KEY ISSUES HIGHLIGHTED IN THE CONSULTATION MEETING	15
4.3	SECTOR PRIORITIZATION	15
4.3.1	PHYSICAL INFRASTRUCTURE PRIORITY	15
4.3.2	SOCIAL INFRASTRUCTURE PRIORITY:.....	16
4.3.3	ENVIRONMENTAL ISSUES	17
5	VISION AND STRATEGIC PLAN	18
5.1	TOWN LEVEL SWOT	18
5.2	VISION FORMULATION	19
5.3	STRATEGY OPTION FOR ECONOMIC DEVELOPMENT	19
6	HOUSING.....	22
6.1	EXISTING HOUSING SCENARIO	22
6.1.1	HOUSING CONDITION.....	22
6.1.2	HOUSING STOCK	22
6.1.3	EXISTING HOUSING DEMAND- SUPPLY GAP	23
6.2	EXISTING SLUM SCENARIO	23

6.2.1	SLUM POPULATION	23
6.2.2	SLUM PROFILE.....	23
6.3	ACCESS TO BASIC SERVICES	24
6.4	ISSUES.....	25
7	INSTITUTIONAL FRAMEWORK	26
7.1	ELECTED COUNCIL.....	26
7.2	EXECUTIVE WING.....	27
7.2.1	GENERAL ADMINISTRATION	27
7.2.2	HEALTH SECTION.....	28
7.2.3	ENGINEERING SECTION	28
7.2.4	TOWN PLANNING SECTION.....	28
7.2.5	ACCOUNTS SECTION	28
7.3	CITIZEN'S CHARTER.....	28
7.4	INFORMATION CENTRE	29
7.5	STAFF STRENGTH POSITION AND VACANCY POSITION	29
7.6	ADDITIONAL STAFF REQUIREMENT:.....	30
7.7	INSTITUTIONAL FRAMEWORK FOR SERVICE DELIVERY	30
7.8	ORGANIZATION MANAGEMENT.....	31
8	URBAN INFRASTRUCTURE AND SERVICES	32
8.1	WATER SUPPLY	32
8.1.1	EXISTING SCENARIO FOR WATER SUPPLY	32
8.1.2	SOURCES AND TREATMENT.....	33
8.1.3	SOURCE AND PUMP ROOM.....	33
8.1.4	STORAGE AND DISTRIBUTION NETWORK.....	34
8.1.5	DEMAND SUPPLY SCENARIO.....	35
8.1.6	ISSUES IN WATER SUPPLY SECTOR	36
8.2	SEWAGE AND SANITATION.....	36
8.2.1	SEWERAGE	36
8.2.2	SANITATION	37
8.2.3	ISSUES IN SEWERAGE AND SANITATION PROVISIONS.....	39
8.3	STORM WATER DRAINAGE	39
8.3.1	EXISTING CONDITION OF STORM WATER DRAINAGE	39
8.3.2	DRAINAGE CONNECTIVITY	40
8.3.3	ISSUES IN THE DRAINAGE SECTOR	40
8.4	SOLID WASTE MANAGEMENT	41
8.4.1	GENERATION OF SOLID WASTE	41
8.4.2	COLLECTION OF SOLID WASTE	42
8.4.3	TRANSPORTATION FACILITIES	43
8.4.4	DISPOSAL OF SOLID WASTE	44
8.4.5	ISSUES IN SOLID WASTE MANAGEMENT.....	44
8.5	STREET LIGHTING	44
8.5.1	STATUS OF STREET LIGHTING	45
8.5.2	ISSUES IN STREET LIGHT PROVISIONS	46
8.6	TRAFFIC AND TRANSPORTATION	46
8.6.1	REGIONAL LINKAGES- ROADS	47
8.6.2	TOWN LEVEL ROAD NETWORK AND HIERARCHY	47
8.6.3	NATIONAL AND STATE HIGHWAY	47

8.6.4	ISSUES	48
8.7	PARKING	49
8.7.1	PEDESTRIAN PATHS	49
8.7.2	PUBLIC TRANSPORT SYSTEM	49
8.7.3	ISSUES IN TRAFFIC AND TRANSPORTATION SECTOR	49
8.8	SOCIAL INFRASTRUCTURE FACILITIES.....	50
8.8.1	EDUCATIONAL FACILITIES	50
8.8.1.1	EXISTING SCENARIO IN EDUCATIONAL FACILITIES	50
8.8.1.2	ISSUES IN EDUCATIONAL SECTOR	51
8.8.2	HEALTH FACILITIES	51
8.8.3	MARKET	51
8.8.4	PARKS AND RECREATIONAL	52
8.8.5	SHOPPING COMPLEX.....	52
8.8.6	SLAUGHTER HOUSE	52
8.8.7	BURIAL GROUND	52
9	MUNICIPAL FINANCE.....	53
9.1	OVERVIEW	53
9.2	GENERAL DETAILS	53
9.3	RECEIPTS	53
9.3.1	PROPERTY TAX	53
9.3.2	PROFESSION TAX.....	55
9.3.3	ASSIGNED REVENUES	56
9.3.4	REVENUE DEVOLUTION FUNDS IN AID OF REVENUE EXPENDITURE	56
9.3.5	WATER CHARGES	57
9.3.6	DRAINAGE CHARGES	58
9.3.7	SERVICE CHARGES & FEES	58
9.3.8	INCOME FROM PROPERTIES & OTHER INCOME	58
9.4	EXPENDITURE	59
9.4.1	ESTABLISHMENT EXPENSES	60
9.4.2	O&M EXPENSES – WATER SUPPLY	60
9.4.3	O&M EXPENSES – STREET LIGHTS & OTHERS	60
9.4.4	ADMINISTRATION & OTHER EXPENSES.....	61
9.5	SUMMARY OF FINANCES	61
9.6	KEY FINANCIAL INDICATORS	64
9.6.1	RESOURCE MOBILISATION INDICATORS.....	65
9.6.2	FUND APPLICATION INDICATORS	65
9.6.3	LIABILITY MANAGEMENT INDICATORS	65
9.6.4	OVERALL FINANCIAL PERFORMANCE INDICATORS	66
9.6.5	EFFICIENCY INDICATORS.....	66
9.7	MEASURES TO BE TAKEN FOR IMPROVING COLLECTION EFFICIENCY	67
10	CAPITAL INVESTMENT NEEDS FOR IDENTIFIED PROJECTS	69
10.1	PHYSICAL INFRASTRUCTURE - IMPROVEMENT NEEDS.....	69
10.1.1	WATER SUPPLY:	70
10.1.2	SEWERAGE SYSTEM	70
10.1.3	DRAINAGE	71
10.1.4	SOLID WASTE MANAGEMENT	71
10.1.5	STREET LIGHT.....	73

10.1.6	ROADS AND TRANSPORTATION	73
10.1.7	BUS STAND	74
10.1.8	SHOPPING COMPLEX	74
10.1.9	PARKS AND PLAY GROUND.....	75
10.1.10	MARKET DEVELOPMENT	75
10.1.11	SLAUGHTER HOUSE DEVELOPMENT.....	76
10.1.12	SLUM IMPROVEMENT.....	76
10.1.13	SYSTEM IMPROVEMENT AND E-GOVERNANCE	76
10.2	OTHER DEPARTMENT PROJECTS.....	77
11	RISK AND MITIGATION MEASURES	78
11.1	PROJECT RISKS AND MITIGATE MEASURES	78
12	REFORMS AND ACTION PLAN	82
12.1	PRESENT SCENARIO IN URBAN REFORMS	82
12.2	PROPOSED INTERVENTIONS AT STATE LEVEL.....	83
12.3	PROPOSED INTERVENTION AT MUNICIPAL LEVEL	86
12.4	REFORMS IN RESOURCE MOBILISATION.....	86
12.5	ACTION PLAN : IMPROVING REVENUE FROM OWN SOURCES.....	86
12.6	ACTION PLAN: IMPROVING REVENUE FROM USER CHARGES.....	88
12.7	ACTION PLAN: FORMATION OF NEW SUSTAINABLE REVENUE BASES	89
12.8	ACTION PLAN: PRIVATISATION INITIATIVES	90
12.9	ACTION PLAN: ENERGY & RESOURCE EFFICIENCY	92
12.10	ACTION PLAN: COMPUTERIZATION AND E-GOVERNANCE	93
12.11	ACTION PLAN: ACCOUNTS AND AUDITING	94
12.12	ACTION PLAN: INSTITUTIONAL MANAGEMENT.....	94
12.13	CAPACITY BUILDING FOR ELECTED REPRESENTATIVES AND COMMITTEE MEMBERS.....	94
12.14	CAPACITY BUILDING FOR ULB STAFF	95
12.15	REFORMS IN MUNICIPAL SERVICE DELIVERY	99
13	ASSET MANAGEMENT PLAN	100
13.1	ACTIVITIES OF ASSET MANAGEMENT PLAN (AMP).....	100
13.2	INFRASTRUCTURE ASSETS	101
13.2.1	MOVABLE AND IMMOVABLE ASSETS	101
13.3	PRIORITY ASSET MANAGEMENT OPTIONS.....	102
13.4	PROPOSED NEW ASSETS	104
14	FINANCIAL OPERATING PLAN	105
14.1	CAPITAL INVESTMENT PLAN	105
14.2	OTHER PROJECTS AND ON GOING PROJECTS	107
14.3	MEANS OF FINANCE.....	107
14.4	FINANCIAL SUSTAINABILITY	113
14.5	BASIC ASSUMPTIONS FOR PROJECTIONS :	113
14.5.1	INCOME.....	114
14.5.2	EXPENDITURE	119
14.5.3	COLLECTIONS.....	120
14.5.4	ANNUITY FACTOR	121
14.6	PROJECT CASH FLOWS AND FOP RESULTS :.....	122
14.7	IMPACT OF POTENTIAL IMPROVEMENTS	129
14.8	SCENARIO I - ESTIMATION OF INVESTMENT CAPACITY ON AS IS WHERE BASIS	130
14.9	SCENARIO II - ESTIMATION OF BORROWING AND INVESTMENT CAPACITY WITH PROJECTS	130

14.10 KEY INDICATORS OF SCENARIO II.....131

14.11 INFERENCE.....131

ANNEXURE 133

LIST OF FIGURES

Figure 2-1 Location Map of Arani	7
Figure 2-2 Decadal trend of population growth	8
Figure 3-1 Growth Direction of Arani Municipality.....	11
Figure 3-2 Land Use Allocation- Arani-1984	12
Figure 3-3 Town Map – Arani municipality	13
Figure 6-1: Housing Condition.....	22
Figure 7-1 Organizational structure of Arani Municipality.....	27
Figure 8-1: Break up of Water Supply Connections	32
Figure 8-2: Water Supply Scheme of Arani Municipality	34
Figure 8-3: Status of Toilet Facility in Arani Town	38
Figure 8-4: Road Network in Arani Town.....	48
Figure 10-1: Secured land fill site for municipal solid waste.....	72

LIST OF TABLES

Table 2-1: Urban Population distribution in the Town and the Region.....	7
Table 2-2: Population Growth in Arani Municipality.....	8
Table 2-3: Population Projection	8
Table 2-4: Growth Rate	9
Table 2-5: Comparative Sex Ratio	9
Table 3-1: Work Force Participation Ratio in Arani municipality.....	10
Table 3-2: Occupational classification of Main Workers.....	10
Table 3-3: Land Use pattern - 1984	12
Table 3-4: Land Values as per category of the area in the Arani Municipality	14
Table 5-1: Town level SWOT.....	18
Table 6-1: Existing Housing Stock.....	22
Table 6-2: Existing Demand- Supply Gap.....	23
Table 6-3 Slums in Arani Municipality.....	23
Table 6-4 Slums in Arani Municipality.....	25
Table 7-1 Staff Strength and Additional Staff Requirement	29
Table 7-2 Additional Staff Requirement.....	30
Table 7-3 Institutional Framework for Urban Service Delivery	31
Table 8-1: Break up of Water Supply Connections	32
Table 8-2: Classification of Sources of Water by type in Arani	33
Table 8-3: Location of Reservoirs.....	33
Table 8-4: Water Supply Distribution Details in Arani Town	35
Table 8-5: Existing Demand and supply in the town.....	35
Table 8-6: Classification of modes of sanitary waste disposal by type.....	38
Table 8-7: Existing Drainage Scenario	40
Table 8-8: Type of Waste Generated from Arani Municipality	41
Table 8-9: Source of Waste Generation	42
Table 8-10: Solid Waste Practices in Arani Town.....	42
Table 8-11: Number and Type of dustbins for waste collection	43
Table 8-12: Availability of Personnel for Solid Waste Management in Arani Town.....	43
Table 8-13: Detail of Vehicles for Solid Waste Management in Arani Municipality	43
Table 8-14: Number and Type of vehicles used for Transportation	43
Table 8-15: Total Man Power Requirement	44
Table 8-16: Number of Street Lights in Arani Municipality.....	45
Table 8-17: Types of Roads in Arani Municipality	47
Table 8-18: Roads by Hierarchy.....	48
Table 8-19: Details of Education Facilities	50
Table 8-20: Existing Health facilities in Arani Town	51
Table 9-1: Property Tax Components	53
Table 9-2: Property Tax Assessments.....	54
Table 9-3: Property Tax – Growth during last 6 years	54
Table 9-4: Property Tax – Demand Collection % (Rs. in lacs)	54

Table 9-5: Profession Tax – Growth during last 6 years.....	55
Table 9-6: Profession Tax – Demand Collection % (Rs. in lacs).....	55
Table 9-7: Assigned Revenue – Growth & % of Total Income (Rs. in lacs).....	56
Table 9-8: Devolution Fund – Growth & % of Total Income (Rs. in lacs).....	56
Table 9-9: Water Tariff & Deposit.....	57
Table 9-10: No. of House Service Connections.....	57
Table 9-11: Water Charges – Growth & % of Total Income (Rs. in lacs).....	57
Table 9-12: Water Connection Charges – Growth & % of Total Income (Rs. in lacs).....	57
Table 9-13: Water Charges – Demand Collection % (Rs. in lacs).....	58
Table 9-14: Service Charges & Fees – Growth & % of Total Income (Rs. in lacs).....	58
Table 9-15: Income from Properties & Other Income – Growth & % of Total Income (Rs. in lacs).....	59
Table 9-16: Non Tax Income – Demand Collection % (Rs. in lacs).....	59
Table 9-17: Establishment Expenses – Growth & % of Total Expenditure (Rs. in lacs).....	60
Table 9-18: O&M Expenses (Water Supply) – Growth & % of Total Expenditure (Rs. in lacs).....	60
Table 9-19: O&M Expenses (Street Lights & Others) – Growth & % of Total Expt (Rs. in lacs).....	61
Table 9-20: Administration Expenses – Growth & % of Total Expenditure (Rs. in lacs).....	61
Table 9-21: Summary of Finances for last 6 years (Rs. in lacs).....	61
Table 9-22 : Head-wise Income & Expenditure for last 6 years (Rs. in lacs).....	62
Table 9-23: Borrowings of the Municipality (Rs. in lacs).....	63
Table 9-24: Status of Contributions & Grants.....	63
Table 9-25 : Resource Mobilisation Indicators.....	65
Table 9-26 : Fund Application Indicators.....	65
Table 9-27 : Liability Management Indicators.....	65
Table 9-28: Financial Performance Indicators.....	66
Table 9-29: Efficiency Indicators.....	66
Table 10-1: Summary of Capital Investments under CCCBP.....	69
Table 11-1: As per the Guidelines on Environmental & Social Concerns of CCCBP projects – Arani.....	78
Table 12-1: Road Map - Improving revenue from own sources.....	87
Table 12-2: Road Map Improving revenue from user charges.....	88
Table 12-3: Road Map for Formation of new sustainable revenue bases.....	90
Table 12-4: Road Map for Privatization initiatives.....	91
Table 12-5: Road Map for Energy and Resource efficiency.....	93
Table 12-6: Road map for Computerization and E-Governance.....	93
Table 12-7: Technical Assistance for Elected representatives.....	95
Table 12-8: Technical Assistance for ULB staff.....	95
Table 12-9: Road map for Accounts & auditing and Institutional Management.....	97
Table 12-10: Road map for implementation of all projects.....	98
Table 12-11: Reform Agenda Municipal Service Delivery.....	99
Table 13-1: Land Assets – Proposed use.....	103

Table 13-2: Income Details from Remunerative Assets (Rs.in lacs)	103
Table 13-3: Income from Proposed new Projects.....	103
Table 13-4: New Assets for the year -2009-10 to 2013 -14	104
Table 14-1: Projects to be executed by the Municipality	105
Table 14-2: Projects to be executed by Other Agencies	107
Table 14-3: Projects under Implementation by the Municipality.....	107
Table 14-4: Multi Year Investment Plan and Means of Finance	108
Table 14-5: Consolidated Means of Finance	112
Table 14-6: Ratio of Property tax.....	114
Table 14-7: Water supply Charges – Existing.....	115
Table 14-8: House Service Connections – Percentage	116
Table 14-9: Sewage Charges.....	116
Table 14-10: Bus stand - Assumptions	117
Table 14-11: Market - Assumptions.....	118
Table 14-12: Shopping complex - Assumptions.....	118
Table 14-13: Assumptions - Increase in Expenditure	119
Table 14-14: Assumptions – O&M	119
Table 14-15: Assumptions – Provision of doubtful debts	120
Table 14-16: Assumptions – Property tax collection	120
Table 14-17: Assumptions – Profession tax.....	120
Table 14-18: Assumptions – Other Non Tax Income	121
Table 14-19: Assumptions – Water Charges.....	121
Table 14-20: Assumptions – Drainage Charges.....	121
Table 14-21: Terms of Loan Funding for Proposed Investments	121
Table 14-22: Consolidated Income & Expenditure for next 20 years (up to FY 2028-29)	123
Table 14-23: Consolidated Balance Sheet for next 20 years (up to FY 2028 – 29).....	125
Table 14-24: Summary of Borrowing and Investment Capacity.....	130
Table 14-25: Summary of Borrowing and Investment Capacity.....	130
Table 14-26: Key Indicators.....	131

1 BACKGROUND AND METHODOLOGICAL FRAMEWORK OF THE STUDY

1.1 BACKGROUND

The Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) aims to assist **Arani** Municipality in strengthening and improving its financial position for effective capital investment management and urban service delivery. The municipality has good potential for immediate implementation of financial reforms for which it is essential to formulate a City Corporate Cum Business Plan (CCCBP).

The CMA and TNUIFSL have initiated the process of preparing CCCBP for the municipality with the vision of stakeholders growth of the town.

1.2 OBJECTIVES

The objective of this exercise is to visualise the town in the next 25 -30 years and

1. Define the growth direction and service up-gradations in relation to the activity mix / growth;
2. Assess the demand for the projects specified by the ULB, and come out with gap in services with respect to the vision;
3. Broadly outline the infrastructure needs;
4. Define specific rehabilitation of infrastructure and capital improvement needs with regard to provision of infrastructure in slums and other areas;
5. Indicate the priority of projects
6. Define revenue enhancement and revenue management improvements required to sustain the rehabilitation proposed;
7. Suggest reforms required in local administration and service delivery including public private partnership in infrastructure development
1. 8. Suggest Measures to address common growth and infrastructure issues and to promote integrated

1.3 SCOPE OF WORK:

The scope of work covers the following:

1. To assess the demand for the Projects listed out by these municipalities.
2. Financial Assessment of the ULBS- an assessment of the ULB finances for the past 5 years, in terms of sources and uses of funds, base and basis of levy, revision history and impacts, state assignment and transfer-base and basis of transfer and its predictability; use of funds outstanding liabilities (loans, power dues, pension etc) and a review of revenue and service management arrangements. Levels of service and quality of municipal services in both poor

- and non-poor localities. Staffing and management arrangements in delivery of services.
3. Outline issues in revenue realisation, quality of existing assets in relation to service levels and coverage and institutional constraints. Develop quick indicators of performance, based on the following:
 - Current coverage and additional population during medium term (10 years)
 - Unit cost indicates city level investment requirements for Up-gradation of city wide infrastructures.
 - To improve service coverage and asset quality
 - Define priority assets and indicative costs of rehabilitation
 - Conduct fiscal impact analysis of investments: life-cycle of O&M costs, revenues from project and costs/impacts on finances and of not doing the project.
 - Explore funding options for rehabilitation facilities.
 4. Prepare a financial and operating plan (FOP). The FOP in the medium time frame work for the ULBs and shall present the following.
 - A. Areas of reduction in expenditure
 - Energy audit resulting in savings energy.
 - Leak detection resulting either in connection or in the tariff (or)
 - Privatizing the MSW collection and identifying a BoT operator for eliminating, composting etc, items of revenue can be identified.
 - Laying of cement concrete road /Fly ash and savings on a maintenance cost resulting in increasing operating surplus.
 - Water recycling /refuse
 - Rejuvenation of tanks and reduction of cost/liters of water produced
 - Privatization & options for raising revenue
 - C. Options for increasing the revenues through non traditional methods
 - Land development for raising revenues
 - Suggestions for improvement of revenues.
5. Prepare a draft Memorandum of Association (MoA) between ULB and TNUIFSL. The MoA will act as the base line (based on the situation Analysis) and the Performance Benchmarks to be monitored along with other financial targets and outputs from the financial and operating plan.
1. Initiate consultations with council and local stakeholders on the priorities redefine priorities.
 2. Finalize Action plan for the city, with a resolution from the council on the priorities and commitment to implement revenue and management improvement measures.

1.4 STAGE III: DRAFT FINAL STAGE

Under this stage of City Corporate cum Business Plan has two tasks.

- In the **First Task, Financial and Operating Plan (FOP)** will be prepared outlining the revenue enhancement measures required to sustain proposed investments after accounting for O&M and debt servicing requirements. Suggest suitable actions for project sizing and/or project implementation and action plan to sustain investments based on capital investment needs listed above. It will also suggest suitable actions for project sizing and/or project implementation and action plans to sustain investments based on the capital investment needs.
- In the 2nd Task **Draft MoA** between ULB and TNUIFSL will be prepared .

The final stage would incorporate the Municipal Council resolution passed by the Municipal Council to effectively implement the proposed urban reforms in the CCCBP.

1.5 PRESENTATION AND DISCUSSION WITH REVIEW COMMITTEE

The review meeting for Revised Draft Final Report was held on 24th June 2009 at the office of TNUIFSL. The minutes of the meeting and the consultants reply are given below:

COMMON POINTS

1. To correct the grade of the ULBs as revised by the Government.
The grades of the Municipalities have been updated as per the latest revisions.
2. To highlight the requirement of capital / revenue grant to implement and operate all the new schemes.
The actual requirement of capital / revenue grant for each town along with the funding pattern has been clearly indicated in section 14.1 & 14.3 of chapter 14.
3. To indicate following in the executive summary of the report
 - a) List of projects under the sustainable scenario along with the year wise phasing of the projects identified.
 - b) The assumption made on the means of finance.
The list of projects, year wise phasing and the assumptions made on the means of finance have been added in the executive summary under the table ' Projects Identified for implementation based on financial position' in the executive summaries.

Town specific comments for Arani

Ranipet

- Address the requirement of staff quarters and indicate the same as a project in CIP in consultation with the ULB.
The staff quarters (24 units) at a proposed cost of Rs.150.00 lakhs has been added to the CIP in consultation with the ULB.
- Update the details on the Bus Stand project at Muthukadai adjoining Pinji Lake in consultation with the ULB.
As bus stand cannot be proposed on 'land under water bodies ', an alternate site for the proposed bus stand needs to be identified by the Municipality. The details are given in section 10.1.6 chapter -10
- Highlight the impact on discharge of polluted water in to Palar river.
The impact of effluent discharge into River Palar has been highlighted in section 5.3 of chapter 5 based on various reports prepared by NEERI, TNPCB , CPCB and Palar River Basin Management and Development Board.

Thiruvathipuram

The consultants were requested to

- Update the details on the assets in consultation with the ULB.
The details of assets have been updated under section 13.2.1 of chapter 13.
- Revise the Bus Stand improvement project in consultation with the ULB.
The cost for proposed shopping complex and lodge inside the bus stand is revised in consulting with ULB and revised cost is mentioned in section 10.1.6 chapter – 10.

Madhavaram

- The consultants were requested to revise the assumptions on means of finance in accordance with JNNURM norms and revise the FOP accordingly.
The means of Finance for Madhavaram have been revised as per JnNURM scheme. The assumptions are give in the table 'Projects Identified for implementation based on financial position' in the executive summary.

The minutes of meeting for review committee held during this period of study is given in Annexure I d.

1.6 DISCUSSION WITH STAKEHOLDERS

The Stakeholder meeting was arranged with Municipal chairman, Vice Chairman, commissioner, Councillors and NGO's of the project town. A base plan was prepared for the visit to the project towns during the month of October '08. The objective of the stack holder meeting was to discuss about the needs of CCCBP

and to highlight the basic issues on infrastructure such as water supply, sewerage, drainage, roads, social infra structures, etc.



STAKE HOLDRES MEETING

Further, in order to collect ward wise issues, proformaes were distributed during the meetings and the councillors and NGO's were requested to mention the issues on physical and social infrastructure. Based on the issues mentioned in the proformaes and discussion with the Municipal Chairman, Vice Chairman, Commissioner, Councillors, NGO's and Engineers, infrastructure requirements for the present and future were arrived. Accordingly proposals have been formulated which is given in the following

2 TOWN PROFILE

2.1 ARANI . . . TOWN PROFILE

Arani, a Grade I Municipality, in Tiruvannamalai district, is one of the important silk centres Tamil Nadu. It lies on the Arani -Tiruvannamalai State Highway. The town is situated 132 km from Chennai, 40 km from Vellore and 60 km from Tiruvannamalai, the district head quarter.

Arani is the headquarters of Arani Taluk and second largest town in the district of Tiruvannamalai. Arani municipality is spread over an area of 11.62 sq.km. It is geographically located at 12°39'N Latitude 79°16'E Longitude with an average elevation of the town at 151 m above MSL. The town is well connected by road with the adjoining urban centres of Ranipet, Arcot, Thiruvathipuram and Vellore. The nearest Railway Station is at Katpadi about 45 km away from Arani. Arcot, Thiruvathipuram, Cheyyar, Kanchipuram, Kaveripakkam, Melvisharam, Ranipet, Sholingur, Vellore, Thiruvallur are the neighbouring towns of Arani. The economy of the town revolves mainly around handloom textiles and agriculture.

2.2 REGIONAL CONNECTIVITY

Road

The town lies on the Arani to Thiruvannamalai State Highway. The town has connectivity through State Highways, MDR and village roads to the surroundings urban centres like Thiruvathipuram, Thiruvannamalai, Kanchipuram, Arcot, Arani, Vellore, Ranipet and Katpadi.

Rail

There is no direct rail connectivity to the town; the nearest Railway Station is at Katpadi which is about 45 km from Arani.

Air

The nearest airport is at Chennai, about 132 Km away from Arani.

2.3 HISTORY OF THE MUNICIPALITY

Arani was constituted as a Grade III municipality vide G.O. no. 564, dated 02.04.1951, then classified as Second Grade Municipality. Arani municipality was upgraded to its present status of Grade I municipality on 9.5.1983 as per G.O. No. 851. The entire area of Arani revenue village was included within the jurisdiction of the municipality.



Figure 2-1 Location Map of Arani

2.4 POPULATION CHARACTERISTICS

2.4.1 Population Distribution

The Table 2.1 shows the distribution of population in Tamil Nadu and Tiruvannamalai District.

Table 2-1: Urban Population distribution in the Town and the Region

NAME	Total Population	% of Urban Population w.r.t District
Tamil Nadu Urban	27483998	-
Tiruvannamalai District	2186125	100
Tiruvannamalai District Urban	400761	18.33
Arani (M)	60815	2.78

Source: Primary Census Abstract of Tamil Nadu, Census of India – 2001

2.4.2 Population Growth

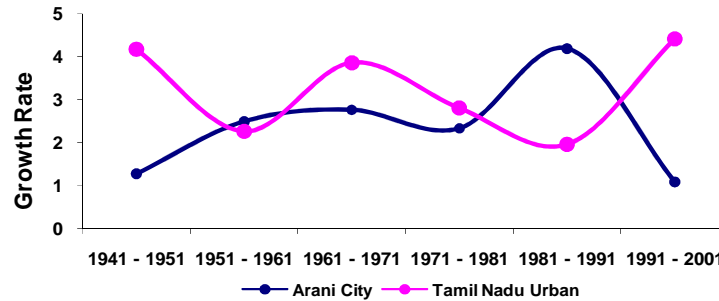
The growth of population in the town has been consistently lower than the state average for urban population .The growth rate has been consistent between 1 to 2.5%, with an exception of 4% during 1981-1991. The details are as tabulated below:

Table 2-2: Population Growth in Arani Municipality

Census Year	Population	Variation	Growth rate in %
1951	19668	2222	1.27
1961	24567	4899	2.49
1971	31351	6784	2.76
1981	38664	7313	2.33
1991	54881	16217	4.19
2001	60815	5934	1.08

Source: Compiled from Master Plan, Arani, 1990, Primary Census Abstract of Tamil Nadu, Census of India – 2001

The decadal growth of population on Arani Municipality as against growth of Tamil Nadu urban population is presented in the figure below:

**Figure 2-2 Decadal trend of population growth**

Source: Compiled from Master Plan, Arani Municipality, 1990

2.4.3 Population Projections

Population for the year 2025 has been projected keeping two scenarios in view. First scenario assumed as business as usual scenario, which is a natural growth or 'Do nothing' scenario. Second scenario is assumed by the municipality in preparing their DPR for water supply and sewerage for Vaniyambadi Town, which is based on the present as well as induced opportunities for development. The future population of the town has been projected and given in the table below

Table 2-3: Population Projection

Year	Population	Growth Rate in %
1991	54881	4.19
2001	60888	1.09
2007	65019	1.10
2009	66483	1.12
2011	67994	1.13
2016	71959	1.14
2020	75327	1.15
2025	79877	1.18
2030	84787	1.20
2035	90086	1.22

Source: Estimated

Table 2-4: Growth Rate

Year	Arani Municipality	
	Population	Growth Rate in %
1991	26,972	4.19
2001	29,475	1.09
2011	70000	1.50
2025	80000	1.02
2039	100000	1.79

Source: Detailed Project Report UGD, Arani Municipality, 2007

2.4.4 Population Density

The population density in Arani in 1991 was 47 persons per ha which has increased to 52 persons per ha as per census 2001. The ward population density in 2001 varies from 25 persons per ha to 110 persons per hecter.

2.4.5 Slum Population

The municipality has identified 10 slums with a population of 6,559, which accounts for 10.78% of the total population in the town. The ratio of slum population to the total ward population is highest in ward no. 9, 14, 18, 29 and 31. 40 Self Help Groups and 96 Mahalir Thittam Groups are in functioning as per Municipal records.

2.4.6 Sex Ratio

Sex ratio in Arani municipality is 1016 females per 1000 males. Sex ratio of the district urban and Arani municipality indicates that the sex ratio is higher than the state urban and district urban average. However, the drop in sex ratio in the age group 0-6 is a major cause for concern at the State and District levels.

Table 2-5: Comparative Sex Ratio

NAME	Sex Ratio	Sex Ratio 0-6	Sex Ratio SC	Sex Ratio ST
Tamil Nadu Urban	982	955	1001	997
Tiruvannamalai District	995	948	1002	970
Tiruvannamalai District Urban	1003	964	1033	980
Arani (M)	1016	979	1090	869

Source: Compiled from Primary Census Abstract, Census of India-1991, 2001

2.4.7 Literacy

Literacy is one of the important social indicators for development. The literacy rate in the town was 80% (Census 2001), which is higher compared to Tamil Nadu average of 73%. The higher literacy rate in the town is due to availability of educational facilities in the region.

3 ECONOMIC DEVELOPMENT & PHYSICAL PLANNING

3.1 URBAN ECONOMIC DEVELOPMENT - SITUATION ANALYSIS.

Arani has been one of the historical silk and cotton weaving centres in India. It is famous for its light weight and affordable handloom silks. Although power looms and mass production garments have infringed upon consumer preferences during the past few years, Arani silks still remains a coveted possession in traditional garments. Agriculture, bee keeping, poultry are the other major economic activities in the town. The town is also well known for its Paddy and Rice trade. There are around 200 modern rice mills within the town limits.

3.1.1 Occupational Pattern

According to 2001 census, the work force participation rate in Arani municipality was 35%, which is in line with the State urban (38%) and District urban (35%). The percentage of main workers and marginal workers account for 95% and 5% of the total workforce.

Table 3.1 and **3.2** shows the work force participation rate and Occupation pattern in the town.

Table 3-1: Work Force Participation Ratio in Arani municipality

NAME	Total Population	Total Workers	WFPR	% Main Workers	% Marginal Workers
Tamil Nadu	62405679	27878282	44.67	85.22	14.78
Tamil Nadu Urban	27483998	10318514	37.54	91.75	8.25
Tiruvannamalai District	2186125	1064783	48.71	77.94	22.06
Tiruvannamalai District Urban	400761	140013	34.94	87.96	12.04
Arani (M)	60815	21492	35.34	94.96	5.04

Source: Compiled from Primary Census Abstract, Census of India-1991, 2001

Out of the main workforce about 0.60% of population are cultivators, 2.44% are agricultural labourers and 19.17% of workers are engaged in household industries. The remaining 77.80% workers are included in 'other workers' category

Table 3-2: Occupational classification of Main Workers

NAME	Main Workers	Cultivators	Agricultural Laborers	Workers in HH Industry	Other Workers
Tamil Nadu	23757783	19.95	25.52	5.31	49.23
Tamil Nadu Urban	9467240	3.41	9.11	6.05	81.43
Tiruvannamalai District	829944	39.04	29.70	5.29	25.97
Tiruvannamalai District Urban	123158	6.10	9.78	8.39	75.73
Arani (M)	20409	0.60	2.44	19.17	77.80

Source: Compiled from Primary Census Abstract, Census of India 2001 (All the figures in percentage)

3.2 PHYSICAL PLANNING

3.2.1 Physical Growth Trend

The town is situated in the southern bank of Kamandala Naga River. The town does not lie on the National Highway, but on the State Highway from Arani to Thiruvannamalai. Apart from the State Highways, MDR and village roads connect the town to the surrounding urban centres, such as Thiruvannamalai, Kanchipuram, Arcot, Vellore, Ranipet and Katpadi. The major road arterials radiating to nearby urban centres are

The Polur-Arani Road on the west, Arani-Tiruvannamalai State Highway on the south and the Gandhi road connecting Arani and Arcot (SH).

The physical features determining the growth direction of the town are Kamandala Naga River in the North and Thirumalai Samudhram lake in the south. Thus, the growth direction of Arani municipality is towards Polur in the southwest and Vandavasi in the south east direction.

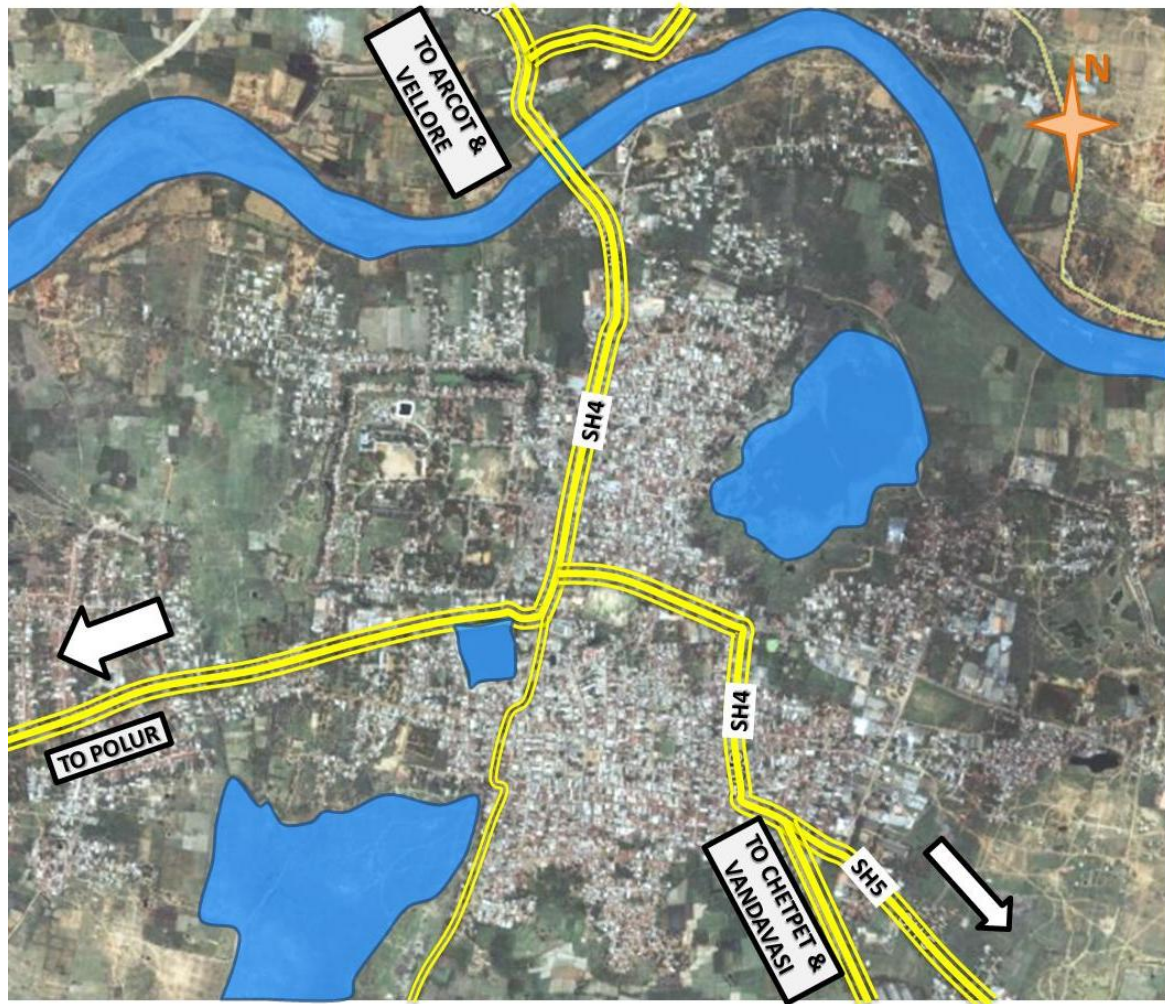


Figure 3-1 Growth Direction of Arani Municipality

3.2.2 Land Use Analysis

Land Use 1984 (Approved Master Plan 1990)

The master plan of the Arani city was prepared in the 1983 and it was approved in 1990.

Arani Municipality area encompasses about 266 ha within its limit, out of which about 165.86 ha(62%) is developed area. The remaining 100.14 ha covers vacant lands, agricultural land and water bodies.

Residential use which covers about 130 ha i.e. about 78% percent of the total developed area. Area under public & semi-public and circulation covers 16.56 ha (9.98%) of the total developed area. Educational area of the town is nearly 11.55 ha of the total developed area which is nearly 7 % and commercial use is 4.25 ha (2.56%) of the developed area. Table below shows the land use Land use pattern - 1984.

Table 3-3: Land Use pattern - 1984

S. No	Land use	Area (Ha)	Percentage of developed area	Percentage to total municipal area
1	Residential	130	78.38	48.87
2	Commercial	4.25	2.56	1.60
3	Industrial	3.5	2.11	1.32
4	Educational	11.55	6.96	4.34
5	Public & Semi Public	16.56	9.98	6.23
Developed area		165.86	100	62.35
6	Vacant land	0	0	0
Total urbanized Area		165.86	100	62.35
7	Agricultural	67.94	67.85	25.54
8	Land under Water	32.2	32.15	12.11
Non-unrealizable Area		100.14	100	37.65
Total Area		266.00	--	100

Source: Master Plan Arani, 1983

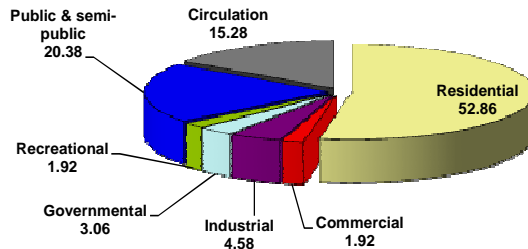


Figure 3-2 Land Use Allocation- Arani-1984

Source: Master Plan Arani 1983

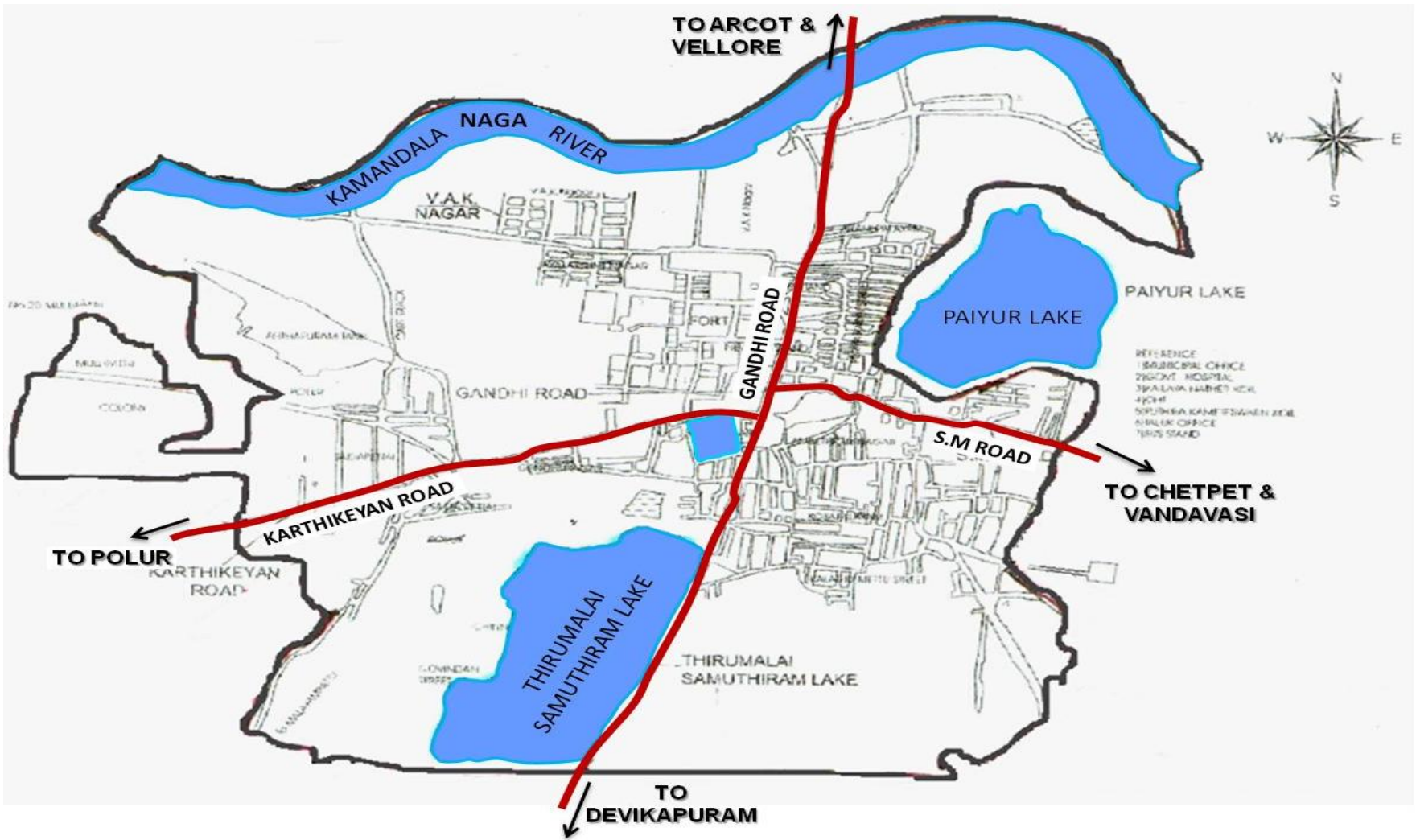


Figure 3-3 Town Map – Arani municipality

3.2.3 Land rates

As per the guideline values proposed by the Registration Department, the land values for commercial area ranges from Rs. 10940.00/ sq. mt. in the Sathiyamoorthi road, A B T Parcel Service, V O C Street, etc. The land rates for residential area ranges from Rs. 10765/ sq. mt. to Rs. 800.00/ sq. mt.

Table 3-4: Land Values as per category of the area in the Arani Municipality

Category	Guideline Value (Rs./SqMt)
Commercial Area - Class I	10940.00
Commercial Area - Class II	3415.00
Residential Area - Class I A	6570.00
Residential Area - Class II A	7535.00
Residential Area - Class III A	10765.00
Residential Area - Class I	5620.00
Residential Area - Class II	2155.00
Residential Area - Class III	1080.00
Residential Area - Most Backward area	800.00

Source Guideline Values from 1-8-2007, Registration Department, Government of Tamil Nadu,

3.2.4 GROWTH MANAGEMENT ISSUES

- Upgradation of Regional Linkages – The 'city of silk fabrics' needs to be connected with the urban nodes by road and rail. Mobility to service centres will support for marketing of the product which will indirectly increase the productivity and competitiveness of the sector. Thus, the National Highway connecting Vellore and Tiruvannamalai need to be explored for capitalising on the economic development of the region.
- The water bodies serves as the recharge system for underground aquifers and flood accommodators during monsoon. The major issues related to this are encroachment upon the natural drainage system and Disposal of slaughter waste.
- Necessary basic infrastructure facilities including housing, health, education and recreational facilities need to be provided to achieve better standard of living.

4 STAKEHOLDERS CONSULTATIONS

The purpose of stakeholder consultation is to provide an opportunity for stakeholders to involve in the development plan for the city. The planning process need to be a consultative one, with stakeholders representing a wide spectrum of interests taking part in the discussions and dialogue leading to the formulation of a vision and development objectives, identification of priority sectors and projects.

4.1 CITY OPINION SURVEY

The CCCBP consultants conducted city opinion surveys in 2 phases, first in the inception stage and second in the interim stage to get the views of the stakeholders of the Municipality. The rationale behind conducting surveys in two stages was to evolve a broad vision for the municipality considering the problems, prospects, aspirations and vision of different sections of the society. The initial finding of the surveys conducted was included in the inception report. The analysis and findings of stake holder's consultations are detailed below:

4.2 KEY ISSUES HIGHLIGHTED IN THE CONSULTATION MEETING

The issues highlighted by the elected representatives and administrative staff are summarized as under:

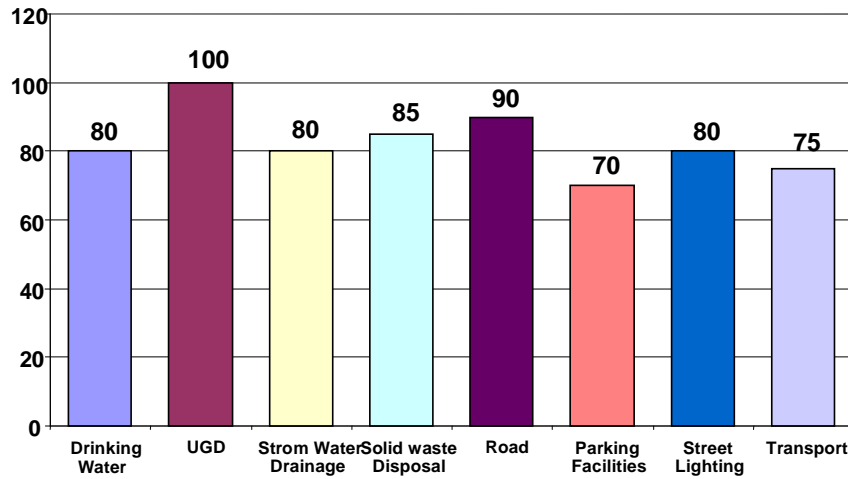
1. Extension of Broad Gauge railway connectivity to Arani Municipality
2. Extension of National Highway to Arani Municipality
3. Improvement to the water bodies existing in the town and provide recreational facilities.
4. Revision of property tax and reassessment of properties
5. Removal of encroachment in Eris
6. Construction of Bridge is required connecting Jeyalakshmi nagar and Kalasanathar Temple
7. Disposal of slaughter house waste in water bodies
8. Need for sugar processing industries, Govt silk Weaving center and modern rice mills.
9. Provision of new bus stand near bye pass road is required.
10. Municipality lacks in provision of infrastructure facilities for schools.

4.3 SECTOR PRIORITIZATION

4.3.1 PHYSICAL INFRASTRUCTURE PRIORITY

Based on the city opinion survey feedbacks, the physical infrastructure issues of the stakeholders are prioritized as follows:

1. Under Ground Drainage	2. Storm Water Drainage
3. Road Network	4. Street lighting
5. Solid Waste Disposal	6. Transport
7. Drinking Water Supply /	8. Parking

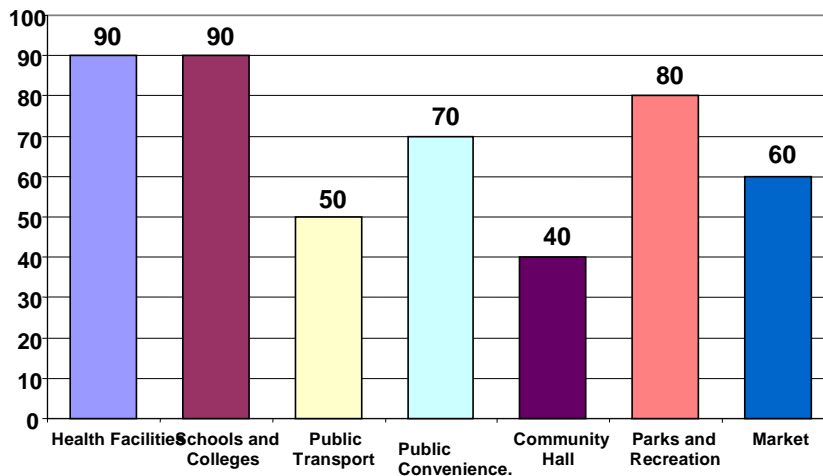


Source: From Stake Holder's Survey

4.3.2 SOCIAL INFRASTRUCTURE PRIORITY:

Based on the city opinion survey feedbacks, the social issues of the stakeholders are prioritized as follows:

1. Health facilities	2. Markets
3. Schools and Colleges	4. Public transport
5. Parks and Recreational facilities	6. Community hall
7. Public Conveniences	

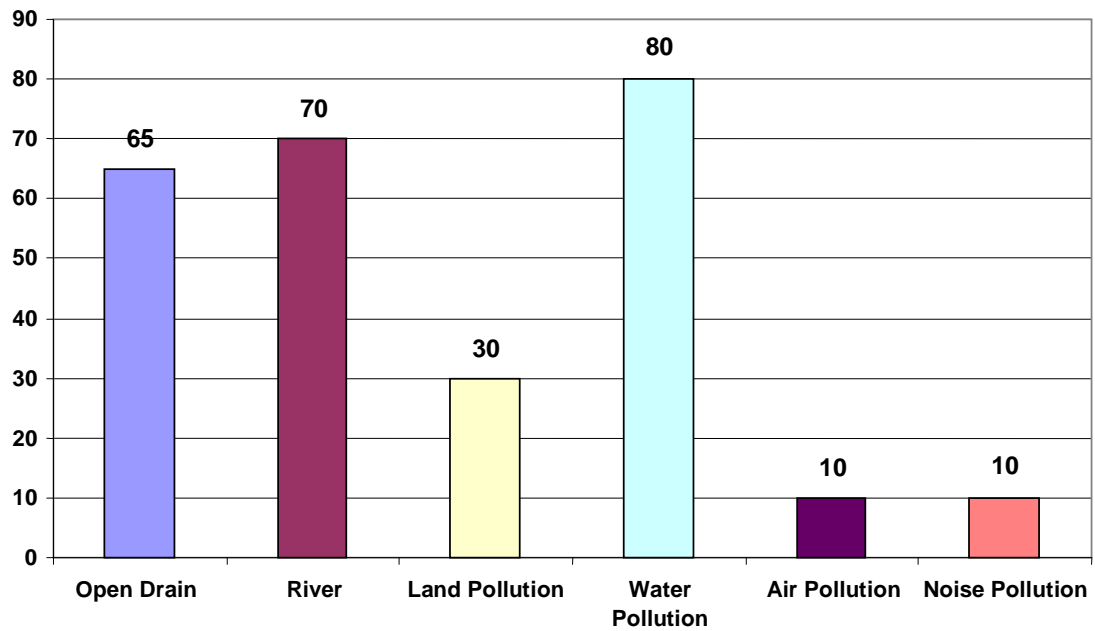


Source: From Stake Holder's Survey

4.3.3 ENVIRONMENTAL ISSUES

Based on the city opinion survey feedbacks, the environmental issues of the stakeholders are prioritized as follows:

1. Water Pollution
2. Rivers
3. Open drains
4. Land pollution
5. Air pollution and noise pollution



Source: From Stake Holder's Survey

5 VISION AND STRATEGIC PLAN

A vision statement is a primary step to where a town wishes to be in the next 25-30 years as its preferred future. It is a realistic and reliable statement, reflects the competitive advantages, preferences & values of city dwellers, physical characteristics, historic and cultural characteristics and relation to regional and local economies. Vision gives a sense of direction and purpose to the plan, focus on and encourage creative solutions in an open manner building in interest and commitment.

One of the key steps involved in the formulation of vision is the SWOT analysis, which is based on stakeholder feedback and analysis of the town.

5.1 TOWN LEVEL SWOT

The town specific SWOT for Arani Municipality with reference to its regional context is given in the table below:

Table 5-1: Town level SWOT

Strength	Weakness
Traditional city and hub for handloom silk and cotton products in India.	Absence of rail connectivity and National Highway linkages to region
Initiatives by State Govt. through Co-optex, Khadi Kraft for encouraging sale of handloom products.	Huge back log of existing stocks at co-operative societies creating adverse situation for handloom business
Well established co-operative silk and handloom weavers' societies.	Weak financial position - societies are running under loss.
Linkages through road network and access to rail network.	Limited access and exposure to international markets and trends.
Government to establish hi-tech weaving park at Tiruvannamalai districts to support & encourage handloom textiles.	Lack of awareness in the use of information and technology in handloom industry.
	Inadequate Municipal service delivery in the sectors of solid waste management and sanitation.
Opportunities	Threat
'Centrally-sponsored Integrated Handloom Cluster Development Programme' in Tiruvannamalai District.	Market pressure due to consumer preference for power looms and mass produced garments in lieu of handlooms.
Appointment of professional agency to explore the possibility of marketing silk products -Initiated by Go TN	Slow adaptability to innovative approaches in promoting handloom products
Proposals to develop new designs in coordination with the National Institute of Design for the benefit of silk weaving societies.	Mass shift in workforce from handloom weaving to other tertiary sector activities

Existing base of skilled master weavers would facilitate knowledge transfer.	Loss of traditional skills in weaving and designing of silk and cotton fabrics.
Extension of National Highway and railway connectivity to Arani	Threat to water bodies due to dumping of slaughter waste and domestic wastes.
	Absence of recreational facilities

5.2 VISION FORMULATION

Using the results of the analysis combined with consultations with key stakeholders and civil societies, vision formulation is meant to develop a perspective for development – a collective vision of the future direction expressed in terms of expectations and goals.

The vision for the town is proposed as **‘An economically sustainable town, maintaining its cultural image, providing better quality of life and safe environment to all sectors of the society’**.

However to achieve this vision and to translate it into Strategies and Projects, the mission statements are evolved.

Mission 1 :

To achieve a Sustainable Environment by the year 2015 in the town and prepare Arani as competing City for induced investments

Mission 2 :

To develop identified areas both within as well as outside the town limit. The following action areas are required to achieve the above mentioned missions.

- Improved level of Urban service delivery
- Regulating Physical Growth
- Strengthening Municipal finance
- Improving Urban environment
- Strengthening of Industrial sector
- Creating Investment friendly Environment
- Strengthening the ULB and Improving Urban governance practices.
- Improved Transport Infrastructure

5.3 STRATEGY OPTION FOR ECONOMIC DEVELOPMENT

Handloom and its allied industries are the major economic activities in Arani and its surrounding areas. About 50,000 handloom units are in operation manufacturing 3,000 silk saris every day in the region. In addition, there are number of families engaged in allied businesses like silk weaving, designing, dyeing, zari selling, machine trading, machine maintenance, etc. In all, it is estimated that about two lakh families are dependent on Arani silk industry directly and indirectly, excluding the traders all over the country. The economic development strategies identified for the town is as follows:

1. Upgradation and extension of Regional linkages

Extension of the National Highway connecting Arani with Vellore and Tiruvannamalai will support the growth and development of regional economic activities. Further, provision of railway connectivity to the town would enhance export of handloom garments to National and International markets.

2. Establishment hi-tech weaving parks by Go TN in Tiruvannamalai district.

The GoTN has initiated the centrally-sponsored integrated handloom cluster development programme in Tiruvannamalai at a cost of Rs. 2 crore. Under the programme, basic infrastructure for weaving would be created to ensure continuous employment for handloom weavers and to improve their overall socio-economic status.

3. Need for exposure to international trends and access to international markets

Marketing Promotion Programmes like publicity and exhibitions, setting up of marketing complexes, participation in trade fairs, increasing capacity building in entrepreneurship and marketing skill of weavers will open new marketing avenues in the National level.

Weavers societies with the aid of GoTN could also aim to supply finished products to organizations like Fab India, Crafts Council of India , which are striving to promote traditional handloom textiles in the International market.

"GoTN has proposed to develop 500 new designs in coordination with the National Institute of Design, Ahmedabad, for introducing the same in weavers cooperative societies at a cost of 25 lakh. A market survey would be conducted through a professional agency to explore the possibility of marketing silk products. To upgrade the skill of weavers/designers engaged in the handloom industry and to improve the skill of managers of the societies, training would be imparted to 1200 persons in the current year."- The HINDU.



Bobin Windina

4. Setting up of Design Libraries

As per the announcement made during this Department's Demand on the floor of the Legislative Assembly on 19.4.2007, Design Libraries were established at 4 Handloom Production Centres in Kancheepuram, Salem, Coimbatore, Madurai and at Commissionerate of Handlooms and Textiles, Chennai. As Arani one of the major silk production center, Design Library can also be setup in Arani with collection of wide range of designs to provide design input to the weavers.

5. Development of Support Network for social development

There are lot of support institutions and schemes to supplement weaving activities. The Institutions like Weavers Service Centre, Co-optex, National Institute of Design are in place to support the Handloom Cluster in Tamil Nadu. One could also see academic Institutions for importing textile technology. Development of such Supportive Technical Institutions will pave easy access for the goods of Cluster. Implementing various



Cluster Improvement workshop

schemes and centers such as Handloom Development Centre, setting up of common facility center, Project Package Scheme, Help Package Scheme, Weavers Welfare scheme on Insurance coverage, Housing scheme for weavers may further encourage the production and marketing.

6. Registering Handloom products under Geographical Indications Act

Registration of "Arani silk" under this act will protect the 'traditional Indian heritage' of handloom products. The "Kanchipuram Silk Sarees", "Bhavani Jamakkalam" and "Madurai Sungudi Sarees" have been registered under Geographical Indications Act. This would boost the image of Arani silk in the international market.

7. Establishment of Marketing center for paddy & rice

The town is also well known for its Paddy and Rice Business. There are around 200 modern rice mills in the town. Technology Upgradation and environmental compliance in the existing mills, establishment of public and private godowns for storage and market centre for commodity transaction will support the sustained development of rice trade in the town.

6 HOUSING

6.1 EXISTING HOUSING SCENARIO

6.1.1 HOUSING CONDITION

The Town has 11216 residential units of which only 2.03% residential units are in dilapidated condition. There are certain wards having higher intensity of dilapidated structures, located in the slum areas which are in wards 9, 14, 18, 29, and 31 (See Figure 4.1)

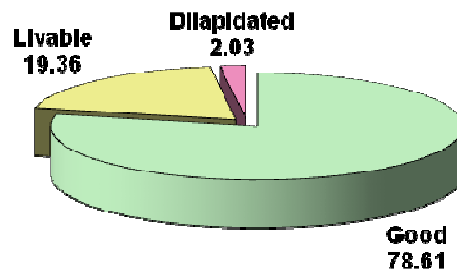


Figure 6-1: Housing Condition

Source: Compiled from Housing and Household amenities census, Census of India, 2001

6.1.2 HOUSING STOCK



There are total 15388 residential units in the town out of which 11216 are used by the people for living purposes as per census 2001 accommodating 12961 households. Average Occupancy rate per house is about 5.42 for the town which is more than Occupancy rate of District Urban area which is 4.25 per house. The Household size of Arani Town is 4.69, which is more

than district Urban i.e. 4.42 in the year 2001.

Table 6-1: Existing Housing Stock

	Population	No. of Households	Average HH Size
Tamil Nadu Urban	27483998	6381600	4.31
Tiruvannamalai District	2186125	489055	4.47
Tiruvannamalai District Urban	1785364	403794	4.42
Arani (M)	60815	12961	4.69

Source: Compiled from Primary Census Abstract, Census of India, 2001

6.1.3 EXISTING HOUSING DEMAND- SUPPLY GAP

Housing shortage is estimated on the basis of availability of 'minimum standard house' that excludes dilapidated dwelling units and houses in slum areas. In Arani town provision for 11216 residential units exist for a total of 12961 households that indicates a clear demand supply gap of 1745 DUs. In addition, out of the total residential units, 1210 dwelling units (i.e. 11% of the total available Dwelling Units) exist in slum areas which, again, as per the criteria accounts for housing shortage. The demand-supply gap has been further widened by additional 228 dilapidated dwelling units. Hence, in total, Arani town needs an additional housing stock of 3183 dwelling units.

Table 6-2: Existing Demand- Supply Gap

Total Census Houses	Total Occupied Residential Units ¹	HHS/Resi. Unit	Demand Supply Gap (No. of HHS)	Number of dwelling units in slum	Dilapidated Residential Units	Total Demand (No. of HHS)
15388	11216	1.156	1745	1210	228	3183

Source: Compiled from Housing and Household amenities census & Compiled from Primary Census Abstract, Census of India, 2001

There are few wards in the core (ward no. 10, 18, 20, 29 and 31) having more household size than average and less no. of households indicating shortage in that area.

6.2 EXISTING SLUM SCENARIO

6.2.1 Slum Population

8 slums are identified with a population of 6559, which account for 10.78% of the total population in the town. Most of the slums lack physical infrastructure facilities. The details about the slums in the town are shown in the Table 6-3.

Table 6-3 Slums in Arani Municipality

S.No	Names of the Slums
1	Dr Ambathkarnagar
2	Thiruvalluvar Street
3	Gandhi Nagar
4	Fort west, East North street
5	Kalathu mettu street
6	Kannagi Street
7	Nayakanpalayam
8	Ramakrishna pettai

6.2.2 SLUM PROFILE

Slums are located on the western and eastern part of the town. Due to ineffective development control regulations slums have developed in the wards 1, 6, 8, 17, 21

and 24 resulting into degrading urban environment and unhealthy living conditions. (See Annexure I c for distribution of slum population ward).

Most of the slum dwellers are migrants from hinterland of the town and from the neighboring districts and more than half of them are staying for more than 10 years in the town.



Existing Slum Conditions

6.3 Access to Basic Services

Slum population is vulnerable to diseases due to inadequate supply of potable water, drainage and sewerage system.



There is no provision of protected water supply to the households, though pipelines have been laid but individual connections as well as public stand post taps are not provided.

- ❖ Slum population still depends on other sources of water supply.
- ❖ Sanitation facilities needs improvement as only 6.29% the slum population has access to safe mode of sanitation and these are available in only one slum clusters only. Due to lack of sanitation facilities there is open defecation.
- ❖ Most of the slums do not have adequate and appropriate drainage system hence stagnation of water in these slums areas degrade the living environment to a great extent.

- ❖ Still, 17.5% of the population does not have access to adequate garbage disposal system which hamper urban environment and leads to unhealthy living conditions.

Slum Improvement Programmes

Currently only Integrated Housing and Slum Development Program (IHSDP) is in operation for slum improvement in Arani. This programme is taken up by Arani Municipality and now under operation.

6.4 Issues

The problems and issues relating to housing and slums have been identified on the basis of secondary data collected and synthesis of stakeholder discussions. The issues mainly focus on basic urban services, supply of affordable services land for housing, development guidelines and awareness amongst slum dwellers.

- Threat to health & hygiene in turn provoking attack of epidemics (Almost whole slum population has no access potable water provided by PHED and nearly 17.5% to safe garbage disposal. Provision of drainage is also not satisfactory)
- Due to improper monitoring and implementation of development regulation more than one-third of the town population lives in slums (36.94% of the total population live in slums)
- Most of the slum population is dependant on the informal trade and granite industries for livelihood
- Lack of access to services in wards where dominance of slum prevails and on the land developed for housing by private developers
- Lack of basic services leads to open defecation and garbage disposal within the municipal limits
- lack of awareness among slum dwellers regarding health and hygiene
- Lack of planned interventions in the past
- Unregulated physical development
- Lack of awareness in health and hygiene
- Increasing inadequate serviced land for housing within municipal limits
- Increasing informal settlements on public lands by low income in-migrants due to unaffordable land supply within municipal limits
- Dominance of sub-standard urban basic services

The following table 6-4 is the proposal for the uplift of the slums in municipality.

Table 6-4 Slums in Arani Municipality

S.No	Description	Cost in lakh
1	Providing Roads, Providing water supply facility, Buildings renovation, storm water drain and other facilities.	10.00
	Total for 8 slums	80.00

Source: Arani Municipality

7 INSTITUTIONAL FRAMEWORK

In order to give effect to the provisions of 74th CAA, the municipal structure was revised to include elected council to the already existing administrative setup. For this purpose elections were held in every municipality under the new act once in every 5 year. The organizational structure of the Arani Municipality generally consists of Elected Council and Executive wing.

7.1 ELECTED COUNCIL

The Elected Council, the political wing consists of 36 elected councilors. Each Councilor represents one electoral ward. The Councilors in turn elect the Chairperson as head of the Municipal Council. The chairman is the head of the municipal council and he is assisted by vice chairman.

To assist the council in its functioning, the following 4 administrative committees have been constituted namely:

- Appointment committee
- Agreement/Contract Committee
- Taxation Appeal Committee
- Local Planning Authority

The committees consists 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 is finalized by the Contract Committee. The Taxation Appeal Committee is responsible for hearing of appeals of the tax items. The Council is the decision making as well as policy making body.

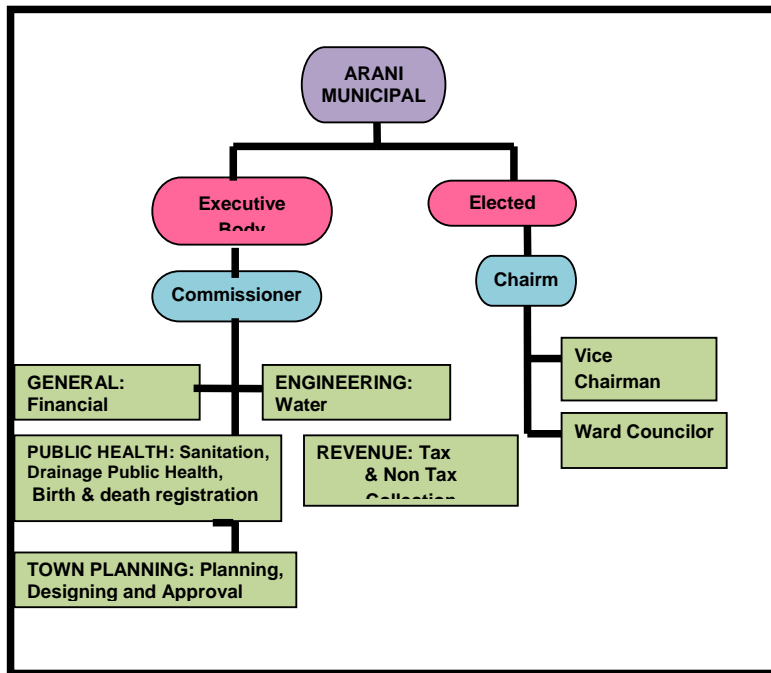


Figure 7-1 Organizational structure of Arani Municipality

7.2 EXECUTIVE WING

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,

- General Administration
- Engineering and Water Supply Department
- Accounts Department
- Public Health Department, and
- Town Planning Department

7.2.1 General Administration

The municipal commissioner is the executive head of the ULB. He is supported by department head like, Municipal Engineer, Town Planning Officer and Manager. Manager is the head of the General Administration next to Commissioner and he is responsible for general supervision and Administration of Office. The Administrative wing looks after general administration of the Municipality including establishment matters such as appointments, pay and allowances etc., correspondence with Government and other departments, public relations, redressing of public grievances, legal matters and lawsuits and all matters related to office administration. All establishment matters are dealt with in the General Administration.

7.2.2 Health Section

The Municipal Sanitary officer is the overall in-charge of the Health Section. He looks after the prevention of Food Adulteration, conservatory work including sweeping of Streets maintenance of Drainage, controlling of epidemic diseases, ensuring of license to D&O trades, Birth and Death Registration, issuing birth and death certificate and also responsible for removing of dead animals and stray animals. The Sanitary Supervisor and Sanitary Workers are assisting the Municipal Health Officer. The Municipal Health Officer is also responsible for solid waste management.

7.2.3 Engineering Section

The Municipal Engineer is the over-all in-charge of Engineering Section. Municipal Engineer will control the Asst Engineer, Technical Assistant, Road Mazdoor, Electrical Superintendent, Wireman, Helper and Fitter working in the section. The Municipal Engineer looks after the maintenance of Street lights, Road laying, construction of building, drainage, maintenance of parks, head works & municipal vehicles. The other subordinate officers are assisting the Engineer to look after the above work.

7.2.4 Town Planning Section

In Arani Municipality, the Town Planning Officer is the over all in-charge of the section. He looks after the work of preparation of Master Plan, maintaining the land use as per the approved master plan, Licensing of plan building, booking of unauthorized construction, approval of lay out in the town limit, controlling and removing the encroachment in the town. The Town Planning Inspector will assist the Town Planning Officer in the planning of future dev. of the town & allied works.

7.2.5 Accounts Section

The Accounts section is included in General Section. The Accountant is the Head of the wing and controlling financial matters. It involves into preparation of Budget discipline and the Actual based Accounting System.

The Revenue section is headed by the Revenue Inspector and the inspector is supported by Bill Collectors with the task collection of taxes and Non-taxes and is held responsible for the entire collection of Revenue.

7.3 CITIZEN'S CHARTER

As per the directions of the Government of Tamil Nadu, the Municipality has published its 'Citizens Charter' during 1998 to bring ULBs functioning closer to the people. The main focus of this charter is to introduce transparency, responsibility and user friendliness in its service provision and maintenance. The objectives of this charter are to:

- Provide fast and quality services to citizens
- Inform the public about time limits to address the problems
- To provide transparency in administration

7.4 INFORMATION CENTRE

In order to provide all the relevant information to the town citizens, the Municipal Office has a reception cum information centre which also supplies various forms required by public to submit applications to the ULB. This reduces the time required on the part of the public and also provides information needed by the people on the spot.

7.5 STAFF STRENGTH POSITION AND VACANCY POSITION

As of now, there are 242 personnels are working in various sections of the municipality against the sanctioned strength of 324 post. There are 82 vacancies as per norms. The details are given in the table below:

Table 7-1 Staff Strength and Additional Staff Requirement

Sl. No	Name of the Post (Service wise)	Sanctioned Staff Strength	Present staff strength
General Services			
1	Manager	1	1
2	Accountant	1	1
3	Assistant cum Accountant	1	1
4	Revenue Inspector	1	1
5	Jr.Assistant	10	10
6	Revenue Asst.	8	8
7	AP	1	1
8	Data Entry Operator	2	0
9	Office Asst.	8	8
10	Night Watch man	1	0
	Total	34	31
Engineering Services			
1	Municipal Engineer Gr-II	1	1
2	AE	1	1
3	Jr. Engineer	3	2
4	Work Inspector	1	1
5	Wireman	2	2
6	Helper	2	2
7	Avenue Mazdoor	3	3
8	Park watch man	1	1
9	Jeep Driver	1	1
10	Fitter	3	3
11	Electrician	4	4
12	Driver	3	3
13	Turn cork	4	4
14	Pump House cleaner	7	7
15	Motor Mechanic	1	1
16	Pipeline Fitter Gr-II	1	1
	Total	38	37
Health Services			

1	Sanitary Officer	1	1
2	Sanitary Inspectors	7	5
3	Maternity Assistant Child Health	8	5
4	Field Asst.	1	2
5	Driver (lorry or Tractor)	7	2
6	Sanitary Supervisor	10	8
7	PH poen	0	0
8	Maternity Assistant Child Health	10	9
9	Sanitary workers	196	139
	Total	240	171
Health Service (Non Centralized)			
1	Medical Officer	1	1
2	Female Maternity Asst.	8	1
	Total	9	2
Town Planning Services			
1	TPO Gr-II	1	0
2	TPI	2	1
	Total	3	1

7.6 ADDITIONAL STAFF REQUIREMENT:

Taking into consideration of the implementation of the proposed projects under the City Corporate cum Business Plan, the vacant posts in Engineering Section, Public Health Section, and Town Planning Section need to be filled up expeditiously.

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

Table 7-2 Additional Staff Requirement

SI No	Name of the Post	Section	No. of Personnel
1	Accountant for Infrastructure project	General	1
2	Data entry operator	General	1
3	Assistant Engineer/ Junior Engineer (WS, UGSS, UIDSSMT & IHSDP Projects)	Engineering	1
4	Overseers (UIDSSMT & IHSDP Projects)	Engineering	1
5	Town planning officer	Town planning	1
	Total		5

Source: Analysis and discussions with Municipal officials

7.7 Institutional Framework For Service Delivery

The responsibility for good governance and management is vested with the urban local body. Although, the ULB is responsible for overall development of the municipality including provision and maintenance of services, there are other agencies responsible for planning, development and provision of specific services. Such key stakeholders include:

Table 7-3 Institutional Framework for Urban Service Delivery

S.No	Services	Planning and design	Implementing agency
1	Master plan preparation and Updation	DTCP	Municipality
2	Water Supply	TWAD	TWAD
3	Sewerage	TWAD	TWAD
4	Drainage	ULB	ULB
5	Solid waste Management	ULB/CMA/TNUIFSL	ULB
6	Roads and Highways	Highways dept / Municipality	Highways dept / Municipality
7	Bridges and water bodies	Municipality / CMA/PWD	Municipality / PWD
8	Street Lighting	Municipality/TNUIFSL	Municipality
9	Parks and playfields	Municipality	Municipality
10	Health and Education	GoTN / Municipality	GoTN / Municipality
11	Slum Development	Municipality/ TNSCB	Municipality
12	Environmental protection	TNPCB	

7.8 ORGANIZATION MANAGEMENT

As been 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 overcome by certain specific options:

- In most of the service sections of the Municipality, there are vacancies which could be filled up. This alone may not ensure a totally satisfactory system delivery of the services as it requires an efficient personnel management especially assigning the right work to the right person in a time frame.
- The organization and delivery mechanism in some of the important personnel intensive service sectors have to be modernized. To mention the important few relate to solid waste management, where large no. of workers and staff are involved, could be decentralized resorting to localized and more efficient composting and Landfill system. This could 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 either through substantial reduction in a cost of solid waste management and / or could improve in the resource position as a remunerative venture.
- Tamil Nadu Urban Development department has identified Landfill site through GIS in combination with 2 or more municipality as a centralized disposal of solid waste. This seems to reduce the cost of solid waste management for each municipality.
- Privatizing the operation 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.

8 URBAN INFRASTRUCTURE AND SERVICES

8.1 WATER SUPPLY

8.1.1 EXISTING SCENARIO FOR WATER SUPPLY



Arani Municipality maintains three water supply schemes of which the head works situate one at Arani at Kamandala Naga Nathi River 2 Km away from the town, Second at Thatchur at Cheyyar River 12 Km away from the town and third one at Arcot at Palar river 38 Km away from the town.

There are 6 Over Head Tank and sump with total capacity of 27 lakhs liter Capacity. The total length of the distribution main is 43.010 Km. The daily supply is around 85 LPCD.

The Municipality is maintains 281 hand pumps and 44 mini power pumps. There are 152 Public fountains and 5200 Home service connections in this Municipality.

Table 8-1: Break up of Water Supply Connections

S. No.	Type	No. of Connections	Percentage of Total
1.	Domestic	5029	96.00
2.	Non-Domestic	171	4.00
	Total	5200	100.00

Source: Compiled from data provided by Municipality, Arani

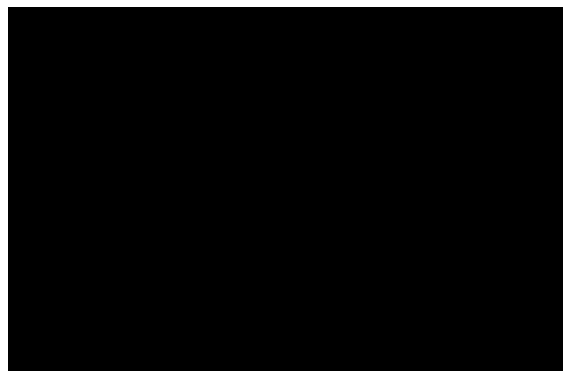


Figure 8-1: Break up of Water Supply Connections

Table 8-2: Classification of Sources of Water by type in Arani

Location	Total no. of house holds	Sources of drinking water				
		Protected		Unprotected		
		Tap	Hand pump	Tube well	Well	Any other
Within Premises	6,861	5,266	131	998	452	14
Near Premises	3,456	2,287	579	261	168	161
Away	1,522	871	145	182	180	144
Total	11,839	8,424	855	1,441	800	319
% of House Hold		71.15	7.22	12.17	6.76	2.69

Source: compiled from Housing and Household Amenities, Census of India 2001

8.1.2 Sources and Treatment



Major source of water supply to Arani Town is from three water supply schemes of which the head works situate one at Arni at Kamandala Naga Nathi river 2 Km away from the town, Second at Thatchur at Cheyyar river 12 Km away from the town and third one at Arcot at Palar river 38 Km. away from the town. The details of the storage facilities of this municipality is presented in Table- 8.3

8.1.3 Source and pump room

Table 8-3: Location of Reservoirs

S. No.	Name of local reservoir	Installed capacity in lakhs liters
1	Municipal Office Campus	8.00
2	Municipal Office Campus	5.00
3	Municipal Office Campus	6.00
4	Saidapettai	3.00
5	Ramakrishanpettai	1.00
6	Kanaki Nagar	4.00
	Total	27.00

Source: Compiled from data provided by Municipality, Arani

ARANI MUNICIPALITY
WATER SUPPLY SYSTEM DIAGRAM

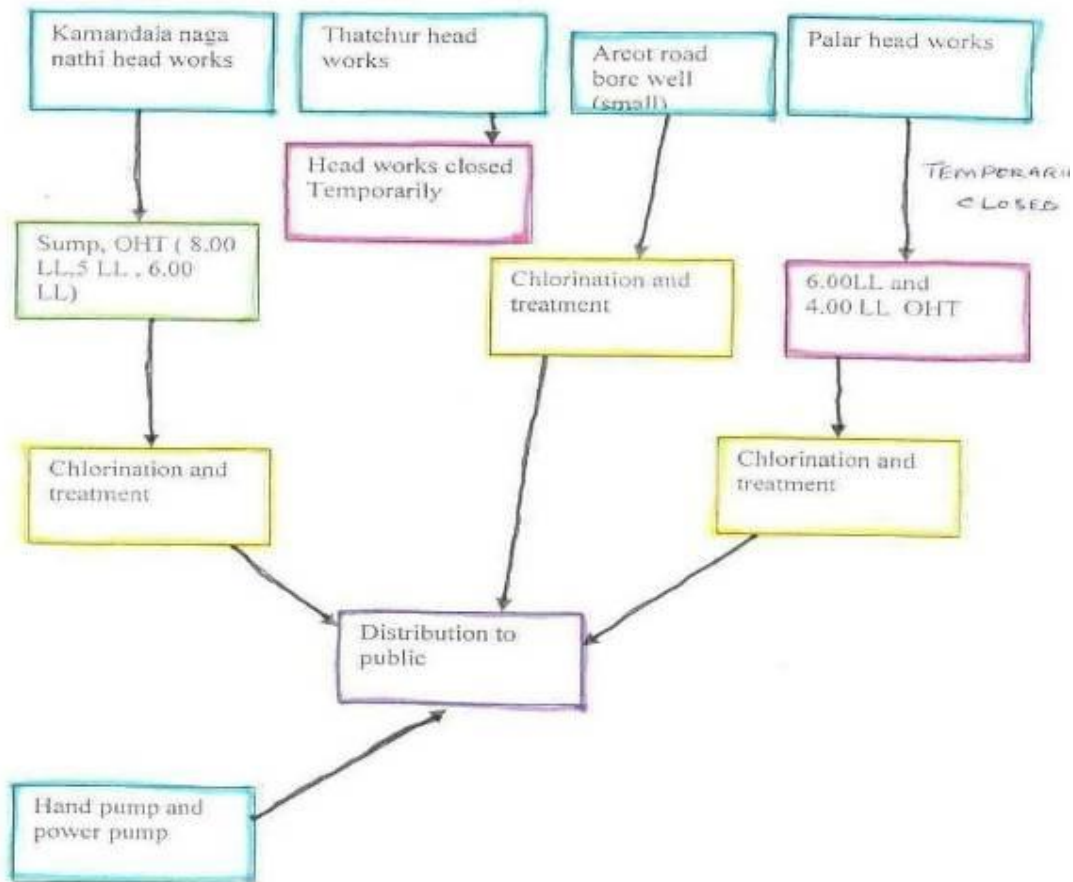


Figure 8-2: Water Supply Scheme of Arani Municipality

8.1.4 Storage and Distribution Network



Over head tank



Water distribution tank

There are 6 Over Head Tanks and sump with total capacity of 27 Lakhs liter Capacity. The total length of the distribution main is 43.010 Km. 4.48 MLD of water is pumped daily and supplied to the public once in two days. The total water supplied per capita per day is 87.00 lpcd.

Table 8-4: Water Supply Distribution Details in Arani Town

Distribution system	Details
Network length	43.101 km
Storage capacity	27 lakh LD
Storage reservoirs	7 Nos.

8.1.5 Demand Supply Scenario



Distribution to End user

At present, municipality is supplying 56.50 Lakhs LD water to its residents. Municipality is considering that people are getting 85 LPCD water. Though to meet the demand municipality is maintaining 281 hand pumps and 44 mini power pumps yet the scenario of water supply is on shorter side. Because of insufficiency of quantum of water supplied by municipality, people use unprotected water for their other domestic needs. As per CPHEEO standard for a town which has a sewerage system, it is required to supply water @ 135 lpcd. So we will calculate the demand of water supply @ 135 lpcd. Table 8-5 summarises the demand supply scenario in the town.

Table 8-5: Existing Demand and supply in the town

Year	2007-08 (Current Year)	2009 (Base year)	2024 (Intermediate year)	2039 (Ultimate Year)
Population	66880	67300	80500	94000
Per Capita (LPCD)	85	85	85	85
Demand@135 LPCD (LLD)	90.00	91.00	109.00	127.00
Supply of Water(LLD)	56.50	56.50	56.50	56.50
Gap(LLD)	33.50	34.50	52.50	70.50

Source: Compiled from data provided by Arani Municipality

It can be inferred from the **Table 8-5**, there is a large gap between current demand and supply of water. Present supply as per municipal officials is 85 lpcd every 48 hours. Apart from the low supply, the quality of water supplied is also very poor as the TDS levels in the water supplied to the town are to the tune of 2000 whereas according to standards laid by World Health Organisation (WHO) the total TDS in water should be in the range of 0 to 500.

8.1.6 Issues in Water Supply Sector

- Drinking water facilities is not provided in Mullipattu kalani, MGR nagar and EB nagar.
- Large number of households depends on piped water supply which is inadequate and people are forced to use alternative water sources, which may be infected by microbial pollution.
- In 30th ward new tap lines are to be provided.
- The system is running to its full capacity yet not able to meet the current demand and there is a need to augment new water sources and comprehensive redevelopment of the water supply system.
- A large number of commercial establishments, hotels, restaurants need great amount of water and thus dependent on alternative water sources.
- Due to inadequate system of water supply it is supplied at an interval of 48 hours. Already 33 LL of water is gap at present.
- New location of intake wells at kamandala river or any other water source to be identified to meet the future demand.
- The old water supply scheme cannot sustainably fulfil the demand of the town. And in future it will not be able to withstand pressure for additional demand.
- The water is drawn from the Palar river bed and the TDS level of water is nearly 700 whereas the limits of TDS should be maintained at 0 to 500.
- There is a number of leather tanning industries in this belt and they discharge their effluent into the Palar River which is deteriorating the ground water.
- Insufficient supply of protected water for current and future demand.

Proposal for the water supply is given in chapter 10.

8.2 SEWAGE AND SANITATION

8.2.1 Sewerage

At present, Arani town does not have a Sewerage network. Under the predominant system of open drainage disposal the untreated sewage effluent usually over flows to pollute the residential and commercial area of the town.

The Government of Tamil Nadu has decided to provide Under Ground Drainage for this municipality under the UIDSSMT Scheme.



Existing sewerage system

The detailed project report prepared by the TWAD board. Proposal for the sewerage system is given in chapter 10.

8.2.2 Sanitation



Septic tank is the most common mode for disposal of sanitary waste adopted in Arani. It is evident that about 54.23% of households have access to safe mode of

sanitary disposal i.e. by the means of Septic tanks and Pit latrines. However, about 45.77% of households do not have an access to safe mode of sanitation.

At per the municipal records more than 5,000 houses have water closets and the remaining houses do not have any form of safe sanitation facility.



Existing public toilet

Table 8-6: Classification of modes of sanitary waste disposal by type

	Facility by Type	Households	Percentage	Mode
Safe mode of disposal	Pit latrine	1025	8.66	54.23
	Water closet	5395	45.57	
Unsafe mode of disposal	Other latrine	1136	9.59	45.77
	No latrine	4283	36.18	
Total Households		5852	100	100

Source: compiled from Household and Housing Amenities Census, Census of India 2001

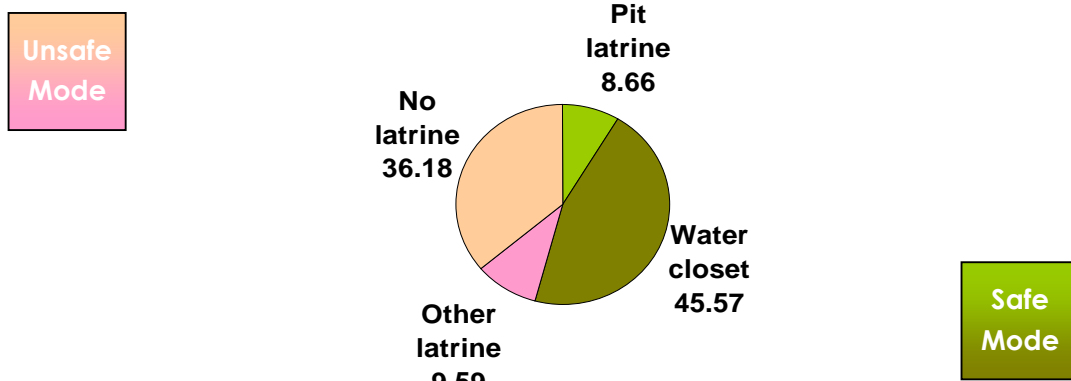


Figure 8-3: Status of Toilet Facility in Arani Town

Apart from this, there are 12 Public Toilets, 2 pay and use Toilets and 5 Vambay Toilets are in the Municipality.



Existing Approach to the public toilets

8.2.3 Issues in Sewerage and Sanitation Provisions

- Septic tank is the major mode of disposal which may pollute the ground water with microbial pollution.
- Public conveniences are not adequate in the town.
- 36.18% of population do not have an access to sanitary facilities and thus resort to open defecation.
- Lack of sewerage system and inadequate safe mode of sanitation facilities.
- All the Municipality toilet outlets are connected to the nearby existing storm drain where the sewage is being collected and discharge.
- Water arrangement is required in 3 toilets at Mullipattu kalani, kamantalaganandhi street and mullipattu road.

Proposal for the sanitation given in chapter 10.

8.3 STORM WATER DRAINAGE

8.3.1 Existing Condition Of Storm Water Drainage



The storm water drains are constructed and maintained by the municipality. As such, the Town is covered by a network of surface drains of lined and unlined drains—flowing in different directions along the slopes. In the town, the waste water flows in open drains. The present condition of storm water drain carries sullage and sewage, which is ultimately discharged into the Suriakulam Lake. And also due to improper gradient alignment in the drains the storm drain water runoff flows into the Suriyakulam lake which is located in the centre of the town. This poses health and environmental hazards to the natural water system and thus a need is to be addressed through a proper treatment facility for the sewage water into the Suriyakulam Lake. No comprehensive drainage plan has been made till date.

8.3.2 Drainage Connectivity



In the town of Arani, 28% of the houses are not connected with any type of drainage system while 44% of the houses are connected by open drainage i.e. earthen drainage. In the town 28% of the houses are covered with pucca drains. Apart from absence of comprehensive drainage system, the town is also lacking a treatment plan and the drainage flow into the Palar River.

Table 8-7: Existing Drainage Scenario

S. No.	Type of Drainage	No. of Houses	Percentage
1.	Closed drainage	3,289	27.78
2.	Open drainage	5,257	44.40
3.	No drainage	3,293	27.82

Source: Housing & Household Amenities Census, 2001

8.3.3 Issues in the Drainage Sector

- No drainage in kandhswamy, Perumal kovil, Subramani kovil & Balaji streets
- 44% of the households either have a kutchra drain or no drainage facility thus there is a need for comprehensive planning.
- Water stagnation is increasing due to dumping of garbage and solid waste into the drains which is a result of increasing urbanisation.
- Karthikeyan Street required drainage on both side.
- There is no drainage in kandhswamy, Perumal kovil, Subramani kovil & Balaji streets.
- For Karthikeyan street required drainage on both side
- The untreated water flows into the Palar River thus efficient and cost effective treatment facilities are required.

The proposed cost for the pucca drains to uncovered areas of the municipality has been given in chapter 10.

8.4 SOLID WASTE MANAGEMENT

Solid waste management is one of the important obligatory functions of any urban local body.

8.4.1 Generation of Solid Waste



The daily average generation of garbage in Arani Town is 18 Metric Tonne (Mt). Per Capita Solid Waste Generation in the town is 296 grams. Out of the total waste generated, 50% of the waste is biodegradable and 2% paper, 0.60% plastic, 0.60% rags 0.05% metal, 0.05 rubber and leather, 0.06% inert 0.02% glass and rest is ash & household dust as non-bio degradable. More than 85%, i.e. 18 Mt of the waste generated is collected per day.

Table 8-8: Type of Waste Generated from Arani Municipality

S. No.	Type of Waste	%
1	Biodegradable	50%
2	Paper	2%
3	Plastic	0.60%
4	Rags	0.60%
5	Metal	0.05%
6	Rubber and Leather	0.05%
7	Inert	0.06%
8	Glass	0.05%
9	Household Dust, Waste from Construction, slit etc	46.59%
	Total	100%

Source: Arani Municipality

Out of the total waste collected, 58.82% of the waste is from Households, petty shops and establishments, 11.76% of the waste is generated from markets, hotels, marriage halls and restaurants (discarded packaging from shops, waste food from eateries, waste generated from vegetable, fruit etc.), 2.29% from Meat, Fish and slaughter house, 14.71% from Construction and 11.76% is slit. Waste from Hospital (bio-medical waste) and pathology lab is very low i.e. 0.30 kg and can be considered as negligible.



Table 8-9: Source of Waste Generation

S. No.	Source of Waste	%
1	House hold, petty shops and establishments	58.82%
2	markets, hotels, marriage halls and restaurants	11.76%
3	Meat, Fish and slaughter house	2.29%
4	Construction	14.71%
5	slit	11.76%
6	Hospital (bio-medical waste) and pathology lab	0.66%
	Total	100.00%

Source: Arani Municipality, 2007

It is also observed that the waste generated from the hotels, fish and meat stalls and vegetable market being used for anaerobic composting “ward level secondary sorting and segregation” of non-Bio, recyclable waste is also being done to remove especially the plastic waste. Also 60% waste is segregated at source.

8.4.2 Collection of Solid Waste



Existing solid waste disposal Sight

The collection of solid waste in Arani Town is through Pushcarts and Collection bins. The secondary collection of the garbage in the town is done with the help of Tipper Lorries.

Table 8-10: Solid Waste Practices in Arani Town

Type of Practices	Availability		Practice Duration		
	Yes	No	Daily	Half Weekly	Weekly
House-to-house waste collection	●		●		
Central collection	●		●		
Street sweeping and collection of sweeping wastes	●		●		
Secondary Segregation	●				
Desilting of storm water drains	●			●	
Desilting of sewer lines		●			
Desilting of service drains	●		●		
Secondary waste collection	●		●		
Transportation of wastes	●		●		
Disposal of wastes	●		●		

Source: Arani Municipality

The collected waste is segregated under the category of biodegradable, non-biodegradable and recyclable waste and transported by tractor and taken to the waste disposal site near the town boundary. All wastes is dumped in the dumping

ground. As the bio-medical wastes is very low in town so there is no separate mechanism and it is directly thrown at the same disposal site along with biodegradable waste. The waste is collected everyday and adequate vehicles are available for secondary transportation.

Table 8-11: Number and Type of dustbins for waste collection

Vehicle	Nos.	Requirement
Transfer Stations	8	0
Collection Bins	120	6
Push Carts	35	

Source: Public Health Department, Arani Municipality

8.4.3 Transportation Facilities

The collected solid waste from the collection bins and pushcarts are transferred into tipper Lorries which are transported to the dumping ground. A total of 60 labour/ sweepers are involved in collecting waste.

Table 8-12: Availability of Personnel for Solid Waste Management in Arani Town

S.No.	Name of the post	Total	Vacant
1	Sanitary Officer	1	0
2	Sanitary Inspector	3	1
3	Sanitary Supervisor	8	1
4	Driver	2	0
5	Field Assistant	0	0
6	Sanitary Workers	60	8
7	Maternity Assistant	5	0
8	Maternity Ayah	8	0
	Total	23	10

Source: Public Health Section, Arani Municipality

The fleet of vehicles for transporting waste is not adequate. And lack of waste collection system to achieve segregation at source leads to non-retrievable collection of the probable reusable waste resources.

Table 8-13: Detail of Vehicles for Solid Waste Management in Arani Municipality

S.No.	Department	Registration Number	Type of vehicle	Make
1	Public Health	TN.25-Z-8724	Mini Lorry	Ashok Leyland
2	Public Health	TN.25-Z-3243	Lorry	Ashok Leyland

Source: Public Health Section, Arani Municipality

Nearly 18 tonnes of waste per day is collected for disposal but only 12.00 tonnes is disposed in secondary segregated format in the dumping ground. Rest of the materials like building material is dumped in low lying area and the recyclable material is sent for recycling.

Table 8-14: Number and Type of vehicles used for Transportation

Vehicle	Nos.	Requirement
Tipper Lorry	2	0
Push Carts	35	0
Collection Bins	120	0

Source: Public Health Department, Arani Municipality

8.4.4 Disposal of Solid Waste



Currently, all the waste collected is disposed in the Municipal owned compost yard which has an area of 1.820 Acres at Velapadi revenue village of ARNI Taluk. (Near Vandavasi Main Road)

8.4.5 Issues in Solid Waste Management

- Un-scientific solid waste management strategy.
- Improper management of waste at storage points.
- Hazardous domestic wastes (like aerosol cans, used batteries, cosmetic items, broken light bulbs, paints, etc.) Are dumped together with other waste.
- Lack of Safety suits - Injurious to the health of the sanitation workers and reduces the productivity of the manpower.
- Bio-medical wastes are also disposed off unscientifically which may pose serious future health hazards.
- Transportation of the waste material is by open tractor trolleys.
- All the waste is openly dumped outside the periphery of the Nagar Palika boundary and it is neither spread nor covered.

The following table represents the requirements of manpower in solid waste management.

Table 8-15: Total Man Power Requirement

S.No	Name of the Post	Nos.Required
	Public Health Service	
1	Sanitary Inspector	01
2	Sanitary Supervisor	02
3	Mini Lorry Driver	05
4	Labours	198

The proposed cost for solid waste management for the municipality has been given in chapter 10.

8.5 STREET LIGHTING

8.5.1 Status of Street Lighting



Existing street light system

Almost 80.00 % of the area of the town is covered with street lighting. There are a total of 1782 light fixtures within the municipal limits of Arani. The two main kinds of lightings which are used are tube lights and Mercury lamps wherein 85% comprise of tube lights and the remaining mercury lamps.

The streets in the residential areas are provided with tube lights. The average distance between the poles is 27 meter. However, the distance between the street light poles on all the roads varies from 20m to 40m. On the other roads an average distance of 27 meter is maintained but the height of the street lights is very low in comparison with the standards.



Table 8-16: Number of Street Lights in Arani Municipality

Ward No.	40W Tube light	150W Mercury lamp	Total
1	119	8	127
2	28	11	39
3	33	3	36
4	30	6	36
5	34	3	37
6	29	4	33
7	31	1	32
8	41	21	62
9	60	12	72
10	36	9	45
11	13	4	17
12	32	4	36
13	44	13	57

14	56	16	72
15	56	0	56
16	31	1	32
17	37	3	40
18	31	5	36
19	29	2	31
20	33	19	54
21	28	8	36
22	47	1	48
23	27	13	40
24	75	0	75
25	69	6	75
26	38	7	45
27	90	5	95
28	54	2	56
29	62	13	73
30	74	0	74
31	33	17	50
32	60	45	105
33	54	6	60
Total	1514	268	1782

Source: Engineering Department, Arani Municipality

The major problem with these street lights is their placing, there are no specialised poles for the lights and as a result lights have been mounted on the electricity poles which are relatively shorter in height and restricts the spread of light to a limited area. Street lights should be removed from electricity poles and separate poles should be used instead to maintain its height.

8.5.2 Issues in Street Light Provisions

- No criteria and standards were taken in consideration when providing street lights
- Street has to be provided at 27th ward extension areas.
- The street lights have been mounted on electric poles so height of these lights is very low results in low spread of lights.
- Street lights have to be provided at 32nd ward extensions.
- Narrow paths where these poles become hindrance to traffic
- The placing of street lights is very near and this results in more spending on infrastructure and more electricity bills

The proposal for the issues are given in chapter 10.

8.6 TRAFFIC AND TRANSPORTATION

Arani town is well connected with roads. There are a number of buses that connect the town to different towns.

8.6.1 Regional Linkages- Roads

The town lies on Arani to Thiruvannamalai State Highways Road. It is located about 40 km from Vellore and 60 km from Thiruvannamalai. The distance from Chennai to the town is 132 Km. This town is having good transport facilities for all directions through State Highways, MDR and village roads. These roads are giving access to surroundings important towns like Arani, Thiruvannamalai, Kanchipuram, Arcot, Arani, Vellore, Ranipet and Katpadi. It also connects metro cities of Chennai and Bangalore.

8.6.2 Town Level Road Network and Hierarchy

The roads/ streets in the town are looked after by the municipality. Nearly all the roads in the town are metalled. Arani Municipality maintains 53.01 Km of roads. There are a number of district roads crossing the town.

8.6.3 National and State Highway

There are no national highways passing through the town but district roadways pass through connecting other town.



Municipal Roads

The municipality is maintaining 53.010 km roads within the town. The category of the roads maintained by the municipality is given in table below:

Table 8-17: Types of Roads in Arani Municipality

S. No.	Type of Roads	Length in Km
1	B.T. Road	17.430
2	Cement Concrete Road	27.359
3	Earthen Road	1.976
	Total	53.010

Source: Engineering Department, Arani Municipality

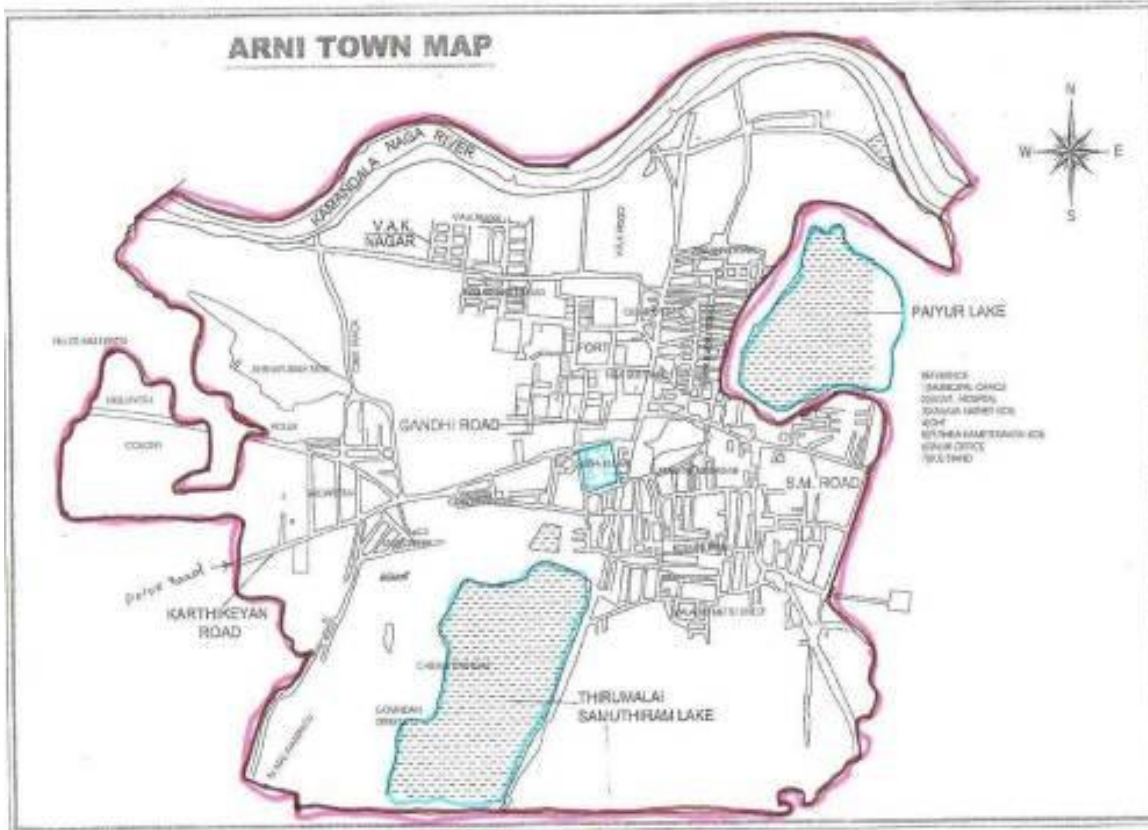


Figure 8-4: Road Network in Arani Town

Table 8-18: Roads by Hierarchy

ROADS	in km.
National Highways	8.0
State Highways	2.0
Town Roads	53.0

Source: compiled from data collected from Arani Municipality

8.6.4 ISSUES

- The road facility in Mullipattu kalani, MGR nagar and EB nagar are almost in damaged condition
- Earthen road from MGR statue to Anna salai (700 mts) should be changed to CC road.
- The Seetharamanstreet, Balaji street and Malayam pattu street required CC roads.
- There is no road facilities to newly formed layouts.
- The road Widening should be done in cheyyar road.

The proposal for the issues are given in chapter 10.

8.7 PARKING

There is no authorised parking area in the town. Hence, private vehicles as well as auto-rickshaws are generally parked on road intersection or along the road.

8.7.1 Pedestrian Paths

There is no provision for pedestrian movement along the major and minor roads and people face problem while walking on the main roads, this also creates problem for the fast moving traffic. Both sides of the main roads is encroached by shop owners, the existing carriage way up to 1 meter and it acts as a hindrance for free flow of traffic.



8.7.2 Public Transport System



There is no public transportation system within the town. However, para-transit modes like auto rickshaws are available for intra town movement. There are approximately 100 auto rickshaws in the town but there is no provision of authorised parking spaces.

Bus transport provides connectivity to nearby areas as well as to other major towns. These buses are run by State Government Transport Department as well as by private operators.

8.7.3 Issues in Traffic and Transportation Sector

- The road junctions at new and old bus stands were with poor geometrics.
- Majority of town roads are narrow and there is no scope of widening. Even these roads has been encroached on both sides by shop owners.
- The Gandhi road is completely encroached.
- All along the Gandhi road and arcot road vehicles are parked as such.

- There is no provision of signage in the town and is major problem to visitors to the town.
- In the Gandhi road and arcot Footpaths are occupied by shops and people walks on the roads where fast moving traffic also runs.
- There are no authorised parking plots or demarcated parking areas. Haphazard parking all along the main roads increases congestion.

The existing old and new bus stands have to be relocated. The new location of the new proposed bus stand is at the junction of bypass road and Vellore road at Chevur.

It is nearly 3 Km away from the present bus stand. The proposed projects are given in chapter 10.

8.8 SOCIAL INFRASTRUCTURE FACILITIES

8.8.1 Educational Facilities

There are two colleges & 4 higher secondary schools in the town.

The population served by each primary school is about 7368, which is more than UDPFI standard, but the student strength is less than prescribed of 500. Similarly, the total population served by each and middle school, matriculation school and secondary school is about 14737, whereas the UDPFI standards recommend population threshold of 7500.

Table 8-19: Details of Education Facilities

S.No.	Name of the School
1	Thacthur Road middle school
2	Amsaveniyammal middle school
3	Ananthapuram Arinyar anna seerani middle school
4	Kannapan street middle school
5	Marusuram Elementary school
6	Palani andavar koil street Elementary school
7	Sarpanapettai Elementary school
8	Arnipalayam Dharmaraja koil street Elementary school
9	Ananthapuram Elementary school
10	Muslim Elementary school

Source: Arani Municipality

8.8.1.1 Existing Scenario in Educational Facilities



However, apart from whatever the statistics reveal there are other problems, like: some of the schools do not have proper buildings; the buildings are mostly poorly maintained and need urgent civil repair works. Sanitation and hygiene is also a cause for great concern. Some schools do not have properly

maintained toilets and proper drinking water facilities.

8.8.1.2 Issues in Educational Sector

- The infrastructure facilities in the school are poor.
- No awareness campaign for promoting professional education in the town.
- Improper infrastructural facilities in elementary educational institutes
- Basic computer knowledge is not provided to the school pupils.

The following projects are needed to be taken up to provide a good education atmosphere and education in the municipal schools.

The proposed projects are given in chapter 10.

8.8.2 Health Facilities

At present, there is one Government Hospital, two private nursing homes, one maternity centre and three private clinics functioning in Arani.

The capacity of the Government Hospital is 32 beds serving a population of 29475 (2001). Total bed strength of hospitals and nursing homes within Arani Town is 41. Adopting a standard of 3 beds per thousand populations, medical facilities are sufficient for the existing population of the town. The Government hospital is doing significant services in this town.



Table 8-20: Existing Health facilities in Arani Town

Type	Nos.	Bed Strength	Management
Govt. Hospital	1	86	Government
Private Nursing Home	1	9	Private
Maternity Centre	3	2	Municipal
Private Hospital	1		Private
Total No. of Doctors in Govt. Hospital	8		
Total Number of Nurses in Govt. Hospital	13		
Total Number of Technical Person in Govt. Hospital	26		
Other Office Staff	04		
Total Number of Patients Treated	92064		

Source: Arani Municipality

8.8.3 Market

There is only one market in the municipality. The existing market is located next to the new bus stand. The condition of the market is in the worst condition.

Issues in market:

- Very poor infrastructure
- There is no parking space for vehicle to load and unload the vegetables.
- The market is with in the premises of the bus stand.

- Due to this unloading and loading in the morning hours is creating more hindrance to public transport.
- All the vehicles are using the bus stand for parking. Due do this lot of problems to public to get buses.
- Lighting is in poor shape.
- There is no proper compound wall and gate for market.

The proposed projects are given in chapter 10.

8.8.4 Parks and recreational

The parks namely Venkatramana Park and Ghandhi Nagar Park are to be regenerated and made available to use. The proposal for the park renovation is given in chapter 10.

8.8.5 Shopping Complex

At present the shops are located all along the main road and in around the bus stand only. The development of the shops is ribbon style only. The proposal is to propose a shopping complex in the location of existing old bus stand.

The proposal for sopping complex is given in chapter 10.

8.8.6 Slaughter House

The existing slaughter house is located near the bus stand. The existing slaughter is not having adequate basic facilities. To provide the basic facilities the proposal for the slaughter house is given in chapter 10.

8.8.7 Burial Ground

The burial ground is located on the outskirts of the municipality. The basic infrastructure facilities are not available at the site.

Issues :

- Inadequate water supply in the Burial ground.
- Inadequate lighting arrangements in Burial ground.
- Improper or inadequate infrastructure facilities for facilitating convenient burning.
- All the dead bodies are burnt in open area itself causing pollution to the environment.

The proposal for the burial ground is given in chapter 10.

9 MUNICIPAL FINANCE

9.1 OVERVIEW

Arani 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.

9.2 GENERAL DETAILS

Arani is located at Tiruvannamalai District and the total population as per 2001 census is 60815 Nos. Out of the same the total urban poor is 19399 Nos., comprising 31.89% of the total population. The total number of slums is 9 Nos. with total slum population of 8939 Nos, which aggregates to 14.70% of total population. It is a Grade I municipality.

9.3 RECEIPTS

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

9.3.1 Property Tax

Property Tax is the single largest tax revenue source and accounts for around 28% 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 @ 17.5% per annum on the basis of Annual Rental Value. The components of property tax are as below :

Table 9-1: Property Tax Components

S.No	Particulars	% (Per Annum)
1	General	1.5%
2	Scavenging	3.0%

3	Lighting	3.0%
4	Water Tax & Sewerage Tax	7.5 %
5	Education	2.5%
	Total	17.5%

The total number of property tax assessments is 12537 Nos. the breakup of which is as below :

Table 9-2: Property Tax Assessments

S.No	Particulars	Nos.
1	Domestic	11064
2	Commercial	1418
3	Industrial	23
4	State Government Properties	32
5	Public Sector Undertakings	-
	Total	12537

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 9-3: Property Tax – Growth during last 6 years

S.No	Year	Rs. in lacs	% Growth Rate
1	2001-02	84.01	
2	2002-03	79.51	(5.66%)
3	2003-04	92.00	13.58%
4	2004-05	95.20	3.36%
5	2005-06	98.87	3.71%
6	2006-07	101.90	2.97%

It may be observed from the above that the average property tax collection is around Rs. 95-100 lacs per annum and average growth over the years is around 3.6%.

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

Table 9-4: Property Tax – Demand Collection % (Rs. in lacs)

S.No	Property Tax	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Demand						
	- Current	74.69	76.67	103.69	95.14	107.11	106.32
	- Arrears	80.92	71.54	153.76	146.03	164.16	213.99
	Total	155.61	148.21	257.45	241.17	271.27	320.31
2	Collection						
	- Current	50.61	57.78	72.78	91.12	60.08	52.11
	- Arrears	25.01	23.63	19.74	87.78	40.72	44.90
	Total	75.62	81.41	92.52	178.90	100.80	97.01
	Collection %						
	- Current	68%	81%	70%	96%	56%	49%
	- Arrears	31%	31%	13%	60%	25%	21%
	Total	49%	55%	36%	74%	37%	30%

The current collection performance of property tax is good at around 65% and the arrears collection performance is around 30%.

9.3.2 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 2380 Nos., out of which state / central / quasi Govt. employees comprise 1150 Nos., private employers / companies is Nil and traders / self employed professionals 1230 Nos.

During the last 6 years, it has increased from Rs. 9.50 lacs to Rs. 13 lacs and has grown by 5.5% p.a. It accounts for around 3.25% of the total revenue. The profession tax for the last 6 years is as below:

Table 9-5: Profession Tax – Growth during last 6 years

S.No	Year	Rs. in lacs	% Growth
1	2001-02	9.51	
2	2002-03	10.24	7.13%
3	2003-04	10.77	4.92%
4	2004-05	11.89	9.42%
5	2005-06	12.51	4.96%
6	2006-07	12.83	2.49%

The last revision of profession tax was in 2003. The demand and collection of profession tax over the last 6 years is as below:

Table 9-6: Profession Tax – Demand Collection % (Rs. in lacs)

S.No	Profession Tax	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Demand						
	- Current	7.20	7.23	10.77	9.14	19.25	12.99
	- Arrears	23.30	24.20	22.33	14.91	12.34	7.38
	Total	30.50	31.43	33.10	24.05	31.59	20.37
2	Collection						
	- Current	2.91	3.75	7.65	6.10	16.01	9.22
	- Arrears	3.20	14.45	2.26	6.51	1.92	0.52
	Total	6.11	18.20	9.91	12.61	17.93	9.74
3	Collection %						
	- Current	40%	52%	71%	67%	83%	71%
	- Arrears	14%	60%	10%	44%	16%	7%
	Total	20%	58%	30%	52%	57%	48%

The Municipality has average current collection performance of 70% and the arrears collection performance is around 20%.

9.3.3 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 13.5% of the total municipal revenue. The assigned revenue for the last 6 years is as below:

Table 9-7: Assigned Revenue – Growth & % of Total Income (Rs. in lacs)

S.NO	Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Assigned Revenue						
	Duty on transfer of property	22.62	32.36	50.93	27.78	32.36	-
	Entertainment Tax	8.88	12.00	10.89	15.77	12.00	-
	Total	31.50	44.36	61.82	43.55	44.36	-
2	% of Total Income	-	28.99%	28.24%	(41.95%)	1.83%	-
3	% Growth	11.88%	16.90%	17.99%	12.33%	10.34%	-

It may be observed that Assigned Revenue has increased @ 4.5% p.a. over the 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. The Arani Municipality has 7 theatres and the income from entertainment tax has reduced over the years.

9.3.4 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 15% of the total municipal revenue. The assigned revenue for the last 6 years is as below:

Table 9-8: Devolution Fund – Growth & % of Total Income (Rs. in lacs)

S.NO	Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Devolution Fund	29.76	18.22	55.49	63.90	50.27	56.68
	Total	29.76	18.22	55.49	63.90	50.27	56.68
2	% of Total Income	11.23%	6.94%	16.15%	18.10%	11.72%	14.91%
3	% Growth	-	(63.34%)	67.17%	13.16%	(27.11%)	11.31%

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.

9.3.5 Water Charges

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

Table 9-9: Water Tariff & Deposit

S.No	Category	Tariff	Deposits
1	Domestic	Rs. 45/- per month	Rs. 4000/-
2	Commercial	Rs. 150/- per month	Rs. 8000/-
3	Industrial	-	Rs. 8000/-

The last revision of tariff was in Dec 2002. The total number of house service connections (HSC) is 4282 Nos., the breakup of which is as below :

Table 9-10: No. of House Service Connections

S.No	Particulars	Nos.
1	Domestic	4949
2	Commercial	151
3	Industrial	-
	Total	5100

The percentage of water supply connections to property tax assessments is 41%, which is less than norms. It could be further stepped to around 85%.

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

Table 9-11: Water Charges – Growth & % of Total Income (Rs. in lacs)

S.No	Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Water Charges	27.86	25.71	30.85	28.74	29.17	29.70
	Total	27.86	25.71	30.85	28.74	29.17	29.70
2	% of Total Income	10.51%	9.79%	8.98%	8.14%	6.80%	7.81%
3	% Growth	-	(7.72%)	19.99%	(6.84%)	1.50%	1.82%

It may be observed that water charges account for around 8.5% of total income. There has been growth of 1.5% over the last 6 years.

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

Table 9-12: Water Connection Charges – Growth & % of Total Income (Rs. in lacs)

S.No	Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Water Connection Charges	2.64	2.99	4.00	5.16	4.16	5.60
	Total	2.64	2.99	4.00	5.16	4.16	5.60
2	% of Total Income	1.00%	1.14%	1.16%	1.46%	0.97%	1.47%
3	% Growth	-	13.26%	33.78%	29%	(19.38%)	34.62%

It may be observed that water connection charges accounts for negligible portion of total income @ 1.20%. The income from water connection charges has increased from Rs. 2.65 lacs to Rs. 5.60 lacs over the last 6 years @ 18%.

The last date of revision of water charges was in Dec 2002. The demand collection balance statement of water charges for the last 6 years is as below:

Table 9-13: Water Charges – Demand Collection % (Rs. in lacs)

S.No	Water Charges	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Demand						
	- Current	18.70	25.71	25.00	20.21	30.21	29.31
	- Arrears	44.62	42.99	55.27	65.98	70.43	48.15
	Total	63.32	68.70	80.27	86.19	100.74	77.46
2	Collection						
	- Current	8.10	5.81	6.95	6.70	15.15	12.80
	- Arrears	12.23	7.62	7.34	20.22	28.28	12.81
	Total	20.33	13.43	14.29	25.92	43.43	25.61
3	Collection %						
	- Current	43%	23%	28%	33%	50%	44%
	- Arrears	27%	18%	13%	31%	40%	27%
	Total	32%	20%	18%	31%	43%	33%

The municipality has reasonably good collection performance, with current collection charges at around 40%. The arrears collection % is around 20%.

9.3.6 Drainage Charges

The Municipality does not have a under ground drainage system and the number of households with septic tank facility is 6372 Nos. and the households with low cost sanitation is 2195 Nos.

9.3.7 Service Charges & Fees

The Municipality receives service charges and fees in the form of trade license fees, building license 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 9-14: Service Charges & Fees – Growth & % of Total Income (Rs. in lacs)

S.No	Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Service Charges & Fees	9.85	14.16	18.89	17.68	16.78	21.28
	Total	9.85	14.16	18.89	17.68	16.78	21.28
2	% of Total Income	3.72%	5.39%	5.50%	5.01%	3.91%	5.60%
3	% Growth	-	43.76%	33.40%	(6.41%)	(5.09%)	26.82%

It may be observed that service charges & fees accounts for around 5.5% of the total income. There has been growth of around 18.5% over the last 6 years.

9.3.8 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 9-15: Income from Properties & Other Income – Growth & % of Total Income (Rs. in lacs)

S.No	Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Income from Properties and other income	69.62	64.19	69.53	86.09	67.38	63.61
	Total	69.62	64.19	69.53	86.09	67.38	63.61
2	% of Total Income	26.26%	24.45%	20.23%	24.38%	15.71%	16.73%
3	% Growth	-	(7.80%)	8.32%	23.82%	(21.73%)	(5.60%)

It may be observed that income from properties and other income together accounts for around 21% of total income and the same has not shown any growth over the last 6 years.

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

Table 9-16: Non Tax Income – Demand Collection % (Rs. in lacs)

S.No	Other Income	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Demand						
	- Current	45.74	51.36	65.07	0.19	63.76	42.80
	- Arrears	16.23	24.14	29.96	0.50	24.49	39.66
	Total	61.97	75.50	95.03	0.69	88.25	82.46
2	Collection						
	- Current	21.58	34.81	46.05	0.08	49.55	26.81
	- Arrears	7.63	7.20	15.41	0.07	20.63	23.02
	Total	29.21	42.01	61.46	0.15	70.18	49.83
3	Collection %						
	- Current	47%	68%	71%	42%	78%	63%
	- Arrears	47%	30%	51%	14%	84%	58%
	Total	47%	56%	65%	22%	80%	60%

On the average, the total current collection performance of other income is around 70% and the arrears collection performance is around 60%. The current and arrears collection performance needs to be improved.

9.4 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.

9.4.1 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 9-17: Establishment Expenses – Growth & % of Total Expenditure (Rs. in lacs)

S.No	Estb Expenses	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Personnel – Salaries	127.30	159.42	151.82	167.74	161.97	157.34
	Terminal & Retirement Benefits	33.77	28.82	56.21	19.51	6.01	1.21
2	Total	161.07	188.24	208.03	187.25	167.98	158.55
	% of Total Expt	46.22%	67.59%	48.39%	82.97%	84.51%	63.83%
	% Growth	-	16.87%	10.51%	(9.99%)	(10.29%)	(5.61%)

The establishment expenses constitute around Rs.175 lacs per annum and accounts for around 50% of the total expenditure.

9.4.2 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 is as below :

Table 9-18: O&M Expenses (Water Supply) – Growth & % of Total Expenditure (Rs. in lacs)

S.No	O&M – Water Supply	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Wages	1.53	1.93	2.50	-	-	0.05
2	Power Charges	12.78	20.19	20.00	2.42	2.38	34.72
3	Maintenance Exps	0.70	2.59	3.50	1.64	3.62	2.20
4	Vehicle Maint.	0.64	0.49	0.26	0.84	0.77	0.94
5	Others	0.30	1.10	0.60	0.08	0.24	2.41
	Total	15.95	26.30	26.86	4.98	7.01	40.32
6	% of Total Expt	4.58%	9.44%	6.25%	2.21%	3.53%	16.23%
7	% Growth	-	64.89%	2.13%	(81.46%)	40.76%	475.18%

The O&M Expenses – water supply constitutes around Rs. 25-30 lacs per annum and the main component of the same is power charges. The O&M water supply has grown on an average by 30% over the years.

9.4.3 O&M Expenses – Street Lights & Others

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

Table 9-19: O&M Expenses (Street Lights & Others) – Growth & % of Total Expt (Rs. in lacs)

S.No	O&M – Street Lights & Others	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Operative Expenses	11.84	9.23	9.14	14.44	8.10	22.46
2	Repairs&Maintenance	2.28	3.90	8.26	3.62	4.71	4.85
3	Total	14.12	13.13	17.40	18.06	12.81	27.31
3	% of Total Expt	4.05%	4.71%	4.05%	8.00%	6.44%	10.99%
4	% Growth	-	(7.01%)	32.52%	3.79%	(29.07%)	113.19%

The O&M expenses – street lights and others constitute around Rs. 20 lacs per annum and accounts for 7-8% of total expenditure. The same has been growing @ 20% p.a.

9.4.4 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 9-20: Administration Expenses – Growth & % of Total Expenditure (Rs. in lacs)

Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Administration Expenses	8.86	9.96	29.48	14.96	10.53	10.67
Total	8.86	9.96	29.48	14.96	10.53	10.67
% of Total Expt	2.54%	3.58%	6.86%	6.63%	5.30%	4.30%
% Growth	-	12.42%	195.98%	(49.25%)	(29.61%)	1.33%

The administration expenses comprise around 5% of the total expenditure and on an average constitute Rs. 12-15 lacs per annum.

9.5 SUMMARY OF FINANCES

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

Table 9-21: Summary of Finances for last 6 years (Rs. in lacs)

S.No	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Income	265.11	262.52	343.63	353.07	428.88	380.02
	Expenditure	200.62	238.38	281.85	225.45	198.56	238.88
2	Surplus before Int & Depreciation	64.49	24.14	61.78	127.62	230.32	141.14
	Finance Charges	76.12	28.14	66.56	0.23	0.21	1.98
3	Surplus / (Deficit) before Depreciation	(11.63)	(4.00)	(4.78)	127.39	230.11	139.16
	Depreciation	71.76	11.99	81.52	0.00	0.00	7.55
4	Net Surplus / (Deficit)	-83.39	(15.99)	-86.30	127.39	230.11	131.61

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 Arani Municipality, it is observed that the Municipality has shown for the years 2004-05 to 2006-07. The same is because interest and depreciation has not been charged. Prior to 2004-05, the Municipality has incurred deficit in all the years.
- Prior to depreciation, the Municipality has shown surplus in all the years. Thus the Municipality has cash surplus for all the years. But the depreciation and outgo on account of finance charges is very high. So 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 and thereby undertake new projects.
- The summary of finances of the Municipality under the broad heads of income and expenditure for the last 6 years is as below :

Table 9-22 : Head-wise Income & Expenditure for last 6 years (Rs. in lacs)

S.No	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
1	Income						
	Property Tax	84.01	79.51	92.00	95.20	98.87	101.90
	Profession Tax	9.51	10.24	10.77	11.89	12.51	12.83
	Water & Drainage	30.70	29.34	35.05	34.11	33.49	35.40
	Assigned Revenue	31.51	44.36	61.82	43.55	44.36	0.00
	Devolution Fund	29.76	18.22	55.49	63.90	148.14	145.00
	Serv. Chgs & Fees	9.85	14.16	18.89	17.68	16.78	21.28
	Grants & Cont.	0.15	2.50	0.08	0.01	7.35	0.00
	Sale & Hire Chgs	0.00	0.00	0.00	0.64	0.00	0.00
	Other Income	69.62	64.19	69.53	86.09	67.38	63.61
	Total Income	265.11	262.52	343.63	353.07	428.88	380.02
2	Expenditure						
	Personnel Cost	127.30	159.42	151.82	167.74	161.97	157.34
	Terminal Benefits	33.77	28.82	56.21	19.51	6.01	1.21
	O&M-Street Lights	11.84	9.23	9.14	14.44	8.10	22.46
	O&M - Water	14.64	23.34	22.50	2.46	2.60	34.87
	Repairs & Maint.	3.77	7.61	12.70	6.18	9.35	12.33
	Programme Exps	0.44	0.00	0.00	0.16	0.00	0.00
	Administrative Exp	8.86	9.96	29.48	14.96	10.53	10.67
	Finance Expenses	76.12	28.14	66.56	0.23	0.21	1.98
	Depreciation	71.76	11.99	81.52	0.00	0.00	7.55
	Total Expenditure	348.50	278.51	429.93	225.68	198.77	248.41
3	Surplus / (Deficit)	-83.39	(15.99)	-86.30	127.39	230.11	131.61

- It may be observed that the Municipality has shown deficit in all the years up to 2003-04. The surplus from 2004-05 is due to depreciation & finance charges not charged.
- The assigned revenue of the municipality has increased by around 4.5% p.a. over the last 6 years and accounts for 13.5% of total income. Devolution Fund, which accounts for 15% of the total revenue has increased by 50% over the last 6 years.
- The municipality's own revenue comprises property tax, profession tax, water charges and income from properties have all shown growth of around 5%

over the last 6 years. Thus the growth in Grants income is much higher than own revenue over the years.

- The total accumulated surplus of the Municipality as on 31st March 2007 stands at Rs. 2348 lacs. As against the same, the total fixed assets comprising land, buildings, plant & machinery, vehicles etc. stands at Rs. 2850 lacs. Out of the total fixed assets, the value of land is only Rs. 2008 lacs.
- The total loans of the Municipality as on 31st March 2007 stands as below :

Table 9-23: Borrowings of the Municipality (Rs. in lacs)

S.No	Loan from	Purpose	Rate of Interest	O/s as on 31.3.07
1	Government Loan	Water Supply & Others	12.50%	131.04
2	TUFIDCO Loan	Shopping Complex	8.50%	35.07
3	TNUDP Loan	Roads	8.50%	60.00
	Total			226.11

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

Table 9-24: Status of Contributions & Grants

S.No	Particulars	Rs. in lacs
1	Contribution by Municipality	21.38
2	Contribution by Government	282.86
3	Contribution by Private Parties	1.49
4	Grants from Government	216.57
	Total	522.30

- It is observed from the above that around 70% of the fixed assets excluding Land have been funded by means of Contribution and Grants from Government over the years and the balance 30% from Loans.
- The average current collection efficiency of the municipality is low as compared as to other municipalities in the district and is around 65% efficiency for property tax, 70% efficiency in profession tax, 40% in water charges and 70% efficiency in case of non tax revenue. The arrears collection performance needs to be improved.
- The broad financial analysis of the Arani Municipality finances reveal that the Municipality has to necessarily increase its own sources of income and collection efficiency for servicing the additional borrowings in the future.
- To summarise, the overall income pattern of the Arani Municipality indicates both positive and negative features. The positive trends are on the income side, where the Municipality has higher growth rate in income than growth in expenditure.
- But the growth in income is higher mainly on account of growth in Grants income comprising Devolution Fund and Assigned Revenue. The growth in Own Income is only 5% p.a.

- The Municipality borrowings are high at Rs. 226 lacs, and the outgo on account of interest is very high. The municipality has the capacity of further borrowings and can resort to further borrowings for new project identified based on the additional income to be generated and existing income flows.
- Around 41% of the property tax assesses have water connections, and has to improved up to 85%. The population per residential assessment is as per standard at 5.5 persons.
- On the negative side, the municipality is more dependent on Grants income for meeting its expenditure. The non tax income can be further improved and the Municipality should look in to ways and means for increasing non tax income. 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.

On our review of the past 5 years financials of Arcot Municipality, we find the following major variations in the various heads of income and expenditure resulting in disparities in financial results :

The accounts for the year 2006-07 are un-audited and hence many of the heads of income and expenditure are showing variations in 2006-07.

Income

- There has been variations in Devolution Fund income over the years. At present SFC Devolution Fund is received from the Government under various heads like Devolution Fund, Reserve Fund, Equalisation Fund and Incentive Fund. While Devolution Fund is received every year, the receipt of other funds is not uniform. Arani Municipality has received funds under Equalisation Fund in the year 2005-06 and 2006-07 resulting in increase in income by Rs. 50 – 75 lacs.

Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Devolution Fund	29.76	18.22	55.49	63.90	148.14	145.00

Expenditure

- Depreciation has not been provided for the years 2002-03, 2004-05 and 2005-06.
- Similarly finance charges have not been provided for the years 2002-03, 2004-05, 2005-06 and 2007-08.
- The power charges of Head Water Works for the year 2006-07 is high at Rs. 33.84 lacs and hence the Operating Expenses are high for the year 2006-07.

9.6 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.

9.6.1 Resource Mobilisation Indicators

These indicators summarise the performance of the Municipality with regards sources of funds. Arani Municipality derives about 62 percent of its revenue income from own sources, while grants account for just about 38 percent of the revenue income.

Table 9-25 : Resource Mobilisation Indicators

S.No	Indicators	Value
1	Per Capital Income	Rs. 552/- p.a.
2	Share of Own Sources in Total Revenue Income	62%
3	Share of Property Tax in Total Revenue Income	27%
4	Share of Revenue Grants & Subsidies in Total Revenue Income	38%
5	Growth in Revenue Income	8.69% p.a.
6	Growth of Own Sources of Revenue Income	3.08% p.a.
7	Per Capital Own Income	Rs. 341/- p.a.

9.6.2 Fund Application Indicators

These indicators are a measure to ascertain the utilization from the municipal fund. Around 49% of the revenue expenditure is spent on establishment heads, around 22% for municipal assets and services, leaving mere 29% for debt servicing and administration expenses. Establishment expenditure accounts for about 42% of the total revenue generated by the municipality.

Table 9-26 : Fund Application Indicators

S.No	Indicators	Value
1	Per Capita Expenditure	Rs. 470/- p.a.
2	Share of Establishment Expenses in Total Revenue Expenditure	49%
3	Share of O&M Expenditure in Total Revenue Expenditure	22%
4	Share of Establishment Expenditure to Total Revenue Income	42%
5	Growth in Establishment Expenditure	(0.31%) p.a.
6	Growth in O&M Expenditure	26.06% p.a.
7	Growth in Total Revenue Expenditure	(1.44%) p.a.

9.6.3 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 at 1.42% during the assessment period. The per capita average debt outstanding is at Rs. 329/- and the per capita outstanding debt to property tax demand is around 222% of the property tax demand for the current year.

Table 9-27 : Liability Management Indicators

S.No	Indicators	Value
1	Per Capita Liability	
	- Outstanding Debt per Capita	Rs. 329/-
	- Outstanding Non Debt Liability per Capita	-
2	- Total Outstanding Liability per Capita	Rs. 329/-
	As a proportion of Property Tax Current Demand	
	- Outstanding Debt as % of Property Tax Demand	222%
	- Outstanding Non Debt Liability as % of Property Tax Demand	-

	- Total Outstanding Liability as % of Property Tax Demand	222%
3	As a proportion of Property Tax Own Revenue Income	
	- Outstanding Debt as % of Own Revenue Sources	96%
	- Outstanding Non Debt Liability as % of Own Revenue Sources	-
	- Total Outstanding Liability as % of Own Revenue Sources	96%
4	Non Debt Liability as % of Total Liability	-
	Debt Servicing Ratio	1.42%

9.6.4 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 is at 63%. 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. Arani Municipality has demonstrated 5.33% annual growth in per capita revenue income during the assessment period, while the per capita revenue expenditure has grown at a negative CAGR of 3.60% during the corresponding period, which indicates that as population increases revenue fund will be surplus.

Table 9-28: Financial Performance Indicators

S.No	Indicators	Value
1	Operating Ratio	63%
2	Growth in Per Capita Own Revenue	0.40% p.a.
3	Growth in Per Capita Grant	21.73% p.a.
4	Growth in Per Capita Total Revenue Income	5.33% p.a.
5	Growth in Per Capital Establishment Expenditure	(2.60%) p.a.
6	Growth in Per Capita O&M Expenditure	20.71% p.a.
7	Growth in Per Capita Revenue Expenditure	(3.60%) p.a.

9.6.5 Efficiency Indicators

These indicators are essentially a measure to assess municipal efficiency with regards revenue base coverage and utilization. Arani Municipality has low collection performance both with regards all sources of income as compared to other Municipalities in the district. The average population per residential assessment at 5.5 persons indicates that the property tax base is as per standard coverage.

Table 9-29: Efficiency Indicators

S.No	Indicators	Value
1	Tax Collection Performance (Current)	
	- Property Tax	65%
	- Profession Tax	70%
	- Water Charges	40%
	- Non Tax Income	70%
2	No. of Property Tax Assessments per Tax Collection Staff	2090 Nos.
3	Property Tax Demand per Assessment	Rs. 754/- p.a.

4	No. of Municipal Staff per 1000 Population	3.86 Nos.
5	Annual Revenue (Own Source) per Municipal Staff	Rs. 1 lakh p.a.
6	Population per Residential Property Tax Assessment	5.5 persons

Note :

The detailed financials of Arani 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.

9.7 MEASURES TO BE TAKEN FOR IMPROVING COLLECTION EFFICIENCY

The average collection efficiencies under the various heads of revenue work out as below:

Particulars	Current	Arrears
Property Tax	69.93%	30.08%
Profession Tax	64.03%	24.97%
Water Charges	36.75%	25.97%
Other Fees	61.36%	47.43%

The Municipality has average collection efficiency under all heads of revenue and in respect of water charges it is very low. Steps need to be initiated to improve the collection efficiency under all heads of income.

- Implement door-to-door collection mechanism, whereby property tax and water charges are collected from every household by the municipality staff. A separate collection team to be formed for this purpose, which will visit all the households and collect tax. A mobile collection van has been provided for this purpose in the FOP, which will help the staff in collection mechanism.
- Launch a focused drive on existing arrears.
- Conduct one time settlement scheme for old arrears and incentivise payments through marginal rebates for arrears > 5 years.
- Implement payment due date along with a 90 day grace period during which payments would involve a nominal interest payment.
- Payments beyond the grace period should include a steep penal charge to encourage payments on time.
- Work with GoTN to moot creation of a special tribunal for speedy disposal of properties under litigation.

- In case of disputed property tax, the assessee should first pay the tax under protest as in the case of excise or customs and then take necessary legal course. The Act should be modified in such a way that no legal recourse should be available to the assessee without paying the tax under protest.
- The billing mechanism, accounts and DCB Register should be fully computerized. This will help the Municipality in providing ready information on defaults and help in speedy recovery process.
- With regard to improvement in collection efficiency of water charges, the Municipality should first improve the service levels. The Municipality should conduct a survey on the present service levels and identify places where service levels are good. The Municipality should then do a focused drive on these blocks with good service levels and implement various collection measures given above.
- The Municipality may also consider implementation of late payment fines and in case of extreme overdue situations, disconnecting supply.
- As regards blocks with low service levels, the Municipality should improve the service levels and affect various measures to improve the service levels. Only with improvement in service levels, the collection efficiencies can be improved.
- As regards Other Fees, which basically comprises rent / lease from various assets of the Municipality, the Municipality should send eviction notices to the defaulters. Unlike property tax and water charges, the Municipality can enforce eviction of defaulters.

10 CAPITAL INVESTMENT NEEDS FOR IDENTIFIED PROJECTS

All the projects relating to urban infrastructure, urban growth and development have been identified through a conscious participatory process. The projects are in the form of improvements and, extension of the existing services and facilities such that the present inadequacies as per the norms and standards are made up and, in addition meet the requirements of the projected population of the town during the perspective period of plan.

Each project component, as identified has been verified in the field of their suitability and feasibility in terms of location, coverage and adequacy and finalized with as intensive consultation with the office of the municipality and as suggested and recommended in the review meetings of the previous stage of this exercise in the office of TNUISL. The projects thus finalized and firmed up are detailed thus finalized and firmed up are detailed out in their present status, gaps, projected requirements, cost estimates, capital needs, funding pattern etc in the following section. In all the identified projects constituting physical and social infrastructure facilities and other projects including bus stand, remunerating projects are including cost about Rs. 83.76 crores to be implemented starting from the current financial year. These projects have been prioritized as warranted in their importance over the implementation time frame.

The projects, breakup of the investment and implementation schedule are given in the following tables:

Table 10-1: Summary of Capital Investments under CCCBP

S.No.	Focus Area	Total Cost
1	Water Supply	1351
2	Sewerage & Sanitation	3142.01
3	Solid Waste Management	658.85
4	Drainage	603
5	Traffic & Transportation	1775
6	Streetlight	52
7	Social Infrastructure	329
8	Urban & Municipal Reform	70
9	Slum Improvement	395.2
Total		8376.06

10.1 PHYSICAL INFRASTRUCTURE - IMPROVEMENT NEEDS

In chapter -8 we had identified the problems and issues of the Physical Infrastructure sector and mentioned about the projects identified the municipality for curative measures in this sector. Here we will discuss about the shortcomings in the projects

identified by the municipality or by the different agencies i.e. Municipality, TWAD board etc. and discuss about the improvement needs, future proposals and funding pattern.

10.1.1 Water Supply:

3. Improvement Needs:

The frequent bursts and leaks in the main from Palar Head Works is causing problem. Though the municipality has meted out temporary repairs, a permanent solution is required for an effective distribution of water supply to the town. The lines were mostly laid more than 30 years before and they need replacement. So there should be a comprehensive study for effective solution for water supply provision and rezoning.

4. Water Supply Proposals

S.No	Description	Cost in lacs
1	Source Augmentation	
	Infiltration well 3 nos in cheyyar river	90
2	Transmission System Improvement	
	Collection Well and pump house 3 LL capacity	25
	Erection of 70 Hp pump 3 nos with electrical arrangements	30
	Construction of Service Reservoirs /Overhead tanks 7 LL (3 nos) at Kosapalayam, Aranipalayam, VAK nagar	240
	250 mm dia Pumping main from head works to OHT 25 km	650
3	Improvement of Distribution System	
	Supply and installation of bulk water meters	3
	Supply and installation of consumer water meters	128
	Supply and installation of vacuum feed chlorinators	15
	Coverage of services in new areas/ uncovered areas	50
4	Upgradation of Existing System	
	Replacement of existing distribution line	80
	Water Quality Management Program	10
	Rehabilitation of existing reservoirs and other buildings	30
	Total	1351

New water supply augmentation can be taken up in the Cheyyar River down streamside. Three infiltration well to be constructed and corresponding pipe lines to laid out.

10.1.2 Sewerage System

1. Needs:

At present municipality do not have sewerage system but Government of Tamil Nadu has proposed to lay new system in every municipality in Tamil Nadu. Arani

Municipality has prepared the DPR for the sewerage system for the town and sent it to CMA for approval.

2. Sewerage Proposals

S.No	Description	Amount Rs. in Lacs
1	Comprehensive Sewerage system for entire city including STP	3100.01
2	Public conveniences	42.00
	Total	3142.01

10.1.3 Drainage

1. Needs:

The existing drainage condition of Arani consists of tanks and manmade drainage system (Storm water open drains). Due to the natural slope of the town, all the drains discharge water in River and tank only. The present condition of Storm Water Drainage is that it also carried the sludge and sewage water, which ultimately carried to the suriyakulam lake and then to river. This has created enormous environmental problems. Also there are certain lengths of roads which are unlined and needs to convert them in lined drains to use the Rain Water Harvesting in an effective way.

2. Drainage Proposals

S.No	Description	Amount Rs. in Lacs
1	Upgradation of Existing Drains	453
2	Construction of new drains	150
	Total	603

10.1.4 Solid Waste Management

1. Needs:

Domestic waste consists of wastes generated at the household level, primarily houses. The household waste is dumped at various community collection points spread over entire town. Though municipality is doing its best to manage the solid waste yet it is not up to the mark to manage the solid waste from collection to disposal and lot has to be done for it.

Community Participation: Current level of participation in Arani is very low. There are NGOs operating in the city, especially in health and sanitation sector. Due to semi urban characteristics of the town there are not many residential colonies in the city. Due to this fact, community level organizations such as residence welfare associations do not exist in the town. Street plays and ward wise meetings are conducted to motivate the people.

Community Education: The steps involved in implementing and ensuring community participation will comprise formulation of neighborhood communities, residential welfare associations or other community organizations, identification and mobilization of NGOs and other social welfare groups in the town.

Conduct Sanitation Campaign: Vigorous sanitation campaign across the town could also be taken up emphasizing the need for storage and segregation, recycling and reduction and local composting of wastes. In these campaigns, the school children and NGOs shall also be involved so that the message of the campaign reaches the community.

Campaigning and Environmental Awareness: Media is another important tool in environmental education, hence extensive campaigning through electronic media, print media, mass media and other means on environmental sanitation and solid waste management could carry out.

Based on the study conducted by the Remote sensing department, Anna University, a new land fill site is identified near Punganur village. It is around 20 km from the Arani municipality.

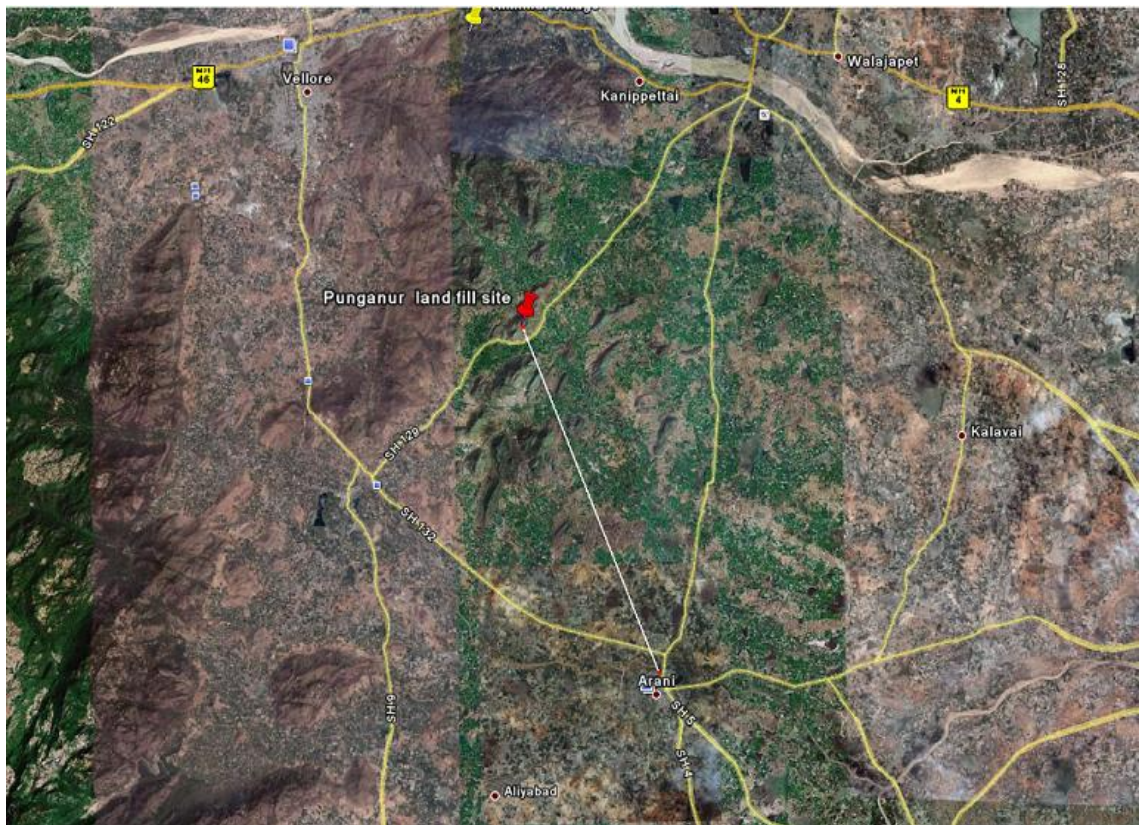


Figure 10-1: Secured land fill site for municipal solid waste

2. Solid Waste Management Proposals

S.No	Description	Cost in lacs
1	Improvement of Solid Waste Collection System	
	Purchase and Distribution of household dustbins i.e. Segregated Format	19
2	Improvement of Solid Waste Transportation System	
	Auto Tippers (25 Nos.)	33
	Tricycle (30 Nos.)	5

S.No	Description	Cost in lacs
	Push Carts (35 Nos.)	4
	Dumper Placer (2 Nos)	29
	Dumper Body Container (4 Nos.)	33
3	Improvement of Solid Waste Disposal System	
	Land Requirement for Compost Yard(6 acre)	90
	Purchase of Equipments for Landfill site Management	
	JCB (1 Nos.)	25
	Turner	10
	Wind Rose Platform	30
	Compound Wall	8
	Electricity	2
	water Supply/ OHT	2
	Internal road	5
	Watch man Shelter	1
	Weigh Bridge	10
4	Projects for Waste Disposal	
	Sanitary Land fill development	284
	Land Cost for Land fill (4.59 Acres)	68.85
	Total	658.85

10.1.5 Street Light

1. Needs:

In the midst of unplanned growth of the town, there are numerous places with in the town where street light is essential for security. Almost High mast poles of 16m height are to be installed at suitable places with in the town. But sodium vapour lights and tube lights are required in newly formed layout. As the city is under the pressure of heavy maintenance and electricity bill of street lights it need innovative ideas to reduce the reoccurring expenditure in this sector.

2. Street Light Proposals

S.No	Description	Amount Rs. in Lacs
1	Proposed new H.M lights & lights and fittings	35
2	Retrofitting existing lights & energy saving devices	17
	Total	52

10.1.6 Roads and transportation

1. Needs:

The town has lot of important roads which connect it with the surrounding and most important is Vellore and Arani road. There are city roads which need widening as well as resurfacing, apart from this these city roads are encroached and without drainage facility and side walks. So these roads need improvements.

2. Road and Transportation Proposals

S.No	Description	Length (km)	Amount Rs. in Lacs
1	Earthen road to CC Road and Renovation of Existing	20	300.00
2	Earthen Road to BT road and Renovation of Existing Kannappan street selva vinayagar street mettu jain street suriyakulam west street EB nagar Power House Street Jayalaxmi nagar kk nagar kpk nagar Anbu nagar Balaji nagar etc	30	720.00
3	Proposed new roads		100.00
4	Road Widening (Cheyyar Road)	3	40.00
	Total		1160.00

10.1.7 Bus Stand

S.No	Description	Amount Rs. in Lacs
	New Bus Stand -1 @ by pass road and vellore Road junction	
1	Improvements in Old Bus Stand - sheds, two wheeler stand, drive way flooring and Basic facilities	60
	Construction of new bus stand near bye pass (including land cost)	375
	Shops at new bus stand	150
	Two wheeler and four wheeler Parking at new bus	30
	Total	615

10.1.8 Shopping complex

1. Needs:

There is no centralized shopping center for the merchants in Arani. The ULB is proposing this project to be funded under CMA Part II Scheme.

2. Shopping complex Proposals

S.No	Description	Amount Rs. in Lacs
1	Construction of shops (FF) at existing new bus stand	60
	Total	60

10.1.9 Parks and Play Ground

1. Needs:

- a. Restoration of parks with children play facilities, greenery, lawns, tree plantation etc.
- b. Development of new parks/ play fields
- c. Development of road side gardens through sponsorship
- d. Walkways all-round the parks

Apart from acting as the lung spaces and recreation area to the local population, these parks could act as a temporary resting and refreshment area for the people. A look at the parks reveals that they are very poorly maintained and are used for other than the designated uses. All the parks require proper fencing for maintenance and right use of the land parcels; Landscaping of the parks is a must by planting of choice species. Provision of pathways along the periphery of the parks with shrubs and plantations on both the sides is one of the present requirements as walkways for all age groups of residents. Maintenance of greenery comprising shady, ornamental and avenue trees will greatly improve the quality and usage of parks. Fountains and water supply provisions should be provided in the parks at appropriate places. The maintenance of the parks may be entrusted to interested voluntary agencies on private participation/donation. Also some of the commercial houses may be involved in maintaining the parks providing appropriate advertising space.

2. Parks and Play Ground Proposals

S.No	Description	Facilities	Amount Rs. in Lacs
1	Venkatramanana Park	Fencing, lighting, water supply, childrens play materials, adequate seating arrangements, all around pathway, water cascade and fountains.	22.00
2	Ghandhi nagar park		
	Development of layout open spaces as parks (7 nos)		105
	Total		127

10.1.10 Market Development

1. Needs:

The existing market of municipality needs the basic infrastructure facility, lighting arrangements and Vehicle Parking. It is also one of the most remunerative project to the municipality.

2. Market Development Proposals

S.No	Description	Amount Rs. in Lacs
1	Rejuvenation of Market	30
2	Construction of Flower and fruit market at the western side of new bus stand	85
	Total	115

10.1.11 Slaughter House Development

1. Needs:

There is one slaughter house (goat and sheeps) located in the municipality limit. Now, it is required to provide beef slaughter House.

2. Slaughter House Development Proposals

S.No	Description	Amount Rs. in Lacs
1	Construction of new Slaughter house	15.00
2	Providing Treatment facility	4.00
3	Providing basic facilities like water supply, street light, pathway etc	8.00
	Total	27.00

10.1.12 Slum Improvement

1. Needs:

Nearly, 8 slums are identified with a population of 6559, which account for 10.78% of the total population in the town. Most of the slums lack physical infrastructure facilities.

2. Slum Improvement Proposals

S.No	Description	Amount Rs. in Lacs
1	Providing Roads, Providing water supply facility, Buildings renovation, storm water drain and other facilities.	395.20
	Total for 8 slums	395.20

10.1.13 System Improvement and E-Governance

1. Needs:

Till date there is no entirely dependable and realistic database for the town, in 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. All these with spatial and non-spatial data can be had on a GIS format which, on a click at any features or site on the town map will provide the entire details including the description of the features / 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.

2. System Improvement and E-Governance Proposals

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. Apart from this GIS is a perfect solution for

upgraded information in terms of grievance redressal as well as property tax collection. Also these upgraded solutions will provide to monitor the city growth for future. Computerization of ULB is required and each person above LDC level should be trained to operate the computer system. There is a need that the ULB should upgrade the website on daily basis and there should be uniformity in the content provided in the website of the ULBs in Tamil Nadu.

S.No	Description	Amount Rs. in Lacs
1	E-Governance	20
2	GIS Mapping for Comprehensive Property Database	40
3	Mobile tax collection vehicle	10
	Total	70

10.2 OTHER DEPARTMENT PROJECTS

S.No	Project Description	Nodal Agency	Cost (Rs.in lakhs)-
Regional Level			
1	Extension of National Highway connecting Tiruvannamalai and Vellore	NHAI	1500.00
2	Feasibility Study for extension of rail connectivity from Jolarpet-Polur-Arani-Tiruvathipuram- upto Kanchipuram	Railway Authority	12.00
3	Setting up of Regional Resource cum Exhibition center for Technology & Efficiency upgradation and Brand building of industrial skills	Tamil Nadu Handloom Weavers Cooperative Society	60.00
4	Feasibility study for establishment of Handloom Export Zones	Handloom Export promotion Council [Union Textile ministry and Dept of Handloom and textiles]	..
5	Formation of Nodal Agency to promote and market Arani silk	Weavers Cooperative Society	..
Town Level			
6	Conservation of Water bodies - Tirumalai Samudram lake	Water Resources Department, GoTN/ NGO	60.00
7	A 33 kv substation at payur, installation of 50 new transformers	TNEB	..
8	Awareness campaign for NGOs on their roles and responsibilities in community development	Municipality	5.00
9	Rain Water Harvesting arrangements in Suriyakulam Tank with filter facilities	Water Resources Department, GoTN/ Municipality	100.00

11 RISK AND MITIGATION MEASURES

11.1 PROJECT RISKS AND MITIGATE MEASURES

Risk is an integral ingredient in any project venture. Projects without risk are not heard to have met with great success. Particularly the project package such as this for a Municipal body has multi-various risks as it is mainly with the public of different attitudes, background, profession and traits. As such the local bodies are facing problems of complex nature even in carrying out their rightful functions and duties. The project risks identified are addressed below

1. Environmental risks*
2. Social risks*
3. Site risks
4. Implementation risks
5. O&M risks
6. Financial risks
7. Market risks
8. Risks due to Natural disasters
9. Risks in private participation

Though the projects identified under the CCCBP do not mostly constitute as sensitive environmental components, but come under various degrees of environmental concerns. The identified projects are categorized under the environmental concerns relating to E1, E2, E3 and Based on the Project Affected Area (PAP) and the level of social impact as S1, S2 and S3.

Table 11-1: As per the Guidelines on Environmental & Social Concerns of CCCBP projects – Arani

No.	Project Items	Environmental Category	Social Category
1	Water Supply	E2 & E3	S2
2	Sewerage System	E2	S1
3	Storm Water Drains	E2	S2
4	Solid Waste Management	E1 & E2	S2
5	Roads	E2	S3
6	Bus Stand	E2	S2
7	Street Lights	E3	S3
8	Parks and Playgrounds	E3	S2
9	Burial Grounds	E2	S2
10	Public Convenience	E2	S3
11	Medicare	E2	S2
12	Slum improvement	E3	S1
13	Market	E2	S2

No.	Project Items	Environmental Category	Social Category
14	GIS database	E3	S3
15	E-governance	E3	S3

Note:

- E1 projects relate to those where major environmental impacts are foreseen warranting Environmental Assessment Report (EAR).
- E2 projects are moderate in environmental concerns.
- In E3 projects, no environmental issues are foreseen
- S1 projects will affect 200 people or more.
- S2 projects are those where no PAP is physically displaced and less than 10% of the productive assets are lost.
- In S3 projects, no household will be affected.

The risks involved in the identified projects and the mitigation measures are given in the table below

Each of the above categories are detailed out in the table below:

Category	Mitigate measures
Site risks	
Land interests and land acquisition	Providing all land related information to the contractor
Resistance from public	Community consultations to ensure least resistance from local population
Delay due to statutory approvals	Interfacing with all concerned departments to ensure land approvals or reduce bottlenecks
Un-suitable site conditions.	Careful site selection after detailed investigation of site history and characteristics
Environmental issues	Addressing all related environmental issues before the bid process , including impact assessments
Implementation risks	
Risks related to design ,construction and commissioning the projects such as:	
Design flaws	Review of proposed design by Government, parstatal agencies.
	Ensure correction of design and construction defects before commencing service delivery
Non - availability of suitable contractor due to the simultaneous execution of similar project in many ULBs near by.	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.
Time and cost over runs	Proper specification of project outputs and core services to be delivered.
Defaulting in meeting dead lines in construction and commissioning	Linking contracting services to key performance indicators and in turn to the payment schedule

Category	Mitigate measures
Ensuring service delivery	Independent commissioning tester to ensure delivery of the required performance.
O&M risk	
Increase in predicted operating costs	Address future service delivery demands also
Impact of design flaws & defective construction, deterioration of performance standards	Operating guarantees/performance bonds to ensure service continuity and compensation for default
Technologically outmoded practices	Inbuilt options for upgrading technology as the contract term proceeds
Inherent defects of the system	Escrow mechanisms to ensure protected cash flows and enforce during service/operational default
Defaults from designer, builder and operators	Termination rights in case of insufficient delivery/break down in service provision
Financial risks	
Funding uncertainties	Ensuring project structure, in-built contractual provisions and foreseeing risks make the project bankable, addressing lender related issues.
Cost escalation	Mitigate risks arising from inflation, interest rates, foreign exchange rates etc.
Delays in financial closure of the project	Avoid looking for the lowest cost bid- base selection upon financially sound structure and business plan
Market risks	
General economic down turn	Quantify demand, providing demand related information at the bid stage
Changes in Government policies, Shift in industry focus	Initiate feasibility studies, demand forecasting, sensitivity analysis.
Change in target-market competition	Incentives to stimulate end-users
Risks from Natural disasters	
Floods, Cyclones, Earth quakes, Tsunami	Minimize impacts through appropriate insurances to transfer risk to insurer
Insurance coverage	Regularly review insurance policies to ensure effective and adequate coverage
Interruption in Service delivery	Appropriate action plans for temporary service arrangements
Risks in Private sector participation	
Project initiation	Specify desired project outcomes, taking into account Govt. policies
Private operator	Ensure sound financing pattern or the model on which the private sector has based its participation

Category	Mitigate measures
Lack of service delivery	Ensure Government rights to take over some or all of the sub-contracts of the private party in case of its failure to perform.
Inadequate capabilities for legal and technical issues	Contingency plans for continuation of core or ancillary services
	Ensure and technical legal ability to contract with private party
Delays due to statutory approvals	Identify and facilitate Govt. approvals-related to planning, environment etc
Delays due to land acquisition	Anticipate ,identify and resolve land tenure issues- Acquisition , title, encroachments, usage of land
Unforeseen risks to private operator	Insurances to cover aspects like owner's liability, asset risks, business interruption, some policy risks, natural disaster.
Technically out dated mechanisms	Incentives to private sector to incorporate latest technology by making the design consultant, builder and the operator part of the OWG

12 REFORMS AND 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 gaps in municipal service delivery and institutional management, ascertained by expert analysis and stakeholder feedback. The proposed interventions for the Municipality are in the form of reforms, action plans and strategies to achieve the same.

Strategies and Action Plans are the elements which bridge the gap between the Proposed Reforms and implementation. The following sections detail out the strategies and Action Plan plans for the proposed Reforms and interventions in the areas of revenue enhancement, privatization, computerization initiatives, energy efficiency and municipal service delivery.

12.1 PRESENT SCENARIO IN URBAN REFORMS

“Reforms and change are critical elements in development process; they become more significant in urban development in the context of growth of towns and consequent pressure on infrastructure and services, growth of poverty, etc. This is compounded by institutional constraints like in capacity, fragmented structures, functional overlaps and outdated processes and procedures. In addition, there has been a paradigm shift in governance from the traditional top-down model. As a result governance reforms have become imperative for efficient delivery of services, provision and maintenance of infrastructure and to provide efficient and responsive governance to the people. Recognizing the significance of reforms to provide efficient and effective governance, the State Govt. has initiated and implementing several urban sector reforms during the last few years. “

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 the Commissionerate of Municipal Administration.
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 in the 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 the office of CMA.
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:** TNUFSL 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.
12. **Preparation of Human Development report** for 5 Municipal Corporations under TNUFSL, Commissionerate of Municipal Administration- to identify the strengths and weaknesses of each urban local body on the appropriate parameters. This would enable them to propose and implement schemes to overcome the shortcomings and improve the quality of life of their residents.

12.2 PROPOSED INTERVENTIONS AT STATE LEVEL

a. Property Tax

Implement a framework law for disputed properties, so that the assessee pay the tax first and then carry out necessary litigation as in Central Govt. Depts.

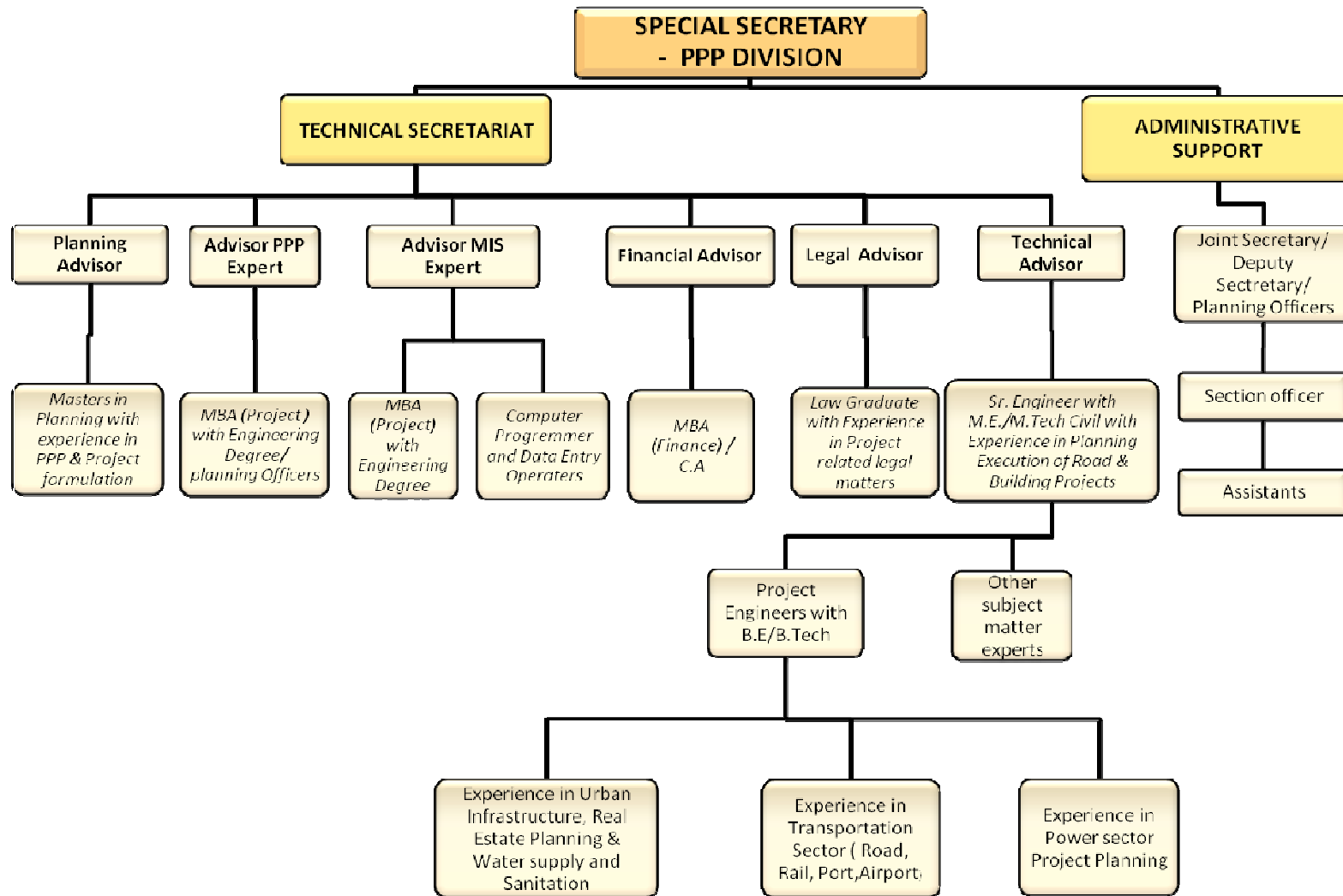
b. Community participation law

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.

c. Initiatives in Private Participation

Frame work law for PPP as in Gujarat, Punjab and Andhra Pradesh – An enabling and regulatory framework for private sector participation . TNUFSL may initiate capacity building in public institutions and private sectors for handling PPP projects.

Setting up a PPP cell and creating database at the State level listing projects in various sectors of developmental activities for PPP participation.



Base source: www.pppinindia.com

Fig 12.1 Organisation chart of PPP Cell

Infrastructural projects:**Water supply project**

1. As regards water supply projects, the consultant proposes using available local sources (surface water) in lieu of capital intensive projects from far off sources. The enforcement of RWH in all buildings is a commendable initiative, which has proven successful in improving the quality and quantity of ground water table according to a recent study. Rejuvenation and protection of water bodies and recycling, reuse of water is also a major issue to be addressed in this regard. Participation of SHGS, voluntary organizations, resident welfare associations need to be sought.

UGSS project

1. Highly engineered and mechanized conventional sewage treatments require large Capital Investments, demand high maintenance costs and are not feasible for the developing countries like India. Capital intensive and highly technological waste disposal solutions, utilizing indiscriminate collection and large-scale disposal, do not consider the value of recovering organic waste resources and do not promote recycling. The land required for the disposal of treated wastewater in the conventional treatment systems is not readily available. Alternative treatment systems like Root zone treatment methods could be used.
- GoTN may also encourage recycle of water, to meet requisite standards rather than let them out into streams or sewage farms. This will not only promote water recycling , but also resource recovery of minerals.

Integrated Water Resources Management Plan (IWRM) – The solution.

As a general rule, in the past with smaller population, less intense economic activity and with less affluent societies demanding much less water, supply of the resource was usually much greater than demand for it. In such circumstances water for agriculture, for industry, for domestic and all other uses could be managed separately there being sufficient water to accommodate all needs and there being little competition between uses and between users.

As populations have grown, as food production has increased, as economic activity has developed and as societies have become more affluent, so demand for water has burgeoned. The traditional fragmented or purely sectoral approach is no longer viable and a more holistic approach is essential. This is the rationale for the Integrated Water Resources Management (IWRM) approach that has now been accepted internationally as the way forward for efficient and sustainable development and management of the world's limited water resources and for coping with conflicting demands.

“IWRM is defined as a process that promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems”.

Source: Status Report on Integrated Water Resources Management and Water Efficiency Plans – UN water report.

12.3 PROPOSED INTERVENTION AT MUNICIPAL LEVEL

The Proposed Municipal intervention is broadly categorized under the heads of:

1. Reforms in Resource Mobilisation
2. Privatisation Initiatives
3. Energy & resource efficiency
4. Computerization and E-governance
5. Accounts and Auditing
6. Institutional Management
7. Municipal service delivery

12.4 REFORMS IN RESOURCE MOBILISATION

In an environment in which business activity is booming and urban infrastructure threatens to become a constraint to growth, the municipalities are faced with an unprecedented need to find substantial resources for development, and an unprecedented opportunity to raise the same. The various options for enhancement of Municipal revenue based is discussed below:

1. Improving revenue from own sources
2. Improving revenue from user charges
3. Formation of new sustainable revenue bases

12.5 ACTION PLAN : IMPROVING REVENUE FROM OWN SOURCES

Strategy options :

i. Property tax

1. Property Mapping

Onetime assessment of all unassessed and under assessed properties. This would increase the property tax revenue base .The project could be taken up as a door –to –door survey of all existing properties, with details on

1. Size & built up area of the property
2. Present use - residential, commercial, industrial or vacant.
3. Number of households, houses, size of families, etc.

Street naming and property numbering already undertaken by Govt. of Tamil Nadu needs to be linked to this to streamline the study. At the rate of Rs.30.00 per property, the estimated cost for the project would be about Rs.5.00 lakhs. Property mapping would form a database for GIS projects (Land use and Utility Mapping), which is a long term project and in the rationalization of tax structure. The participation of the SHGs, (youth and women) could be utilized for the purpose.

Identifying and including omitted Profession tax assesses - This project is to be linked to the property mapping exercise. An improvement of 20-30% on the existing tax base could be expected.

2. Rebates on Property tax:

Most of the collections take place during the last quarter of the year. This results in poor collection efficiency, wherein the ULB ends up collecting much less taxes than the tax demand raised. The option of providing rebates upto 10% for 'early birds' paying the tax during the 1st and 2nd quarter could be explored. This would ensure timely spending on capital and operating expenditure and efficient tax management systems.

3. **Regular and periodic increment of property tax** at 15% every 5 years.

4. **Mobilizing a 'Fast Track Litigation Campaign' to settle disputes on properties.**

5. **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.

iii Regularization of unapproved construction

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

Table 12-1: Road Map - Improving revenue from own sources

Sl.No	Reforms	Year of Implementation				
		Year 1	Year 2	Year 3	Year 4	Year 5
1	Property tax Reform					
	i Property Mapping	✓→			
	ii Rebates on Property tax		✓→		
	iii Regular and periodic increment of property tax			✓		
	iv Mobilizing a 'Fast Track Litigation Campaign'			✓		
v Levying Vacant Land Tax	✓→				
2	Regularization of unapproved construction	✓				

12.6 ACTION PLAN: IMPROVING REVENUE FROM USER CHARGES

Strategy options

i. Water supply and UGSS

- Increase in the penetration of connections to at least 85% of total assessments. This backed by higher collection efficiency and enforced leakage losses (less than 15%) would further improve service delivery.
- Levy Reasonable User Charges to recover full O&M Cost of water supply and UGSS.
- Implementation of graded tariff structure (UGSS) for domestic and non-domestic connections. This needs to be linked to property mapping project and type of assessment to be ensured.
- Mandatory mobilisation of deposits for Capital intensive WS or UGSS projects during pre-construction stage of the project.

ii. Solid Waste Management

- Approval of the Municipal council for the proposed Solid waste conservancy charges for commercial and industrial establishments during the base year and after 5 years for domestic assessments.
- For implementing collection of conservancy fee for Solid waste Management .The proposed tariff structure is given below:
 - Domestic - Rs.5 per month.(medium term plan)
 - Commercial - Rs.10 per ton.
 - Industrial - Rs.15 per ton.
 - Bio-medical - Collected by IMA.
- Privatisation of collection, transfer, construction and management of compost yard and compost production. This would reduce the O&M expenses of Municipality on SWM by 30 to 40%.
- Revenue generation from selling scrap after segregation at secondary collection point or compost yard at Rs.10 -Rs.15 per kg.
- Revenue Generation from sale of compost at the rate of Rs.1000 per tonne as bulk supply to nearby agricultural areas. 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.

Table 12-2: Road Map Improving revenue from user charges

Sl.No	Reforms	Year of Implementation				
		Year 1	Year 2	Year 3	Year 4	Year 5
1	Water Supply and UGSS					
	i Increasing deposit and tariff	✓	-----▶			
	iii Graded tariff for UGSS				✓	

	iv Pre mobilization of deposits	✓	-----▶			
2	Solid Waste Management		-----▶			
	ii Collection of conservancy fee for Commercial and Industrial Establishments	✓				
	iii Collection of conservancy fee for Domestic assessments					✓

12.7 ACTION PLAN: FORMATION OF NEW SUSTAINABLE REVENUE BASES

Strategy options

i. Remunerative projects

To improve the revenue base of the municipality, following are the remunerative proposals identified.

- Improvement in Old bus stand with two wheeler parking shed
- Construction of New 'A' grade bus stand near bye pass
- Construction of 100 no. of shops in proposed new bus stand
- Two wheeler and four wheeler parking shed at the Existing New bus stand
- Construction of shops(FF) at existing new bus stand
- Construction of flower and fruit market at western side of new bus stand
- Construction of new Slaughter house with modern facilities

ii. Parking Regularisation Plan

Enforcing no-parking zones and identification of possible parking areas with the involvement of stakeholders would be the first step in mitigating congestion in the central areas of the town. Preparation of inventory for all roadside parking areas . Initiating time based *pay and park* facilities for vehicles. Appropriate rent structure from auto stands, LCV and heavy vehicles parking would also improve income generation.

The proposed parking fee structure is:

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

iii 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 an annual basis is suggested. The initiative of GoTN to remove hoardings and encroachments is a welcome step to regularize the advertisements and hoardings.

iv. 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 SHGs.

Table 12-3: Road Map for Formation of new sustainable revenue bases

Sl.No	Reforms	Year of Implementation				
		Year 1	Year 2	Year 3	Year 4	Year 5
1	Formation of new sustainable revenue bases					
	i Remunerative Projects					
	a. Premobilisation of deposit for the construction of shops at proposed new bus stand					✓
	b. Premobilisation of deposit for the construction of shops at Old bus stand at First floor		✓	-----▶		
	c. Premobilisation of deposit for the construction of flower and fruit market at western side of new bus stand		✓	-----▶		
	ii Parking Regularization				✓	-----▶
	iii Advertisement Regularization	✓	-----▶			
	iv Collection of Annual tract rent	✓	-----▶			

12.8 ACTION PLAN: PRIVATISATION INITIATIVES

The present areas of privatization of the functions of the ULB in Tamil Nadu are

- i. Solid waste management- all components.
- ii. O&M of street lights.
- iii. O&M of water supply distribution.
- iv. AMC of public and pay & use toilet facilities.
- v. Parks and parking lots Maintenance and user charges collection.

The GoTN states that this list is indicative and ULBs are free to explore more options. This would not only save the O&M expenses, but also indirectly in pension and gratuities. The various strategy options are discussed below:

Strategy options**1. 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 / Women SHGs or fan clubs can be sought for the purpose of collection with adequate sensitization programmes.

2. Improving community participation by organizing Public awareness campaigns and Training of Tax Inspectors, to improve the 'willingness to pay' of the users. The aid of SHGs, fan clubs, media could be utilized for the purpose. The following are the various avenues of revenue, the collection of which could be privatized.
 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)
3. Privatisation of Operation and Maintenance of the entire Water Supply and Distribution System.
4. Privatisation of operation and maintenance of the UGSS.
5. Privatisation of Solid waste management (Discussed in detail under Improving revenue from user charges)
6. Privatisation of O&M of street lights & pumping machinery(detailed out in Action plan for energy & resource efficiency)
7. Repair and maintenance of major Municipal roads for 3 years from the period of laying.
8. Option of BOT, BOOT for parks & play grounds by implementing user charges for areas more than 5000 sft .
9. Option of converting public toilets to pay & use type and privatization of O&M.
10. Private participation in medical infrastructure like RCHP, maternity homes and adoption of premium and free facility programme in return for improved medical facility.

Table 12-4: Road Map for Privatization initiatives

Sl.No	Reforms	Year of Implementation				
		Year 1	Year 2	Year 3	Year 4	Year 5
1	Privatization of Operation and Maintenance					
	i water supply and Distribution system			✓	----->	----->
	ii Sewer network & STP				✓	----->
	iv street lights	✓	----->	----->	----->	----->
	vi AMC of Public and pay % use toilet facilities	✓	----->	----->	----->	----->
	vii Parks and parking lots Maintenance and user charges collections		✓	----->	----->	----->
2	Privatisation options in Solid Waste Management					
	Privatization of Door to door collection of solid waste	✓	----->	----->	----->	----->
	Compost yard management & sale of compost & scrap			✓	----->	----->
3	Privatization of Collection mechanism					

	Spot billing and tax collection using mobile van		✓	----->	----->	----->
4	Formation and sensitisation of youth & women SHGs	✓		----->	----->	----->
5	Public awareness campaign for improving tax collection (IEC)	✓		----->	----->	----->

12.9 ACTION PLAN: ENERGY & RESOURCE EFFICIENCY

Strategy options

- Conducting energy audits for water pumping machinery and street lights.
- Conducting leak detection studies, if transmission losses are more than 15%.
- All Head works and service reservoirs may be fitted with bulk water meter to assess the loss due to non revenue water and unaccounted water.
- Enforce regulations on illegal tapping of water.
- Fixing flow control valves and meters for all water service connections.
- Provision of energy saving lights, and equipments like dimmer and timer switches to reduce energy consumption.
- Privatizing the maintenance of street lights to ESCO companies.

Street lights

TNUISL has initiated the preparation of Energy Saving Company(ESCO) studies for energy efficiency in the O&M of street lights and pumping machinery for select Municipalities throughout Tamil Nadu. ESCOs provide comprehensive services - encompassing audits for energy saving performance, design & implementation of conservation measures, maintenance, operation and management of the introduced facilities and procurement of project funds. ESCOs conduct retrofitting for energy conservation without damaging the environment. The ESCO will guarantee the savings that would meet or exceed the annual payments to cover up the entire project costs usually a period of 5 to 10 years. The savings can be shared proportionately with the institution for which the project is designed and implemented for.

The salient features of performance contracting for energy savings through ESCO based business model are as under:

2. 'Nil' investment by customer.
3. ESCO to identify Energy Efficient Measures (EEMs) to replace / modify existing in efficient systems.
4. ESCO supplies, installs and maintains the Energy Efficient Measures (EEMs) during the contract period.
5. Contract period could be 3-5 years or as mutually agreed upon.
6. Energy saving is shared between ESCO and customer as per agreed terms. Total project cost is funded by ESCO. The O & M expenses will be met by the Municipality.
7. Guarantee Energy savings and recover its investment including interest & other costs out of generated energy savings.

Table 12-5: Road Map for Energy and Resource efficiency

Sl.No	Reforms	Year of Implementation				
		Year 1	Year 2	Year 3	Year 4	Year 5
1	Energy audit					
	i Leak detection study		✓	.....	.....	.....
	ii Fixing of bulk water meter	✓	.....	.....	.....	.....
	iii Fixing flow control valves and meters			✓	.....	.....
	iv Implementing energy saving measures on street lights and pumping machineries (ESCO)	✓	.....	.....	.....	.....

12.10 ACTION PLAN: COMPUTERIZATION AND E-GOVERNANCE

Strategy options

1. Launch data warehousing on a large scale, which would avoid cross-reference to paper record, which are time consuming and also preservation of paper media, which occupies space, could be avoided.
2. Computerization of bill payment and facilitation of on line payments
3. Computerisation of registration of land records within Municipal limit
4. Digitisation of Birth and death certificates for the past 30 years
5. Property Mapping to be computerised and details on area, year of construction, type of assessment to be computerized to facilitate calculation of property tax.
6. Administration and issue of trade licenses to be on line, including payment and reconciliation of license fee.
7. Computerization of birth and death certificates and on line issue of certificates.
8. Computerization of public grievances and Redressal mechanism
9. Introduction of asset management system for all available land and building assets of the Municipality
10. On-line submission of building plans and approval.
11. Track O&M of assets and their replacement
12. E-tendering processes.

The above proposal can be taken up after giving sufficient training to Municipal staff in hard ware and software.

Table 12-6: Road map for Computerization and E-Governance

Sl.No	Reforms	Year of Implementation				
		Year 1	Year 2	Year 3	Year 4	Year 5
1	Computerization and E-governance					
	i Digitizing municipal records (past 30 years)		✓	.....	.....	.....
	ii On-line bill payment	✓	.....	.....	.....	.....
	iii Registration of Land records	✓	.....	.....	.....	.....

Table 12-7: Technical Assistance for Elected representatives

Category	Identified Training areas
<ul style="list-style-type: none"> Elected representatives 	<ul style="list-style-type: none"> Visioning, goal setting, Planning Urban Governance, Management and Planning Social management and urban poor management Financial and cost management Budget preparation Tender procedure Training in interpretation of various laws, rules, regulations and statutes that ULB is bound by E - Governance Redressal of public grievances Environment management JNNURM, UIDSSMT, IHSDP, IHSDP & BSUP City Corporate Plan, Urban Development plans (Master plans, DDPs) Solid waste management. Disaster management Managerial development and effectiveness Public relations and Human resource development. Crisis management and Stress management Personality development and Motivation skill development Written and Oral Communication skills
<ul style="list-style-type: none"> Committee members 	<ul style="list-style-type: none"> Tax appeal committee: tax assessment methods; interpretation of various laws, rules, regulations and statutes Contracts committee: procurement procedures; interpretation of various laws, rules, regulations and statutes Appointment committee: Interviewing skill and techniques

12.14 CAPACITY BUILDING FOR ULB STAFF

The training areas identified for ULB staff in all position is classified as functional, managerial & behavior and attitude in short, medium and long term training. The details of the various training requirements for ULB staff are presented below.

Table 12-8: Technical Assistance for ULB staff

Category	Identified Training areas
<ul style="list-style-type: none"> Senior Management Staff 	<ul style="list-style-type: none"> People management skills Motivation and Interpersonal skills Leadership and Public relations Attitudes – both personal and organizational Team Building, Human resource development Goal setting, Budgeting Written and Oral Communication skills Effective use of computers especially for managerial decision making Proper interpretation and effective use of MIS reports Decision support systems

Category	Identified Training areas
	<ul style="list-style-type: none"> • Training in interpretation of various laws, rules, regulations and statutes • Time management, Stress management • Change management • Effective urban management • Management principles, Managerial development and effectiveness • Interviewing skills • Social management and urban poor management • Citizen grievance handling • Project appraisal, Project Management and project financing • Contract management, Bid management, Costing • Procurement procedures • Pricing and tariffs/taxation methodologies • Operations research • Quality control • Public private partnerships and opportunities for ULB in the same • Reforms at the ULB level • Financial and cost management • Environment management • Disaster management • Solid waste management • Systems management (improving citizen service and ULB efficiency) • Strategic urban planning • Performance management system and key result areas.
<ul style="list-style-type: none"> • Supervisory Staff 	<ul style="list-style-type: none"> • Motivation and Interpersonal skill development • Effective use of computers • Training in interpretation of various laws, rules, regulations and statutes • Training for development of a positive attitude • Citizen handling and grievance handling • Managing urban poor, education and health services • Implementation skills • Training in developing a Performance Management Systems (PMS) and key Result Areas (KRA)
<ul style="list-style-type: none"> • Training for Operational staff 	<ul style="list-style-type: none"> • Functional skills required in their respective function <ul style="list-style-type: none"> - Training in office Procedures - Training in computers - Training in team work • Training in general office administration and management <ul style="list-style-type: none"> - Training in effective servicing - Training in communication - Training in equipment usage

Source: CMA Records.

Table 12-9: Road map for Accounts & auditing and Institutional Management

Sl.No	Reforms	Year of Implementation				
		Year 1	Year 2	Year 3	Year 4	Year 5
1	Accounts and Auditing with chartered accountant					
	i Appointing private chartered accountant consultant	✓▶			
	ii Closing of audit and accounts (Sept 30th)	✓▶			
	iii Online publication of audited statement (Oct 30 th)	✓▶			
2	Institutional Management	▶			
	i Capacity Building for Elected Representatives	▶			
	ii Capacity Building for ULB staffs					

Table 12-10: Road map for implementation of all projects

S.N	Projects	Implementing Agency	2009-10	2010-11	2011-12	2012-13	2013-14
I	Water supply	TWAD Board					
	Source Augmentation						
	Transmission system Improvement						
	Improvement of Distribution system						
	Up-gradation of Existing system						
II	Under Ground Drainage system with STP	TWAD Board					
III	Strom water Drain	Municipality					
IV	Solid Waste Management	Municipality					
	Vehicles and equipments for Primary and secondary Collection						
	Purchase of Compost yard and land fill site						
	Compost yard and Land fill site development	Private operator					
V	Road	Municipality					
	Improvement of Existing Roads						
	New Roads						
VI	Bus stand	Municipality					
	Old bus stand improvement						
	New Bus stand						
	Parking at new bus stand						
VII	Street light	ESCO/ Municipality					
VIII	Slum	Municipality					
IX	Parks and open spaces	Municipality					
X	Market renovation						
	Flower and fruit market						
XI	Shopping Complex	Private operator					
XII	Slaughter House	Municipality					
XIII	Public Convenience						
XIV	E-Governance						
XV	GIS Mapping						
	Property mapping						
	GIS database						
XVI	Mobile tax collection van						

12.15 REFORMS IN MUNICIPAL SERVICE DELIVERY

The reform agenda for municipal service delivery is given in the following table

Table 12-11: Reform Agenda Municipal Service Delivery

Sector	Particulars	Benchmark considered	Existing	Target					
				Year 1	Year 2	Year 3	Year 4	Year 5	After 5 years
WAETR SUPPLY	Net Supply per capita	135 lpcd	85	100	120	135 lpcd →			135 lpcd
	HSCs - % of assessed properties	≥85%	41	60	75	85% →			≥85%
	Frequency of Supply - Hours per day	24x7 hours	Once in 2 days	Period of implementation		2 hrs daily →			24x7
SEWERAGE SYSTEM	HSC coverage	≥85%	Nil	-	-	Period of implementation		→	≥85%
	Coverage of UGSS network - % of road length	100%	Nil	-	-	Period of implementation		→	100%
SOLID WASTE MANAGEMENT	Availability of Composting facility	100% available	Available	Period of implementation			100% available →		100% available
	Collection efficiency	100%	75%	Period of implementation			100% →		100%
ROADS, STORM WATER DRAIN, STREET LIGHTS	Surfaced roads- % of total road length	100%	84%	84	84	84	Period of implementation		100%
	Storm water drains - % of total road length	130%	119%	119	119	119	Period of implementation		130%
	Average spacing between Street lights	30m	35m	Period of implementation			30m →		30m

Source: Analysis and research

13 ASSET MANAGEMENT PLAN

All the assets developed, operated and maintained by the Municipality are termed as municipal assets and comprise roads, bridges, culvert, water supply & distribution system, UGSS network, STPs, drains, and street lights. Municipal Assets also includes social infrastructure assets such as municipal owned schools, hospitals, parks and playgrounds, community halls, shopping complexes, stadium, and vacant lands.

Municipal assets are normally classified into movable and immovable assets. Immovable assets attain importance as indicators for the financial worth which would help in its borrowing capacity and credit worthiness of Arani Municipality.

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.

13.1 ACTIVITIES OF ASSET MANAGEMENT PLAN (AMP)

The Asset Management Plan for Arani municipality would comprise the following 5 steps as explained below:

1. Asset identification

All movable and immovable equipments, immovable municipal properties, assets of Municipality that have been developed, handed over or acquired over time from various sources and departments have to be identified and traced. This would include the detection of unrecorded infrastructure facilities and properties; scrutiny of records, land registers and land surveys, etc.

2. Audit and reconciliation of records

The Municipality should record all movable and immovable municipal properties and assets and infrastructure facilities. Maps and master plans should be crosschecked and an infrastructure facilities audit should be prepared or updated (if already existing). Current asset values should be assigned based on a 'condition-survey' of the infrastructure facilities.

Land and property records should be crosschecked and municipal registers to be updated to include previously undetected land, properties and development. A comprehensive list of municipal land, properties and development should be compiled with approximate assigned.

3. Assessment of Remunerative potential

Municipality should review the existing revenue earning potential of all its assets. New projects or initiatives should be taken to maximize the revenue earning potential of

assets including infrastructure facilities. The intangible benefits of social facilities also need to be considered in the process.

4. Digitisation of asset register

Focus should be placed on designing, testing and installing a database management system for municipal assets. All data, once compiled should be classified on the basis of sector specific infrastructure facilities, land and properties. Specific software should be customized to suit local requirements and data should be translated into specified formats.

5. Training in database management

Training is the most important part of an asset management plan. Training should emphasize methods of simplified updation of data, and methods of monitoring and follow-up relating to infrastructure facilities management, land use, litigation, encroachment, values, expenditure and revenue flows.

13.2 INFRASTRUCTURE ASSETS

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

13.2.1 MOVABLE AND IMMOVABLE ASSETS

Water Supply

Public Fountains	-	152	nos
Hand Power pumps	-	281	nos
Mini Power pumps	-	44	nos
H.S.C.s	-	5200	nos
OHTSs	-	6	nos
Sump	-	1	nos
Distribution line	-	43.01	km

Public Convenience

Public Toilet unit	-	12	nos
Vanmbay toilet	-	5	nos
Pay & Use toilet	-	2	nos

Storm Water Drains

Closed drains	-	13	km
Open drains	-	21	km

Solid Waste Management

Pushcart	-	35	nos
----------	---	----	-----

Tipper Lorry	-	2	nos
Collection bin	-	120	nos

Roads

B T Road	-	17.43	km
C C Road	-	27.36	km
Earthen Road	-	1.98	km

Bus Stand

No. of bus stands	-	1 no.	'C' class bus stand with 19 bus bays
-------------------	---	-------	--------------------------------------

Street Lightings

Tube Lights	-	1514	nos
Mercury Vapour lamps	-	268	nos

Parks & Play fields

Municipality parks	-	2	nos
--------------------	---	---	-----

Burial Grounds

No. of burial grounds	-	2	nos
-----------------------	---	---	-----

Slaughter house

No. of Slaughter house	-	1	nos
------------------------	---	---	-----

Education

Elementary school	-	6	nos
Middle and Elementary school	-	4	nos

Medicare

Maternity center	-	3	nos
------------------	---	---	-----

Markets

No of markets	-	1	nos
Daily Market	-	2	nos

13.3 PRIORITY ASSET MANAGEMENT OPTIONS

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.,. The list of land assets are given in the table below:

Table 13-1: Land Assets – Proposed use

S.No	Location	Present use	Proposed use
1	Velapadi	Compost Yard	Compost Yard (Improvements proposed)
2	Centre of town	Bus stand	Bus stand (Improvements proposed)
3	Venkatramanana Park Ghandhi nagar	Not efficiently used	Parks (Improvement proposed)
4	Located next to the bus stand	Daily Market	Daily market (Improvements proposed)
5	Existing New bus stand	Shop buildings	Shopping Complex (proposed)
6	Near Bye pass	Land acquisition	New bus stand (proposed)
7	Within municipality limit	Vacant land	Development of layout open spaces as parks (7 nos) (proposed)
8	Bus stand	Slaughter house	Slaughter house (Improvement proposed)
9	New Bus stand	Land acquisition	Shops at new bus stand
10	Located at the outskirts of municipality	Burial ground	Burial ground (improvement proposed)
11	Within municipality limit	Land acquisition	Slaughter house for beef (proposed)

Source: Survey, Analysis and discussion with municipal officials

Table 13-2: Income Details from Remunerative Assets (Rs.in lacs)

S.No	Particulars	Amount
1	Daily Market Fees	4.50
2	Slaughter House Fees	1.25
3	Car & Taxi Stand Fees	5.00
4	Rent from Shopping Complex	45.00
5	Rent from Land & Building	0.05
6	Fees for Bays in Bus	7.50
7	Fees for Pay & Use Toilets	5.00
8	Income fom Water Supply	30.00
9	Income from Water Connections	4.00

Table 13-3: Income from Proposed new Projects

S.No	Description	Income (Rs.in lakhs)
1	Construction of New A grade Bus Stand	12
2	Shops at proposed new bus stand	48
3	Old bus stand - renovation of parking shed	5
4	Shops at existing new bus stand (FF)	14.88
5	Flower and fruit market	11.39
6	Slaughter house - ongoing	1.5
7	Slaughter house - proposed	1.5
8	Burial ground with gasifier	1

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

1. Create land asset register listing all Municipal properties with the following data:

- ◇ Survey number
 - ◇ Location
 - ◇ Ownership data
 - ◇ Date of acquisition
 - ◇ Extent in Sq.m
 - ◇ Present status
 - ◇ Rate per sq.m
2. Establishment of GIS inventory for Municipality lands.
 3. Removal of encroachments on Municipal lands.
 4. Alternatively, levy of rent on Encroached Municipal lands.
 5. Use of land assets for borrowing loans from capital market.
 6. Identifying the most remunerative activity by Public Private Participation, BOT, BOLT, BOOT initiatives.
 7. Lease or rent out of land parcels for a specific period of time.
 8. Asset creation by acquiring lands in peri-urban areas.

13.4 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 13-4: New Assets for the year -2009-10 to 2013 -14

S.No.	Focus Area	Total Cost
1	Water Supply	1351
2	Sewerage & Sanitation	3142.01
3	Solid Waste Management	658.85
4	Drainage	603
5	Traffic & Transportation	1775
6	Streetlight	52
7	Social Infrastructure	329
8	Urban & Municipal Reform	70
9	Slum Improvement	395.2
Total		8376.06

14 FINANCIAL OPERATING PLAN

14.1 CAPITAL INVESTMENT PLAN

The proposed projects for Arani 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 14-1: Projects to be executed by the Municipality

S.No.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	Total
A	Physical Infrastructure Facilities						
I	Water Supply						
a)	Improvements to Water Supply	558.20	792.80	-	-	-	1351.00
II	Sewerage & Sanitation						
a)	Sewerage Scheme	-	-	1505.84	1594.17	-	3100.01
III	Solid Waste Management						
a)	Cost of land fill site and compost yard	158.85	-	-	-	-	158.85
b)	Land fill site & compost yard development	-	200.00	177.00	-	-	377.00
c)	Vehicles & Equipment	23.00	30.00	30.00	40.00	-	123.00
IV	Strom Water Drains						
a)	New Drains	-	-	-	181.20	271.80	453.00
b)	Upgradation of Drains	-	-	-	150.00	-	150.00
V	Roads						
a)	Renovation of existing roads	-	-	-	400.00	620.00	1020.00
b)	Proposed New Roads	-	-	-	-	100.00	100.00
c)	Road Widening	-	-	40.00	-	-	40.00
VI	Bus Stand						
a)	Improvements in Old Bus Stand	-	60.00	-	-	-	60.00
b)	Construction of New Bus Stand & Shops	175.00	350.00	-	-	-	525.00
c)	Two & Four Wheeler parking	-	-	-	30.00	-	30.00
VII	Street Lights						
a)	Proposed new HM Lights	10.00	10.00	15.00	-	-	35.00
b)	Retrofitting & energy saving devices	8.00	9.00	-	-	-	17.00
B	Social Infrastructure Facilities						
I	Slum Improvement						
a)	Improvements to Slums	-	100.00	100.00	100.00	95.20	395.20

II	Parks & Playgrounds						
a)	Renovation of Venkatramana & Gandhi Nagar park	-	-	-	-	22.00	22.00
b)	Development of layout open spaces	-	-	-	30.00	75.00	105.00
III	Market						
a)	Rejuvenation of Market	-	30.00	-	-	-	30.00
b)	Construction of Flower & Fruit market	85.00	-	-	-	-	85.00
IV	Slaughter House						
a)	Construction of Slaughter House with Treatment Plant	-	-	-	-	27.00	27.00
V	Shopping Complex						
a)	Construction of shops at existing new bus stand	60.00	-	-	-	-	60.00
VI	Public Convenience						
	Setting up fo Public Conveniences	-	-	42.00	-	-	42.00
C	Other Projects						
I	Vehicles						
a)	Mobile Tax Collection Vehicle	10.00	-	-	-	-	10.00
II	E-Governance						
a)	E-Governance	10.00	10.00	-	-	-	20.00
a)	GIS Mapping for comprehensive property database	5.00	-	-	-	35.00	40.00
	Total	1103.05	1591.80	1909.84	2525.37	1246.00	8376.06

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

14.2 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 14-2: Projects to be executed by Other Agencies

S.No	Particulars	Total	Funding By
I	Regional Level		
a)	Extension of National Highway connecting Truvannamalai & Vellore	1500.00	NHAI
b)	Feasibility Study for development of rail connectivity from Jolarpet - Polur- Arani - Thiruvathipuram to Kanchipuram	12.00	Railway Authority
c)	Setting up of Regional Resource cum Exhibition center for Technology & Efficiency and Brand Building of industrial skills	60.00	TN Handloom Weavers Co-operative Society
d)	Feasibility study for establishment of Handloom Export Zones	-	Handloom Export Promotion Council
e)	Formation of Nodal Agency to promote and market Aran silk	-	Weavers Co-operative Society
II	Town Level		
a)	Conservation of Water Bodies - Turumalai Samudram Lake	60.00	Water Resources Dept, GoTN / NGO
b)	A 33 KV substation at Payur, installation of 50 new transformers	-	TNEB
c)	ESCO Study	1.00	CMA / TNUIFSL Municipality
d)	Awareness Campaign for NGOs on their roles and responsibilities in community development	5.00	Municipality
e)	Rain Water Harvesting arrangements in Suriyakulam Tank with filter facilities	-	Water Resources Dept, GoTN / Municipality
	Total	1638.00	

Table 14-3: Projects under Implementation by the Municipality

S.No	Particulars	Total Cost	Loan	Grant	Mun Cont.	Funding By
a)	Gasifier	43.00	-	21.50	21.50	0:50:50
b)	Slaughter House	20.00	-	20.00	-	100% Grant
	Total	63.00	0.00	41.50	21.50	

14.3 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 14-4: Multi Year Investment Plan and Means of Finance

S.No.	Particulars	Multi Year Investment Plan					Total
		2009-10	2010-11	2011-12	2012-13	2013-14	
A	Physical Infrastructure Facilities						
1A	Water Supply Improvements						
	Total Project Cost	558.20	792.80	-	-	-	1351.00
	Add : Price Inflation @ 7%	39.07	114.88	0.00	0.00	0.00	153.95
	Total	597.27	907.68	0.00	0.00	0.00	1504.95
	Means of Finance						
	TNUFSL Loan	358.36	544.61	0.00	0.00	0.00	902.97
	Grant	179.18	272.30	0.00	0.00	0.00	451.49
	Municipality Own Funds	59.73	90.77	0.00	0.00	0.00	150.50
	Total	597.27	907.68	0.00	0.00	0.00	1504.95
2	Sewerage Scheme						
	Total Project Cost	-	-	1505.84	1594.17	-	3100.01
	Add : Price Inflation @ 7%	0.00	0.00	338.88	495.46	0.00	834.34
	Total	0.00	0.00	1844.72	2089.63	0.00	3934.35
	Means of Finance						
	TNUFSL Loan	0.00	0.00	1106.83	1253.78	0.00	2360.61
	Grant	0.00	0.00	553.42	626.89	0.00	1180.31
	Municipality Own Funds	0.00	0.00	184.47	208.96	0.00	393.44
	Total	0.00	0.00	1844.72	2089.63	0.00	3934.35
3A	SWM - Cost of Land Fill Site						
	Total Project Cost	158.85	-	-	-	-	158.85
	Add : Price Inflation @ 7%	11.12	0.00	0.00	0.00	0.00	11.12
	Total	169.97	0.00	0.00	0.00	0.00	169.97
	Means of Finance						
	Grant	169.97	0.00	0.00	0.00	0.00	169.97
	Total	169.97	0.00	0.00	0.00	0.00	169.97
3B	SWM - Development of Compost Yard						
	Total Project Cost	-	200.00	177.00	-	-	377.00
	Add : Price Inflation @ 7%	0.00	28.98	39.83	0.00	0.00	68.81
	Total	0.00	228.98	216.83	0.00	0.00	445.81
	Means of Finance						
	Grant	0.00	114.49	108.42	0.00	0.00	222.91
	Municipality Own Funds	0.00	114.49	108.42	0.00	0.00	222.91
	Total	0.00	228.98	216.83	0.00	0.00	445.81
3C	SWM - Vehicles & Equipment						
	Total Project Cost	23.00	30.00	30.00	40.00	-	123.00
	Add : Price Inflation @ 7%	1.61	4.35	6.75	12.43	0.00	25.14
	Total	24.61	34.35	36.75	52.43	0.00	148.14
	Means of Finance						
	Grant	12.31	17.17	18.38	26.22	0.00	74.07
	Municipality Own Funds	12.31	17.17	18.38	26.22	0.00	74.07
	Total	24.61	34.35	36.75	52.43	0.00	148.14
4A	Storm Water Drains - New Drains						
	Total Project Cost	-	-	-	181.20	271.80	453.00

	Add : Price Inflation @ 7%	0.00	0.00	0.00	56.32	109.41	165.73
	Total	0.00	0.00	0.00	237.52	381.21	618.73
	Means of Finance						
	TNUIFSL Loan	0.00	0.00	0.00	142.51	228.73	371.24
	Grant	0.00	0.00	0.00	71.25	114.36	185.62
	Municipality Own Funds	0.00	0.00	0.00	23.75	38.12	61.87
	Total	0.00	0.00	0.00	237.52	381.21	618.73
4B	Storm Water Drains - Upgradation						
	Total Project Cost	-	-	-	150.00	-	150.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	46.62	0.00	46.62
	Total	0.00	0.00	0.00	196.62	0.00	196.62
	Means of Finance						
	TNUIFSL Loan	0.00	0.00	0.00	117.97	0.00	117.97
	Grant	0.00	0.00	0.00	58.99	0.00	58.99
	Municipality Own Funds	0.00	0.00	0.00	19.66	0.00	19.66
	Total	0.00	0.00	0.00	196.62	0.00	196.62
5A	Roads - BT & CC Road - Renovation						
	Total Project Cost	-	-	-	400.00	620.00	1020.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	124.32	249.58	373.90
	Total	0.00	0.00	0.00	524.32	869.58	1393.90
	Means of Finance						
	TNUIFSL Loan	0.00	0.00	0.00	314.59	521.75	836.34
	Grant	0.00	0.00	0.00	157.30	260.87	418.17
	Municipality Own Funds	0.00	0.00	0.00	52.43	86.96	139.39
	Total	0.00	0.00	0.00	524.32	869.58	1393.90
5B	Roads - BT & CC Road - New Roads						
	Total Project Cost	-	-	-	-	100.00	100.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	0.00	40.26	40.26
	Total	0.00	0.00	0.00	0.00	140.26	140.26
	Means of Finance						
	TNUIFSL Loan	0.00	0.00	0.00	0.00	84.15	84.15
	Grant	0.00	0.00	0.00	0.00	42.08	42.08
	Municipality Own Funds	0.00	0.00	0.00	0.00	14.03	14.03
	Total	0.00	0.00	0.00	0.00	140.26	140.26
5C	Roads - BT & CC Road - Road Widening						
	Total Project Cost	-	-	40.00	-	-	40.00
	Add : Price Inflation @ 7%	0.00	0.00	9.00	0.00	0.00	9.00
	Total	0.00	0.00	49.00	0.00	0.00	49.00
	Means of Finance						
	Grant	0.00	0.00	24.50	0.00	0.00	24.50
	Municipality Own Funds	0.00	0.00	24.50	0.00	0.00	24.50
	Total	0.00	0.00	49.00	0.00	0.00	49.00
6A	Bus Stand - Improvement to Old Bus Stand						
	Total Project Cost	-	60.00	-	-	-	60.00
	Add : Price Inflation @ 7%	0.00	8.69	0.00	0.00	0.00	8.69

	Total	0.00	68.69	0.00	0.00	0.00	68.69
	Means of Finance						
	Grant	0.00	34.35	0.00	0.00	0.00	34.35
	Municipality Own Funds	0.00	34.35	0.00	0.00	0.00	34.35
	Total	0.00	68.69	0.00	0.00	0.00	68.69
6B	Bus Stand - New Bus Stand & Shops						
	Total Project Cost	175.00	350.00	-	-	-	525.00
	Add : Price Inflation @ 7%	12.25	50.72	0.00	0.00	0.00	62.97
	Total	187.25	400.72	0.00	0.00	0.00	587.97
	Means of Finance						
	Loan	168.53	360.64	0.00	0.00	0.00	529.17
	Municipality Own Funds	18.73	40.07	0.00	0.00	0.00	58.80
	Total	187.25	400.72	0.00	0.00	0.00	587.97
6C	Bus Stand - Parking Area						
	Total Project Cost	-	-	-	30.00	-	30.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	9.32	0.00	9.32
	Total	0.00	0.00	0.00	39.32	0.00	39.32
	Means of Finance						
	BOOT Basis	0.00	0.00	0.00	39.32	0.00	39.32
	Total	0.00	0.00	0.00	39.32	0.00	39.32
7A	Street Lights - New HM Lights						
	Total Project Cost	10.00	10.00	15.00	-	-	35.00
	Add : Price Inflation @ 7%	0.70	1.45	3.38	0.00	0.00	5.52
	Total	10.70	11.45	18.38	0.00	0.00	40.52
	Means of Finance						
	Municipality Own Funds	10.70	11.45	18.38	0.00	0.00	40.52
	Total	10.70	11.45	18.38	0.00	0.00	40.52
7A	Street Lights - Retrofitting & Energy Saving						
	Total Project Cost	8.00	9.00	-	-	-	17.00
	Add : Price Inflation @ 7%	0.56	1.30	0.00	0.00	0.00	1.86
	Total	8.56	10.30	0.00	0.00	0.00	18.86
	Means of Finance						
	ESCO	8.56	10.30	0.00	0.00	0.00	18.86
	Total	8.56	10.30	0.00	0.00	0.00	18.86
B	Social Infrastructure Facilities						
1	Slum Improvement						
	Total Project Cost	-	100.00	100.00	100.00	95.20	395.20
	Add : Price Inflation @ 7%	0.00	14.49	22.50	31.08	38.32	106.40
	Total	0.00	114.49	122.50	131.08	133.52	501.60
	Means of Finance						
	Grant	0.00	103.04	110.25	117.97	120.17	451.44
	Municipality Own Funds	0.00	11.45	12.25	13.11	13.35	50.16
	Total	0.00	114.49	122.50	131.08	133.52	501.60
2A	Parks - Renovation of Parks						
	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
2B	Parks - Development of Layouts						
	Total Project Cost	-	-	-	30.00	75.00	105.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	9.32	30.19	39.52
	Total	0.00	0.00	0.00	39.32	105.19	144.52
	Means of Finance						
	Grant	0.00	0.00	0.00	19.66	52.60	72.26
	Municipality Own Funds	0.00	0.00	0.00	19.66	52.60	72.26
	Total	0.00	0.00	0.00	39.32	105.19	144.52
3A	Market- Rejuvenation of Market						
	Total Project Cost	-	30.00	-	-	-	30.00
	Add : Price Inflation @ 7%	0.00	4.35	0.00	0.00	0.00	4.35
	Total	0.00	34.35	0.00	0.00	0.00	34.35
	Means of Finance						
	Municipality Own Funds	0.00	34.35	0.00	0.00	0.00	34.35
	Total	0.00	34.35	0.00	0.00	0.00	34.35
3B	Market- Construction of Flower & Fruit Market						
	Total Project Cost	85.00	-	-	-	-	85.00
	Add : Price Inflation @ 7%	5.95	0.00	0.00	0.00	0.00	5.95
	Total	90.95	0.00	0.00	0.00	0.00	90.95
	Means of Finance						
	TNUIFSL Loan	81.86	0.00	0.00	0.00	0.00	81.86
	Municipality Own Funds	9.10	0.00	0.00	0.00	0.00	9.10
	Total	90.95	0.00	0.00	0.00	0.00	90.95
4	Slaughter House						
	Total Project Cost	-	-	-	-	27.00	27.00
	Add : Price Inflation @ 7%	0.00	0.00	0.00	0.00	10.87	10.87
	Total	0.00	0.00	0.00	0.00	37.87	37.87
	Means of Finance						
	Grant	0.00	0.00	0.00	0.00	18.93	18.93
	Municipality Own Funds	0.00	0.00	0.00	0.00	18.93	18.93
	Total	0.00	0.00	0.00	0.00	37.87	37.87
5	Shopping Complex						
	Total Project Cost	60.00	-	-	-	-	60.00
	Add : Price Inflation @ 7%	4.20	0.00	0.00	0.00	0.00	4.20
	Total	64.20	0.00	0.00	0.00	0.00	64.20
	Means of Finance						
	TNUIFSL Loan	57.78	0.00	0.00	0.00	0.00	57.78
	Municipality Own Funds	6.42	0.00	0.00	0.00	0.00	6.42
	Total	64.20	0.00	0.00	0.00	0.00	64.20
6	Public Convenience						
	Total Project Cost	-	-	42.00	-	-	42.00
	Add : Price Inflation @ 7%	0.00	0.00	9.45	0.00	0.00	9.45

	Total	0.00	0.00	51.45	0.00	0.00	51.45
	Means of Finance						
	Grant	0.00	0.00	25.73	0.00	0.00	25.73
	Municipality Own Funds	0.00	0.00	25.73	0.00	0.00	25.73
	Total	0.00	0.00	51.45	0.00	0.00	51.45
III	Other Projects						
1	Vehicles						
	Mobile Tax Collection Vehicle	10.00	-	-	-	-	10.00
	Add : Price Inflation @ 7%	0.70	0.00	0.00	0.00	0.00	0.70
	Total	10.70	0.00	0.00	0.00	0.00	10.70
	Means of Finance						
	Municipality Own Funds	10.70	0.00	0.00	0.00	0.00	10.70
	Total	10.70	0.00	0.00	0.00	0.00	10.70
2A	E-Governance						
	Total Project Cost	10.00	10.00	-	-	-	20.00
	Add : Price Inflation @ 7%	0.70	1.45	0.00	0.00	0.00	2.15
	Total	10.70	11.45	0.00	0.00	0.00	22.15
	Means of Finance						
	Grant	10.70	11.45	0.00	0.00	0.00	22.15
	Total	10.70	11.45	0.00	0.00	0.00	22.15
2B	GIS Mapping						
	Total Project Cost	5.00	-	-	-	35.00	40.00
	Add : Price Inflation @ 7%	0.35	0.00	0.00	0.00	14.09	14.44
	Total	5.35	0.00	0.00	0.00	49.09	54.44
	Means of Finance						
	Grant	4.82	0.00	0.00	0.00	44.18	49.00
	Municipality Own Funds	0.54	0.00	0.00	0.00	4.91	5.44
	Total	5.35	0.00	0.00	0.00	49.09	54.44

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

Table 14-5: Consolidated Means of Finance

S.No.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	Total
I	Project Cost						
	Total Project Cost	1103.05	1591.80	1909.84	2525.37	1246.00	8376.06
	Add : Price Inflation @ 7%	77.21	230.65	429.80	784.87	501.58	2024.12
	Total	1180.26	1822.45	2339.64	3310.24	1747.58	10400.18
II	Means of Finance						
	Municipality Own Funds (including Deposits from Public)	128.21	354.09	392.12	363.79	244.32	1482.54
	Grant	376.97	552.80	840.69	1078.28	668.62	3517.36
	TNUISL Loan	666.52	905.25	1106.83	1828.85	834.63	5342.09
	BOOT / Private Sector	8.56	10.30	0.00	39.32	0.00	58.19
	Total	1180.26	1822.45	2339.64	3310.24	1747.58	10400.18

14.4 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 Ranipet 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.

14.5 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 :

14.5.1 Income

a) Property Tax

The population of Arani Municipality is estimated to grow at around 1.40% p.a. Based on the same Property Tax Revenue are assumed to increase @ 1.20% 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 15% due to revision in 2008-09 & that revision would be done @ 15% every 5 years.

It has also been established as per the Survey in 2002 that around 27% of the properties are unassessed and further 20-25% of the properties are unassessed. Considering the above, it is assumed that the same shall be set right and together these shall contribute to increase in property tax revenue by 15% from next year viz. 2009-10 on account of property mapping.

The Property Tax income is divided between Revenue, Water Supply and Education Fund in the following ratio:

Table 14-6: Ratio of Property tax

	Per Annum		
General	1.500%)	
Scavanging	3.000%	)	Revenue & Capital Fund
Lighting	3.000%)	
Water Tax	7.500%	}	Water Supply & Drainage Fund
Drainage	-	}	
Education	2.500%	]	Education Fund
Total	17.500%		

b) Profession tax

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

Besides, the profession tax base would be increased by carrying out survey in 2010-11. It is assumed that the survey would increase the profession tax base by 20% in 2010-11.

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	: 2%

d) Devolution Fund

Devolution Fund is also assumed to increase by 7.50% per annum

e) Service charges and fees

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

f) Grant and Contribution

No Grant has been assumed in the financial projections.

g) Sales and Hire charges

Nil income assumed from Sales & Hire Charges.

h) Other Income

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

i) Water Supply Charges

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

Table 14-7: Water supply Charges – Existing

Type of service connections	Connection	Tariff	
Residential	Rs. 4000	Rs.50.00	Per month
Commercial	Rs. 8000	Rs.200.00	per month
Industrial	Rs. 8000	Rs.300.00	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.50.00 p.m

Commercial - Rs.200.00 p.m

Industrial - Rs. 300.00 p.m.

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

Residential - Rs.4000

Commercial - Rs.8000

Industrial - Rs.8000

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 14-8: House Service Connections – Percentage

Year 2004-05	Property tax assessments	House service connections	%
Residential	11064	4949	45%
Commercial	1450	151	10%
Industrial & Govt.	23	0	0%

The improvements in water supply shall result in increase in operation & maintenance by Rs.20 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. 3100 lakhs. The implementation period is 2 years starting from 2011-12 to 2012-13. 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 :

2011-12	50%
2012-13	50%

The Deposits and Charges shall be collected accordingly.

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

Table 14-9: Sewage Charges

Assessments	Deposits (in Rs)	Tariff (in Rs)
Residential	5000	75
Commercial	10000	150
Industrial	15000	300

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.63 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 24 MTs. 1/3rd 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 3 MTs. The same shall increase @ 5% per annum.

The revenue from solid waste disposal shall be Rs.1000.00 per MT. The same shall increase by Rs.100.00 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 :

Domestic	- Rs.10.00 per month after 5 years
Commercial	- Rs.20.00 per month
Industrial/Government	- Rs.30.00 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. 658.85 lakhs and the O&M cost shall be equal to around Rs. 32.84 lacs per annum. The same shall increase @ 5% per annum.

l) Bus Stand

Improvements / Renovation to Old Bus Stand shall be carried out at a cost of Rs. 60 lacs on BOOT Basis. The same shall result in increase in income by 20% to the Municipality.

Construction of New A Grade Bus Stand shall be undertaken for Rs. 525 lacs. The same has been auctioned for Rs. 12 lacs per annum. The income shall increase @ 15% every 3 years.

Besides, shops shall be constructed at New Bus Stand as given below :

Table 14-10: Bus stand - Assumptions

Particulars	No. of Shops	Rent per Month
Shops	100	4000

Besides, renovation of old Bus Stand by construction of parking shed on BOOT Basis shall be undertaken for Rs. 30 lacs. The same shall result in rental income of Rs. 5 lacs per annum and the same shall increase @ 15% every 3 years.

The parking area shall constructed on BOOT basis and income from parking area shall accrue to BOOT Operator for the first 10 years and thereafter to the Municipality.

The O&M charges of the Bus Stand shall amount to Rs. 18.45 lacs per annum. The same shall increase @ 5% per annum.

J) Market

Improvements to Market shall be carried out at a cost of Rs. 115 lacs.

It is estimated that the improvements shall increase the revenue from Market to the Municipality as given below :

Table 14-11: Market - Assumptions

Particulars	No. of Shops	Rent per Month
New Shops	73	1300

The same shall increase @ 15% every 3 years.

The O&M charges on market shall be equal to Rs. 3.45 lacs per annum. The same shall increase @ 5% per annum.

m) Remunerative Projects

A Shopping Complex shall be constructed at a cost of Rs. 60 lacs. The total number of additional shops to be constructed shall be as below :

Table 14-12: Shopping complex - Assumptions

Particulars	No. of Shops	Rent per Month
Big Shops	20	5000
Small Shops	24	1000

The rental income shall increase by 15% every 3 years.

The annual O&M charges shall be equal to Rs. 1.80 lacs and the same shall increase @ 5% per annum.

o) Slaughter House & Gasifier Crematorium

The income from Ongoing Slaughter House shall be Rs. 1.50 lacs per annum. The expenses of Slaughter House shall be Rs. 1.00 lacs per annum. Both shall increase @ 5% per annum.

The income from New Slaughter House shall be Rs. 1.50 lacs per annum. The expenses of Slaughter House shall be Rs. 0.81 lacs per annum. Both shall increase @ 5% per annum.

The income from Burial Ground shall be Rs. 1 lac per annum. The expenses of Burial Ground shall also be Rs. 0.86 lac per annum. Both shall increase @ 5% per annum.

p) Advertisements

Bill Boards would be put at 15 places through out the Municipality. Rent shall be earned @ Rs.500.00 per Bill board per month. The rent shall increase @ Rs. 100/- every 3 years.

q) Parking Fees

Parking Lots would be developed and income from parking is estimated at Rs.2.00 lakhs per annum. The same would increase @ 3% per annum.

14.5.2 Expenditure**a) Increase in Expenditure**

The expenses are assumed to increase as under :

Table 14-13: Assumptions - Increase in Expenditure

Personnel Cost – Salaries	5.00%
Personnel Cost – Others	7.50%
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 14-14: Assumptions – O&M

Ongoing Projects	Rs. in lakhs
Gasifier Crematorium	0.86
Slaughter House	1.00
New Projects (other than Sewerage & Water supply)	Rs. in lakhs
Strom Water Drains	30.15
Solid Waste Management	32.94
Roads	58.00
Bus Stand	18.45
Street Lights	2.60
Slum Improvement	11.86
Parks	3.81
Market	3.45
Shopping Complex	1.80
Public Convenience	1.26
Slaughter House	0.81
E- Governance	1.81
Others	0.50
Total	169.29

The same shall increase @ 5% per annum.

c) Power charges

There will be a savings of around 40% in power charges due to installation of energy saving lights. As the same will be installed by private players, the savings in power charges have been factored in the financial projections after 15 years. It is assumed that the savings in power charges would be utilised towards returns of the private player towards capital cost and interest.

d) Interest

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

Sewerage & Water Supply Loan

It is assumed that all new loan shall carry interest rate of 9.5% per annum. The loan from TNUISL 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 TNUISL 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 14-15: Assumptions – Provision of doubtful debts

Provision for Doubtful Debts is assumed @	2%	on total revenue for Revenue Fund
Provision for Doubtful Debts is assumed @	1%	on total revenue for Water Fund
Provision for Doubtful Debts is assumed @	0%	on total revenue for Education Fund

14.5.3 Collections**a) Property tax****Table 14-16: Assumptions – Property tax collection**

The current property tax collection is over the next 5 years.	70%	The same shall improve to	95%
The arrears property tax collection is over the next 5 years.	30%	The same shall improve to	60%

b) Profession tax**Table 14-17: Assumptions – Profession tax**

The current profession tax collection is over the next 5 years.	64%	The same shall improve to	90%
The arrears profession tax collection is over the next 5 years.	25%	The same shall improve to	50%

c) Other Non Tax Income**Table 14-18: Assumptions – Other Non Tax Income**

The current rental / lease collection is over the next 5 years.	61%	The same shall be	90%
The arrears collection % of rent / lease is over the next 5 years.	47%	The same shall improve to	60%

d) Water Charges**Table 14-19: Assumptions – Water Charges**

The current water charges collection is over the next 5 years.	37%	The same shall improve to	80%
The arrears water charges collection is over the next 5 years.	20%	The same shall improve to	60%

e) Drainage Charges**Table 14-20: Assumptions – Drainage Charges**

The current drainage collection is over the next 5 years.	Nil	The same shall be	80%
The arrears drainage collection is over the next 5 years.	Nil	The same shall be	60%

f) Other income

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

g) Others

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

14.5.4 Annuity Factor

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

Table 14-21: Terms of Loan Funding for Proposed Investments

Tenor	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	31.00	21.00
Conversion Factor	3.96	3.86
Total Conversion Factor	7.83	

Note : Sewerage & Water Supply Loan works out to 31% of total project cost identified. Other Loans works out to 21% of total project cost identified.

14.6 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 14.22 captures the Income and Expenditure projections for the next 20 years with potential improvements and borrowings:

Table 14-22: Consolidated Income & Expenditure for next 20 years (up to FY 2028-29)

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	103.12	118.59	136.38	138.02	139.67	141.35	162.55	164.50	166.48	168.47	170.50
b)	Other Taxes	13.21	15.20	15.65	18.78	19.35	19.93	22.92	23.60	24.31	25.04	25.79
c)	Assigned Revenue	46.22	48.16	50.20	52.32	54.55	56.88	59.32	61.87	64.54	67.34	70.27
d)	Devolution Fund	155.88	167.57	180.13	193.64	208.17	223.78	240.56	258.60	278.00	298.85	321.26
e)	Service Charges & Fees	58.46	60.30	62.21	64.20	169.90	186.71	325.89	341.16	347.62	382.64	400.37
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	63.66	66.84	74.12	104.01	107.81	125.84	134.56	141.08	146.60	156.73	179.62
	Total Income	440.55	476.66	518.70	570.98	699.45	754.49	945.80	990.82	1027.54	1099.07	1167.81
II	Expenditure											
a)	Personnel Salaries Cost	164.09	172.30	180.91	189.96	199.46	203.46	213.63	224.31	235.53	247.30	259.67
b)	Personnel Cost - Others	2.72	2.92	3.14	3.37	3.63	3.90	4.19	4.51	4.84	5.21	5.60
b)	Terminal & Ret Benefits	23.26	24.42	25.64	26.92	28.27	29.68	31.17	32.73	34.36	36.08	37.88
c)	Operating Expenses	62.64	68.19	155.95	245.95	280.16	359.23	379.40	400.75	423.35	447.27	472.59
d)	Repairs & Maintenance	13.45	14.46	15.54	16.71	17.96	19.31	20.75	22.31	23.98	25.78	27.72
e)	Program Expenses	0.16	0.17	0.17	0.18	0.18	0.19	0.19	0.19	0.20	0.20	0.21
f)	Administration Expenses	11.40	11.94	12.51	13.11	13.74	14.41	15.10	15.83	16.60	17.40	18.25
g)	Finance Expenses	19.77	17.75	80.06	165.38	269.13	436.78	510.12	498.61	475.70	443.03	403.12
h)	Depreciation	28.88	31.45	59.79	112.47	180.33	375.54	695.94	762.22	596.83	482.41	401.39
	Total Expenditure	326.36	343.59	533.72	774.05	992.86	1442.48	1870.50	1961.46	1811.40	1704.70	1626.43
	Surplus / (Deficit)	114.18	133.06	(15.03)	(203.07)	(293.41)	(687.99)	(924.71)	(970.64)	(783.86)	(605.62)	(458.62)
	Profit before Depreciation	143.07	164.51	44.77	-90.60	-113.08	-312.45	-228.76	-208.42	-187.03	-123.22	-57.23

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	196.07	198.42	200.80	203.21	205.65	236.50	239.34	242.21	245.12	248.06	285.27
b)	Other Taxes	29.66	30.55	31.47	32.41	33.38	38.39	39.54	40.73	41.95	43.21	49.69
c)	Assigned Revenue	73.33	76.54	79.90	83.42	87.11	90.97	95.02	99.25	103.69	108.34	113.21
d)	Devolution Fund	345.36	371.26	399.10	429.04	461.22	495.81	532.99	572.97	615.94	662.13	711.79
e)	Service Charges & Fees	433.81	442.13	462.57	502.70	512.34	572.09	582.84	595.03	656.74	669.09	714.61
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	186.34	198.42	205.61	213.33	238.60	247.16	256.31	272.60	282.44	305.79	324.85
	Total Income	1264.58	1317.32	1379.46	1464.11	1538.31	1680.92	1746.04	1822.79	1945.88	2036.63	2199.42
II	Expenditure											
a)	Personnel Salaries Cost	272.65	286.29	300.60	315.63	331.41	347.98	365.38	383.65	402.83	422.97	444.12
b)	Personnel Cost - Others	6.02	6.47	6.95	7.48	8.04	8.64	9.29	9.98	10.73	11.54	12.40
b)	Terminal & Ret Benefits	39.78	41.77	43.86	46.05	48.35	50.77	53.31	55.97	58.77	61.71	64.79
c)	Operating Expenses	499.40	527.79	557.85	589.69	623.43	659.16	688.81	728.32	770.19	814.55	861.58
d)	Repairs & Maintenance	29.80	32.03	34.43	37.02	39.79	42.78	45.98	49.43	53.14	57.13	61.41
e)	Program Expenses	0.22	0.22	0.23	0.23	0.24	0.24	0.25	0.26	0.26	0.27	0.28
f)	Administration Expenses	19.14	20.07	21.05	22.07	23.15	24.29	25.47	26.72	28.03	29.41	30.86
g)	Finance Expenses	359.37	317.00	278.80	242.88	210.49	187.35	168.11	149.11	130.70	111.99	94.18
h)	Depreciation	342.62	298.93	265.64	239.67	218.94	202.04	187.99	176.09	165.85	156.90	148.98
	Total Expenditure	1568.99	1530.56	1509.41	1500.72	1503.84	1523.25	1544.60	1579.54	1620.51	1666.48	1718.60
	Surplus / (Deficit)	(304.42)	(213.24)	(129.95)	(36.61)	34.47	157.67	201.45	243.25	325.37	370.15	480.82
	Profit before Depreciation	38.21	85.69	135.69	203.06	253.41	359.71	389.44	419.34	491.22	527.06	629.80

It may be observed from the above table that the Municipality has surplus prior to depreciation in 11 out of the next 20 years and the cumulative cash flows are negative in all the next 20 years.

b) Balance Sheet

Table 14-23: Consolidated Balance Sheet for next 20 years (up to FY 2028 – 29)

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	78.06	61.04	710.55	1598.79	2650.09	4385.34	5136.37	4956.99	4636.98	4243.18	3765.79
	Cont from Municipal Fund	21.38	42.88	171.09	525.18	917.30	1281.09	1525.42	1525.42	1525.42	1525.42	1525.42
	Cont from Government	413.90	413.90	413.90	413.90	413.90	413.90	413.90	413.90	413.90	413.90	413.90
	Cont from Private Parties	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
	Grant	216.57	258.07	635.04	1187.85	2028.53	3106.81	3775.43	3775.43	3775.43	3775.43	3775.43
	Accumulated Depreciation	446.44	477.89	537.68	650.15	830.49	1206.03	1901.97	2664.19	3261.01	3743.42	4144.81
b)	Current Liabilities											
	Tender Deposits	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75
	Security Deposits	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	Deposits Others	45.20	45.20	45.20	45.20	45.20	45.20	45.20	45.20	45.20	45.20	45.20
	Deposit on Water Conn	4.46	9.01	58.91	33.04	70.78	155.17	242.76	255.08	267.65	283.68	300.03
	Deposit on Sewerage	0.00	0.00	0.00	0.00	10.17	69.82	281.59	295.09	308.86	325.71	342.91
	Library Cess Payable	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
	Accounts payable Staff	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	A/cs payable Contractor	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
	Other Payable	42.20	42.20	42.20	42.20	42.20	42.20	42.20	42.20	42.20	42.20	42.20
	Interest Payable	89.46	89.46	89.46	89.46	89.46	89.46	89.46	89.46	89.46	89.46	89.46
	Outstandings	63.25	63.25	63.25	63.25	63.25	63.25	63.25	63.25	63.25	63.25	63.25
	Rec from staff bills pay	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00
	Prov for Doubtful colln	99.32	107.63	116.65	126.69	138.86	151.97	167.38	183.63	200.55	218.55	237.85
	Adv colln of Property Tax	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66
	Inter Funds Transfer	101.74	101.74	101.74	101.74	101.74	101.74	101.74	101.74	101.74	101.74	101.74
c)	Accumulated Surplus	2462.15	2595.22	2580.19	2377.12	2083.71	1395.72	471.01	-499.63	-1283.49	-1889.11	-2347.73
	Total	4413.03	4636.39	5894.77	7583.47	9814.58	12836.59	14586.57	14240.85	13777.07	13310.93	12829.16

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	3288.41	2849.54	2455.76	2061.97	1740.07	1522.50	1304.93	1087.36	869.78	652.21	434.64
	Cont from Municipal Fund	1525.42	1525.42	1525.42	1525.42	1525.42	1525.42	1525.42	1525.42	1525.42	1525.42	1525.42
	Cont from Government	413.90	413.90	413.90	413.90	413.90	413.90	413.90	413.90	413.90	413.90	413.90
	Cont from Private Parties	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
	Grant	3775.43	3775.43	3775.43	3775.43	3775.43	3775.43	3775.43	3775.43	3775.43	3775.43	3775.43
	Accumulated Depreciation	4487.43	4786.36	5052.00	5291.67	5510.61	5712.65	5900.64	6076.74	6242.59	6399.50	6548.47
b)	Current Liabilities											
	Tender Deposits	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75	36.75
	Security Deposits	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	Deposits Others	45.20	45.20	45.20	45.20	45.20	45.20	45.20	45.20	45.20	45.20	45.20
	Deposit on Water Conn	316.70	333.71	351.05	372.29	393.94	416.03	438.57	461.55	488.90	516.80	545.25
	Deposit on Sewerage	360.44	378.33	396.57	418.28	440.43	463.02	486.06	509.56	536.95	564.89	593.40
	Library Cess Payable	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
	Accounts payable Staff	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	A/c payable Contractor	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
	Other Payable	42.20	42.20	42.20	42.20	42.20	42.20	42.20	42.20	42.20	42.20	42.20
	Interest Payable	89.46	89.46	89.46	89.46	89.46	89.46	89.46	89.46	89.46	89.46	89.46
	Outstandings	63.25	63.25	63.25	63.25	63.25	63.25	63.25	63.25	63.25	63.25	63.25
	Rec from staff bills pay	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00
	Prov for Doubtful colln	258.60	280.32	303.20	327.37	352.94	380.78	409.82	440.30	472.78	506.96	543.72
	Adv coll of Property Tax	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66
	Inter Funds Transfer	101.74	101.74	101.74	101.74	101.74	101.74	101.74	101.74	101.74	101.74	101.74
c)	Accumulated Surplus	-2652.15	-2865.39	-2995.33	-3031.94	-2997.47	-2839.80	-2638.35	-2395.11	-2069.74	-1699.59	-1218.76
	Total	12444.94	12148.37	11948.75	11825.14	11826.03	12040.69	12287.17	12565.89	12926.76	13326.27	13832.22

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	2850.38	2913.38	4093.64	5916.10	8255.73	11565.98	13313.56	13313.56	13313.56	13313.56	13313.56
b)	Current Assets											
	Stock	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
	Property Tax - Current	25.78	23.72	20.46	13.80	6.98	7.07	8.13	8.23	8.32	8.42	8.52
	Property Tax - Arrears	169.09	127.24	87.34	55.39	35.96	21.37	15.61	14.37	13.97	13.91	13.99
	Profession Tax - Current	3.96	3.04	1.57	1.88	1.93	1.99	2.29	2.36	2.43	2.50	2.58
	Profession Tax - Arrears	12.66	12.83	10.74	6.93	5.34	4.61	4.30	4.44	4.58	4.72	4.86
	Lease Amounts - Current	21.09	18.98	13.29	9.61	9.95	10.32	11.10	11.50	11.93	12.83	13.29
	Lease Amounts - Arrears	56.35	43.63	32.07	22.91	16.48	14.90	14.79	15.54	16.16	16.78	17.86
	Water Charges - Current	21.64	18.39	15.01	11.48	16.17	19.24	22.43	22.88	23.34	29.48	30.07
	Water Charges - Arrears	39.64	49.39	48.02	39.02	27.09	27.01	30.05	34.45	36.66	38.00	44.68
	Sewerage Chgs - Current	0.00	0.00	0.00	0.00	0.00	0.00	24.34	24.83	25.32	25.83	26.35
	Sewerage Chgs - Arrears	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.34	34.56	39.15	41.49
	Specific Grant Receivable	6.32	6.32	6.32	6.32	6.32	6.32	6.32	6.32	6.32	6.32	6.32
	Staff Advance Rec	7.50	8.50	9.50	10.50	11.50	12.50	13.50	14.50	15.50	16.50	17.50
	Advance to Suppliers	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
	Advance to Contractors	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Employee Advance Rec	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25
	Other Advances – Rec	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00
	Funds Transfer	260.35	260.35	260.35	260.35	260.35	260.35	260.35	260.35	260.35	260.35	260.35
	Material cost - Rec	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Deposit Recoverable	183.00	183.00	183.00	183.00	183.00	183.00	183.00	183.00	183.00	183.00	183.00
	Outstandings	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	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	529.52	741.88	887.72	820.43	752.01	476.19	451.06	74.43	-404.70	-886.17	-1381.02
	Total	4413.03	4636.39	5894.77	7583.47	9814.58	12836.59	14586.57	14240.85	13777.07	13310.93	12829.16

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	13313.56	13313.56	13313.56	13313.56	13313.56	13313.56	13313.56	13313.56	13313.56	13313.56	13313.56
b)	Current Assets											
	Stock	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
	Property Tax - Current	9.80	9.92	10.04	10.16	10.28	11.82	11.97	12.11	12.26	12.40	14.26
	Property Tax - Arrears	14.12	15.45	16.10	16.48	16.75	16.98	18.62	19.41	19.88	20.21	20.49
	Profession Tax - Current	2.97	3.06	3.15	3.24	3.34	3.84	3.95	4.07	4.20	4.32	4.97
	Profession Tax - Arrears	5.01	5.47	5.79	6.04	6.26	6.47	7.07	7.49	7.82	8.10	8.37
	Lease Amounts - Current	13.78	14.82	15.36	15.93	17.13	17.75	18.41	19.79	20.52	21.28	22.87
	Lease Amounts - Arrears	18.65	19.38	20.64	21.55	22.40	23.85	24.91	25.88	27.56	28.78	29.91
	Water Charges - Current	30.67	31.29	31.91	38.82	39.60	40.39	41.20	42.02	49.78	50.78	51.80
	Water Charges - Arrears	47.95	49.85	51.23	52.41	59.78	63.51	65.80	67.52	69.03	77.40	81.74
	Sewerage Chgs - Current	32.04	32.68	33.34	34.00	34.68	41.09	41.91	42.75	43.60	44.47	51.66
	Sewerage Chgs - Arrears	42.94	49.22	52.37	54.29	55.72	56.97	63.88	67.46	69.73	71.49	73.07
	Specific Grant Rec	6.32	6.32	6.32	6.32	6.32	6.32	6.32	6.32	6.32	6.32	6.32
	Staff Advance Rec	18.50	19.50	20.50	21.50	22.50	23.50	24.50	25.50	26.50	27.50	28.50
	Advance to Suppliers	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
	Advance to Contractors	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Employee Advance Rec	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25
	Other Advances – Rec	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00
	Funds Transfer	260.35	260.35	260.35	260.35	260.35	260.35	260.35	260.35	260.35	260.35	260.35
	Material cost – Rec	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Deposit Recoverable	183.00	183.00	183.00	183.00	183.00	183.00	183.00	183.00	183.00	183.00	183.00
	Outstandings	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	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	-1780.49	-2091.26	-2300.66	-2438.26	-2451.40	-2254.47	-2024.02	-1757.09	-1413.08	-1029.45	-544.40
	Total	12444.94	12148.37	11948.75	11825.14	11826.03	12040.69	12287.17	12565.89	12926.76	13326.27	13832.22

The full projects investment scenario indicates that Arani Municipality would end up with a cumulative cash deficit of Rs. 544 lacs by the end of FY 2028-29 (after 20 years)

14.7 IMPACT OF POTENTIAL IMPROVEMENTS

Arani'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 chapter 12 of the report. On 'Full Project Investment Scenario' basis, Arani's own revenues (comprising taxes, user charges and other income) could grow from Rs. 238 lacs in FY 2006-07 to Rs. 1342 lacs by FY 2028-29, implying an absolute growth of 23%. Arani 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. 520 lacs 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.

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

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

A comprehensive energy audit is required, given that 60-70% 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 Arani's high power costs.

14.8 SCENARIO I - ESTIMATION OF INVESTMENT CAPACITY ON AS IS WHERE BASIS

We carried out the exercise of arriving at the Investment and Borrowing Capacity on as is where basis without any financial reforms being carried out and no new projects taken in to consideration. The borrowing capacity has been arrived by taking the NPV over the next 20 years on the minimum of the following :

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

The investment capacity has been arrived @ of 4 times the borrowing capacity assuming that loans constitute 25% of total investment requirement.

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

Table 14-24: Summary of Borrowing and Investment Capacity

Borrowing Capacity	Rs. 2338.46 lacs
Investment Capacity (BC x 4 times)	Rs. 9353.86 lacs

14.9 SCENARIO II - ESTIMATION OF BORROWING AND INVESTMENT CAPACITY WITH PROJECTS

In Scenario II, the financial projections have been worked out for the next 30 years, by taking in to consideration all the projects identified in CCP. Future income and expenditure of these individual projects have been worked out and then consolidated to arrive at the Municipality's cash flows for the next 30 years. The financial projections for the next 20 years have been taken to arrive at the Borrowing and Investment capacity. We have arrived at the borrowing capacity of Arani Municipality on the minimum of the following:

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

The overall financing mix has been arrived to include 52% Loans, 34% Grants and 14% own funds. The repayment period of loans has been taken at 5+15 years for Sewerage and Water Supply Loans 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 14-25: Summary of Borrowing and Investment Capacity

Borrowing Capacity	Rs. 3108.09 lacs
Investment Capacity (BC/0.52)	Rs. 5977.10 lacs
Investment Requirement	Rs. 8376.06 lacs
Sustainable Investment Capacity % - IC / IR	71.36%

At an aggregate level, assuming loans to be equivalent to 52% of investment, sustainable investment capacity works out to 71.36%.

14.10 KEY INDICATORS OF SCENARIO II

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

Table 14-26: Key Indicators

	Minimum	Maximum	Average
Existing (2001-02 to 2006-07)			
Operating Ratio	0.46	1.01	0.82
Debt Service Ratio	0%	17%	10%
Category			1
Short Term (2009-10 to 2013-14)			
Operating Ratio	0.91	1.41	1.18
Debt Service Ratio	17%	68%	44%
Category			3
Long Term (2009-10 to 2028-29)			
Operating Ratio	0.71	1.41	0.97
Debt Service Ratio	12%	75%	43%
Category			2

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

It may be observed that the Municipality financials are fragile in the short run with Operating Ratio > 1% and Debt Service Ratio > 30%. But in the long run, the operating ratio has improved to 0.97.

14.11 INFERENCE

- The investment capacity of Arani Municipality on 'As is Where Basis' works out to Rs. 9354 lacs.
- The investment capacity of Arani Municipality works to 71% in case of Scenario II with all projects identified in CCP taken in to consideration.
- In value terms the investment capacity works out to Rs.5977 lacs in case of Scenario II, with all projects taken in to consideration.
- The investment capacity has got reduced from Rs. 9354 lacs in Scenario I (As is Where Basis) to Rs. 5977 in Scenario II (with all projects), mainly on account of high operation & maintenance and interest cost in case of certain projects like roads and storm water drainage etc.

- Thus taking in to consideration the investment capacity of Rs. 5977 lacs, the following projects can be implemented by the Municipality :

S.No.	Particulars	Total	Priority	Funding By
A	Physical Infrastructure Facilities			L : G : M
I	Water Supply			
a)	Improvements to Water Supply	1351.00	A	60:30:10
II	Sewerage & Sanitation			
a)	Sewerage Scheme	3100.01	A	60:30:10
III	Solid Waste Management			
a)	Cost of land fill site and compost yard	158.85	A	100% Grant
b)	Land fill site & compost yard development	377.00	A&B	0:50:50
c)	Vehicles & Equipment	123.00	A	0:50:50
VI	Bus Stand			
a)	Improvements in Old Bus Stand	60.00	A	0:50:50
b)	Construction of New Bus Stand & Shops	525.00	A	0:90:10
c)	Two & Four Wheeler parking	30.00	A	BOOT
VII	Street Lights			
a)	Proposed new HM Lights	35.00	A	100% ULB
b)	Retrofitting & energy saving devices	17.00	A	ESCO
B	Social Infrastructure Facilities			
III	Market			
b)	Construction of Flower & Fruit market	85.00	A	0:90:10
V	Shopping Complex			
a)	Construction of shops at existing new bus stand	60.00	A	0:90:10
C	Other Projects			
I	Vehicles			
a)	Mobile Tax Collection Vehicle	10.00	A	100% ULB
II	E-Governance			
a)	E-Governance	20.00	B	100% Grant
a)	GIS Mapping for comprehensive property database	40.00	A	0:90:10
	Total	5991.85		

- As regards other projects, more support from the Government would be required towards both capital cost and operation & maintenance expenses.

Annexure

Annexure I - a : First Minutes of Meeting: Stakeholders' Workshop -Arani

Date of Workshop : January 26, 2008
Time (Opening) : 11:30 AM
Time (Closing) : 01:30 PM

S.No	PERSON NAME	DESIGNATION
01	Tmt. Shanthi	Chairman
02	Tmt. R.Laxmi	Vice Chairman
03	Thiru. G.Balasubramaniam	Municipal Engineer & Commissioner Incharge
04	Thiru.N.Ramesh (21 ward)	Councilor
05	Thiru. GuruRaj (22 Ward)	Councilor
06	Thiru.R.Ravi (25 ward)	Councilor
07	Thiru. R.Babu (27 ward)	Councilor
08	Thiru.M.Murugan (30 ward)	Councilor
09	Thiru.sampath (32 ward)	Councilor

The stakeholders' workshop started at 11:30 AM on Saturday, January 26, 2008 in the Conference Hall of the Municipality. The workshop was chaired by Chairman – Tmt.Shanthi. In her opening speech, Tmt. Shanthi briefed the stakeholders about the objectives of the project and the workshop. The Acting Commissioner & Municipal Engineer of The Municipality Thiru G.Balasubramaniam presented his view on the City Corporate cum Business Plan. Vice – Chairman Tmt. R.Laxmi presented the general view of the town. Mr. Sanjeet Ahlawat (Manager, Voyants Solutions Private Limited) briefed about the work completed by the consultant for the City Corporate cum Business Plan. After that Mr. Saravanan & Mr. Sreepathy presented the brief status, problem and issues relating to urban basic services an infrastructure in Arani. And after this presentation, the stakeholders were asked to give their suggestions/ comments in three parts. In first part, the consultants invited comments on the contents of the presentation. In the second part stakeholders were invited to present the problems of the city which are hindrances to the development. In the last section of the workshop, stakeholders were asked to suggest the projects required for the integrated development of Arani.

The Suggestions:

The suggestions given by the various stakeholders are presented below:

Thiru.N.Ramesh , Councilor, ward No -21

- Under ground drainage for sewage.
- Road rehabilitation
- Road widening

Thiru. R.Babu .Councilor, Word No-27

- Mud road should be changed to bituminous road
- Water arrangement is required in 3 toilets at Mullipattu kalani, kamantalanagandhi street and mullipattu road.
- No Drinking water facilities in Mullipattu kalani, MGR nagar and EB nagar.
- No drainage facilities in this ward
- No road facility in Mullipattu kalani, MGR nagar and EB nagar.
- No street lights

Thiru.M.Murugan , Councilor, Word No- 30

- Over bridge is required connecting KPK nagar, MGR nagar, Baskar nagar, Jayalakshmi nagar and Kailasha nagar.
- No drinking water tab connection in this ward
- In most of the region underground sewage drainage is not available.
- Cement concrete road is required

Thiru.Sampath ,Councilor, Word No-32

- Mud road MGR statue to Anna salai (700 mts) should be changed to bituminous road.
- Street light is required
- Railway station is required

Thiru.R.Ravi ,Councilor, Word No-25

- No roads and drainage in Pillayar kovil street
- No drainage in kandhswamy, Perumal kovil, Subramani kovil & Balaji streets.
- Karthikeyan street required drainage on both side.
- Seetharaman, Balaji and Malayam pattu streets required roads.

Thiru. R.Babu .Councilor, Word No-27

- Park is required in this ward

Thiru.M.Murugan , Councilor, Word No- 30

- Primary and secondary schools are required

Thiru.Sampath ,Councilor, Word No-32

- Improvement in quality of education in schools is required.
- Venkatraman Park should be improved.

These are some of the suggestions provided by the key person of the municipality, the major focus was to develop infrastructure in the town and it should be done in a systematic way. The basic infrastructure should be provided to every people and the nominal charges should be applied on the available so that the people can pay it. After the discussion Chairman and municipal engineer thanked all the councilors and key people who attended the discussion. The consultant distributed the formats to each of the person present in the meeting to take individuals view and priority of infrastructure development and to note down the suggestion and briefed the survey format and after the stakeholders finished the filling of survey formats Mr. Saravanan thanked all the people attended the Stakeholders' Workshop.

Annexure I - b : Second Minutes of Meeting: Stakeholders' Workshop -Arani

Date of Workshop : **January 06, 2009**
Time (Opening) : **4:30 PM**
Time (Closing) : **07:30 PM**

S.No	PERSON NAME	DESIGNATION
01	Mr. Murugaesan	Commissioner
02	Mrs. S.Laxmi	Vice Chairmen
03	Mr.A.Selvaraj	Ex.Chairmen
04	Mr.ACU. Dyanithi	Ex M.L.A
04	Mr.P.Sekar	J.E / E.B/ URBAN/EAST
05	Mr.M.Govindasamy	S.I Tamil nadu Police
06	K.DeliMohan	Press
07	L.S.Sakthivel	Council Member
08	Ln.G.Gragaselvamani	Lions Club
09	Ln.K.ChandraMohan	Lions Club

S.No	PERSON NAME	DESIGNATION
10	Mr.D.Shridharan	Taluk Office
11	Mr. DasDhageer	COUNCIL MEMBER
12	Mr.S.Selvam	COUNCIL MEMBER
13	Mr.V.Ravi	COUNCIL MEMBER
14	Mr.RathnaKumar	COUNCIL MEMBER
15	Mr.G.Venkatesan	COUNCIL MEMBER
16	Mr.K.R.Kanniyappan	COUNCIL MEMBER
17	Mr.A.Ramesh	COUNCIL MEMBER
18	Mr.AnsarBasha	COUNCIL MEMBER
19	Mr.S.Murugan	COUNCIL MEMBER
20	Mr.S.DuraiBabu	Public
21	Mr.K.C.Gunasekar	COUNCIL MEMBER
22	Mr.R.Babu	COUNCIL MEMBER
23	Mr.S.VijayaKumar	DhinaThandhi, Reporter
24	Mr.PanduRangan	Ex.MC, Vegetable, Fruits vendor Association Head.
25	Mr.GuruRaj	Exnora
26	Mr.R.Devaraj	Cool drinks Association Head
27	Mr.P.Venkataraman	COUNCIL MEMBER
28	Mr.Jeyaraman	Ex COUNCIL MEMBER
29	Mr.S.TamilArasi	Public
30	E.Anbu Elango	COUNCIL MEMBER
31	Mr.M.Dhakshina Moorthy	Public
32	Mr.M.Neelakandan	Public
33	Mr.K.MeenakshiSundaram	Public
34	Mr.K.V.Sri	VAK Nagar Residents Association
35	Mrs.Mounisha	COUNCIL MEMBER
36	Mr.Veerpandian	Arani Hotels Union
37	Mr.V.Nataraja Mudhaliyar	Departmental Stores union
38	Mr.Muralidar	ADE (Highways)

The stakeholders' workshop started at 5.00 P.M on Tuesday, January 06, 2009 in the Conference Hall of the Municipality. The workshop was chaired by Vice Chairman – Tmt.Laxmi. The opening speech given by Mr.Murugaesan Commissioner, he briefed the stakeholders about the objectives of the project and the workshop. Vice – Chairman Tmt. R.Laxmi presented the general view of the town. After that Mr. Sreepathy presented the brief status, problem and issues relating to urban basic services an infrastructure in Arani. And after this presentation, the stakeholders were asked to give their suggestions/ comments in three parts. In first part, the consultants invited comments on the contents of the presentation. In the second part stakeholders were invited to present the problems of the city which are hindrances to the development. In the last section of the workshop, stakeholders were asked to suggest the projects required for the integrated development of Arani.

Mr. Murugaesan Commissioner:

- City development plan is very much important in planning a city
- By the City Development plan we can streamline the future growth
- Both bus stand and market are in the same location
- Loading and unloading vehicles causing more problems
- Ring road need to be proposed.

- Separate DPR for water supply source augmentation to be carried out.

Mr.P.Sekar J.E / E.B/ URBAN/EAST :

- All the metal halide bulbs to be changed in to CFL bulbs
- Timers can be fixed to control the street lighting systems
- A 33 kv substation is sanctioned at payur
- Around 50 new transformers are going to kept in new place for further distribution.
- Works are under progress under the replacement of conductors.
- It is necessity to chop the trees which r coming under the conductors

Mr.M.Govindasamy S.I Tamil nadu Police:

- DPR for Ring road from chetpet road to polur road
- All fruit stalls to be shifted to back side of the bus stand.
- Two wheelers parking to be demarcated.
- Leaders Statue can be decorated with small water fountains and greens.
- Bus Stop sign boards to be kept
- Police outpost to be provided.
- Roads to be renovated from Dr.Ambedkar Statue to bus stand.
- In the bypass road, directional sign boards to be kept.

Ln.K.ChandraMohan Lions club:

- Blood Bank to be initiated
- All the roads to be relaid
- Ring road is necessary for the town
- Roads need to be widened
- All encroachments to be evacuated.

Mr.A.Ramesh Member Council

- All encroachments to be evacuated.
- Storm water drainage to be constructed in all the areas.
- Under Ground Drainage System is to be immediately taken up.
- Ring road is needed to bye pass the heavy vehicles entering in to the town.

Mr.PanduRangan Ex.MC, Vegetable, Fruits vendor Association Head

- There is no parking place for vegetable unloading vehicles.
- There is no proper platform for loading and unloading of the vegetables.
- Market is totally congested.
- Because of the market activities inside the bus stand, buses are not able to come inside the stand.
- Separate market is required with all facilities.
- There is no proper toilet in the market area.

Mr.GuruRaj, Exnora

- All the vehicles are parked both sided all along the Ghandhi main road.
- There is no toilet facility in the bus stand area.
- The parked vehicles are hindrance to the heavy vehicle traffic with the town
- Separate commercial area to be identified.
- Around the clock water supply is required.
- Solid waste management is to be implemented.

Mr.Muralidar ADE Highways,

- Cement road work is going to taken up within the town limit for Rs. 5 crore.
- Considering the town development one bridge can be constructed across the Kamandalanathi River in downstream.

Mr.V.Ravi Member Council

- Check dam is required to store water in drought season.

- It will help in ground water recharge also.
- Ring road is required to divert the heavy vehicles.

Mr.K.V.Sri VAK Nagar Residents Association

- One school is required in VAK nagar
- Ring road has to be provided.
- Mini Bus to be operated in the area.

Other Department Projects:**Electricity Board:**

- A 33 kv substation is sanctioned at payur
- Around 50 new transformers are going to be placed for further distribution.
- Works are under progress for the replacement of conductors.

National Highways

- Cement road work is going to taken up within the town limit for Rs. 5 crore.
- Feasibility study can be taken up for a bridge across the Kamandalanathi River in downstream for upcoming traffic.
- DPR for ring road can be taken up to avoid the heavy vehicles traffic passing through the town.

PWD Irrigation:

- Feasibility study for a check dam can be conducted in Senbagathopu River.

Annexure I – c : Draft Memorandum Of Agreement

This Agreement is made on this _____ day of _____ (Month), 2009 (year) between Tamil Nadu Urban Infrastructure Financial Services Limited (referred to as TNUIFSL) and the Arani Municipality (referred to as ULB)

1. This agreement follows the completion of the City Corporate Plan cum Business Plan (CCP-BP) prepared for the ULB with assistance from Grant Fund managed by TNUIFSL. A Vision Plan exercise was conducted by the ULB to identify specific projects required to be developed, and certain projects were identified in the Vision Plan have been taken through the next steps in terms of preparation of detailed project reports and implementation, there was a felt need among stakeholders to draw a comprehensive CCP-BP, taking into account a holistic perspective of the city/town's current status and gaps. It was to address this need that the CCP-BP exercise was conducted. The objectives of the CCP-BP exercise were to:

Define the growth directions and service up-gradations in relation to the activity mix / growth

Assess demand for projects specified by the ULBs and gap in services

Outline the infrastructure needs;

Define specific rehabilitation and capital improvement needs with regard to priority city infrastructure in slums and other areas

Identify measures for revenue enhancement and cost reduction required to sustain the proposed investments

Identify reforms required in local administration and service delivery and policy interventions

List out changes required at the local level to improve O&M and better asset management

2. The study will be completed in June 2009 and the municipal council passed a resolution adopting the report for implementation on----- (Date).

3. This agreement is being entered into between TNUIFSL and the ULB for TNUIFSL's assistance in:

(a) Developing and financing projects identified as part of the Capital Investment Program (CIP) of the CCP and

b) Monitoring the implementation of a reform agenda required to improve municipal management and to carryout implementation of projects identified in a sustainable manner.

4. The guide lines of this MOA are listed below:

i. The Arani municipal council agrees to implement the reform agenda as per the targets recommended in the CCP-BP report. A summary of the reform agenda in terms of existing status and norms/targets is enclosed in Annexure III. The reform agenda outlined focuses on those reforms are to be carried out at the ULB level.

ii. The Arani municipal council will provide a half-yearly update report to TNUFSL on the status of the implementation of the reform agenda. TNUFSL shall provide a standardised format for reporting this information.

iii. In case there is any delay in the implementation of the reforms agenda by ULB due to circumstances beyond its control, the decision on the matter of extension of time for the achievement of targets shall be fixed based on consultations between TNUFSL and the ULB

iv. TNUFSL shall also assist the ULB in preparing DPRs for a set of projects jointly identified by TNUFSL and the ULB, based on the Capital Investment Plan (CIP), prepared as part of the CCP-BP report.

vi. TNUFSL would subsequently assist in structuring and financing projects identified earlier through combination of Loan and Grants along with ULB own funds. The sanction and disbursement of loans and grants from TNUFSL shall be in conformance with the lending policies and guidelines of Loan and Grant Funds under its management and due appraisal of the ULB and the projects by TNUFSL

5. The council agrees to the following points:

i. Issues presented in the project report and to agree to follow all directions of CMA/GOTN/TNUFSL towards execution of the project.

ii. Draw the loan part for the execution of the works and repay the loan with the applicable interest

iii. Open a joint account with the Concerned Authority and agree to deposit the ULB's share every quarter (– % of the cost of the tendered works), failing which to abide by action of CMA/GOTN/ TNUFSL

iv. Conform to the subsequent change, if any, in the loan-grant composition made by GoTN

6. Undertake the following reforms during the financial year 2009-10 and to improve during the loan period to achieve the target set for every year:

i. Listing of assets of the ULB and maximizing efficient use of the same, revenue generation from municipal properties through improved collection of land revenue /lease to at least of 90 per cent of demand.

ii. Listing of all trade activities and improving collection of trade license fee to at least 90 per cent of demand.

iii. Revising water tariff as per the G.O-----, identification/ regularization of unauthorized water connections, improved collection of at least 80 per cent of water tariff.

iv. Imposing solid waste management cess /fees

v. Increasing coverage with respect to property tax collection i.e. bringing at least 90 per cent properties into the tax net, increasing collection efficiency and ensuring arrear collection of at least 90 per cent of current demand for property tax.

vi. Computerizing municipal systems and procedures

vii. Undertake public awareness through ward-level consultation meetings, with NGO involvement, improving the image of the ULB and generating confidence among citizens regarding the ability of the ULB to deliver quality services

ix. Acquire land, free from all encumbrances / encroachments, required for all identified projects before project loan effectiveness

x. Solve all problems (like agitation) during construction activity and to ensure timely completion of the work as per schedule

xi. Offer necessary co-operation/coordination with consultants, NGOs and various other agencies involved in implementation of the project

xii. Undertake full responsibility, in respect of civil works, for quality assurance and joint measurement of completed works and to assure full co-operation and co-ordination and to agree to all pre-qualification requirements and bidding procedures of World Bank and to impose penalty, if any, from the first bill itself;

xiii. Undertake that no variation order without citing reasons for variation as well as working out the time and financial implications, will be issued subsequent to tendering without prior approval of TNUFSL

xiv. Carryout the all the directions of CMA/GoTN/TNUFSL.

Finally, the Council agrees to bind itself to these terms, which would form part of future agreement with GoTN/TNUIFSL, and further resolve to authorize the Commissioner/Chief Executive Officer to take necessary action to get the above mentioned infrastructure facilities to this town. The Council further agrees to authorize the Commissioner and Chairman to sign the loan agreement with TNUIFSL.

SIGNATORIES:**Place:****Date:****Managing Director and CEO, TNUIFSL****Chairman, ULB Council****Commissioner, ULB**

Annexure I – d : Minutes of Meeting

Minutes of Meeting on Revised Draft Final Report submitted by M/s Voyants Solution Pvt. Ltd. for City Corporate Plan cum Business Plan study for Cluster V covering Arcot, Gudiyatham, Ranipet, Tirupattur, Vaniyambadi and Walajapet, Municipalities held on 23.6.2009 and for Ambur, Arakonam Arani, Thiruvathipuram and Madhavaram Municipalities held on 24.06.2009 at the office of TNUIFSL.

Members Present – List enclosed

The consultants were requested to address the following:

1. To correct the grade of the ULBs as revised by the Government.
2. To highlight the requirement of capital / revenue grant to implement and operate all the new schemes.
3. To indicate following in the executive summary of the report
 - c) List of projects under the sustainable scenario along with the year wise phasing of the projects identified.
 - d) The assumption made on the means of finance.

Town specific comments**Ranipet**

The consultants were requested to

- Address the requirement of staff quarters and indicate the same as a project in CIP in consultation with the ULB.
- Update the details on the Bus Stand project at Muthukadai adjoining Pinji Lake in consultation with the ULB.
- Highlight the impact on discharge of polluted water in to Palar river.

Thiruvathipuram

The consultants were requested to

- Update the details on the assets in consultation with the ULB.
- Revise the Bus Stand improvement project in consultation with the ULB

Madhavaram

- The consultants were requested to revise the assumptions on means of finance in accordance with JNNURM norms and revise the FOP accordingly.

The consultants were requested to address the above points and include in final report. The revised draft final reports for CCCBP are approved.

Annexure IX - a: Revenue and Capital Fund – Income (Rs. in lacs)

S.No.	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
I	Income						
a)	Property Tax						
	Property Tax for General Purpose	31.13	25.66	35.47	35.36	34.95	37.75
b)	Other Taxes						
	Profession Tax	9.51	10.24	10.77	11.65	12.51	12.56
c)	Assigned Revenue						
	Duty on Transfer of Property	22.62	32.36	50.93	27.78	32.36	-
	Entertainment Tax	8.88	12.00	10.89	15.77	12.00	-
d)	Devolution Fund	29.73	8.46	35.49	63.84	148.14	145.00
e)	Service Charges & Fees						
	Trade Licence Fees	0.84	1.18	1.33	1.80	1.18	1.20
	Licence Fees Under PFA Act	0.06	0.05	0.08	0.09	0.06	0.07
	Building Licence Fees	3.35	2.97	2.76	2.71	1.94	2.38
	Encroachment Fees	0.13	0.11	0.28	0.05	0.05	-
	Fees for bays in Bus	1.86	5.99	9.94	6.09	7.35	9.99
	Fees for pay & use toilets	2.65	3.12	3.57	5.23	4.10	5.07
	Survey Fees	0.22	0.29	0.29	0.39	0.27	0.20
	Copy Application Fees	0.29	0.39	0.46	0.33	0.26	0.15
	Other Fees	0.45	0.06	0.18	0.99	1.57	2.22
f)	Grants & Contribution						
	Grants for Schemes Implementation	0.15	2.50	0.08	-	7.35	-
g)	Sale & Hire Charges						
	Hire Charges	-	-	-	0.63	-	-
h)	Other Income						
	Market Fees - Daily (Annual Lease)	3.35	35.36	3.55	4.00	10.98	4.97
	Slaughter House Fees (Annual)	0.55	0.94	0.97	1.10	1.22	1.26
	Car & Taxi Stand Fees etc.	1.90	1.99	2.69	4.00	4.70	5.94
	Development Charges	2.32	2.10	2.40	2.59	2.03	1.22
	Rent on Shopping Complex	34.30	7.31	37.53	41.61	42.15	43.92
	Rent on Land & Building	0.10	0.05	0.06	0.06	0.12	0.07
	Road cut-restoration Charges	2.25	-	-	-	-	-
	Other Income	2.80	12.94	13.56	21.21	0.34	2.38
	Miscellaneous Recoveries	0.07	0.07	0.23	0.33	0.05	0.30
	Project Overhead Appr - Expenses	1.49	0.01	5.65	6.41	5.05	2.91
	Interest from Banks & Investments	1.17	-	2.50	4.18	0.03	-
	Deposit Lapsed	4.01	-	-	-	-	-
	Others	0.18	0.48	0.03	-	0.04	0.03
	Total Income	166.36	166.63	231.69	258.20	330.80	279.59

Annexure IX - b: Revenue and Capital Fund – Expenditure (Rs. in lacs)

S.No.	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
II	Expenditure						
a)	Personnel Cost - Salaries						
	Basic Pay	55.25	71.61	65.93	68.63	65.83	72.54
	Special Pay	0.04	0.02	0.01	-	0.03	0.81
	D.A.	24.74	33.36	35.21	37.63	36.84	21.05
	Interim Relief	0.03	0.03	0.03	0.01	0.01	-
	H.R.A.	2.65	3.08	2.84	2.87	2.70	3.56
	Conveyance Allowance	0.30	0.34	0.41	0.13	0.07	-
	Medical Allowance	0.68	0.90	0.85	0.28	0.27	0.17
	Other Allowance	0.50	0.61	0.70	1.32	1.08	1.02
	Ex-gratia / Bonus	-	-	-	0.04	0.03	3.51
b)	Personnel Cost - Others						
	Travel Allowance	-	-	-	2.64	1.10	0.86
	Supply of Uniform	-	-	1.43	0.60	1.20	-
	Staff Welfare Expenses	0.36	0.19	0.14	0.19	0.16	0.18
	Conveyance Charges	0.01	-	-	2.56	-	-
c)	Terminal & Retirement Benefits						
	Pension	28.51	16.60	25.48	9.83	-	0.60
	Commutation of Pension	-	-	6.15	2.58	2.14	-
	DCR Gratuity	0.20	0.56	11.40	0.17	2.82	0.51
	SPF & Gratuity	0.40	0.05	0.10	0.05	0.15	0.10
	GIS Management contribution	1.18	-	1.18	0.03	0.08	-
	Others	-	-	-	0.54	0.82	-
d)	Operating Expenses						
	Wages	0.24	0.25	0.67	0.35	0.07	-
	Power Charges for Head Water works	-	0.38	-	-	0.29	1.68
	Power Charges for Street lights	6.30	3.45	0.10	3.15	1.66	9.61
	Maintenance - Street Lights	2.33	1.87	4.79	5.21	3.57	9.13
	Sanitary expenses & materials	1.64	1.49	1.73	5.34	0.82	1.41
	Fodder (Animal Feeding)	1.16	1.21	1.40	0.25	0.90	0.17
	Others	0.17	0.58	0.45	0.14	0.79	0.46
e)	Repairs & Maintenance						
	Light Vehicle Maintenance	1.18	2.95	2.49	3.28	3.32	4.52
	Heavy Vehicle Maintenance	0.31	0.08	1.08	0.07	0.18	-
	Repairs & Maintenance - Buildings	0.23	0.57	4.68	0.05	0.10	0.02
	Repairs & Maintenance - Others	0.56	0.30	0.01	0.22	1.11	0.31
f)	Programme Expenses						
	Election Expenses	0.44	-	-	0.16	-	-
g)	Administration Expenses						
	Telephone Charges	1.12	1.40	1.38	1.69	1.17	1.23
	Legal Expenses	0.07	0.09	0.32	0.46	0.64	0.30

	Stationery & Printing	0.68	1.84	1.24	5.33	3.50	0.85
	Travel Expenses	0.59	0.79	1.03	-	-	-
	Computer Operating Expenses	0.21	0.15	0.08	-	0.46	0.09
	Postage & Telegram	0.15	0.13	0.15	0.08	0.09	0.08
	Advertisement	0.46	0.18	0.64	1.22	1.20	1.40
	Electricity - Office Building	2.72	3.29	3.10	1.14	1.37	3.76
	Contributions	0.76	0.16	1.91	0.10	0.44	-
	Sitting Fees for Councillors	0.98	1.33	1.21	1.12	0.89	0.66
	Others	0.22	0.03	11.92	2.43	0.57	1.55
h)	Finance Expenses						
	Provision for Doubt collection	3.28	-	2.85	-	-	-
	Interest on Loans / Ways Means Adv / OD	41.04	-	28.68	0.01	0.15	-
	Irrecoverable Revenue Items - Written off	0.40	-	-	-	-	-
	Audit Fees	0.55	-	0.62	0.03	-	1.55
	Others	0.01	-	0.18	0.17	0.02	0.43
i)	Depreciation	59.69	-	72.90	-	-	7.55
	Total Expenses	242.34	149.87	297.47	162.10	138.64	151.67
	Surplus / (Deficit) for the year	(75.98)	16.76	(65.78)	96.10	192.16	127.92

Annexure IX - c: Water Supply and Drainage Fund (Rs. in lacs)

S.No.	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
I	Income						
a)	Property Tax						
	Water Supply & Drainage Tax	40.71	41.61	42.89	46.24	49.39	49.37
	Excess Remittance	0.20	-	-	-	-	-
b)	Other Taxes						
	Profession Tax	-	-	-	0.24	-	0.27
c)	Devolution Fund	0.03	9.76	20.00	0.06	-	-
d)	Service Charges & Fees						
	Initial amount for WSNCS	1.95	2.08	2.00	3.64	2.72	3.96
	Income for giving new water connections	0.69	0.91	2.00	1.52	1.44	1.64
	Metered / Tap Rate charges	27.86	25.71	30.85	28.74	29.17	29.70
	Charges for water supply through Lorries	0.20	0.64	0.20	0.21	0.16	0.10
		2.64	2.99	4.00	5.16	4.16	5.60
e)	Revenue Grants & Contribution	-	-	-	0.01	-	-
f)	Sale & Hire Charges	-	-	-	0.01	-	-
g)	Other Income						
	Other Income	0.02	0.02	-	0.13	0.21	0.36
	Miscellaneous Recoveries	-	0.02	-	-	-	0.08
	Project Overhead Appr - Expenses	7.28	2.80	-	-	0.42	0.06
	Total Income	81.58	86.54	101.94	85.96	87.67	91.14

Annexure IX - d: Education Fund (Rs. in lacs)

S.No.	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
I	Income						
a)	Property Tax						
	Education Tax	11.97	12.24	13.64	13.60	14.53	14.78
b)	Assigned Revenue	0.01	-	-	-	-	-
c)	Other Income						
	Other Income	7.03	-	-	0.14	-	0.01
	Project Overhead Appr - Expenses	0.80	0.10	0.36	0.33	0.04	0.10
	Total Income	19.81	12.34	14.00	14.07	14.57	14.89
II	Expenditure						
a)	Personnel Cost - Others						
	Staff welfare expenses	-	-	0.11	-	0.03	-
b)	Terminal & Retirement Benefits						
	Special PF cum Gratuity	-	0.30	-	0.03	-	-
	Group Insurance Contribution	-	-	-	0.03	-	-
c)	Operating Expenses						
	Power Charges for Head waterworks	-	0.12	-	-	0.02	-
	Power charges for St.lights	-	-	-	0.03	0.02	-
	Rent of Building	0.03	0.01	-	0.01	0.18	0.10
d)	Repairs & Maintenance						
	School Building	0.15	0.62	0.08	-	0.01	0.96
	Office Building	-	-	-	-	-	0.97
e)	Administration Expenses						
	Contribution to Other schemes	-	-	3.65	-	-	-
	Electricity consumption charges	-	-	-	0.23	0.18	0.27
	Others	0.36	-	0.26	-	0.02	-
f)	Finance Expenses						
	Interest on loans/ways	-	-	-	0.02	0.04	-
	Provision for doubtful collection	0.04	0.09	0.15	-	-	-
	Others	0.01	-	-	-	-	-
g)	Depreciation	2.60	2.62	2.62	-	-	-
	Total Expenses	3.19	3.76	6.87	0.35	0.50	2.30
	Surplus / (Deficit) for the year	16.62	8.58	7.13	13.72	14.07	12.59

Annexure IX - e: Summary of Income and Expenditure Accounts (Rs. in lacs)

S.No	Particulars	Audited																				Unaudited			
		2001-02				2002-03				2003-04				2004-05				2005-06				2006-07			
		Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total
I	Income																								
a)	Property Tax	31.13	40.91	11.97	84.01	25.66	41.61	12.24	79.51	35.47	42.89	13.64	92.00	35.36	46.24	13.60	95.20	34.95	49.39	14.53	98.87	37.75	49.37	14.78	101.90
b)	Other Taxes	9.51	0.00	-	9.51	10.24	0.00	-	10.24	10.77	0.00	-	10.77	11.65	0.24	-	11.89	12.51	0.00	-	12.51	12.56	0.27	-	12.83
c)	Assigned Revenue	31.50	-	0.01	31.51	44.36	-	0.00	44.36	61.82	-	0.00	61.82	43.55	-	0.00	43.55	44.36	-	0.00	44.36	0.00	-	0.00	0.00
d)	Devolution Fund	29.73	0.03	-	29.76	8.46	9.76	-	18.22	35.49	20.00	-	55.49	63.84	0.06	-	63.90	148.14	0.00	-	148.14	145.00	0.00	-	145.00
e)	Service Charges & Fees	9.85	30.70	-	40.55	14.16	29.34	-	43.50	18.89	35.05	-	53.94	17.68	34.11	-	51.79	16.78	33.49	-	50.27	21.28	35.40	-	56.68
f)	Grants & Contribution	0.15	0.00	-	0.15	2.50	0.00	-	2.50	0.08	0.00	-	0.08	0.00	0.01	-	0.01	7.35	0.00	-	7.35	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	0.63	0.01	-	0.64	0.00	0.00	-	0.00	0.00	0.00	-	0.00
h)	Other Income	54.49	7.30	7.83	69.62	61.25	2.84	0.10	64.19	69.17	0.00	0.36	69.53	85.49	0.13	0.47	86.09	66.71	0.63	0.04	67.38	63.00	0.50	0.11	63.61
	Total Income	166.36	78.94	19.81	265.11	166.63	83.55	12.34	262.52	231.69	97.94	14.00	343.63	258.20	80.80	14.07	353.07	330.80	83.51	14.57	428.88	279.59	85.54	14.89	380.02
II	Expenditure																								
a)	Personnel Cost - Salaries	84.19	42.74	-	126.93	109.95	49.28	-	159.23	105.98	44.16	-	150.14	110.91	50.67	-	161.58	106.86	52.62	-	159.48	102.66	53.62	-	156.28
b)	Personnel Cost - Others	0.37	0.00	0.00	0.37	0.19	0.00	0.00	0.19	1.57	0.00	0.11	1.68	5.99	0.17	0.00	6.16	2.46	0.00	0.03	2.49	1.04	0.02	0.00	1.06
c)	Terminal & Retirement Benefits	30.29	3.48	-	33.77	17.21	11.61	-	28.82	44.31	11.90	-	56.21	13.20	6.31	-	19.51	6.01	0.00	-	6.01	1.21	0.00	-	1.21
d)	Operative Expenses	11.84	14.61	0.03	26.48	9.23	23.21	0.13	32.57	9.14	22.50	0.00	31.64	14.44	2.42	0.04	16.90	8.10	2.38	0.22	10.70	22.46	34.77	0.10	57.33
e)	Repairs & Maintenance	2.28	1.34	0.15	3.77	3.90	3.09	0.62	7.61	8.26	4.36	0.08	12.70	3.62	2.56	0.00	6.18	4.71	4.63	0.01	9.35	4.85	5.55	1.93	12.33
f)	Programme Expenses	0.44	-	-	0.44	0.00	-	-	0.00	0.00	-	-	0.00	0.16	-	-	0.16	0.00	-	-	0.00	0.00	-	-	0.00
g)	Administrative Expenses	7.96	0.54	0.36	8.86	9.39	0.57	0.00	9.96	22.98	2.59	3.91	29.48	13.57	1.16	0.23	14.96	10.33	0.00	0.20	10.53	9.92	0.48	0.27	10.67
h)	Finance Expenses	45.28	30.79	0.05	76.12	0.00	28.05	0.09	28.14	32.33	34.08	0.15	66.56	0.21	0.00	0.02	0.23	0.17	0.00	0.04	0.21	1.98	0.00	0.00	1.98
i)	Depreciation	59.69	9.47	2.60	71.76	0.00	9.37	2.62	11.99	72.90	6.00	2.62	81.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.55	0.00	0.00	7.55
	Total Expenditure	242.34	102.97	3.19	348.50	149.87	125.18	3.46	278.51	297.47	125.59	6.87	429.93	162.10	63.29	0.29	225.68	138.64	59.63	0.50	198.77	151.67	94.44	2.30	248.41
	Surplus / (Deficit)	(75.98)	(24.03)	16.62	-83.39	16.76	(41.63)	8.88	(15.99)	-65.78	(27.65)	7.13	-86.30	96.10	17.51	13.78	127.39	192.16	23.88	14.07	230.11	127.92	(8.90)	12.59	131.61

Annexure IX - f: Summary of Income and Expenditure Accounts in Percentage (Rs. in lacs)

S.No	Particulars	Audited																				Unaudited			
		2001-02				2002-03				2003-04				2004-05				2005-06				2006-07			
		Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total
I	Income (% of Total Income)																								
a)	Property Tax	19%	52%	60%	32%	15%	50%	99%	30%	15%	44%	97%	27%	14%	57%	97%	27%	11%	59%	100%	23%	14%	58%	99%	27%
b)	Other Taxes	6%	0%	-	4%	6%	0%	-	4%	5%	0%	-	3%	5%	0%	-	3%	4%	0%	-	3%	4%	0%	-	3%
c)	Assigned Revenue	19%	-	0%	12%	27%	-	0%	17%	27%	-	0%	18%	17%	-	0%	12%	13%	-	0%	10%	0%	-	0%	0%
d)	Devolution Fund	18%	0%	-	11%	5%	12%	-	7%	15%	20%	-	16%	25%	0%	-	18%	45%	0%	-	35%	52%	0%	-	38%
e)	Service Charges & Fees	6%	39%	-	15%	8%	35%	-	17%	8%	36%	-	16%	7%	42%	-	15%	5%	40%	-	12%	8%	41%	-	15%
f)	Grants & Contribution	0%	0%	-	0%	2%	0%	-	1%	0%	0%	-	0%	0%	0%	-	0%	2%	0%	-	2%	0%	0%	-	0%
g)	Sale & Hire Charges	0%	0%	-	0%	0%	0%	-	0%	0%	0%	-	0%	0%	0%	-	0%	0%	0%	-	0%	0%	0%	-	0%
h)	Other Income	33%	9%	40%	26%	37%	3%	1%	24%	30%	0%	3%	20%	33%	0%	3%	24%	20%	1%	0%	16%	23%	1%	1%	17%
	Total Income	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
II	Expenditure (% of Total Expt)																								
a)	Personnel Cost - Salaries	35%	42%	-	36%	73%	39%	-	57%	36%	35%	-	35%	68%	80%	-	72%	77%	88%	-	80%	68%	57%	-	63%
b)	Personnel Cost - Others	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	2%	0%	4%	0%	0%	3%	2%	0%	6%	1%	1%	0%	0%	0%
c)	Terminal & Retirement Benefits	12%	3%	-	10%	11%	9%	-	10%	15%	9%	-	13%	8%	10%	-	9%	4%	0%	-	3%	1%	0%	-	0%
d)	Operative Expenses	5%	14%	1%	8%	6%	19%	4%	12%	3%	18%	0%	7%	9%	4%	14%	7%	6%	4%	44%	5%	15%	37%	4%	23%
e)	Repairs & Maintenance	1%	1%	5%	1%	3%	2%	18%	3%	3%	3%	1%	3%	2%	4%	0%	3%	3%	8%	2%	5%	3%	6%	84%	5%
f)	Programme Expenses	0%	-	-	0%	0%	-	-	0%	0%	-	-	0%	0%	-	-	0%	0%	-	-	0%	0%	-	-	0%
g)	Administrative Expenses	3%	1%	11%	3%	6%	0%	0%	4%	8%	2%	57%	7%	8%	2%	79%	7%	7%	0%	40%	5%	7%	1%	12%	4%
h)	Finance Expenses	19%	30%	2%	22%	0%	22%	3%	10%	11%	27%	2%	15%	0%	0%	7%	0%	0%	0%	8%	0%	1%	0%	0%	1%
i)	Depreciation	25%	9%	82%	21%	0%	7%	76%	4%	25%	5%	38%	19%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	3%
	Total Expenditure	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Surplus / (Deficit) (% of Total Income)	-46%	-30%	84%	-31%	10%	-50%	72%	-6%	-28%	-28%	51%	-25%	37%	22%	98%	36%	58%	29%	97%	54%	46%	-10%	85%	35%

Annexure IX - g: Growth in Revenue and Cost for Last 5 Years (Rs. in lacs)

S.No	Particulars	2002-03	2003-04	2004-05	2005-06	2006-07	Simple Average	Comp. Average
I	Income							
a)	Property Tax	-5.36%	15.71%	3.48%	3.86%	3.06%	4.15%	4.26%
b)	Other Taxes	7.68%	5.18%	10.40%	5.21%	2.56%	6.20%	6.98%
c)	Assigned Revenue							
	- Duty on Transfer of Property	43.06%	57.39%	-45.45%	16.49%	-	14.30%	10.76%
	- Entertainment Tax	35.14%	-9.25%	44.81%	-23.91%	-	9.36%	8.78%
d)	Devolution Fund	-38.78%	204.56%	15.16%	131.83%	-2.12%	62.13%	77.45%
e)	Service Charges & Fees							
	- Water Charges	-7.72%	19.99%	-6.84%	1.50%	1.82%	1.75%	1.32%
	- Water Connection Charges	13.26%	33.78%	29.00%	-19.38%	34.62%	18.25%	22.42%
	- Others	43.76%	33.40%	-6.41%	-5.09%	26.82%	18.50%	23.21%
f)	Grants & Contribution	1566.67 %	-96.80%	-87.50%	73400.00%	-	14936.47 %	-20.00%
g)	Sale & Hire Charges	-	-	-	-100.00%	-	-20.00%	-
h)	Other Income	-7.80%	8.32%	23.82%	-21.73%	-5.60%	-0.60%	-1.73%
II	Expenditure							
a)	Personnel Cost - Salaries	25.45%	-5.71%	7.62%	-1.30%	-2.01%	4.81%	4.62%
b)	Personnel Cost - Others	-48.65%	784.21%	266.67%	-59.58%	-57.43%	177.04%	37.30%
c)	Terminal & Retirement Benefits	-14.66%	95.04%	-65.29%	-69.20%	-79.87%	-26.79%	-19.28%
d)	Operative Expenses	23.00%	-2.86%	-46.59%	-36.69%	435.79%	74.53%	23.30%
e)	Repairs & Maintenance	101.86%	66.89%	-51.34%	51.29%	31.87%	40.11%	45.41%
f)	Program Expenses	-100.00%	-	-	-100.00%	-	-40.00%	-20.00%
g)	Administrative Expenses	12.42%	195.98%	-49.25%	-29.61%	1.33%	26.17%	4.09%
h)	Finance Expenses	-63.03%	136.53%	-99.65%	-8.70%	842.86%	161.60%	-19.48%
l)	Depreciation	-83.29%	579.90%	-	-	-	79.32%	-17.90%

Annexure IX - h: Revenue and Capital Fund Balance Sheet (Rs. in lacs)

S.No	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
I	Liabilities						
a)	Liabilities						
	Loans from Government	84.86	84.86	84.62	-	77.16	77.16
	Loan from TUFIDCO	56.08	56.08	34.07	34.07	35.07	35.07
	Loan from TNUDF	60.00	60.00	60.00	60.00	60.00	60.00
	Contribution from Municipal Fund	2.23	2.02	11.34	6.00	1.24	1.24
	Contribution from Government	38.30	38.29	168.95	166.86	111.28	111.28
	Contribution from Private Parties	-	-	3.50	3.51	-	-
	Grant from Government	28.60	28.03	26.84	92.98	212.57	216.57
	Accumulated Depreciation	105.52	105.52	232.85	211.99	199.60	199.59
b)	Current Liabilities						

S.No	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	Water Charges payable - Current	-	-	-	1.67	1.17	1.17
	Water Charges payable - Arrear	-	-	-	0.23	0.48	0.62
	Education Tax payable - Current	-	-	0.20	0.69	0.34	0.34
	Education Tax payable - Arrear	-	-	0.18	0.07	0.14	-
	Tender Deposits Contractors	7.78	8.33	10.17	6.80	9.16	29.66
	Tender Deposits Suppliers	0.16	0.42	0.31	0.55	0.84	0.84
	Security Deposits	65.02	67.45	74.98	84.61	93.94	96.42
	Deposits Others	122.12	116.02	118.36	119.07	11.78	11.61
	Library Cess Payable	28.09	28.09	21.75	222.20	7.07	13.51
	Accounts payable Staff	34.15	34.15	-	-	33.50	33.49
	Accounts payable Contractor & Supplier	0.54	0.54	0.55	3.00	1.64	9.67
	Account payable expenses	1.96	1.75	-	-1.05	-	-7.38
	Other Payable	1.32	1.32	39.67	34.05	31.55	37.38
	Interest Payable	81.80	81.80	17.82	17.82	77.46	77.46
	Outstandings	22.29	22.20	1.18	5.20	4.87	4.93
	Recoveries from staff bills payable	72.44	78.18	73.05	75.35	24.13	29.49
	Provision for Doubtful collection	19.67	19.67	23.16	23.16	22.49	22.49
	Advance collection of Property Tax	1.09	1.09	2.97	3.07	0.74	0.74
	Inter Funds Transfer	7.68	58.95	43.10	41.14	32.03	32.03
c)	Accumulated Surplus	1719.54	1728.20	1760.62	1775.00	1846.51	1938.92
	Total	2561.24	2622.96	2810.24	2988.04	2896.76	3034.30

Annexure IX - i: Revenue Fund Balance Sheet (Rs. in lacs)

S.No	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
II	Assets						
a)	Fixed Assets						
	Land	1918.21	1918.21	1918.21	1918.21	1918.21	1918.21
	Buildings	120.70	120.70	147.81	135.68	161.97	163.78
	Roads & Pavements	173.05	173.05	239.01	270.52	99.54	80.96
	Plant & Machinery	0.07	0.07	0.07	0.07	0.01	0.01
	Strom Water Drains, Open Drains & Culverts	59.51	59.51	92.31	114.80	66.05	77.12
	Heavy & Light Vehicles	3.48	3.48	9.60	9.59	2.52	2.52
	Furniture & Fixtures	0.78	0.78	2.20	2.20	0.82	0.82
	Projects in Progress	2.16	2.17	14.19	57.87	34.02	36.39
	Electrical Instalation	4.03	4.03	4.38	4.38	4.15	13.62
	Instruements & equipments in Hospital	-	-	-	-	-	24.13
	Ground water & Bore well etc..	-	-	-	6.42	9.34	9.66
	Hand Pump	-	-	-	-	0.58	0.58
	Decentralised District	-	-	-	-	22.63	22.63

S.No	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	Plan						
	Shelter upgradation	-	-	-	-	3.60	3.60
b)	Current Assets						
	Stock	0.54	0.54	-	-	0.84	0.84
	Property Tax Recoverable - Current	15.50	11.12	20.84	22.78	16.34	21.84
	Property Tax Recoverable - Arrears	25.89	35.36	45.85	59.61	14.27	2.90
	Profession Tax Recoverable - Current	2.44	12.41	3.12	2.32	9.27	6.14
	Profession Tax Recoverable - Arrears	18.71	18.72	20.07	20.64	2.37	10.74
	Licence fees Recoverable - Current	0.09	0.27	-	0.10	-	-
	Licence fees Recoverable - Arrears	1.10	1.08	0.84	0.75	1.04	1.02
	Lease Amounts Recoverable - Current	0.05	0.64	6.17	16.10	20.80	28.63
	Lease Amounts Recoverable - Arrears	2.58	2.09	3.28	6.60	5.79	29.86
	Rent on Building Recoverable - Current	11.93	13.82	12.80	18.23	16.61	34.47
	Rent on Building Recoverable - Arrear	7.65	12.19	10.42	15.01	27.06	19.74
	Specific Grant Receivable	-	0.19	20.91	20.91	0.32	0.32
	Staff Advance Recoverable	2.13	37.47	2.45	2.71	3.33	4.01
	Advance to Suppliers	5.87	5.87	5.87	5.87	5.87	5.87
	Advance to Contractors	0.18	0.18	0.18	0.18	0.18	0.18
	Employee Advance Recoverable / expenses	3.12	3.17	3.14	3.24	3.24	3.24
	Other Advances - Recoverable	106.22	106.22	145.95	142.19	142.66	144.26
	Funds Transfer	17.32	17.49	0.38	42.29	177.56	177.56
	Material cost - Recoverable	1.11	1.11	1.11	1.05	0.65	0.62
	Deposit Recoverable	2.01	2.02	2.06	2.06	2.06	2.06
	Interest due on Fixed deposits	-	-	-	-	0.10	0.10
	Outstandings	-	-	1.55	10.25	37.81	38.95
	Others	32.71	35.50	-	-	-	-
c)	Cash & Bank Balances						
	Cash on Hand	1.87	1.86	2.12	1.66	0.01	0.01
	Banks Accounts	20.23	21.64	73.35	73.75	85.14	146.91
	Total	2561.24	2622.96	2810.24	2988.04	2896.76	3034.30

Annexure IX - J: Water Supply and Drainage Fund Balance Sheet (Rs. in lacs)

S.No	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
I	Liabilities						
a)	Liabilities						
	Loan from Government	58.12	55.47	55.47	145.68	53.88	53.88
	Contribution from Government	81.51	109.85	143.82	143.82	144.05	144.05
	Municipal Contribution to work	2.82	3.16	3.16	3.16	3.16	3.16
	Accumulated Depreciation	15.31	24.68	33.68	41.42	109.43	41.96
b)	Current Liabilities						
	Reserve for Doubtful Collof Revitem	45.61	59.33	68.37	68.37	68.37	68.37
	Tender Deposit	0.04	0.04	0.06	0.06	0.25	0.25
	Deposits - Others	-	-	0.10	0.10	0.16	0.16
	Account payable	20.98	36.48	28.72	28.72	28.72	29.23
	Other Payables	0.46	0.91	0.91	(1.12)	0.28	1.04
	Interest Payables	9.23	10.12	10.12	54.36	10.13	10.13
	Outstandings	4.42	6.06	6.87	7.23	49.35	50.33
	Advance collection of Property Tax	1.16	1.62	2.92	2.92	2.92	2.92
	Recovery from staff bills payable	7.13	13.47	20.47	22.86	29.78	32.00
	Inter Funds Transfer	17.25	38.20	-	-	68.20	68.20
c)	Accumulated Surplus/Deficit	284.36	249.66	222.01	178.47	42.59	226.58
	Total	548.40	609.05	596.68	696.05	611.27	732.26
II	Assets						
a)	Fixed Assets						
	Land	89.99	89.99	89.99	89.99	89.99	89.99
	Buildings	39.46	39.46	40.75	40.75	30.59	40.75
	Heavy & Light Vehicles	2.85	2.85	2.85	2.85	0.11	0.74
	Plant & Machinery	-	2.54	6.20	6.20	4.31	6.20
	Water Supply Head works, OHT etc	89.88	119.69	119.69	133.57	115.13	133.57
	Project in Progress	-	-	-	5.83	6.99	10.60
	Ground Water & Bore well	31.32	25.01	25.01	-	38.72	1.77
	Drainage & Culverts	2.57	2.57	2.57	4.04	2.58	1.54
	Drainage & Sewerage pipes	-	-	-	38.06	6.79	38.06
	Roads & Pavements	-	-	-	-	1.33	1.58
	Hand Pump	7.29	12.79	12.79	17.13	3.44	17.13
b)	Current Assets						
	Stock on Hand	0.36	-	-	1.33	1.56	1.56
	WSD Tax Receivable - Current	20.28	22.69	20.69	31.53	21.44	28.34
	WSD Tax Receivable - Arrears	33.86	46.10	45.30	77.34	18.66	100.66
	Water Charges Recoverable - Current	18.76	19.90	14.90	21.39	13.13	18.03
	Water Charges Recoverable - Arrears	26.58	37.72	26.60	54.30	24.62	31.52
	Recoverable - Staff Advances	2.19	1.71	0.61	0.61	0.63	1.84
	Employee Advance - Recoverable	-	-	-	0.13	1.54	0.20
	Deposit Recoverable	174.11	173.75	173.75	173.34	173.34	173.34
	Advances to suppliers	4.59	4.94	4.94	4.94	3.94	5.94

S.No	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	Transfer of Funds	-	2.45	2.22	-15.10	35.58	35.58
	Others	0.03	0.29	-	-	-	-
c)	Cash & Bank Balances						
	Cash on Hand	0.62	0.63	0.47	0.47	0.80	0.80
	WSD Fund - Bank Accounts	3.66	3.97	7.35	7.35	16.05	(7.48)
	Total	548.40	609.05	596.68	696.05	611.27	732.26

Annexure IX - k: Education Fund Balance sheet (Rs. in lacs)

S.No	Particulars	Audited					Unaudited
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
I	Liabilities						
a)	Liabilities						
	Contribution by Municipality	2.00	2.01	5.66	5.66	5.66	16.98
	Contribution from Government	9.18	9.18	9.18	9.18	9.18	27.53
	Contribution from Private parties	0.50	0.50	0.50	0.50	0.50	1.49
	Accumulated Depreciation	4.66	7.28	12.44	9.41	47.74	66.56
b)	Current Liabilities						
	Tender Deposit	0.19	0.14	(0.91)	-	0.04	0.09
	Advance collection of Property Tax	0.34	0.47	0.64	0.64	0.64	1.93
	Provision for doubtful debts	0.08	0.11	1.21	0.25	0.25	0.75
	Recovery from staff bills payable	9.94	4.38	4.13	4.12	3.08	9.24
	Accounts payable - contractor	-	-	-	-0.13	-	-
	Other Payable	0.06	0.06	0.06	0.06	0.05	0.16
	Outstandings	0.13	0.07	0.07	0.07	0.10	0.17
	Deposits - Others	14.95	12.44	11.98	12.44	9.44	28.32
	Inter Funds Transfer	0.18	0.51	0.51	0.51	0.51	1.51
c)	Accumulated Surplus/(Deficit)	32.21	41.24	59.49	62.72	17.60	182.47
	Total	74.42	78.39	104.96	105.43	94.79	337.20
II	Assets						
a)	Fixed Assets						
	Buildings	46.72	47.77	54.74	54.74	41.23	146.92
	Project in Progress	-	-	-	0.25	0.66	7.50
b)	Current Assets						
	Education Tax Rec - Current	5.96	6.68	8.88	9.07	5.49	17.28
	Education Tax Rec - Arrears	9.96	13.56	24.23	22.89	20.11	89.12
	Specific grant receivable	2.00	2.00	2.00	2.00	2.00	6.00
	Inter Fund Transfer	0.93	7.25	12.13	13.50	15.74	47.21
	Other Advances	-	0.16	0.16	0.16	0.16	0.49
c)	Cash & Bank Balances						
	Cash on Hand	0.13	0.16	0.08	-	0.16	0.47
	Bank A/cs	8.72	0.81	2.74	2.82	9.24	9.01
	Fixed Deposit	-	-	-	-	-	13.20
	Total	74.42	78.39	104.96	105.43	94.79	337.20

Annexure IX - I: Summary of Balance sheet (Rs. in lacs)

S.No	Particulars	Audited																				Unaudited			
		2001-02				2002-03				2003-04				2004-05				2005-06				2006-07			
		Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total	Rev & Capital	Water Supply	Elem'tary Education	Total
I	Liabilities																								
a)	Grants / Contribution	270.07	142.45	11.68	424.20	269.28	168.48	11.69	449.45	389.32	202.45	15.34	607.11	363.42	292.66	15.34	671.42	497.32	201.09	15.34	713.75	501.32	201.09	46.00	748.41
b)	Accumulated Depreciation	105.52	15.31	4.66	125.49	105.52	24.68	7.28	137.48	232.85	33.68	12.44	278.97	211.99	41.42	9.41	262.82	199.60	109.43	47.74	356.77	199.59	41.96	66.56	308.11
c)	Current Liabilities	466.11	106.28	25.87	598.26	519.96	166.23	18.18	704.37	427.45	138.54	17.69	583.68	637.63	183.50	17.96	839.09	353.33	258.16	14.11	625.60	394.47	262.63	42.17	699.27
d)	Net Surplus	1719.54	284.36	32.21	2036.11	1728.20	249.66	41.24	2019.10	1760.62	222.01	59.49	2042.12	1775.00	178.47	62.72	2016.19	1846.51	42.59	17.60	1906.70	1938.92	226.58	182.47	2347.97
	Total Liabilities	2561.24	548.40	74.42	3184.06	2622.96	609.05	78.39	3310.40	2810.24	596.68	104.96	3511.88	2988.04	696.05	105.43	3789.52	2896.76	611.27	94.79	3602.82	3034.30	732.26	337.20	4103.76
II	Assets																								
a)	Fixed Assets	2281.99	263.36	46.72	2592.07	2282.00	294.90	47.77	2624.67	2427.78	299.85	54.74	2782.37	2519.74	338.42	54.99	2913.15	2323.44	299.98	41.89	2665.31	2354.03	341.93	154.42	2850.38
b)	Current Assets	257.15	280.76	18.85	556.76	317.46	309.55	29.65	656.66	306.99	289.01	47.40	643.40	392.89	349.81	47.62	790.32	488.17	294.44	43.50	826.11	533.35	397.01	160.10	1090.46
c)	Cash & Bank Balances	22.10	4.28	8.85	35.23	23.50	4.60	0.97	29.07	75.47	7.82	2.82	86.11	75.41	7.82	2.82	86.05	85.15	16.85	9.40	111.40	146.92	-6.68	22.68	162.92
	Total Assets	2561.24	548.40	74.42	3184.06	2622.96	609.05	78.39	3310.41	2810.24	596.68	104.96	3511.88	2988.04	696.05	105.43	3789.52	2896.76	611.27	94.79	3602.82	3034.30	732.26	337.20	4103.76

Annexure IX - m: Demand Collection Balance Statement – 2006-07 (Rs. in lacs)

S.No.	Particulars	Demand			Collection			Collection %		
		Arrears	Current	Total	Arrears	Current	Total	Arrears	Current	Total
A	2006-07									
I	Tax Income									
a)	Property Tax	213.99	106.32	320.31	44.90	52.11	97.01	21%	49%	30%
b)	Profession Tax	7.38	12.99	20.37	0.52	9.22	9.74	7%	71%	48%
	Total Tax Income	221.37	119.31	340.68	45.42	61.33	106.75	21%	51%	31%
II	Non Tax Income									
a)	Water Charges	48.15	29.31	77.46	12.81	12.80	25.61	27%	44%	33%
b)	Other Fees	39.66	42.80	82.46	23.02	26.81	49.83	58%	63%	60%
	Total Non Tax Income	87.81	72.11	159.92	35.83	39.61	75.44	41%	55%	47%
III	Total Tax & Non Tax Income	309.18	191.42	500.60	81.25	100.94	182.19	26%	53%	36%

Annexure IX - n: Demand Collection Balance Statement -2005-06 (Rs. in lacs)

S.No.	Particulars	Demand			Collection			Collection %		
		Arrears	Current	Total	Arrears	Current	Total	Arrears	Current	Total
B	2005-06									
I	Tax Income									
a)	Property Tax	164.16	107.11	271.27	40.72	60.08	100.80	25%	56%	37%
b)	Profession Tax	12.34	19.25	31.59	1.92	16.01	17.93	16%	83%	57%
	Total Tax Income	176.50	126.36	302.86	42.64	76.09	118.73	24%	60%	39%
II	Non Tax Income									
a)	Water Charges	70.43	30.31	100.74	28.28	15.15	43.43	40%	50%	43%
b)	Other Fees	24.49	63.76	88.25	20.63	49.55	70.18	84%	78%	80%
	Total Non Tax Income	94.92	94.07	188.99	48.91	64.70	113.61	52%	69%	60%
III	Total Tax & Non Tax Income	271.42	220.43	491.85	91.55	140.79	232.34	34%	64%	47%

Annexure IX - o: Demand Collection Balance Statement -2004-05 (Rs. in lacs)

S.No.	Particulars	Demand			Collection			Collection %		
		Arrears	Current	Total	Arrears	Current	Total	Arrears	Current	Total
C	2004-05									
I	Tax Income									
a)	Property Tax	146.03	95.14	241.17	87.78	91.12	178.90	60%	96%	74%
b)	Profession Tax	14.91	9.14	24.05	6.51	6.10	12.61	44%	67%	52%
	Total Tax Income	160.94	104.28	265.22	94.29	97.22	191.51	59%	93%	72%
II	Non Tax Income									
a)	Water Charges	65.98	20.21	86.19	20.22	6.70	26.92	31%	33%	31%
b)	Other Fees	0.50	0.19	0.69	0.07	0.08	0.15	14%	42%	22%
	Total Non Tax Income	66.48	20.40	86.88	20.29	6.78	27.07	31%	33%	31%
III	Total Tax & Non Tax Income	227.42	124.68	352.10	114.58	104.00	218.58	50%	83%	62%

Annexure IX - p: Demand Collection Balance Statement -2003-04 (Rs. in lacs)

S.No.	Particulars	Demand			Collection			Collection %		
		Arrears	Current	Total	Arrears	Current	Total	Arrears	Current	Total
D	2003-04									
I	Tax Income									
a)	Property Tax	153.76	103.69	257.45	19.74	72.78	92.52	13%	70%	36%
b)	Profession Tax	22.33	10.77	33.10	2.26	7.65	9.91	10%	71%	30%
	Total Tax Income	176.09	114.46	290.55	22.00	80.43	102.43	12%	70%	35%
II	Non Tax Income									
a)	Water Charges	55.27	25.00	80.27	7.34	6.95	14.29	13%	28%	18%
b)	Other Fees	29.96	65.07	95.03	15.41	46.05	61.46	51%	71%	65%
	Total Non Tax Income	85.23	90.07	175.30	22.75	53.00	75.75	27%	59%	43%
III	Total Tax & Non Tax Income	261.32	204.53	465.85	44.75	133.43	178.18	17%	65%	38%

Annexure IX - q: Demand Collection Balance Statement -2002-03 (Rs. in lacs)

S.No.	Particulars	Demand			Collection			Collection %		
		Arrears	Current	Total	Arrears	Current	Total	Arrears	Current	Total
E	2002-03									
I	Tax Income									
a)	Property Tax	76.67	71.54	148.21	23.63	57.78	81.41	31%	81%	55%
b)	Profession Tax	24.20	7.23	31.43	14.45	3.75	18.20	60%	52%	58%
	Total Tax Income	100.87	78.77	179.64	38.08	61.53	99.61	38%	78%	55%
II	Non Tax Income									
a)	Water Charges	42.99	25.71	68.70	7.62	5.81	13.43	18%	23%	20%
b)	Other Fees	24.14	51.36	75.50	7.20	34.81	42.01	30%	68%	56%
	Total Non Tax Income	67.13	77.07	144.20	14.82	40.62	55.44	22%	53%	38%
III	Total Tax & Non Tax Income	168.00	155.84	323.84	52.90	102.15	155.05	31%	66%	48%

Annexure IX - r: Demand Collection Balance Statement -2001-02 (Rs. in lacs)

S.No.	Particulars	Demand			Collection			Collection %		
		Arrears	Current	Total	Arrears	Current	Total	Arrears	Current	Total
F	2001-02									
I	Tax Income									
a)	Property Tax	80.92	74.69	155.61	25.01	50.61	75.62	31%	68%	49%
b)	Profession Tax	23.30	7.20	30.50	3.20	2.91	6.11	14%	40%	20%
	Total Tax Income	104.22	81.89	186.11	28.21	53.52	81.73	27%	65%	44%
II	Non Tax Income									
a)	Water Charges	44.62	18.70	63.32	12.23	8.10	20.33	27%	43%	32%
b)	Other Fees	16.23	45.74	61.97	7.63	21.58	29.21	47%	47%	47%
	Total Non Tax Income	60.85	64.44	125.29	19.86	29.68	49.54	33%	46%	40%
III	Total Tax & Non Tax Income	165.07	146.33	311.40	48.07	83.20	131.27	29%	57%	42%

Annexure IX - s: Key Financial Indicators

		Indicators	Value	Unit
A	Resource Mobilization			
1	Per Capita Income		552	Rs. p.a
2	Sources of Funds			
	a)	Share of Own Sources in Total Revenue Income (RI)	62	%
	b)	Share of Property Tax in Total Revenue Income	27	%
	c)	Share of Revenue Grants & Subsidies in Total RI	38	%
3	Growth in Revenue Income		8.69	% p.a.
4	Growth in Own Sources of Revenue Income		3.08	%
5	Per Capita Own Income		341	Rs. p.a
B	Fund Application			
1	Per Capita Expenditure		470	Rs. p.a
2	Uses of Funds			
	a)	Share of Establishment Expenditure in Total RE	49	%
	b)	Share of O&M Expenditure in Total Revenue Expenditure	22	%
	c)	Share of Establishment Expenditure to Total RI	42	%
3	Growth in Establishment Expenditure		(0.31)	%
4	Growth in O&M Expenditure		26.06	%
5	Growth in Total Revenue Expenditure		(1.44)	% p.a.
C	Liability Management			
1	Per Capita Liability			
	a)	Outstanding debt per Capita	329	Rs.
	b)	Outstanding Non-Debt Liability per Capita	-	Rs.
	c)	Total Outstanding Liability Per Capita	329	Rs.
2	As a Proportion of Property Tax Current Demand			
	a)	Outstanding Debt as % of P.T Demand	222	%
	b)	Outstanding Non-Debt Liability as % of P.T Demand	-	
	c)	Total Outstanding Liability as % of P.T Demand	222	%
3	As a Proportion of Property Tax Own Revenue Income			
	a)	Outstanding Debt as % of Own Revenue Sources	96	%
	b)	O/s Non-Debt Liability as % of Own Revenue Sources	-	
	c)	Total Outstanding Liability as % Own Revenue Sources	96	%
4	Non-Debt Liability as % of Total Liability		-	
5	Debt Servicing Ratio (D/S Revenue Income)		1.42	%
D	Performance Indicators			

		Indicators	Value	Unit
1	Operating Ratio		63.00	%
2	Growth in Per Capita Own Income		0.40	%
3	Growth in Per Capita Grant		21.73	%
4	Growth in Per Capita Total Revenue Income		5.33	%
5	Growth in Per Capita Establishment Expenditure		-2.60	%
6	Growth in Per Capita O&M Expenditure		20.71	%
7	Growth in Per Capita Revenue Expenditure		-3.60	%
E	Efficiency Indicators			
1	Tax Collection Performance (Current)			
	a)	Property Tax	65	%
	b)	Profession Tax	70	%
	c)	Water Charges	40	%
	d)	Non Tax Income	70	%
2	No of P.T Assessment per Tax Collection Staff		2090	Nos.
3	Property Tax Demand per Assessment		754	Rs. p.a.
4	No. of Municipal Staff per 1000 Population		3.86	Nos.
5	Annual Revenue (Own Source) per Municipal Staff		1.00	Rs.lakh p.a.
6	Population per Residential P.T Assessment		5.5	persons

Annexure IX - f: Loan statement as on 31.3.2008 (Rs. in lacs)

S.No	Particulars	Amt O/s as on 31.3.2006	Int Demand for 2006-07	Int paid	Repayment in 2006-2007	Amt O/s as on 31.3.2007
1	TUFIDCO - Water Supply	24.13	2.65	2.65	-	24.13
2	IDSMT	59.70	19.58	13.96	-	65.32
3	TNUDF - Special Roads	60.00	-	-	16.12	43.88
4	IUDP	26.86	64.13	64.13	5.87	20.99
5	Govt & LIC Loan	269.40	-	-	93.64	175.75
	Total	440.09	86.36	80.74	115.63	330.07

Annexure XII : Institutes in Tamil Nadu Providing Training Programs

The list of local training institutes (Other than the in-house institutes) is as follows;

S.N	Name of Institute	Contact Details	Courses offered
1	Dr. Ambedkar Institute of Productivity (Training Institute of National Productivity Council)	6, SIDCO Industrial Estate, Ambattur, Chennai – 600 098 Ph: 044-2625 3144 Fax:044-2625 3122 Email: npc-chennai@eth.net	<ul style="list-style-type: none"> • Human Resource related (e.g Problem Solving Techniques, Leadership & Team Building, Human Resource Management, etc) • Engineering Courses (e.g. Total Productive maintenance, Municipal Solid Waste Management etc) • Environmental related courses (e.g. Environmental impact assessment, Air Pollution Management, etc) • Other courses e.g. Managing Information Resources, ISO courses, etc. • Hazardous waste characterization and disposal
2	Environmental Training Institute	76, Anna Salai, Guindy Chennai – 600 032 Ph : 044-2235 3134/3159 Email: tnpcefi@gias.md01.vsnl.net.in	<ul style="list-style-type: none"> • Natural Disaster Management • Environmental Management, Hazard Prevention methods • Avoidance of Pollution and maintenance of good environment
3	Institution of Road Transport	100 feet road, Taramani Chennai – 600 113 Ph:044-22541730/1761 Fax:044-2254 1761 Email : irt.taramani@vsnl.net Web: www.tn.nic.in/transport	<ul style="list-style-type: none"> • Traffic Congestion Control • Traffic Control and Best Practices
4	Institution of Labor Studies	3, Kamarajar Salai, Chennai – 600 005 Ph: 044 -2844 0102/5778 Fax: 044-28440966	<ul style="list-style-type: none"> • Labor Laws • Various national and state acts • Personnel and Industrial Acts • Personnel and Industrial Management
5	Institute of Water Studies	Taramani, Chennai – 600 113 Ph: 044-22541580 Fax:044-2254 2360	<ul style="list-style-type: none"> • Water Supply maintenance and management • Computerized design of water supply • Water and Waste Water treatment
6	Institute of Public Health	Poonamallee, Chennai – 600 056 Ph: 044 2627 2062 Fax: 044-24335075	<ul style="list-style-type: none"> • Public Health Reforms • Preventive measures to maintain Public Health • Reproductive and Child Health • Induction Training to medical Practitioners • Municipal Health Administration • Public Health Act • Malaria Control, Mosquito control • Prevention of Epidemics and Endemics

Annexure XIII - a: Details of Depreciation Statement for Assets as on 31.03.2007 – Revenue

S.No.	Item	Gross Block	Depreciation	Net Block
1	Land	1918.21	-	1918.21
2	Buildings	163.78	38.35	125.43
3	Subway & Causeways	0.00	-	0.00
4	Bridges & Flyovers	0.00	-	0.00
5	Drains & Culverts	77.12	64.29	12.83
6	Heavy Vehicles	0.35	1.62	-1.27
7	Light Vehicles	2.00	4.00	-2.00
8	Other Vehicles	0.17	1.46	-1.29
9	Furniture, Fixtures & Office Equipments	0.82	1.37	-0.55
10	Electrical Installation Lamps	13.62	5.56	8.06
11	Electrical Installation Others	0.00	-	0.00
12	Plant & machinery	0.01	0.06	-0.05
13	CC Roads & Payments	78.30	14.33	63.97
14	BT Roads	2.66	68.55	-65.89
15	Other Roads	0.01	-	0.01
16	Project in Progress	0.12	-	0.12
17	Project in Progress - Grants	36.27	-	36.27
18	Ground water & Bore well	9.66	-	39.57
19	Instruments and equipments in Hospital	24.12	-	1.69
20	Hand Pumps	0.58	-	0.58
	Total	2327.80	199.59	2135.69

Annexure XIII - b: Details of Depreciation Statement for Assets as on 31.03.2007 – Water supply

S.No.	Item	Gross Block	Depreciation	Net Block
1	Land	89.99	-	89.99
2	Buildings	40.75	7.08	33.67
3	Heavy Vehicles	0.00	1.44	-1.44
4	Light Vehicles	0.74	0.55	0.19
5	Drains and Culverts	1.54	0.97	0.57
6	Plant & Machinery	6.20	2.29	3.91
7	Roads & Pavements Concrete	1.58	-	1.58
8	Water Supply Head works, OHT etc.	133.57	15.27	43.90
9	Deep Bore Wells / Ground Water Well	1.77	9.50	-7.73
10	Hand Pumps - India Mark II	17.13	4.86	12.27
11	Drainage and sewerage Pipes	38.06	-	38.06
12	Project in Progress	6.18	-	6.18
13	Projects in Progress - Govt. Grants	4.41	-	4.41
	Total	341.92	41.96	225.56

Annexure XIII - c: Details of Depreciation Statement for Assets as on 31.03.2007 – Education fund

S.No	Item	Gross Block	Depreciation	Net Block
1	Land	0.00	-	0.00
2	Buildings	146.92	66.56	80.36
3	Furnitures, Fixtures & Office Equipments	0.01	-	0.01
4	Project in Progress	0.76	-	0.76
5	Project in Progress - Govt.grant	6.73	-	6.73
	Total	154.42	66.56	87.86