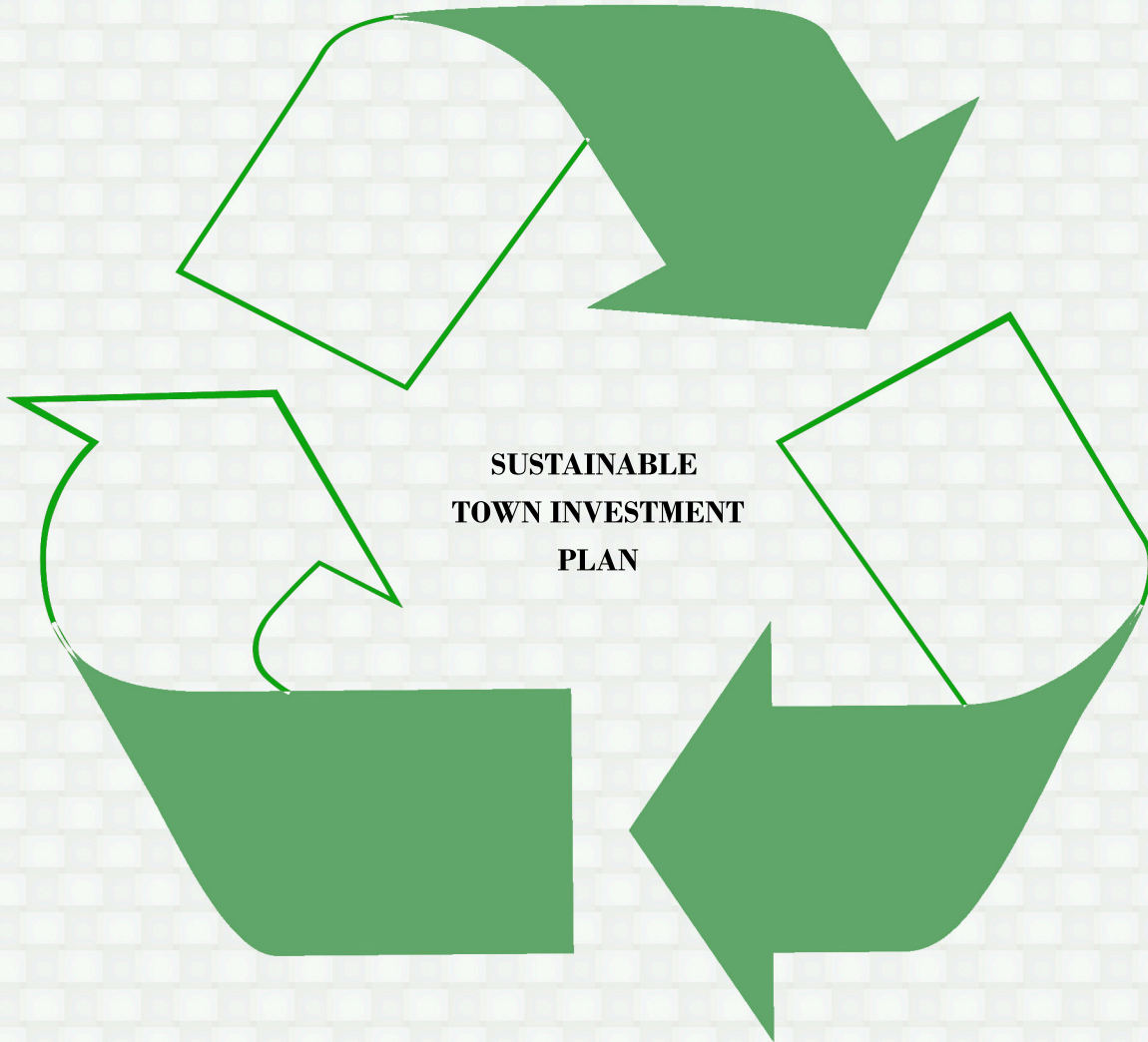


TOWN INVESTMENT PLAN FOR VADALUR TOWN PANCHAYAT



TNUIDP III

FINAL REPORT



MARCH 2010

DARASHAW
1926
ALL ABOUT TRUST

TNUIFSL

Disclaimer...

The contents of this report are based primarily on discussions with Vadalur Town Panchayat and information, secondary data /Reports available with the Town Panchayat including our discussions with the Stakeholders of the Town.

Based on the available data and information provided to us, M/s Darashaw & Company Pvt. Ltd has prepared the Final report.

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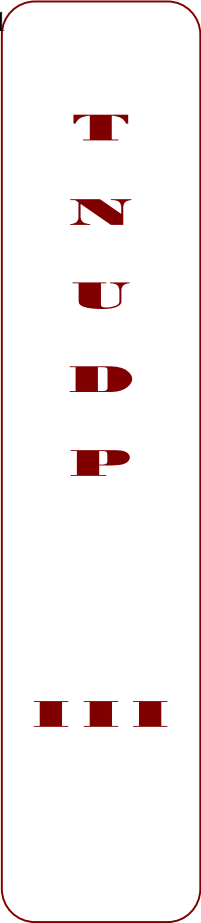
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Acronyms...

AMP	:	<i>Asset Management Plan</i>
BE	:	<i>Budget estimates</i>
BPL	:	<i>Below Poverty Line</i>
BOT	:	<i>Build-Operate-Transfer</i>
BOOT	:	<i>Build-Own-Operate-Transfer</i>
BOLT	:	<i>Build-Own-Lease-Transfer</i>
BT	:	<i>Bitumen</i>
CAGR	:	<i>Compounded Annual Growth Rate</i>
CC	:	<i>Cement Concrete</i>
CIP	:	<i>Capital investment Plan</i>
CMA	:	<i>Commissionerate of Municipal Administration</i>
CMWSSB	:	<i>Chennai Metro Water Supply & Sewerage Board</i>
CPHEEO	:	<i>Central Public Health & Environmental Engineering Organization</i>
DSCR	:	<i>Debt Service Coverage Ratio</i>
DPR	:	<i>Detailed Project Report</i>
ESR	:	<i>Elevated Storage Reservoir</i>
ESA	:	<i>Environmental and Social Assessment</i>
FAS	:	<i>Financial Accounting System</i>
FOP	:	<i>Financial Operating Plan</i>
FY	:	<i>Financial Year</i>
GIS	:	<i>Geographical Information System</i>
Govt.	:	<i>Government</i>
G.O	:	<i>Government Order</i>
GSR	:	<i>Ground Level Reservoir</i>
HH	:	<i>House hold</i>
HP	:	<i>Horse Power</i>
HSC	:	<i>House Hold Connections</i>

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HSS	:	<i>Higher Secondary School</i>
HUDCO	:	<i>Housing and Urban Development Corporation</i>
IHSDP	:	<i>Integrated Housing & Slum Development Program</i>
Kg	:	<i>Kilo Gram</i>
Km	:	<i>Kilometer</i>
JNNURM	:	<i>Jawaharlal Nehru National Urban Renewal Mission</i>
Sq.Km	:	<i>Square Kilometer</i>
Lpcd	:	<i>Litre per capita per day</i>
LL	:	<i>Lakh Litre</i>
LIC	:	<i>Life Insurance corporation of India</i>
OHT	:	<i>Over Head Tanks</i>
m	:	<i>Meter</i>
m ²	:	<i>Square Meter</i>
m ³	:	<i>Cubic Meter</i>
MIS	:	<i>Management Information System</i>
Mld	:	<i>Million litres per day</i>
MOA	:	<i>Memorandum of Association</i>
Mm	:	<i>Millimeter</i>
MRTS	:	<i>Mass Rapid Transit System</i>
MTC	:	<i>Metropolitan Transport Corporation</i>
MUDF	:	<i>Municipal Urban Development Funds</i>
MUDP	:	<i>Madras Urban Development Project</i>
NA	:	<i>Not Available/Not Applicable</i>
NGO	:	<i>Non Government Organization</i>
NH	:	<i>National Highway</i>
NHAI	:	<i>National Highway Authority of India</i>
O&M	:	<i>Operations and Maintenance</i>
PF	:	<i>Public Fountains</i>
PPP	:	<i>Public Private Participation</i>

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Town Investment Plan – Vadalur

PSP	:	<i>Private Sector Participation</i>
PWD	:	<i>Public Works Department</i>
RE	:	<i>Revised Budget estimates</i>
SEZ	:	<i>Special Economic Zone</i>
Sq ft	:	<i>Square Feet</i>
Sq Km	:	<i>Square Kilometer</i>
SC/ST	:	<i>Scheduled Castes/Schedule Tribes</i>
SHG	:	<i>Self Help Group</i>
SH	:	<i>State Highway</i>
SWD	:	<i>Storm Water Drains</i>
SWM	:	<i>Solid Waste Management</i>
TIP	:	<i>Town Investment Plan</i>
TOR	:	<i>Terms of Reference</i>
TNUDP	:	<i>Tamil Nadu Urban Development Project</i>
TNUIFSL	:	<i>Tamil Nadu Urban Infrastructure Financial Services Limited</i>
TUFIDCO	:	<i>Tamil Nadu Urban Finance & Infrastructure Development Corporation Limited</i>
TWAD	:	<i>Tamil Nadu Water Supply & Drainage Board</i>
UDPFI	:	<i>Urban Development Planning Formulation and Implementation</i>
UIDSSMT	:	<i>Urban Infrastructure Development Scheme for Small & Medium Towns</i>
UGD	:	<i>Under Ground Sewerage</i>
ULB	:	<i>Urban Local Bodies</i>
WBM	:	<i>Water Bound Macadam</i>
WFPR	:	<i>Work Force Participation Rate</i>
WS	:	<i>Water Supply</i>

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PROJECT BACKGROUND

Government of Tamilnadu and The World Bank as a partner has been involved in Urban Reform program in Tamilnadu through Tamilnadu Urban Development Project – TNUDP-I, TNUDP-II, TNUDP-III (in progress). Government of Tamilnadu is now implementing TNUDP-III with focus on furthering the urban reforms initiated under TNUDP-II.

As a financial intermediary, TNUIFSL intends to assist Annamalai Nagar, Vadalur, Tharangampadi, Ottenchatram, Thudiyalur, Thirupattur, S.Kannanur and Peravurani Town Panchayats in identifying infrastructure gaps and propose capital investment needs for providing better service delivery.

In this regard, the task of preparation of Town Investment plan for the aforesaid towns has been awarded to Darashaw & Company Private Limited. This report pertains to the Town Investment Plan for Vadalur.

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1.1 PROJECT OBJECTIVES

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The objective of this exercise is to:

- ❖ Assess the demand for the projects specified by the towns and come out with gap in services considering the population growth and growth direction of towns;
- ❖ Broadly outline the short term and long term infrastructure needs;
- ❖ Define specific rehabilitation and capital improvement needs with regard to priority of town infrastructure in both slums and other areas;
- ❖ Define revenue enhancement and revenue management improvements required

1.2 SCOPE OF WORK

The scope of works covers but not limited to the following:

- ❖ Assess the demand for the projects listed out by these Town Panchayats.
 - Current coverage and additional population in the medium term (10 years) and unit costs, indicate town level investment requirement for up gradation of town wide infrastructure.
 - to improve service coverage and asset quality and define priority assets and indicative costs of rehabilitation
- ❖ Financial assessment of the ULBs- an assessment of local finances (past 5 years) in terms of sources and uses of funds, base and basis of levy, revision history and impacts, State assignments and transfers- base and basis of transfer and its predictability; uses of funds outstanding liabilities (loans, power dues, pension etc) and, a review of revenue and service management arrangements, levels of service, coverage and quality of municipal services in both poor and non-poor localities. Staffing and management arrangements in delivery of services
- ❖ Initiate consultations with council and local stakeholders on the priorities; redefine priorities and work with the Council to resolve on adoption of the Town Investment Plan.
- ❖ Prepare a financial and operating plan (FOP). The FOP is a medium term framework of the ULBs, and shall present the following–
 - Break up of energy cost on UG, WS etc.
 - Salary for all the departments including staff and payments to private operators
 - Finding out the benchmark cost i.e. at ideal condition what will be the cost of the identified investments, a table indicating the investment plan for next 5 years with identified source of finance.

Areas of reduction in expenditure

- Energy audit resulting in savings in energy.

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- Leak detection resulting either in connections or in the tariff (or) maintaining the same supply and achieving a reduction in energy cost.
- 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 maintenance cost resulting in increasing operating surplus.
- Water recycling / reuse
- Rejuvenation of tanks and reduction of cost / liters of water produced
- Privatization & option for revenue raising.

Options for increasing the revenues through non-traditional methods

- Land development for raising revenue (not the traditional commercial complexes)
- Suggestion for improvement of revenues
- ❖ Finalize Action Plan for the Town, with a resolution from the council on the priorities

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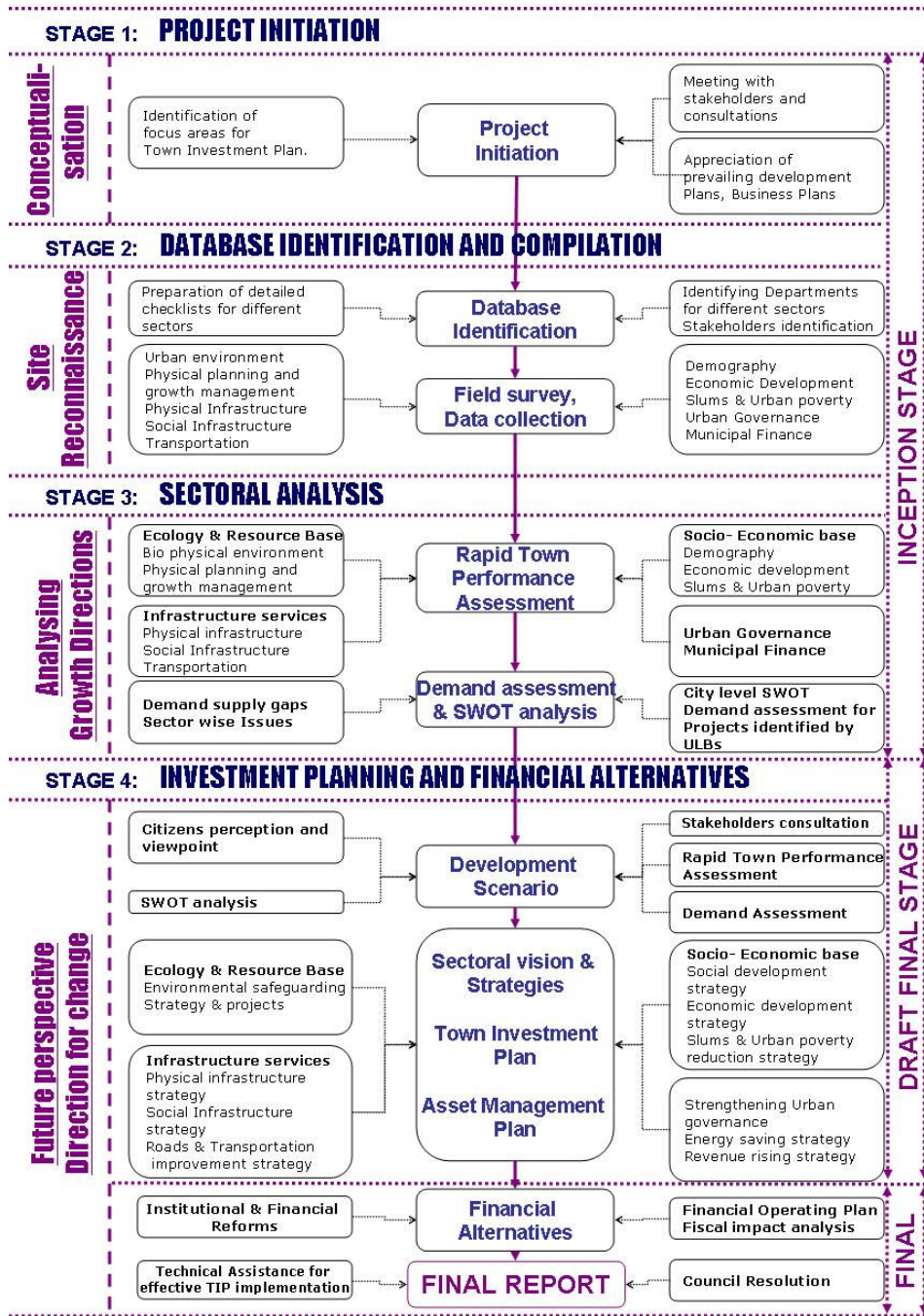
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1.3METHODOLOGY ADOPTED

The whole exercise is divided into four stages, which are further subdivided into tasks and several sub-tasks or activities within them. Figure below shows the adopted study methodology and is followed by a brief description on each of the stages.

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Figure 1-1 Approach and Methodology for Town Investment Plan



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1.3.1 DATABASE IDENTIFICATION

❖ Database Identification and compilation

Database forms the backbone of any kind of research works and also helps in focusing the study towards the definite approach. Under this task, the database required and the departments responsible for such kind of data was identified at town levels. A detailed checklist was prepared of all the sectors, along with identifying the probable departments for the collection of the data.

❖ Field survey and data collection

Secondary data was collected from Town Panchayat in relation to different sectors identified like:

- i. Town Infrastructure Services
- ii. Town Economic Development
- iii. Roads, Traffic and Transportation
- iv. Slums and Urban Poverty
- v. Human resources and Institutional Issues
- vi. Financial management
- vii. Environmental Management
- viii. Asset Management
- ix. O&M Requirements, Energy Saving Mechanism & Capacity assessment

Data was also collected on the Finance and Institutional Arrangement of the ULB. It Included accounts and budgets for the last five years, loan status, capital works in the last five years with sector-wise breakup, Audit Report, Properties, Water connections, Sewer connections registered and assessment of unregistered properties and assets of each town Panchayats and their condition. In addition, staffing and management arrangements in delivery of services was also collected and assessed.

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1.4 DETAILED APPROACH AND METHODOLOGY

1.4.1 INCEPTION STAGE REPORT

1.4.1.1 DEMAND ASSESSMENT

RFP document specifies that the ULBs have on their own identified certain projects to be implemented, for which demand assessment has to be carried out and sustainable investment plan has to be prepared for the same.

Hence, Inception stage in essence assessed the demand for various projects proposed by the ULBs. Furthermore, Investment Plan for such projects was reviewed (or) Investment Plan was prepared for such projects, if not attempted by the concerned Town Panchayats. Further, Overall Demand Supply Gap analysis in terms of Physical and Social Infrastructure for the next 15 years for the ULB was carried out.

1.4.1.2 RAPID TOWN PERFORMANCE ASSESSMENT

Here, all the information collected from Secondary sources was analyzed to arrive, current development status at town area level. The analysis included all the sectors mentioned below:

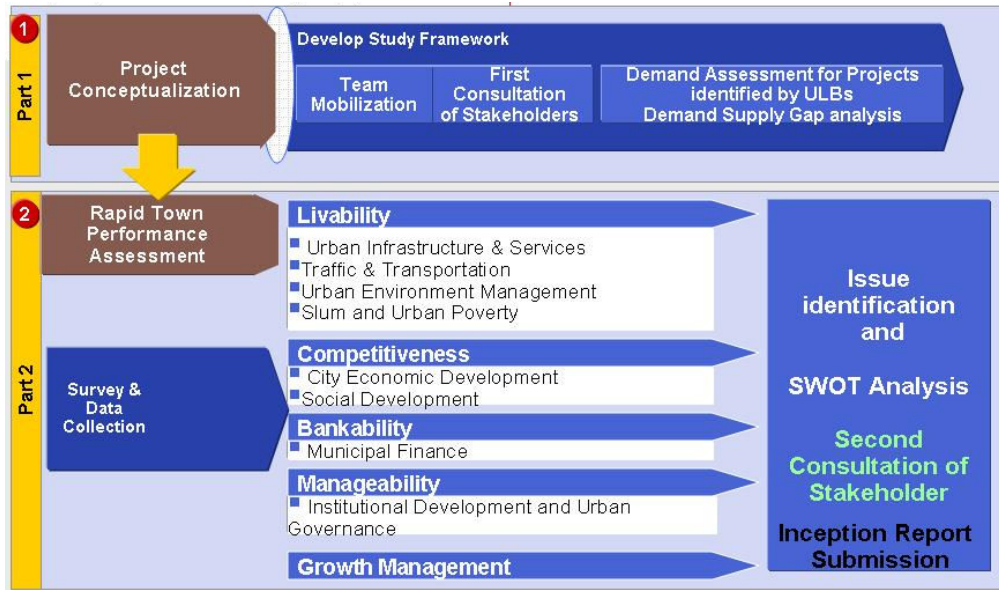
- i. Town Infrastructure Services
- ii. Town Economic Development
- iii. Roads, Traffic and Transportation
- iv. Slums and Urban Poverty
- v. Human resources and Institutional Issues
- vi. Financial management
- vii. Environmental Management
- viii. Asset Management
- ix. O&M Requirements, Energy Saving Mechanism & Capacity assessment

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Figure 1-2 Approach and Methodology for Inception stage



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Demand Assessment and Rapid Urban assessment undertaken in the Inception stage was approved and accepted by the Review Committee on 28th August 2009.

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1.4.1.3 SUGGESTIONS OF THE REVIEW COMMITTEE ON THE INCEPTION REPORT

The Suggestions given by the Review Committee during the meeting has been given as under.

- ❖ To conduct stakeholders’ consultations to ascertain the demands from public to identify infrastructure gaps.
- ❖ To present the draft final report to respective ULBs in the council after incorporating the suggestions of stake holders meeting.
- ❖ To recheck the financials of ULBs including debt status.
- ❖ To Analyse last 5 years financials and furnish the data on existing loan, loan repaid on due date, overdue loan, loan balance and loans sanctioned

but yet to be availed. In this regard, all Town Panchayats were requested to provide 5 years audited accounts and recent years' un-audited accounts along with DCB and loan statements and any other relevant details to the consultants.

- ❖ To study on the unused / under utilized assets of the ULB and suggest ways for the better utilization of the same.
- ❖ To identify any vacant land for development.
- ❖ DCB presented to be rechecked with ULB.

1.4.2 DRAFT FINAL STAGE

In draft final stage, four tasks were carried out and are described briefly as below:

1.4.2.1 DEVELOPMENT SCENARIO

Future Development Scenario for the ULB was developed based on Rapid Town Performance Assessment, Demand Assessment, S-W-O-T analysis and on the basis of Citizen's perception and viewpoint.

1.4.2.2 SECTORAL VISION AND STRATEGIES

On the basis of the sectoral issues identified during rapid Town Performance assessment, the sectoral vision and strategies were worked out to overcome those issues. These strategies were further converted into Action plans and projects. The projects were then phased on the basis of demand and stakeholders priorities.

During Strategic plan preparation; emphasis was mainly given to Areas/ sectors related to local Economic Development and poverty reduction

1.4.2.3 TOWN INVESTMENT PLAN

The budget cost estimates for the proposed projects was worked out to determine the financial requirements for meeting the demand for infrastructure and services. The project phasing was also worked out so that the financials of

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the ULB would not be burdened much and at the same time the objective of provision of basic services would be achieved.

1.4.2.4 ASSET MANAGEMENT PLAN

The life cycle O&M costs for the services proposed were worked out and in addition, O&M for lands and assets vested with the ULBs were also worked out. On that basis, a detailed Asset Management Plan was prepared for the ULB.

The above 4 tasks were covered in this Draft Final stage report.

The Draft Final Stage was approved and accepted by the Review Committee on 23rd December 2009.

1.4.2.5 SUGGESTIONS OF THE REVIEW COMMITTEE ON THE DRAFT FINAL REPORT

The Suggestions given by the Review Committee during the meeting has been given as under.

- ❖ The ULB is requested to provide the break up of Programme expense for preparation of FOP for the town.

1.4.3 FINAL STAGE

In final Stage, there are two tasks, which have been carried out and are described briefly as below:

1.4.3.1 FINANCIAL OPERATING PLAN

The projected FOP under four broad scenarios has been worked out to highlight the importance of the reforms suggested to implement all identified projects required for the development of the ULB.

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The four broad scenarios under which FOP has been worked out for each ULB are as under:

- ❖ Base case scenario (“Business as usual scenario”) - In this scenario “No New Projects” and “No reforms” over the next 15 year period is considered.
- ❖ Full Project Scenario without undertaking the Suggested Reforms
- ❖ Full Project Scenario with Full Reforms implementation
- ❖ Sustainable Investment Scenario

1.4.3.2 DRAFT MEMORANDUM OF ASSOCIATION

Draft Memorandum of Association has been prepared which would outline the base line (based on the Situation Analysis) and the performance benchmarks to be monitored, apart from other financial and loan covenants. This Draft MoA has covered two sub tasks. One is the Policy Intervention in the form of Institutional and policy reforms for effective governance and financial management. The other one is the technical assistance to each ULB for effective implementation of the Town Investment Plan.

1.4.3.3 COUNCIL RESOLUTION

Council Resolution has been obtained from the ULB accepting all suggested reforms and proposed Investments for the next 15 years period.

The final report has covered all the above stages along with incorporating the suggestions and modifications given by the review committee and local stakeholders.

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2 TOWN PROFILE

Vadalur is a panchayat town in Cuddalore district in the Indian state of Tamilnadu. It consists of three revenue villages namely Aabatharanapuram, Parvathipuram and Serakuppam.

As per the Inspector of Vadalur proceedings 1774-55 dated. 14.08.55 the three Revenue Villages Serakuppam, Parvathipuram and Abatharanapuram constituted as separate Village Panchayats. Then as per Director of Rural Development, Chennai ROC No. 5446/69F2 dated. 20.09.1969 the three Revenue Villages were upgraded as Second Grade Town Panchayat since 01.10.1969.

The Three Town Panchayats were united to form Vadalur, a First grade Town Panchayat as per the Director of Rural Development, Chennai ROC No.125736/81F/1 dated. 13.10.1981 and Tamilnadu Gazette Publication dt 25.11.2001 and The Collector, South Arcot District ROC No. 70137/81/TA2 dated. 3.12.1981.

As per the Director of Town Panchayats, Chennai ROC No. 3806/82/J-5 dated 24.02.1982 VADALUR was upgraded as Selection Grade Town Panchayat.

As per the Government Secretary of Rural Development ROC No. 150/1.10.2004 VADALUR was degraded as Special Village Panchayat from 12.10.2004.

And presently, Vadalur was upgraded and functions as per the Government Secretary of Rural Development ROC No. 55/14.07.2006 as Selection Grade Town Panchayat.

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Formally Cuddalore and Villupuram District was considered as a single district called South Arcot District and later on it was divided.

Ramalinga Swamigal popularly called 'Vallalar' had established the Sathyagnana Sabhai. The "Thai Poosam" function in December-January is a festival of this place. The Swamigal sang thousands of songs called "Thiru Arutppa". This district was named after him for a while.

2.1 REGIONAL SETTING AND NETWORK LINKAGES

Vadalur town is centrally located between Vikiravandi – Kumbakonam – Thanjavur National Highway (NH – 45C) road and Cuddalore – Virudhachalam – Salem state highway (SH -10). The Town is located 200 kms south of State Capital Chennai and 36 kms west of District Head Quarters Cuddalore. Vadalur town is very well connected by buses to Chennai, Virudhachalam, Chidambaram, Cuddalore, Kumbakonam and Thanjavur.

Vadalur has railway station in Cuddalore Salem Broad gauge line running via Virudhachalam. Currently passenger train is being operated between Cuddalore and Salem stops at Vadalur railway station.

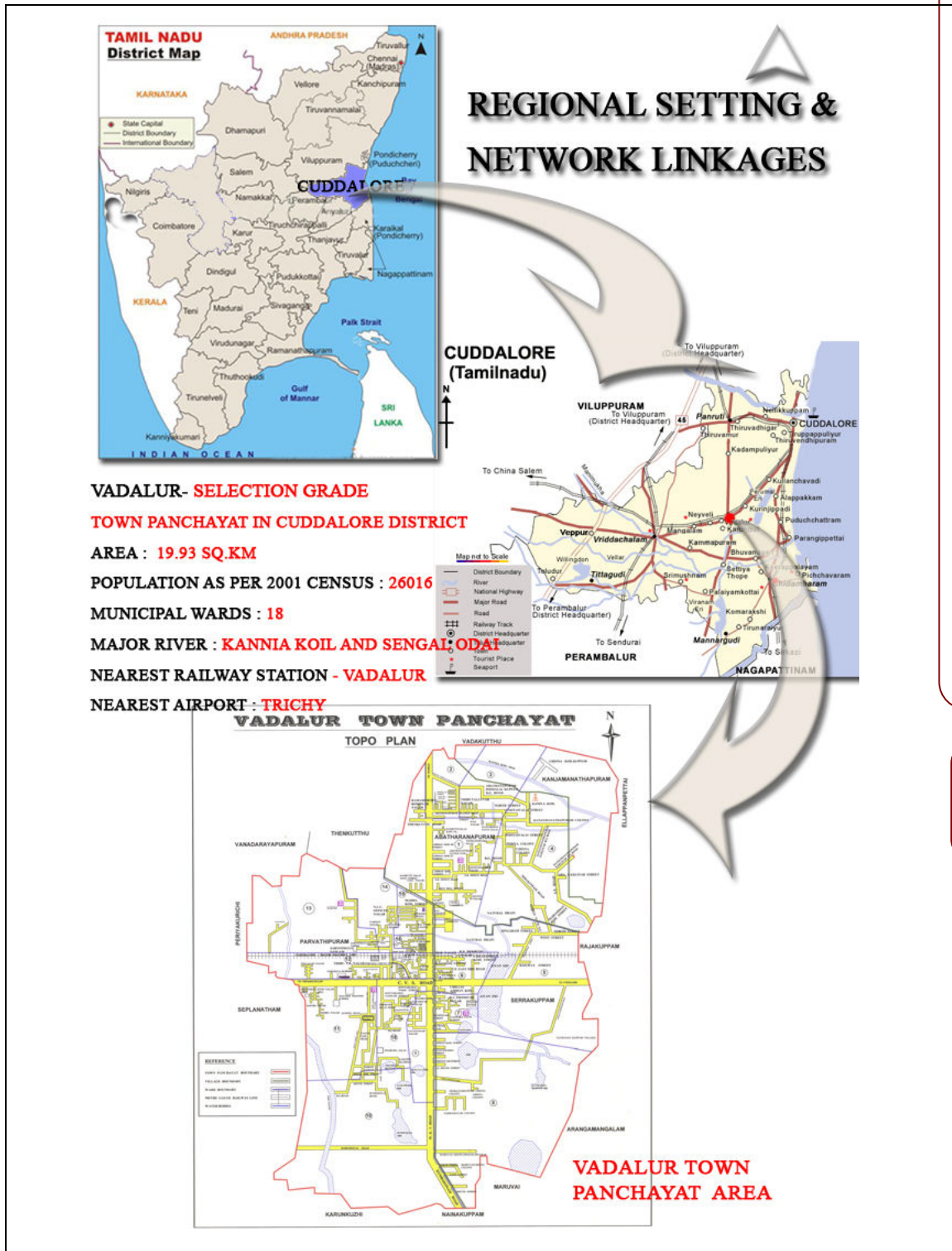
The nearest airport is in Tricity which is 150 km away from Vadalur.

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Figure 2-1 Regional setting and network linkages



2.2 DEMOGRAPHY

Vadalur has a population of 26016 as per 2001 census having male population of 13134 and female population of 12882. Vadalur has shown a growth percentage of 10.3% between 1991 and 2001. The growth of population and decadal variation from the year 1971 is illustrated in *Table 2-A*.

Table 2-A : Population growth trends in Vadalur

<i>Census year</i>	<i>Pop</i>	<i>Percentage Increase</i>
1991	23586	
2001	26016	10.3

The ward wise population as per 2001 census is shown in *Table 2-B*.

Table 2-B Ward wise Population details

<i>Wards</i>	<i>Population</i>	<i>Male</i>	<i>Female</i>	<i>Scheduled Caste</i>	<i>Scheduled Tribe</i>
Ward No.1	3007	1510	1497	51	5
Ward No.2	1769	940	829	48	0
Ward No.3	1917	986	931	51	4
Ward No.4	1033	511	522	96	11
Ward No.5	984	483	501	280	0
Ward No.6	1244	604	640	228	0
Ward No.7	1408	709	699	698	283
Ward No.8	1706	873	833	550	0
Ward No.9	978	494	484	23	0
Ward No.10	821	396	425	54	0
Ward No.11	1882	948	934	82	0
Ward No.12	2214	1143	1071	138	3
Ward No.13	793	413	380	51	1
Ward No.14	684	338	346	87	0

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Ward No.15	1176	596	580	0	0
Ward No.16	542	269	273	24	5
Ward No.17	2479	1241	1238	737	5
Ward No.18	1379	680	699	60	40
Total	26016	13134	12882	3258	357

2.2.1 POPULATION PROJECTIONS

As per Indian census, population details are available for only two decades (1991 and 2001) for Vadalur Town Panchayat. Under this scenario, base year population provided by the Town Panchayat is considered for the year 2009 after cross checking with birth and death rate data provided by the town Panchayat for data validation. Average growth rate between 1991 – 2001 and 2001 – 2009 is taken into consideration for projecting future population for the next fifteen year period which is shown in *Table 2-C*.

Table 2-C : Projected population figures for Vadalur Town Panchayat

<i>Year</i>	<i>Population</i>	<i>Growth rate</i>
1991	23586	
2001	26016	0.99
2009	30000	1.80
Average		1.39
2013	31705	
2018	33972	
2023	36402	

The water demand estimation done by TWAD board for Vadalur town Panchayat is 2.18 MLD for intermediate year 2023 as reported by Town Panchayat officials. On the basis of 70 lpcd, the projected population would be 31150 which are slightly on the lower side. Hence the projection done based on average growth rate method is taken into consideration for future planning purposes.

2.3SOCIAL CHARACTERISTICS

2.3.1 SOCIAL COMPOSITION

As per census 2001, SC population is about 13 percent of the total population whereas ST population is insignificant which comes around 1 percent of the total population as shown in *Table 2-D*.

Table 2-D Social Composition

<i>Social Composition</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>% share to total</i>
SC Population	1615	1643	3258	12.52
ST Population	184	173	357	1.37
Others	11335	11066	22401	86.10
Total Population	13134	12882	26016	100.00

2.3.2 GENDER RATIO

Gender ratio in Vadalur is lower than district urban and state urban gender ratio. Further, Gender ratio in the case of population below 6 years of age is much lower than the state urban and district urban gender ratio. However, Gender ratio among SC population is higher than district urban and state urban figures as shown in *Table 2-E*.

Table 2-E Gender Ratio

<i>Gender ratio</i>	<i>Population</i>	<i>Population below 06</i>	<i>SC</i>
Male	13134	1475	1615
Female	12882	1362	1643
Gender ratio in Vadalur	981	923	1017
In Cuddalore Urban district	990	955	1014
In Tamilnadu urban	982	955	1001

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2.3.3 LITERACY LEVELS

As per census 2001, 78 percent of total population (excluding 0-6 years of age) are literates of which male accounted for 87 percent and female accounted for 68 percent. Literacy levels in Vadalur and its comparison with state urban and district urban figures are shown in *Table 2-F*.

Table 2-F Literacy levels

<i>Literacy levels</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
Vadalur	77.72	87.31	68.02
Cuddalore dist Urban	82.32	89.50	75.09
Tamilnadu State Urban	82.53	88.97	75.99

2.4 PHYSICAL CHARACTERISTICS

2.4.1 GEOLOGY AND SOIL TYPE

The soil formation of the Cuddalore district is the combination of red soil, red loam, clay loam and sandy loam. Red soil is found in Panruti Taluk, Clay and loam soils are found in Chidambaram, Vridhachalam and Cuddalore Taluks.

2.4.2 CLIMATE AND RAINFALL

Normal rainfall during North East Monsoon varies between 716.5 mm to 1346.1 mm and during South West Monsoon it varies between 373.6 and 340.3 mm

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3 ECONOMIC DEVELOPMENT

3.1 ECONOMIC BASE OF THE TOWN

Vadalur is predominantly dependent on agriculture and Neyveli Lignite Corporation for its economic activities. Ramalinga Swamigal popularly called as Vallalar had established Sathyagnana Sabai. The "Thai Poosam" function in December-January is a festival of this place. Religious tourism due to this Sathyagnana sabai is also a major contributor for the economic growth of this town other than NLC and agriculture.

3.2 OCCUPATIONAL PATTERN

Vadalur is predominantly an agricultural based town and hence its dependency on primary sector is very high when compared to district urban and state urban areas. Its dependency on other service related activity(61% to total workers) and household industrial activity (1.6% of total workers) is low when compared to the Cuddalore district urban and state urban occupational figures as shown in *Table 3-A*. Further, non workers percentage to total population is high when compared to state urban non workers percentage to total population.

Table 3-A Occupational Pattern and its comparison

<i>Area</i>	<i>Indicator</i>	<i>Primary</i>	<i>Household Industry</i>	<i>Others</i>	<i>Total workers</i>	<i>Non workers</i>
Vadalur	% to total workers	37.6	1.6	60.8		
District Urban	% to total workers	18.9	3.9	77.2		
State Urban	% to total workers	14.0	6.3	79.6		
Vadalur	% to total population	12.3	0.5	19.9	32.8	67.2

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<i>Area</i>	<i>Indicator</i>	<i>Primary</i>	<i>Household Industry</i>	<i>Others</i>	<i>Total workers</i>	<i>Non workers</i>
District Urban	% to total population	6.1	1.3	24.9	32.3	67.7
State Urban	% to total population	5.3	2.4	29.9	37.5	62.5

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3.3INDUSTRIES

Vadalur has Neyveli Lignite Corporation (NLC) in its vicinity. SIDCO had established one industrial estate in vadalur but not of much success. Other than this, one sanitary ware industry is in operation providing employment to the residents of Vadalur.

3.4TOURISM POTENTIAL

Vadalur has **Sathyagnana Sabai** to attract religious tourists and in addition it has various renowned places around which are listed below:

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3.4.1 CHIDAMBARAM

Chidambaram is one of the important tourist centres in Tamil Nadu. Various renowned places around Chidambaram are given here:

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3.4.1.1 LORD NATARAJA TEMPLE

This ancient famous temple is fortified and centrally located in the town, covering an extent of approximately 43 acres. There are three prakaras in which first Prakara is of the sanctum of the Lord Siva in dancing form and second prakara comprising of Nirthiya sabha, Devasabha, Sarasamoorthy sannathi and Balathandayuthapani sannadhi and in the third prakara all other deities and sannathies are located.

3.4.1.2 THILLAI KALIYAMMAN TEMPLE

This temple is located at the fringe of the town in remembrance of the dance competition of Lord siva and sakthi. The Lord Siva won and Parvathi was asked to go out of the town. Since Thillaikali is incarnation of Parvathi, the temple has been constructed by the king kopperum chingan.

3.4.1.3 ANANDEESWARAR TEMPLE

This temple is of Saint Thiruneelakandar who took holy bath with his wife in the temple tank and came out youthful by the blessing of Lord Siva. There are two festivals celebrated annually called as Kalambula Nayanar festival in the Tamil months of Karthigai and Thiruneelakanda Nayanar festival during the Tamil month of Thai.

3.4.2 PICHAVARAM

It is situated 16 kms east of Chidambaram and located in a most beautiful scenic spot. It is spreaded over 2800 acres of mangrove forest. This place is formed in the backwaters, which are interconnected by the Vellar and Kollidam systems. Thus, there is abundant scope for water sports, para-sailing, rowing and canoeing. Boating, accommodation and restaurant are offered by the Tamil Nadu Tourism Development Corporation. The mangroves here are the healthiest mangroves in the world.

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4 **PHYSICAL INFRASTRUCTURE**

Infrastructure facilities play an important role in fostering economic growth and enhancing public welfare. By and large, the infrastructure may be divided into two categories:

- ❖ Physical infrastructure including Water supply, Drainage, Sewerage, Solid Waste Management, Electricity, Telecommunications and so forth; and
- ❖ Socio-economic infrastructure including Education, Health, other Community facilities, Cold storages, Warehouses, Markets, Banks and Financial Institutions.

This chapter deals with Physical Infrastructure which includes Water Supply, Sewerage and Sanitation, Storm water drainage, Solid Waste Management Roads and Street Lighting.

4.1 WATER SUPPLY

4.1.1 WATER SUPPLY SOURCES

Vadalur has safe drinking Water Supply Scheme initiated in 1993-94 with bore wells as a source, implemented at a sanctioned grant cost of Rs. 75 lakhs. In order to reduce water scarcity, in the year 1998 government has sanctioned additional Rs. 102.95 lakhs for laying 18.776 Km distribution lines, for constructing 2 over head tanks and for laying 4 bore wells. TWAD board was entrusted to implement the above work and from 2001 onwards the improvement scheme is in operation.

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From 2008 onwards, TWAD board is implementing Water Supply Improvement Scheme to Vadalur Town Panchayat area under Minimum Need Programme at an estimated cost of Rs. 99.6 lakhs in which 20% is the Town Panchayat contribution. Under this Scheme various works have been undertaken and the status is tabulated below:

Table 4-A : Water Supply Improvement Scheme under Minimum Need Programme

S.No	Description of work	Status as on 07/07/2009
1	Chinnakoilkuppam – OHT of 30,000 litres capacity	Completed
2	Visvakarma Nagar – Providing bore well, pump room, pump set, pipeline and 30,000 litres OHT	Completed
3	Serakuppam Chinna colony – OHT of 30,000 litres capacity	Completed
4	Serakuppam – borewell	Completed
5	Kattukollai – providing additional bore well, pump room, pumpset, pipeline for existing OHT	Completed
6	Parvathipuram – providing additional bore well, pump room, pumpset, pipeline for existing OHT	Pumpset to be erected. Other works completed
7	R.C Savariyor Nagar – OHT of 60,000 litres capacity	Completed
8	Nagesan Chettiyar Nagar - OHT of 60,000 litres capacity	Completed
9	Moolakuppam Colony and Thangaraj Nagar – providing borewell, pumproom, pumpset, pipeline and 30,000 litres OHT	Completed
10	Boomithanam Nagar - providing borewell, pumproom, pumpset, pipeline and 60,000 litres OHT	Borewell pump room completed. Pumpset to be erected. OHT under progress
11	Maruthi Nagar - providing borewell, pumproom, pumpset, pipeline and 60,000 litres OHT	Borewell, pumproom, pipeline work completed. Pumpset to be erected. OHT to be started

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<i>S.No</i>	<i>Description of work</i>	<i>Status as on 07/07/2009</i>
12	Ragavendra Nagar - providing borewell, pumphoom, pumpset, pipeline and 60,000 litres OHT	Borewell, pumphoom, pipeline work completed. OHT work under progress
13	Parvathipuram South – 1 lakh litres OHT, Pumphoom	completed

Vadalur has 23 bore wells supplies 1.86 MLD during normal days and 1.56 MLD during summer. Ayyaneri which gets water from NLC water channel supplies 0.02 MLD resulting in a total water supply of 1.88 MLD during normal and 1.58 MLD per day during summer season.

<i>S.No</i>	<i>Bore well location</i>	<i>Pumpset details</i>
1	Vallalar Gnana Sabai	40HP submersible -1 20 HP mono -1 15 HP mono – 1 5 HP mono – 1 40, 30, 20, 15,10 HP stand by motors – 1 each
2	Venkattankuppam	12.5 HP Submersible
3	Cinnakovilkuppam	2 HP submersible
4	Behind Town Panchayat	15 HP submersible
5	Aabattaranapuram below tank	30 HP submersible
6	Aabattaranapuram near tank	25 HP submersible
7	Below Sandy tank	25 HP submersible
8	Seshayee Nagar	15 HP submersible
9	Parvathipuram Indira Nagar	15 HP submersible
10	Saveriyar Nagar	15 HP submersible
11	Ganapathy Nagar	15 HP submersible
12	Ganapathy nagar	
13	Jaipriya Nagar	121/2 HP submersible
14	NLC officer nagar	121/2 HP submersible

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<i>S.No</i>	<i>Bore well location</i>	<i>Pumpset details</i>
15	A. Puram Pottavezhi street	15 HP submersible
16	Ladies toilet near R.C. Colony Tamarai kulam	1 HP submersible
17	Ladies toilet near Serakuppam school	1 HP submersible
18	Ladies toilet near Poosalikuppam school	1 HP submersible
19	Bus stand near Pay and Use	1 HP submersible
20	Serakuppam	15 HP submersible
21	Barbar Kudiyiruppu	5 HP submersible
22	Poosalikuppam near school	15 HP submersible
23	Naagesan chettiyar nagar inside park	15HP submersible

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4.1.2 WATER SUPPLY SYSTEM

29 over head tanks with a combined capacity of 29.5 lakh litre capacity are constructed all over the town to supply water and the locations are tabulated below:

<i>Location of OHT</i>	<i>Capacity in lakh litres</i>	<i>Location of OHT</i>	<i>Capacity in lakh litres</i>
1.Sabha pump room	4	15.Maruvai china colony	0.6
2.Kattukollai	4	16.Poosalikuppam	1
3.Abbataranapuram	3	17. Chinnakovilkuppam	0.3
4.Weekly Market	3	18. Seshayee Nagar	1
5.Behind Office	1	19.R.C. Saveriyor nagar	0.6
6.Vallalar Nagar	1	20. Venkatankuppam	0.6
7.Jayapriya Nagar	1	21. Naagesan chettiyar Nagar	0.6
8.Ganapathy Nagar	0.6	22. Abbataranapuram	Pumping line
9.NLC officer	0.6	23. Viswakarmaga nagar	0.3

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<i>Location of OHT</i>	<i>Capacity in lakh litres</i>	<i>Location of OHT</i>	<i>Capacity in lakh litres</i>
nagar			
10.Indira nagar	0.6	24. PARvathypuram amman kovil street	1
11.Jothi nagar	0.6	25. Abbataranapuram south street	1
12.Pottavezhi Street	0.6	26. Boomidana iyakkam	0.6
13.Mudithiruthuvor colony	0.3	27. Maruthi Nagar	0.6
14.Serakuppam	0.1	28. Moolakuppam Colony	0.3
29. Ragavendra city	0.6	Total capacity	29.5

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Vadalur has 2334 no of assessments having house service connections out of total 8948 assessments. Out of 2334 household service connections, 2297 are domestic water connections and 37 are Non domestic connections.

Table 4-B Water Supply system in Vadalur

<i>Description</i>		<i>Details</i>
Source of Water Supply	:	Bore wells
Water Supply Agency	:	Town Panchayat
Total Storage Capacity	:	29.5 lakh litres
Description regarding Connections		
Domestic	:	2297
Commercial	:	37
Total	:	2334
No of Stand posts		700
No of public wells		15

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In addition, 700 public fountains (stand Posts) have been provided within the town. Chlorination method is followed for treating raw water at each tanks mentioned above.

4.1.3 WATER AVAILABILITY

Water is supplied one time in the morning for 2 hours everyday between 6 – 8 AM. Overall, 63 LPCD water is being supplied by taking into consideration the population for 2009 would be 30000.

4.1.4 SERVICE ADEQUACY

Table 4-C : Performance Indicators for water supply in Vadalur

<i>S.No</i>	<i>Indicators</i>	<i>Unit</i>	<i>Current status</i>	<i>Normative standard</i>
1	Daily per capita supply	Litres	63	70/100
2	Roads covered with distribution network	Percent	83	> 100
3	Storage capacity with respect to supply	Percent	157	33
4	Available Treatment capacity with respect to supply	Percent	NA	100
5	Assessments covered by service connections	Percent	26	85
6	Proportion of non domestic service connections	Percent	2	>5
7	Slum population per stand post	Persons	NA	150

4.1.5 SECTORAL ISSUES

- ❖ Dependent entirely on bore wells for water supply requirements
- ❖ Per capita water supply is low (63lpcd) against the standard norm of 70 lpcd.
- ❖ 17% of the existing roads are not covered by Water Supply distribution network

- ❖ Only 26% of the assessments are having household service connections (HSCs)

4.1.6 WATER SUPPLY DEMAND ASSESSMENT

Table 4-D : Water supply demand for the next fifteen year period

<i>Particulars</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Vadalur projected population	30000	31705	33972	36402
<i>Water Supply MLD</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Vadalur water demand @ 70 lpcd for towns less than 50,000 population (desirable)	2.10	2.22	2.38	2.55
Existing and proposed Supply in mld	1.88	1.88	1.88	1.88
Gap	0.2	0.3	0.5	0.7
<i>Water Treatment Plant capacity in MLD</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Demand for treatment plant capacity	2.10	2.22	2.38	2.55
Treated water supply	0.0	0.0	0.0	0.0
Gap	2.1	2.2	2.4	2.5
<i>Water Distribution Network in Kms</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Existing distribution length in Kms	65.0	65.0	65.0	65.0
Road length in Kms (existing and proposed)	78.1	78.1	78.1	78.1
Gap	13.1	13.1	13.1	13.1
Per Capita road length of 1.5 meter is considered for calculation				
<i>Water Service connections in Nos</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
No of Assessments	8948	9456	10133	10858
No of service connections	2334	4324	6623	9229
% service connections existing & proposed	26.1	45.7	65.4	85
Gap	58.9	39.3	19.6	0.0
Assessments increased on the basis of Assessment / population ratio				
Service connections are proposed to be 85% by 2023-24				
<i>Storage capacity in MLD</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Existing & Proposed Storage Capacity in MLD	2.95	2.95	2.95	2.95
Storage capacity demand in MLD	0.69	0.73	0.78	0.84
Gap in MLD	-2.3	-2.2	-2.2	-2.1

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4.2 SEWERAGE AND SANITATION

4.2.1 SEWERAGE SYSTEM IN VADALUR

Vadalur currently has no underground sewerage system. Night soil is disposed normally through individual toilets with septic tanks and low cost sanitation facilities. 4385 houses out of 8021 houses (54%) within the town have individual toilets with septic tank as safe mode of disposal whereas remaining 46% has no sanitation facilities. For Public purpose, 3 free public convenience units have been constructed along with one Pay and Use in the town. The road side drains constructed are used for disposing both waste water and rainwater.

4.2.2 SECTORAL ISSUES

- ❖ 46% households have no sanitation facilities
- ❖ No sullage lorry available for septic tank cleaning since town has no sewerage system and dependent mainly on septic tanks

4.2.3 SEWERAGE DEMAND ASSESSMENT

Table 4-E : Sewerage demand for the next fifteen year period

<i>Particulars</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Vadalur projected population	30000	31705	33972	36402
<i>Sewage generation in MLD</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Vadalur sewage generation	1.7	1.8	1.9	2.0
Vadalur proposed Sewage Collection	0.0	0.0	0.0	0.0
Gap	1.7	1.8	1.9	2.0
<i>STP capacity in MLD</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Capacity of proposed treatment plant	0.0	0.0	0.0	0.0
Gap	1.7	1.8	1.9	2.0
<i>Sewer connections in Nos</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Proposed connections under UGSS	0	0	0	0
Demand for sewer connections	6264	6620	7093	7600
Gap	6263.6	6619.5	7093.0	7600.3
<i>Sewer Network in Kms</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Sewer Network in Kms (Proposed)	0.0	0.0	0.0	0.0

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Sewer Network Demand	66.4	66.4	66.4	66.4
Gap	66.4	66.4	66.4	66.4

4.3 STORM WATER DRAINAGE

The total length of the Storm Water Drains constructed within Vadalur is around 3.994 Kms which is single side brick lining drains and 11.570 Kms double side brick lining drains.

4.3.1 SERVICE ADEQUACY

Table 4-F : Performance indicators for Storm Water Drainage in Vadalur

S.No	Indicators	Unit	Current Status	Normative Standard	Remarks
1	Road length covered with pucca storm water drainage	Percent	20	130	Most of the drains are kutcha drains

4.3.2 SECTORAL ISSUES

- ❖ All drains are open
- ❖ Only 20 % of the existing roads have Pucca storm water drains.

4.3.3 STORM WATER DRAINAGE DEMAND ASSESSMENT

Table 4-G : Storm water drainage demand for the next fifteen year period

Storm water drainage in Kms	2009-10	2013-14	2018-19	2023-24
Vadalur existing SWD	15.564	15.564	15.564	15.564
Storm water drain demand	101	101	101	101
Gap	86	86	86	86

4.4 SOLID WASTE MANAGEMENT

4.4.1 GENERATION AND COLLECTION

Vadalur Town generates around 2.5 ton of Garbage per day at the rate of 83 grams per capita per day. Waste is being collected in all the 18 wards. 16% of the total assessments are covered under Door to Door waste collection system whereas 22.5% of the total assessments are actively involved in waste segregation at source. Waste collected is segregated into degradable, non-degradable and recyclable and its details are shown in *Table 4-H*.

Table 4-H Waste Composition

<i>S.No</i>	<i>Waste Type</i>	<i>Quantity in MT</i>	<i>Percentage share</i>
1	Biodegradable	1.5	60
2	Non bio degradable / Recyclable	1	40
3	Total	2.5	100

10 concrete waste bins of 0.5 Kg capacity is placed all over the town for collection purpose. Further, it is proposed to purchase 100 cubical bins for waste collection purpose. Vadalur Town Panchayat has the staff strength of 22 sanitary workers. Other than departmental workers, 2 Self Help Groups are also been involved in waste collection and segregation. As a part of collection system, 8 pushcarts, 1 tricycle are engaged in primary waste collection.

4.4.2 DISPOSAL AND TREATMENT FACILITIES

One mini lorry and one tractor trailer is in operation for secondary waste collection system and disposal. Town Panchayat has 1.5 acre land in Poosalikuppam in ward No.02 for waste disposal and treatment. 6 rectangular tanks within an AC sheet shed with water provision are used for decomposing

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the degradable waste. Vermi Compost yard is located at R.K.Naidu Colony, started one year back at a cost of Rs.7 Lakhs. The manure is sold at Rs.4 per Kg

The recyclable waste like old plastic item, milk cover, oil cover, water bottle, TV cover, cardboard box, glass etc are sold at around Rs.500 per month. One Industrial unit in Vadalur has agreed to sponsor 1000 bins to the households.

The Town Panchayat pays Rs.1200 per women representative of the SHG group for manure treatment. The Town Panchayat has started collecting minimum amount of Rs.10 as user charges from around 290 households.

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4.4.3 ADEQUACY OF SERVICES

Table 4-I : Performance Indicators for Solid Waste Management

<i>Indicators</i>	<i>Unit</i>	<i>Current Status</i>	<i>Normative Standard</i>
Waste generation per Capita per day	Grams	83.3	< 350 grams
Collection efficiency	Percent	84	100
% of assessments covered by Door to Door collection	Percent	16.2	100
% of assessments involved in waste segregation	Percent	22.5	100
Conservancy staff per Km	persons	0.3	2
% capacity of Fleet vehicles to waste generated	percent	32	

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4.4.4 SECTORAL ISSUES

- ❖ Only 16% of the total assessments are covered by Door – Door collection system
- ❖ Only 22% of the total assessments are involved in waste segregation
- ❖ State inadequacy (1 person per 3.5 Km against the standard norm of 1 person per 0.5 Km)

4.4.5 SOLID WASTE MANAGEMENT DEMAND ASSESSMENT

Table 4-J : Solid waste Management demand for the next fifteen year period

Particulars	2009-10	2013-14	2018-19	2023-24
Vadalur projected population	30000	31705	33972	36402
Solid waste generation	2009-10	2013-14	2018-19	2023-24
Per capita waste in grams per day	83	90	100	110
Vadalur waste generation	2.5	2.9	3.4	4.0
Growth rate assumed	2.00%			

4.5 ROADS, TRAFFIC AND TRANSPORTATION

4.5.1 REGIONAL NETWORK

Vadalur town is centrally located between Vikiravandi – Kumbakonam – Thanjavur National Highway (NH – 45C) road and Cuddalore – Virudhachalam – Salem state highway (SH -10).

Figure 4-1 : Regional Network Linkages



The Town is located 200 kms south of State Capital Chennai and 36 kms west of District Head Quarters Cuddalore. Vadalur town is very well connected by buses

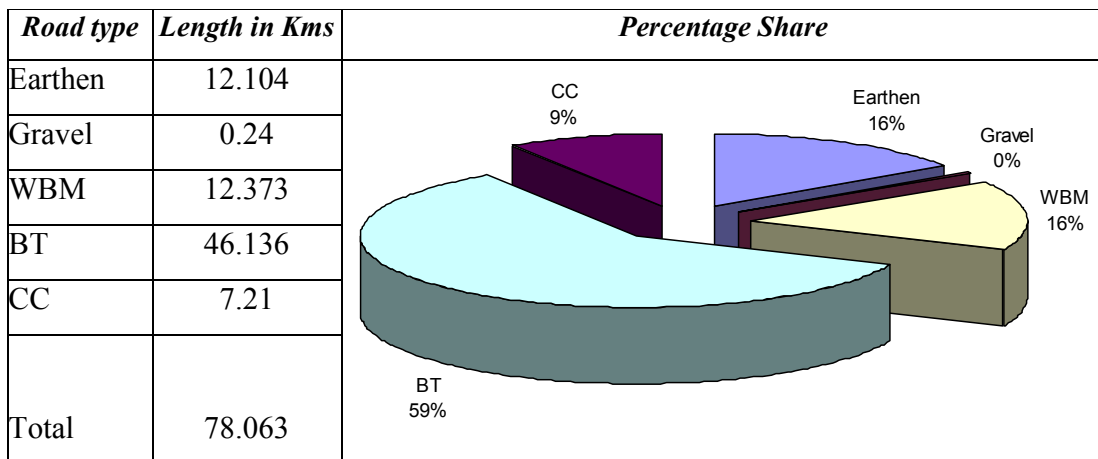
to Chennai, Virudhachalam, Chidambaram, Cuddalore, Kumbakonam and Thanjavur.

Vadalur has railway station in Cuddalore Salem Broad gauge line running via Virudhachalam. Currently passenger train is being operated between Cuddalore and salem stops at Vadalur railway station. The nearest airport is in Tricity which is 150 km away from Vadalur.

4.5.2 CITY LEVEL ROAD NETWORK

The total road Length within Vadalur is 78.063 Km. Out of 78.063 km road length, 46.136 km are built with bituminous road, 7.21 km roads are made up of Cement Concrete, 12.373 Km are made up of WBM and Kutchra road constitutes 12.344 kms. Road length and its type are shown in Table 4-K.

Table 4-K: Road network in Vadalur



4.5.3 PUBLIC TRANSPORT SYSTEM

The main mode of transportation is buses operated both by Government Transport Corporation and private owners from Vadalur bus stand. Vadalur bus stand has 10 parking bays, 1 Pay and Use toilets, 1 free toilet and one transport time keeping booth. Bus stand has 219 shops for revenue generating purpose. Nearly 250 buses enter inside the bus stand in a day. One cycle shed is given on lease for two wheeler and bicycle parking.

4.5.4 **SECTORAL ISSUES**

- ❖ 16% of the roads are kutcha earthen roads
- ❖ 16% of the roads are WBM roads

4.5.5 **ROAD NETWORK DEMAND ASSESSMENT**

Table 4-L : Road Network demand for the next fifteen year period

<i>Particulars</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Vadalur projected population	30000	31705	33972	36402
<i>Road network</i>	<i>2009-10</i>	<i>2013-14</i>	<i>2018-19</i>	<i>2023-24</i>
Existing road network in Kms	78.1	78.1	78.1	78.1
Road length demand	78.1	78.1	78.1	78.1
Gap	0.0	0.0	0.0	0.0
Per capita road length available is 2.6 meters which is greater than the standard requirement of 1.5 m / person				

4.6 **STREET LIGHTING**

Vadalur has 1665 street lights positioned all over the Town Panchayat area in which 1239 lights are 40 W tube lights, 423 lights are 250 W Sodium Vapor lamps and 3 High Mast lights.

Table 4-M : Ward wise street lighting details

<i>Ward No</i>	<i>HM</i>	<i>SV 250 W</i>	<i>Tube 40W</i>	<i>Total</i>
1		33	116	149
2		20	85	105
3		17	52	69
4		23	86	109
5		21	62	83
6	2	41	70	113
7		22	54	76
8		14	63	77
9		26	40	66
10		13	41	54
11	1	34	86	121
12		29	97	126
13		14	60	74
14		14	72	86

Ward No	HM	SV 250 W	Tube 40W	Total
15		11	61	72
16		18	55	73
17		32	63	95
18		41	76	117
Total	3	423	1239	1665

As a part of energy saving mechanism, Town Panchayat has placed 10 CFL lamps with timer switches. Remaining 80 switches are manually operated. All the fittings have conventional chokes which can be converted into electronic chokes. Ward wise street lighting details are shown in *Table 4-M*.

4.6.1 ADEQUACY OF SERVICES

Table 4-N : Performance Indicators related to Street Lighting

Indicators	Unit	Current status	Norms/Standards
Spacing between lamps	Meters	46.6	30
Proportion of tube lights W.R.T to total	Percent	74.57	60
Proportion of high power fixtures W.R.T to total	Percent	25.43	40

4.6.2 SECTORAL ISSUES

- ❖ Spacing between lights is 46 Meters against the norm of 30 meters
- ❖ Energy saving devices is not yet adopted like solar lamps, Timer switches, electronic chokes, 36W tube lights instead of 40 W tube lights.

4.6.3 STREET LIGHTING DEMAND ASSESSMENT

Table 4-O Street lighting Demand for the next fifteen year period

Street Lighting	2009-10	2013-14	2018-19	2023-24
Vadalur existing lights	1675	1675	1675	1675
Road length in Kms	78.1	78.1	78.1	78.1
Street light demand @ one light per 30 m	2602	2602	2602	2602
Gap	927	927	927	927

5 SOCIO-ECONOMIC INFRASTRUCTURE

The Socio-economic infrastructure determines the development status of any human settlement and this chapter covers Recreation and other amenities.

5.1 RECREATION

Vadalur has 2 parks one near Vadalur Town Panchayat office and another near Government hospital, both developed with the help of District Collector's Development Fund. Additional 2 parks have been developed one in front of Town Panchayat office and another all along the median in Cuddalore – Virudhachalam state highway. Town has additional 43 approved layouts handed over to the Town Panchayat which needs to be developed and the list is enclosed in the annexure.

5.2 OTHER AMENITIES

Vadalur has banking facilities provided by Indian Bank in ward No. 01, Indian Overseas Bank in ward No.06 and Central Co-op Bank in ward No. 06. It has Muruga theatre in ward No. 06 for entertainment purpose. One community hall is proposed in ward No. 06 under MLA fund (10 lakhs MLA fund + 10 lakhs general fund).

Town has 4 lodges in ward nos. 6, 1 and 5. Weekly market is running on lease land belongs to selvi amman koil in an area of 3 acres in ward No. 06. Weekly market can be developed in Ragavendra city location as suggested by Town Panchayat officials. Town has Slaughter house behind Town Panchayat office in an area of 1000 Sq. ft. Existing Town Panchayat office has adequate space as suggested by Town Panchayat officials.

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Town has 8 burial grounds out of which 3 is in Abbataranapuram in ward Nos. 3 and 04, 1 in seerakuppam in ward No.5, 2 in Parvathipuram in ward Nos. 11 and 18 and 1 in ward no. 17. All the burial grounds have burning ghats. Town Panchayat has no commercial complexes other than 219 shops in bus stand premises for revenue generating purpose. Town has 8 water bodies in the form of lakes and ponds within the Panchayat limit.

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5.3 PROBLEMS AND ISSUES

Table 5-A : Issues pertaining to Socio-Economic Infrastructure

<i>Sector</i>	<i>Issues</i>
Socio-economic Infrastructure	<ul style="list-style-type: none"> • 43 approved layouts are still undeveloped • Town has no land for Weekly market and the existing land is on lease • All the 8 Burial grounds have infrastructure inadequacies • Town has no commercial complexes for revenue generation. • Town has 10 water bodies in the form of ponds and lakes which are poorly maintained.

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6 SLUMS AND URBAN POVERTY

As per Census of India, the slum areas are broadly defined as :-

- ❖ All specified areas in a town or city notified as ‘Slum’ by State/Local Government and UT Administration under any Act including a ‘Slum Act’.
- ❖ All areas recognized as ‘Slum’ by State/Local Government and UT Administration, Housing and Slum Boards, which may have not been formally notified as slum under any act;
- ❖ A compact area of at least 300 persons or about 60-70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities.

6.1 SLUMS IN VADALUR

In Vadalur, 15 un-notified slums are in existence. All the 15 un-notified slums together have the population of 6370 which is equivalent to 21 percent of the total Vadalur current population. Slums in Vadalur are shown in *Table 6-A*.

Table 6-A Slums in Vadalur

<i>Un-Notified Slum</i>			
<i>Name</i>	Population		
	<i>Male</i>	<i>Female</i>	Total
Poosalikuppam	134	126	260
Thiruvalluvar Nagar	116	104	220
Nanthanar Nagar	116	124	240
Abatharanapuram	520	330	850
Chinnakoilkuppam	82	68	150
Thangaraj Nagar	101	79	180
Barbar layout	86	74	160

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Kallukuzhi	232	218	450
R.C Colony	820	630	1450
Venkatankuppam adiena colony	170	130	300
Maruvai Chinna colony	223	197	420
Parvathipuram Pothiyankuttai	146	114	260
Indira Nagar	436	414	850
Nadasanar Nagar	92	58	150
Savariyor Nagar	232	198	430
Total	3506	2864	6370

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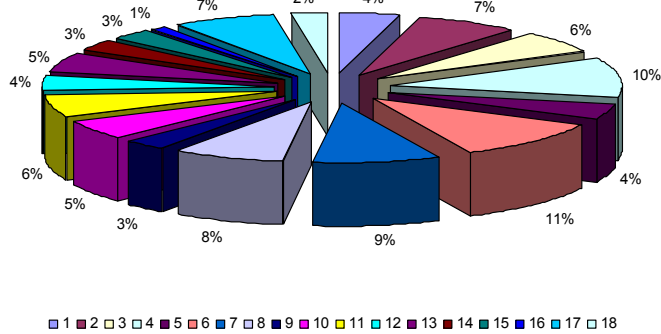
6.2 URBAN POOR IN VADALUR

Vadalur has 5.5% of the total population living below poverty line. Ward Nos 04 and 06 has BPL population more than 10 percent of the total BPL population. Ward wise BPL population is shown in Table 6-B.

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Table 6-B Ward wise BPL population in Vadalur

Ward No	BPL Population 2007	Percentage Share	
		Ward	Percentage
1	67	1	1.9%
2	118	3	3.4%
3	102	4	3.9%
4	171	6	5.1%
5	69	5	1.5%
6	174	11	6.6%
7	145	10	3.1%
8	131	8	6.1%
9	50	2	0.6%
10	86	7	2.4%
11	94	9	2.7%



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12	67	
13	88	
14	47	
15	49	
16	14	
17	121	
18	40	
Total	1633	

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6.3 PROBLEMS AND ISSUES

- Slums are un-notified due to which Town Panchayat is not able to avail funds for development purposes.
- 15 un-notified slums accommodate 21% of the total population.

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7 FISCAL STATUS

7.1 BACKGROUND

Tamil Nadu is the first State to have introduced a classification in the status of local bodies as ‘Town Panchayat’, which was planned as a transitional body between Rural and Urban Local Bodies. The Town Panchayats were conferred with individual administrative powers and unique functional characters have been in existence for over a century. The Town Panchayats adopt well devised accounting and auditing procedures and the service delivery to the public has been better. Town Panchayats are under the administrative control Municipal Administration and Water Supply Department, at Government level.

Till 1981, the Town Panchayats were under the administrative control of Directorate of Rural Development. During 1981, the Government vide G.O. Ms. 828 Dated 7.5.1981, constituted a separate Directorate for the Town Panchayats with the nomenclature of ‘Directorate of Town Panchayats’. However the administrative control of the Directorate of Town Panchayats continued to be with the Rural Development Department at the Secretariat as they were governed under the Tamil Nadu Panchayats Act 1958.

Following the introduction of 73rd and 74th amendments to the Constitution of India in the year 1993, all the Town Panchayats were reconstituted under the Tamil Nadu District Municipalities Act, 1920 and treated as transitional area. i.e. an area in transition from rural area to an Urban area. Necessary amendments were brought on to the Tamil Nadu District Municipalities Act, 1920 for this purpose and a separate chapter in respect of Town Panchayats was inserted in the said Act. Consequently though the nomenclature ‘Town Panchayat’ remained unchanged, the administrative control of the Directorate of Town Panchayats was brought under the Municipal Administration and Water Supply Department at the Secretariat.

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Municipal Corporation Acts and the District Municipalities Act of the Tamil Nadu authorizes Urban local bodies to levy, collect and appropriate such taxes, duties, tolls and fees in accordance with the procedures subject to limits as specified by the legislature. Besides these, the urban local bodies are also empowered with certain other financial powers.

The Sources of income for a Town Panchayat can be broadly categorized as own sources (Includes both Tax and Non Tax Revenues), and External Sources (Assigned Revenues, Devolution Funds, Grants and Contribution). Besides the Town Panchayats can also avail of loans/ Grants/ Contribution from Government(Central and State) and loans from various funding agencies such as TUFIDCO, TNUIFSL, HUDCO, LIC and Banks etc, for undertaking specific projects based on their credit worthiness.

The Town Panchayat's Revenue Expenditure can be broadly categorized into Personnel cost and Terminal and Retirement benefits, Operating Expenses, Repairs & Maintenance Expenses, Programme Expenses Administrative Expenses, Finance Expense, Provision for Depreciation. Besides the above, significant amounts are required for undertaking capital works.

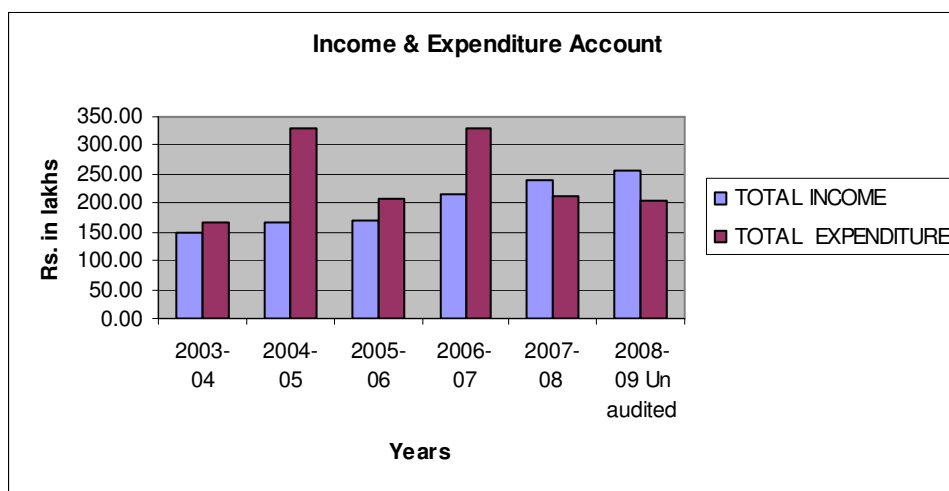
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7.2 FINANCIALS

Figure 7-1 Income & Expenditure Account



Source : Annual Accounts of Vadalur Town Panchayat

Table 7-A Income & Expenditure Account

Rs. in lakhs

Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09 Un Audited
INCOME						
Property Tax	19.19	16.61	17.89	18.79	20.33	29.69
Other Taxes(Profession Tax)	3.27	5.31	5.38	5.66	5.93	6.76
Assigned Revenue	20.69	19.26	11.21	25.04	46.54	62.23
Devolution Fund	31.46	35.93	56.55	59.99	79.32	68.75
Service Charges & Fees	29.39	29.89	33.90	38.79	38.53	35.70
License Fees	0.54	0.63	0.51	0.28	0.71	0.65
License fees under PFA act	0.04	0.03	0.02	0.03	0.03	0.03
Building License Fees	3.18	3.45	5.50	6.77	6.08	7.12
Advertisement Fees	0.02	0.02	0.03	0.02	0.00	0.00
Fees for bay and other receipts in the Bus Stand	5.88	6.01	6.12	6.37	6.22	7.00
Slaughter House Fees	0.00	0.00	0.09	0.20	0.20	0.20
Cart Stand – Lorry Stand - Taxi Stand Fees	1.50	1.78	2.05	3.82	3.82	3.43
Fees for Fishery rights	0.00	0.02	0.01	0.13	0.00	0.00
Fees for Pay & Use toilets	2.71	3.25	3.96	4.90	4.90	2.45
Copy Application Fees	0.10	0.19	0.28	0.49	0.30	0.32
Initial amount for new water supply under ground	3.07	1.54	1.75	2.05	1.30	1.36
Water supply connection charges	0.50	0.19	0.26	0.41	0.26	0.27
Metered / Tap rate water supply under /ground	11.85	12.54	13.19	13.32	14.03	12.28
Others	0.00	0.23	0.13	0.00	0.68	0.58

Town Investment Plan – Vadalur

Granted Contribution	1.85	5.20	0.97	1.08	0.04	0.00
Sales and Hire Charges	0.00	0.02	0.18	0.00	0.02	0.02
Other Income	41.95	53.04	42.61	67.12	48.17	52.76
Market fees – weekly market	1.73	1.82	1.76	2.11	2.14	2.17
Development charges	6.14	16.21	6.64	12.56	2.66	5.93
Rent on shopping complex	0.00	15.30	18.03	22.11	25.03	23.92
Rent on Buildings	20.51	0.01	0.01	0.00	0.02	0.02
Avenue Receipts including receipts from Tope	0.07	0.10	0.11	0.36	0.00	0.00
Interest from Bank	1.45	2.36	1.21	1.23	0.47	0.56
Projects Overhead Appropriation – Expenses	6.09	12.42	9.26	17.38	13.19	13.19
Garden /Park – Receipts	0.00	0.00	0.00	0.00	0.03	0.03
Income form road margins	2.10	2.76	3.56	3.63	3.71	4.55
Others	3.86	2.06	2.03	7.74	0.93	2.39
TOTAL INCOME	147.81	165.27	168.69	216.47	238.88	255.90
EXPENDITURE						
Personnel Cost	17.61	18.26	17.29	24.39	30.11	35.80
Terminal and Retirement Benefits	0.36	0.14	0.16	0.00	1.73	0.00
Operating Expenses	52.01	71.36	67.32	75.88	68.81	70.65
Maintains of Garden / Parks	0.00	2.38	0.06	0.22	0.20	0.21
Power charges for Head water works / pumping station / Booster station – water supply	21.11	37.76	35.07	24.46	17.71	17.99
Power charges for street lights	18.39	11.40	13.57	28.36	37.34	38.97
Maintains Expenses for street light	8.60	15.57	13.90	18.06	7.96	7.85
Sanitary / conservancy expenses	1.97	0.91	1.58	1.01	1.48	1.46
Expenses on sanitary materials	1.85	3.27	3.04	3.75	4.10	4.16
Rent for Buildings / Lands	0.00	0.07	0.10	0.02	0.02	0.02
Others	0.09	0.00	0.00	0.00	0.00	0.00
Repairs and Maintenance Expenses	18.07	24.86	18.16	17.46	38.94	21.72
Office Building Power Charges	0.00	0.00	0.00	0.00	0.00	0.76
Maintenance – Office Building	0.00	0.40	0.06	0.28	0.44	0.35
Heavy Vehicle – Maintenance	1.34	1.37	1.49	1.81	1.97	2.88
Repairs & Maintenance Roads and Pavements	2.18	7.35	1.16	1.13	3.10	3.16
Repairs & Maintenance – bridges & Flyovers	0.00	0.00	0.00	0.00	0.96	0.99
Maintenance expenses – water supply / sewerage system	12.35	13.99	13.47	12.87	12.55	13.58
Maintains charges payable to TWAD board / metro water Board. Water ches to TN pollution	0.00	0.00	0.68	0.00	19.92	0.00
Others	2.19	1.75	1.30	1.37	0.00	0.00
Programme Expenses	12.50	89.88	0.60	84.29	0.67	0.33
Prior Period Expenses	0.22	34.07	0.61	0.00	0.00	0.00
Administrative Expenses	6.03	7.34	6.39	8.13	9.16	7.11
Finance Expenses	5.83	5.53	25.17	27.57	1.70	1.13
Depreciation	54.82	78.12	72.16	90.28	59.63	68.95
TOTAL EXPENDITURE	167.45	329.55	207.85	327.99	210.75	205.69
SURPLUS OR DEFICIT	-19.64	-164.29	-39.15	-111.52	28.13	50.21

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Source: Annual Accounts. Vadalur Town Panchayat

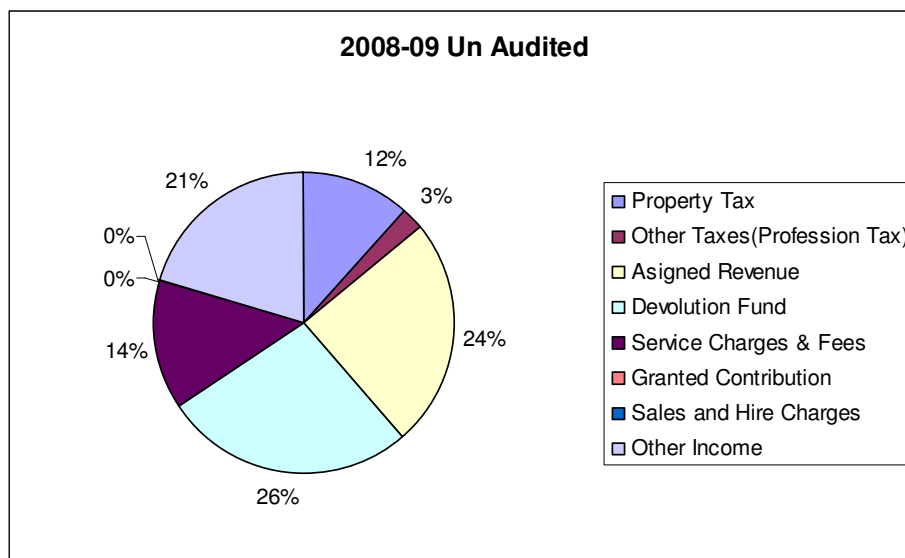
7.3 ANALYSIS OF INCOME

Table 7-B : Income Analysis

Particulars	2003-04	2004-05	2005-06	2006-07	2007-08
Sectoral Contribution to the Total Income					
Property Tax	12.98%	10.05%	10.60%	8.68%	8.51%
Profession Tax	2.22%	3.21%	3.19%	2.61%	2.48%
Assigned Revenue	14.00%	11.65%	6.65%	11.57%	19.48%
Devolution Fund	21.28%	21.74%	33.52%	27.71%	33.20%
Service Charges & Fees	19.89%	18.09%	20.09%	17.92%	16.13%
Granted Contribution	1.25%	3.15%	0.58%	0.50%	0.02%
Sales and Hire Charges	0.00%	0.01%	0.11%	0.00%	0.01%
Other Income	28.38%	32.10%	25.26%	31.01%	20.17%

Source: Analysis based on data provided by Vadalur Town Panchayat

Figure 7-2: Break up of Income for the year 2008-09(Un-Audited)



Source: Vadalur Town Panchayat

The Income of the Town Panchayat has grown from Rs.148 lakhs in the year 2003-04 to Rs.239 lakhs in the year 2007-08 with a CAGR of over 12% over the last few years.

7.3.1 OWN SOURCES

Taxes

Taxes consisting of Property and Professional Taxes contribute about 11% & 15% of the Total Income in the last few years. Taxes have been growing at a CAGR of close to 4% over the last few years

Property Tax:

The most important category in the own sources of income is the property tax. This tax is imposed on land and buildings depending upon their class of areas & nature of use. About 75% of the tax revenue comes through property tax collections. CAGR of property tax revenue has been less than 2% in the last few years

Table 7-C Property Tax Particulars

Category	Particulars
No. of Assessment	2007-08
No. of Assessment	2006-07
No. of Assessment	2003-04
% Increase in Number Assessments for the last few years	1.27%
CAGR in Property Tax Revenue over the Last few years	1.45%
Total Property Tax (Rs. in Lakhs in 2008-09 (Un-Audited)	29.69
Number of sanctioned Staff in Revenue Department – Bill Collector	4
Revenue per sanctioned person in revenue section (Rs. in Lakhs)	7.42
Average Tax Demand per property (Rs.)	236.75

Source: Vadalur Town Panchayat

Table 7-D Property Tax Assesses for the last few years

Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Residential	7486	7511	7573	7623	7652	7956
Commercial	837	839	845	845	850	902
Industrial	77	80	82	82	85	90
Total	8400	8430	8500	8550	8587	8948

Source: Vadalur Town Panchayat

Profession Taxes:

It has contributed about 15 % of the total taxes in the last few years. The revenue from professional taxes has been growing at a CAGR of 16 % in the last few years

Table 7-E Profession Tax Particulars

Total Professional Tax Revenue (Rs. in Lakhs 2008-09)	6.76
No. of Assessment 2008-09	611
Slab for Professional Tax (Half yearly) w.e.f. 01-10-2008	
Rs.21000	Nil
Rs.21001to Rs.30000	Rs.95
Rs.30001 to Rs.45000	Rs.240
Rs.45001 to Rs.60000	Rs.470
Rs.60001 to Rs.75000	Rs.710
Above Rs.75001	Rs.940

Source: Vadalur Town Panchayat

Table 7-F No of assessments for Professional Tax

Year	No. of Assessments
2003-04	876
2004-05	889
2005-06	911
2006-07	909
2007-08	799
2008-09	611

Source: Vadalur Town Panchayat

Non Tax Revenues

The Town Panchayat earns revenue from Non-Tax sources such as revenue from Service Charges and Fees and Other Income. The Non-Tax Revenue has grown at a CAGR of around 5% in the last few years. Close to 50% of the revenue of the Town Panchayat comes from non tax revenue.

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Service Charges and Fees

The major sources of income under this head are Building License Fees, initial amount for new water supply and metered tap rate water charges etc. This income has grown at a CAGR of around 7% in the last few years

Other Income

The “Other income” consists mainly of Income from Weekly market and Rent from shopping complex. CAGR of “other Income” has been around 3.50% in last few years

7.3.2 EXTERNAL SOURCES

Assigned Revenue

Assigned revenues include revenues transferred to the Town Panchayats by the GoTN under specific acts. These are transferred to the Town Panchayats as their share of taxes levied and collected by the GoTN. These include duty on transfer of property, entertainment tax, surcharge on sales tax, and other assigned revenues if any. Among all these, duty on transfer of property and entertainment tax is the most significant ones.

Devolution Fund

Based on the Second State Finance Commission recommendations, GOTN transfers 8% of its state revenue to the local government. Inflows from Devolution Funds have grown by 26% in the last few years

7.4 ANALYSIS OF EXPENDITURE

The Revenue Expenditure of the Town Panchayat has been analyzed based on expenditure heads which can be broadly classified under the major heads outlined below:

- Personnel costs
- Operating Expenses
- Repairs & Maintenance Expenses

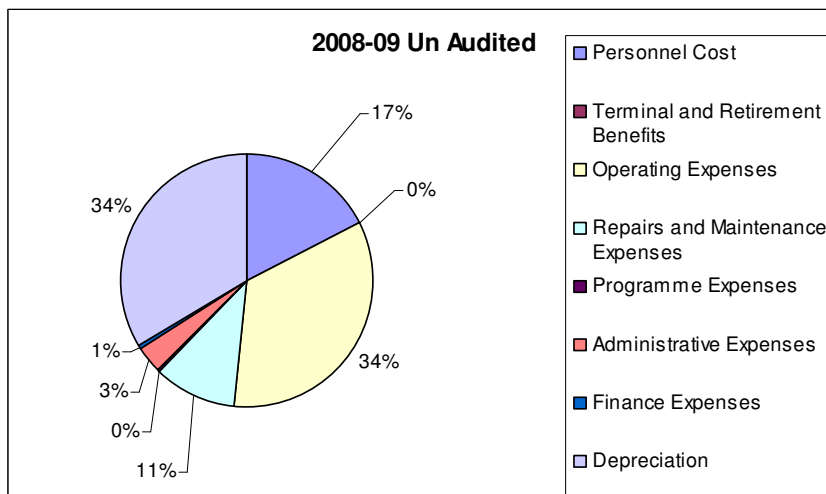
- Programme Expense
- Administrative Expenses
- Finance Expenses
- Depreciation

Table 7-G : Expenditure Analysis

Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09 Un audited
Percentage share of expenses to total expenses						
Personnel Cost	10.52%	5.54%	8.32%	7.43%	14.29%	17.40%
Terminal and Retirement Benefits	0.21%	0.04%	0.08%	0.00%	0.82%	0.00%
Operating Expenses	31.06%	21.65%	32.39%	23.13%	32.65%	34.35%
Repairs and Maintenance Expenses	10.79%	7.54%	8.74%	5.32%	18.48%	10.56%
Programme Expenses	7.46%	27.27%	0.29%	25.70%	0.32%	0.16%
Prior period Expenses	0.13%	10.34%	0.29%	0.00%	0.00%	0.00%
Administrative Expenses	3.60%	2.23%	3.07%	2.48%	4.35%	3.46%
Finance Expenses	3.48%	1.68%	12.11%	8.41%	0.81%	0.55%
Depreciation	32.74%	23.70%	34.72%	27.52%	28.29%	33.52%

Source: Analysis based on data provided by Vadalur Town Panchayat

Figure 7-3 Break up of Expenditure for the year 2008-09 (Un-Audited)



Source Annual Accounts of Vadalur Town Panchayat

The overall expenditure of the town has shown a fluctuating trend mainly on account of programme expenses. CAGR of expenditure has grown by close to 6% in the last few years.

Personnel Costs:-

This expense mainly includes the staff salaries, Terminal and retirement benefits and allowances paid to the employees of the local body. This expense has grown by 14.34% in the last few years.

Operating Expenses / Repairs & Maintenance

Expenses relating to operations and Repairs and Maintenance are very critical indicators of the service management and maintenance capabilities and performance of the local body. This expense has grown by 11.36% in the last few years.

Operating Expenses:-

The Operating expense mainly consists of such expenses which are met towards the infrastructure facilities provided by the local body like Power charges for Street Lights, Maintenance Expenses for Street Lights, Sanitary Conservancy Expenses, and Expenses on sanitary material etc. Operating expenses has grown by over 7% in the last few years.

Repairs & Maintenance:-

Repairs & Maintenance expenses mainly consist of such expenses such as Heavy Vehicle Maintenance, Maintenance expenses on account of water supply. This expense has grown by over 21% in the last few years.

Energy Costs:-

The energy costs for Water Supply for the year 2008-09 is 17.98 lakhs and that for Street lighting is Rs. 38.96 lakhs. This accounts for 57% of the water supply expenditure and 83% of the street lighting expenditure respectively. By implementation of energy efficiency measures in water supply service delivery and street lighting systems the reduction in costs can be achieved and monitored for continuous energy savings.

Finance Expenses:-

Loan outstanding as on 31st March 2009 was Rs.35.12 lakhs.

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7.5 SOURCE & USE OF FUNDS

Table 7-H Balance Sheet

Rs. in lakhs

Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09 Un Audite d
Uses of Funds						
Fixed Assets	413.30	538.60	632.07	807.50	942.23	999.94
Project in Progress	2.02	0.00	3.11	0.00	0.00	0.00
Tax & Non Tax Recoverable	83.69	64.59	63.60	64.30	63.86	63.59
Stock	0.67	0.17	0.17	0.17	0.17	0.17
Other Receivable/ Recoverable	21.94	16.72	19.09	27.88	21.11	21.32
Cash in Hand	2.40	2.50	3.02	2.55	3.79	8.95
Cash at Bank	69.87	47.73	26.95	13.55	36.94	103.71
TOTAL ASSETS	593.89	670.31	748.02	915.94	1068.08	1197.69
Sources of Funds						
Loans	16.00	35.36	35.36	35.12	35.12	35.12
Deposits	24.98	37.80	38.32	36.20	43.01	42.41
Government contribution/Mpl fund / Private Parties/Government Grants	87.63	211.90	231.23	398.81	456.39	395.84
Accumulated depreciation	111.54	191.23	263.44	353.77	413.40	554.33
Accumulated surplus	345.34	181.10	141.95	30.42	58.54	108.75
Others	8.40	12.92	37.73	61.63	61.62	61.23
TOTAL LIABILITIES	593.89	670.31	748.02	915.94	1068.08	1197.69

Source : Annual Accounts of Vadalur Town Panchayat

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Table 7-I: Fixed Assets

Rs. in Lakhs

Fixed Assets	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09 Un Audited
Land - Gross Block	0.00	0.00	0.00	0.00	0.00	0.00
Buildings - Gross Block	65.46	77.88	96.42	127.83	152.53	162.53
Storm Water Drains, Open Drains And Culvert	40.46	48.62	51.97	68.69	77.87	79.86
Heavy Vehicles - Gross Block	1.15	1.15	1.15	1.15	11.13	11.13
Light Vehicles - Gross Block	0.09	0.09	0.09	0.09	0.09	0.09
Other Vehicles - Gross Block	0.08	0.08	0.08	0.08	0.08	0.08
Electrical Installations - Lamps - Light	5.37	5.37	9.96	9.96	15.19	15.19
Plant And Machineries - Gross Block	0.00	0.93	1.75	1.75	1.75	1.75
Roads And Pavements - Concrete - Gross	26.48	39.12	56.79	71.33	122.93	136.93
Roads And Pavements - Black Topped - Gross	128.27	208.65	239.64	332.19	357.51	385.51
Roads And Pavements - Others - Gross Block	10.22	10.49	16.78	16.78	18.14	21.86
Instruments and Equipments in Hospitals	0.00	0.00	0.00	6.38	6.38	6.38
Tools and Plants - Gross Block	0.68	0.68	0.68	0.68	0.68	0.68
Public Fountains	0.08	0.08	0.08	0.08	0.08	0.08
Water Supply Head Works, OHT Etc.	82.00	88.13	97.19	111.00	118.37	118.37
Drainage and Sewerage Pipes, Conduits, C	0.00	0.00	1.39	1.39	1.39	1.39
Ground Water Wells / Deep Bore - Wells	52.60	56.18	56.18	56.18	56.18	56.18
Hand Pumps - India Mark - 11	0.00	0.78	0.78	0.78	0.78	0.78
Reservoirs	0.37	0.37	1.16	1.16	1.16	1.16
TOTAL	413.30	538.60	632.07	807.50	942.23	999.94

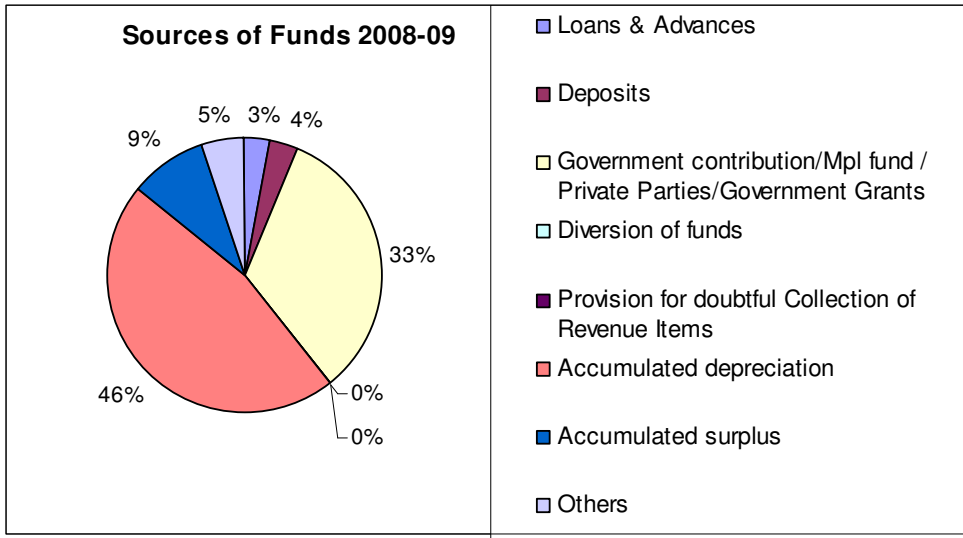
Source : Annual Accounts of Vadalur Town Panchayat

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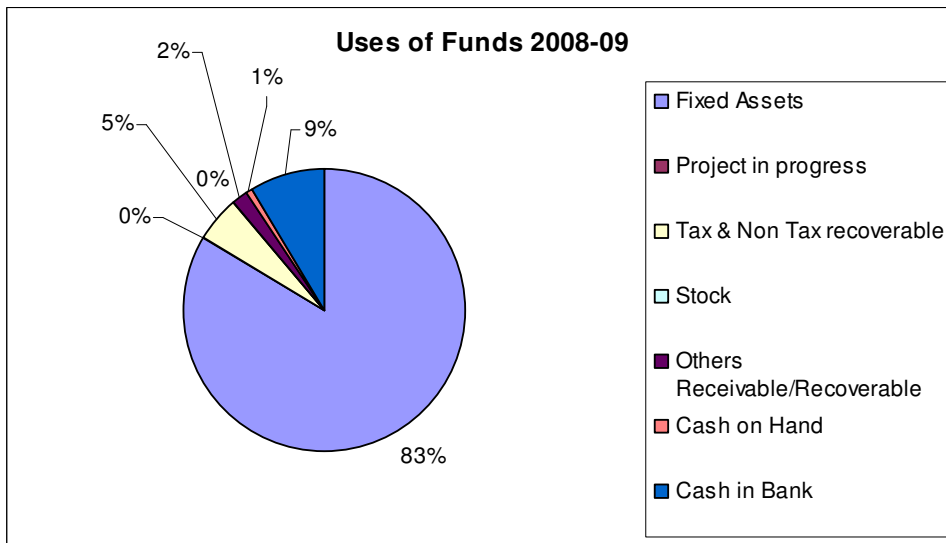
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Figure 7-4 : Source of Funds as on 2008-09 (Un-Audited)



Source : Vadalur Town Panchayat

Figure 7-5 Use of Funds as on 2008-09 (Un-Audited)



Source : Vadalur Town Panchayat

More than 80% of the funds have been deployed in creation of Fixed Assets. About 59% of the funds invested have been deployed in Infrastructure relating to storm water drains and road works.

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7.6 DEMAND COLLECTION AND BALANCE

Table 7-J: DCB for the Past 6 years

Rs. In Lakhs.

Sl.No	Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
	Property Tax- Demand, Collection and Balance						
	Total Number of Assessment	8400	8430	8500	8550	8587	8587
A.	Demand						
	1.Arrears	56.46	56.46	56.46	56.46	56.46	56.46
	2.Current	19.19	16.61	17.89	17.89	20.33	29.69
	3.Total	75.65	73.07	74.35	74.35	76.79	86.15
B.	Collection						
	1.Arrears	0.00	0.00	0.00	0.00	0.00	0.00
	2.Current	19.19	16.61	17.89	17.89	20.33	29.69
	3.Total	19.19	16.61	17.89	17.89	20.33	29.69
C.	Balance						
	1.Arrears	56.46	56.46	56.46	56.46	56.46	56.46
	2.Current	0.00	0.00	0.00	0.00	0.00	0.00
	3.Total	56.46	56.46	56.46	56.46	56.46	56.46
	Profession Tax- Demand, Collection and Balance						
	Total Number of Assessments	876	889	911	909	799	611
A.	Demand						
	1.Arrears	1.85	0.00	0.00	0.00	0.00	0.00
	2.Current	3.26	4.48	4.59	4.59	4.98	5.63
	3.Total	5.11	4.48	4.59	4.59	4.98	5.63
B.	Collection						
	1.Arrears	0.22	0.00	0.00	0.00	0.00	0.00
	2.Current	3.26	4.48	4.59	4.59	4.98	5.63
	3.Total	3.48	4.48	4.59	4.59	4.98	5.63
C.	Balance						
	1.Arrears	1.63	0.00	0.00	0.00	0.00	0.00
	2.Current	0.00	0.00	0.00	0.00	0.00	0.00
	3.Total	1.63	0.00	0.00	0.00	0.00	0.00
	Water charges- Demand, Collection and Balance						
	Total Number of Assessments	1918	2027	2106	2156	2235	2235
A.	Demand						
	1.Arrears	0	0.00	0.00	0.00	0.00	0.00
	2.Current	11.85	12.55	13.19	13.19	14.03	12.27
	3.Total	11.85	12.55	13.19	13.19	14.03	12.27
B.	Collection						
	1.Arrears	0.00	0.00	0.00	0.00	0.00	0.00
	2.Current	11.85	12.55	13.19	13.19	14.03	12.27
	3.Total	11.85	12.55	13.19	13.19	14.03	12.27

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C.	Balance						
	1.Arrears	0.00	0.00	0.00	0.00	0.00	0.00
	2.Current	0.00	0.00	0.00	0.00	0.00	0.00
	3.Total	0.00	0.00	0.00	0.00	0.00	0.00
	Others						
	Library Cess Demand, Collection and Balance						
A.	Demand						
	1.Arrears	4.89	4.89	4.89	4.89	4.89	4.89
	2.Current	1.99	1.73	1.86	1.86	2.12	3.05
	3.Total	6.88	6.62	6.75	6.75	7.01	7.94
B.	Collection						
	1.Arrears	0	0.00	0.00	0.00	0.00	0.00
	2.Current	1.99	1.73	1.86	1.86	2.12	3.05
	3.Total	1.99	1.73	1.86	1.86	2.12	3.05
C.	Balance						
	1.Arrears	4.89	4.89	4.89	4.89	4.89	4.89
	2.Current	0.00	0.00	0.00	0.00	0.00	0.00
	3.Total	4.89	4.89	4.89	4.89	4.89	4.89

Source : Vadalur Town Panchayat

7.7 OUTSTANDING LOAN AND NON-DEBT LIABILITY

The Outstanding Loan balance and Non-Debt Liability of key components of Vadalur Town Panchayat is represented in the table below:

Table 7-K : Outstanding Loan and Non-Debt Liability

Rs. in Lakhs

Sl.No	Particulars	2008-09 Un Audited
1.Outstanding Principal on Loans		
1	Loans From The Government	1.00
2	Loan From TUFIDCO	19.36
3	Loan From TNUDF	14.76
4	Advance	0.00
	Total Loan Outstanding	35.12
2 Non-Debt Liability		
1	Library cess	0.00
2	Sales Tax Payable	0.00
3	Income Tax Payable	0.00
4	Interest Payable	3.85
5	Group Insurance Schemes	0.60

Source: Vadalur Town Panchayat

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8 INSTITUTIONAL CAPACITY ASSESSMENT

8.1 STAFF STRENGTH

Table 8-A : The Staff strength of the Vadalur Town Panchayat

Executive Staff	Sanctioned	Appointed	Post Vacant
Executive Officer	1	1	-
Junior Assistant	3	3	-
Bill Collectors	4	3	1
Record Clerk	1	1	-
Office Assistant	1	1	-
Driver	1	1	-
Sanitary Workers	22	22	-
Electrician Grade I	1	1	-

Source : Vadalur Town Panchayat

- Presently there is 1 vacancy of Bill Collector against the sanctioned post of 4 nos.
- Staff Salary pay slip for all the sections have been enclosed in the Annexure

8.2 INSTITUTIONAL STRENGTHENING & CAPACITY BUILDING

The following are some of the steps undertaken by the Town Panchayat for Institutional Strengthening and Capacity building by introducing a system of accountability and responsibility within the system

- 1. Computerization & E-Governance**
- 2. Training**
- 3. Public Grievance Redressal Mechanism**
- 4. Public Private Partnership including Privatization initiatives**
- 5. Tendering Process**
 - **Computerization & E-Governance**

The Town Panchayat has initiated steps for computerization of Birth & Death, Salary, Accounts and Property Tax records

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- **Training**

Some of the details of latest training undergone by the staff are as below:

- ✓ Bhavani Sagar Training was provided to the Junior Assistant.
- ✓ A.G Audit training was provided to the Executive Officer

- **Public Grievance Redressal Mechanism**

Complaint register is maintained for key sectors such as Public Health, Water Supply, and Street Lights. Majority of complaints are related to Water Supply. The Public also approach their respective ward councilors with their complaints on service delivery system. Complaints are also received during Grievance day meetings held at the Collector office.

- ✓ **Public Private Partnership including Privatization initiatives**

Sector	Name of the work	Coverage	Payment per annum
Street Light	Fitting of lamps (Materials are provided by TP and only labour provided by Private Contractor)	All the 18 Wards	Rs.72000
Water Supply	Changing of Busted Pipes (Materials are provided by TP and only labour provided by Private Contractor)	All the 18 Wards	Rs.42000 Appx. (Rs.18 per meter of pipe changed)
Solid Waste Management (SWM)	Door to door collection and segregation	Poosali Kuppam Ward No.2	Rs.900 per person per month to the Self Help Group Members
User Charges for SWM: The Town Panchayat collects a Rs.10 from 290 households in the prime locality			

- ✓ **Tendering process:**

The projects required for the infrastructure works are decided by the Council .The Engineer prepares the estimate and the selected bid has to be approved by the elected members.

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Based on Stake holder’s perception and view points expressed during our consultation with the local stakeholders and on the basis of assessment done by the consultants, an attempt has been made to evaluate Strength, Weakness, Opportunities and threats of the town which is shown below:

Strength

- ✓ Vadalur is known for Vallalar “Ramalinga Swamigal”
- ✓ Vadalur lies in close proximity to Neyveli Lignite Corporation (NLC)
- ✓ Vadalur has good connectivity by both road and rail.
- ✓ Agriculture and religious based town

Opportunities

- ✓ Improving Infrastructure status of the town
- ✓ Creating environment friendly town by developing green spaces, preserving water bodies and cleaning drainage channels.
- ✓ Developing Vadalur as a religious town

Weakness

- ✓ Dependency on bore wells for meeting current water supply requirements
- ✓ 46% households have no sanitation facilities
- ✓ Only 20% roads are covered by Storm Water drains
- ✓ SIDCO Industrial estate is not in running condition

Threats

- ✓ Pollution from Neyveli mines
- ✓ Water logging due to absence of proper drainage channels
- ✓ Water bodies and water channels are poorly maintained
- ✓ Poor financials deters Municipality from taking Capital Intensive projects

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STAKEHOLDERS CONSULTATION

10.1

OPERATIONAL WORKING GROUP

The success of the Town Investment Plan depends on the extent of participation by the various agencies involved in urban governance and service delivery. As it is very rightly said “Planning is an exercise ‘For’ the people, ‘Of’ the people and ‘By’ the people.” perception and views of the representatives from the Town Panchayat and various Para-Statal agencies are of paramount importance.

To bring all the agencies involved in urban governance and service delivery under one platform for the consultation process, Operational Working Group (OWG) was formed. The first formal meeting was held in Vadalur Town Panchayat on 7th July 2009 and subsequently Stakeholders meeting was held in 25th September 2009. The stakeholders meeting had a wide representation from

1. Administrative members of the Municipality
2. Elected members of the Municipality
3. Representatives from Slums /SC /ST
4. Senior Citizens
5. Self Help Groups
6. Women Groups
7. NGO members
8. Officials from Para-Statal agencies

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Figure 10-1 : First Formal Meeting on 7th July 2009



During the stakeholders meeting, the Consultants made a presentation on the current status of the Vadalur Town in terms of Infrastructure, Financial and Institutional aspects, findings from Rapid Urban Assessment and demand assessment.

Further, projects already identified by Vadalur Town Panchayat and additional projects proposed by the Consultants based on the Demand Supply Gap analysis taking into consideration current and future needs and requirements were also presented and discussed during the meeting. Sector wise Capital Investment requirements and its phasing were also presented.

During the presentation and subsequent interaction, many ideas and suggestions were made and the same has been encapsulated below and the same has been considered and incorporated in this Report.

Table 10-A: Suggestions and projects

<i>Physical Infrastructure</i>	<i>Sector Components</i>	<i>Key Suggestions / Projects identified</i>
Water Supply	Water Sources	<ul style="list-style-type: none"> • Bore well, lakes and ponds
	ESR / GSR	<ul style="list-style-type: none"> • Water supply scheme is under implementation under Minimum Need Programme

	Distribution Network	<ul style="list-style-type: none"> • Need to provide distribution lines as the demand rises
Sewerage and Sanitation	Underground Drainage	<ul style="list-style-type: none"> • Not required • Purchasing Sullage lorry for waste water collection purpose
	Public Toilets	<ul style="list-style-type: none"> • Public toilets are required in Indira Nagar, Abatharanapuram, Periya Colony, RC Saveriar Nagar and in Maruva Chinna colony.
Storm Water Drainage	Renovating existing drains	<ul style="list-style-type: none"> • Nil
	Creating New Drain	<ul style="list-style-type: none"> • Providing SWDs in Ward Nos 6,8,12,17,14,15,16 and 11 • Lining Kannikovil odai for a length of 3 Kms • Creating disposal drain for a length of 2.5 Km from Ayyaneri • Lining Vadakku Theru Odai for a length of 1.5 Km (3 meter width X 3 meter depth) with 2 minor bridges. • 2 minor bridges across Vadakku Theru Odai
Roads	Kutchra road upgradation	<ul style="list-style-type: none"> • Converting 600 meter 2 lane Podhiyankuttai earthen road in to BT road • Converting 700 meter single lane Arpaathiyappa earthen road in to BT road
	Pucca road improvement	<ul style="list-style-type: none"> • Converting 5 Km BT road into CC road
	Building New Roads /	<ul style="list-style-type: none"> • Creating Bridge connecting Ragavendra

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city and Serakuppam

		<ul style="list-style-type: none"> • Creating subways in Seerakuppam and Kattukottai railway crossing. • Creating Railway Over bridge in VKT road (NH – Implementing agency)
	Bye pass / Highway projects	<ul style="list-style-type: none"> • Creating Pedestrian foot path on both the sides for 1 Km in Neyveli road.
Traffic and Transportation	Traffic Management / Junction Improvement	<ul style="list-style-type: none"> • Not required
	Bus stand / railway station Imp	<ul style="list-style-type: none"> • Not required
Solid Waste Management	Door to Door collection and Segregation	<ul style="list-style-type: none"> • Procuring segregation bins for each assessments
	Man power / Privatisation	<ul style="list-style-type: none"> • Procuring protective gear for conservancy workers (once in two years)
	Vehicle requirements	<ul style="list-style-type: none"> • Not required
	Dumping site / Compost yard	<ul style="list-style-type: none"> • Compost yard is already existing
	User Charges	<ul style="list-style-type: none"> • Not possible
	Public Awareness	<ul style="list-style-type: none"> • Public awareness for Waste segregation and D-D collection and Creating awareness about protective gear among conservancy workers
Street Lighting	Energy Saving Initiatives	<ul style="list-style-type: none"> • Needs to be adopted

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<i>Social Infrastructure</i>	<i>Sector Components</i>	<i>Key Suggestions</i>
Parks and Playgrounds	Approved layout for parks and playgrounds	<ul style="list-style-type: none"> • Creating green spaces in 43 approved layouts (Developing 14 layouts into parks and creating compound walls in remaining layouts to prevent encroachments)
Daily / Weekly Market	Infrastructure Improvement	<ul style="list-style-type: none"> • Creating weekly market in Ragavendra city
Community hall	Creating Community hall	<ul style="list-style-type: none"> • Not required
	Upgrading existing halls	<ul style="list-style-type: none"> • Not required
Slaughter House	Slaughter house improvement scheme	<ul style="list-style-type: none"> • Not required
Municipal building	Creating new blocks / Improving existing blocks	<ul style="list-style-type: none"> • Existing office is sufficient
Burial grounds / Gasifier	Burial ground Improvement	<ul style="list-style-type: none"> • Burial ground improvement scheme in all remaining 7 burial grounds
	Gassifier provision	<ul style="list-style-type: none"> • Gassifier crematorium in one of the 8 burial grounds.
Water bodies improvement		<ul style="list-style-type: none"> • Improving the condition of water bodies (Aiyar Eri, Thamarai Eri, Nathanan Kuppam Eri, Sundukuli Eri, Karapakkam Eri, Vengalathu eri, Thathan kuttai, shetty kulam in ward No.04, Maruvarur kulam in ward No. 02 and Alamparappu lake in ward No. 01)

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<i>Sector</i>	<i>Sector Components</i>	<i>Key Suggestions</i>
<i>Slums and Urban Poverty</i>		<ul style="list-style-type: none"> • Infrastructure scheme for un-notified slum areas is required.

<i>Urban Finance / Institutional Framework</i>	<i>Sector Components</i>	<i>Key Suggestions</i>
Privatization / Cost Recovery	Areas for privatization	<ul style="list-style-type: none"> • The Town Panchayat has been outsourcing few of its services such as door to door collection by SHG in ward no.2, Changing of Busted Pipes by private contractor in all the 18 wards, fitting of lamps by the private contractor in the entire 18 ward. • The TP can work out the possibility of extending the services of the SHG/Private Contractor to other wards in Solid Waste Management
	User charges	<ul style="list-style-type: none"> • The Town Panchayat is collecting a minimum amount of Rs.10 for around 290 households in the prime locality for Solid Waste Management. The same can be extended to other localities in the due course of time in order to enhance the own sources of funds of the TP which would facilitate them to undertake new projects for the development of the town.

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10.2 PRIORITY BASED ON OWG OPINION SURVEY

Projects identified both by the Town Panchayat and by the consultants cannot be taken at one step for implementation due to constraints like finance, institutional capabilities etc. Thus, phasing of the projects based on stake holder's priority could be a viable option for implementing projects. During stakeholders meeting, they have been asked to prioritize the sectors pertaining to Physical infrastructure, Social Infrastructure and Environment through a survey called City Opinion survey and is presented in a scale of 0-100¹ scores.

10.2.1 PHYSICAL INFRASTRUCTURE PRIORITY

Based on the opinion survey conducted during stakeholders meeting, Stakeholders have given priority to the sectors related to Physical infrastructure on the following order:

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

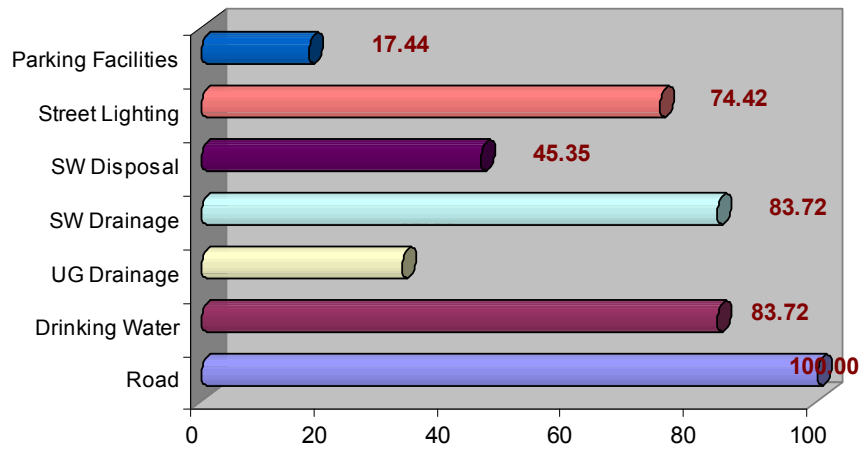
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¹ Sector is highly prioritized by the Stakeholders if it gets 100 score and least prioritized if it gets 0 score.

Figure 10-2 Sector prioritization by the Stakeholders (Physical Infrastructure)



10.2.2 SOCIAL INFRASTRUCTURE PRIORITY

Based on opinion survey conducted during stakeholders meeting, they have given priority to the sectors related to Social infrastructure on the following order:

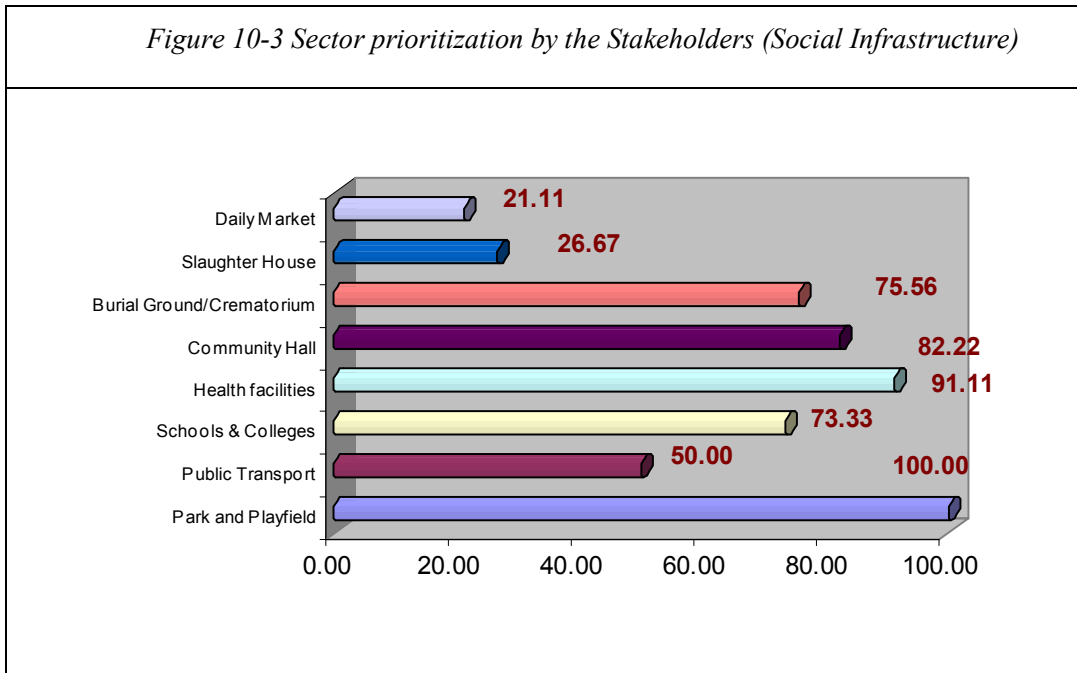
1. Parks, Playfields
2. Health facilities (Maternity Center)
3. Community Hall
4. Burial ground / Gasifier crematorium
5. Schools / Colleges
6. Public Transport
7. Slaughter House
8. Market

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Figure 10-3 Sector prioritization by the Stakeholders (Social Infrastructure)



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10.2.3 ENVIRONMENTAL ISSUES

Based on opinion survey conducted during stakeholders meeting, they have given priority to the Environmental issues on the following order:

1. Air Pollution
2. River/Lake
3. Water Pollution
4. Land Pollution
5. Noise Pollution
6. Floods
7. Open space inadequacy in the form of parks / Playgrounds
8. Drought

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Figure 10-4 Sector prioritization by the Stakeholders (Environmental Issues)

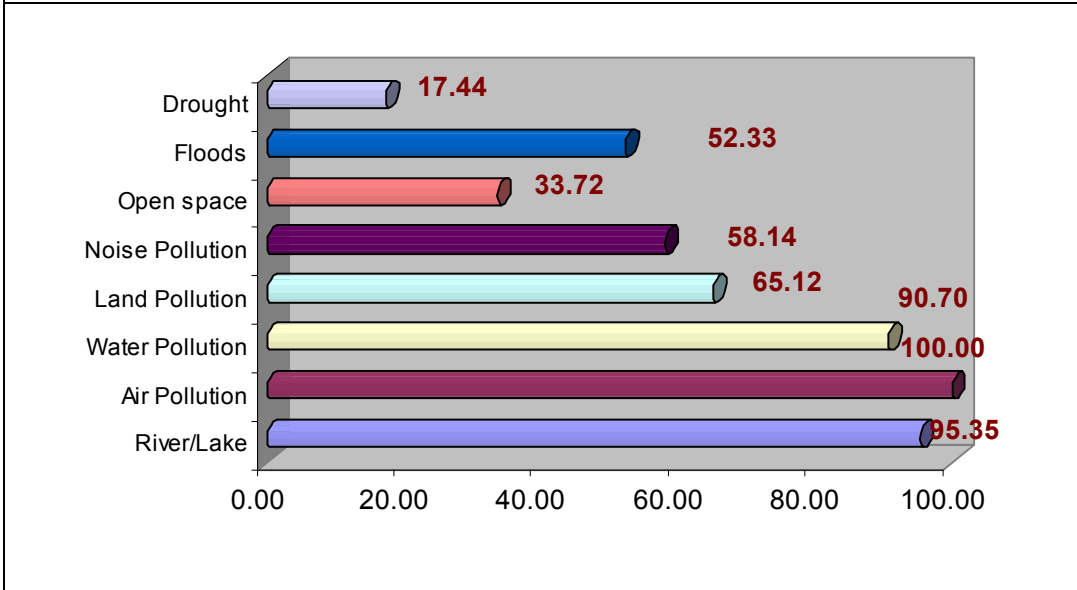


Figure 10-5 Consultation in VadalurTown Panchayat





ASSET MANAGEMENT PLAN

Asset Management Plan involves maintenance management for preventive and predictive maintenance, equipment recording and tracking, replacement parts inventory, and maintenance labor scheduling. The goal of asset management is to optimize asset use and manage all maintenance efforts involved in making assets as reliable, accurate, and efficient as possible. Asset management Plan is the plan developed for one or more physical assets within the Town Panchayat that combines multi disciplinary management techniques including technical and financial over the life cycle of the asset to a specified level of service in a most cost effective manner.

The key aspects of asset management plan therefore involve asset inventory, information of assets owned by the Town Panchayat and appropriate strategy to manage the assets and increase the productivity of the same. The asset management plan is therefore critical for maintaining, upgrading and operating physical assets in a cost effective manner.

Vadalur Town Panchayat has several assets that require regular maintenance for sustenance of reasonable service delivery levels. Given the high impact of the O&M expenses on the finances of the Town Panchayat, it is prudent to undertake a proper review of the assets under its control. This would aid in identifying the revenue generating assets as well as the ones that are causing a drain on municipal revenues. A comprehensive asset management plan aids in achieving the same.

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11.1 LIST OF ASSETS:

The assets of Vadalur Town Panchayat can be classified as assets relating to basic physical infrastructure such as water supply, roads, storm water drains, street lights, light and heavy vehicles etc and those relating to social infrastructure which include community halls, maternity centers, burial grounds etc. Among basic physical infrastructure only water supply services can be considered revenue generating as the Town Panchayat is able to collect taxes, connection charges, initial deposit charges and metering/tap rate charges and hence expenses are met mainly through dedicated water supply fund set up for the purpose. With regard to social infrastructure, vadalur has revenue generating assets like shopping complex, markets, shops, bus stand, pay & use currently with the panchayat and others such as burial grounds, community hall, slaughter house, parks, public toilets, maternity centre etc; are not revenue generating or revenue generation is extremely nominal and may not be self sustaining. The panchayat earns about Rs.35.75 Lakhs (2008-09) annually from the remunerative assets like the bus stand, shopping complex, slaughter house, weekly market, pay & use toilets etc Some of the social infrastructure is required to be provided by the Town Panchayat as the functions remain obligatory functions of the Town Panchayat and also help to fund the non remunerative activities of the Town Panchayat. These are also required to maintain the cleanliness and sanitation of the city.

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The various physical and social infrastructure of the Town Panchayat are listed below:

Table 11-A: Details of various social & physical infrastructure assets

<i>Particulars</i>	<i>Unit</i>	<i>Area / Description</i>	<i>Details / Location</i>
Bus Stand	1	11350 Sq.mts.	
Office Buildings	1	14.8x7.1Mts. Plus 12.4x6.7 Addnl Mts.	Near Bus stand
Commercial Complexes	1 (144 Shops)		At Bus stand
Markets-Within Local Body Limits-Weekly	1	3 Acres	At Ward no.6
Public Toilet & Pay and Use Latrines	1		Inside the Bus stand
Slaughterhouse	1	1000 Sq.ft.	Back side of TP Office (There is a Proposal to construct a Community Hall)
TV Rooms	12 Nos.	35 x 3 each	
Parks & Play Grounds / Gardens	2		1) Near Vadalur Town Panchayat office 2) Near Government hospital
Overhead Tank	29 Nos.		29 over head tanks with a combined capacity of 29.5 lakh litre capacity
Burial Ground	8		8 burial grounds out of which 3 is in Abbataranapuram in ward Nos. 3 and 04, 1 in seerakuppam in ward No.5, 2 in Parvathipuram in ward Nos. 11 and 18 and 1 in ward no. 17

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Number of Motor Vehicles for different departments (Including SWM)	3	1 Tipper, 1 Tractor & Mini Tempo (TATA A/c), 1 Tricycle and 8 Push carts	
<i>Source: Vadalur Town Panchayat</i>			

11.2 OPERATIONS AND MAINTENANCE

The revenue generation and the operations and maintenance activities currently being followed and suggestions for comprehensive Asset Management including ways and means to meet the expenses involved & make it a self sustaining for various assets are listed below:-

11.2.1 O&M OF SOCIAL INFRASTRUCTURE ASSETS

Table 11-B: O&M and Revenue generation

<i>Asset</i>	<i>Average Annual income</i>	<i>Current O&M practice</i>	<i>Recommendations</i>
Commercial Complexes	Rs.20.00 Lakhs	Adhoc basis.	-Periodic inspection and maintenance is required - About 2-3 % of the income earned from this asset can be invested annually on maintaining and upgrading the facilities.
Office Buildings	Nil	Adhoc basis	-Periodic inspection and maintenance is required
Bus Stand	Rs.6.00	Adhoc Basis	- Periodic annual maintenance

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	Lakhs		is required -Additional Income generating activities such as paid parking lots can be explored.
Slaughterhouse	Rs.0.20 Lakhs	Ad hoc basis	Periodic annual maintenance can sustain the quality of the asset.
Pay and Use Latrines	Rs.3.70 Lakhs	No pay and use except one inside the bus stand	Some of the routine maintenance work can be handed over to SHGs with only major maintenance/new work to be taken up by the panchayat
Burial Ground	NIL	Ad hoc basis	Periodic annual maintenance can sustain the quality of the asset. The TP proposes for a Burial ground improvement scheme in 7 burial grounds and Gassifier crematorium in one burial ground.
Parks & Play Grounds / Gardens	Nil		Can be maintained jointly with private sector or maintained exclusively by the private sector on sponsorship basis

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Source: Analysis based on Information provided by Vadalur Town Panchayat

11.2.2 O&M PHYSICAL INFRASTRUCTURE

Operation and Maintenance of the assets related to Physical and socio-economic infrastructure is divided under two heads;

- To maintain the existing assets for the next five years and
- To maintain the assets proposed to be created under various capital works proposed.

Since the O & M of the existing assets related to Socio- Economic Infrastructure has already been assessed in the above sections of this chapter, the O & M of the existing physical Infrastructure assets and the proposed O & M for the capital works identified is broadly discussed in this section. Past growth trends in O&M expenses relating to existing physical infrastructure and O&M rates as a percentage of capital cost assumed for the proposed capital works are tabulated below:

Table 11-C Past Growth trends in O & M expenses relating to key physical infrastructure

<i>Description</i>	<i>Current level</i>
Existing Assets CAGR of growth rate from 2003-04 to 2008-09 (%)	
Water Supply	
Operating Expenses	6.32%
Power Charges for Head Water Works	Fluctuating Trend
Maintenance expense for Water Supply Works	1.92%
Solid Waste Management	
Heavy vehicle expenditure	16.49%
Street lighting	
Maintenance Expense for Street Lights	Fluctuating Trend
Power charges for street lighting	16.20%

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Table 11-D O&M rates as a % of proposed capital works

<i>Description</i>	<i>Current level</i>	<i>Assumption</i>
FOR CAPITAL WORKS		
Water Supply	NA	6% of the project cost
Sewerage & Sanitation	NA	4% of the project cost
Roads and Traffic Management	NA	3% of the project cost
Storm Water Drainage	NA	2% of the project cost
Solid Waste Management	NA	10% of the project cost
Street Lighting	NA	5% of the project cost considering Energy saving mechanism
Slum up gradation	NA	1% of the project cost
Others	NA	2% of the project cost

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11.3 AMP - RECOMMENDATIONS

The following are some of the suggestions with regard to formulation and implementation of a comprehensive asset management plan:-

11.3.1 ASSET REGISTER

A comprehensive Asset register needs to be maintained containing details of the list of assets, year and cost of acquisition, particulars such as the location, size of the area/building, ownership records and all supporting documents required for the same. These details are required for assessing the condition of the asset. The reforms programme under TNUDP has initiated the process of computerizing and digitalizing the asset inventory for all municipalities in Tamil Nadu. Computerization of asset register is required with focus on proper designing, testing, installing a database management system for municipal assets. Data thus compiled would need to be classified on the basis of sector specific infrastructure facilities, land and properties etc

11.3.2 ASSET VALUE AND LIFE CYCLE MANAGEMENT

The Town Panchayat needs to determine the value of various assets in regular intervals. As all assets have a limited life expectancy, concerted efforts need to be undertaken by the Town Panchayat on regular basis before investing further in a new asset or up gradation of the existing assets. In case of an asset (service) that is handed over to a private contractor for O&M, periodic review and inspection needs to be made to prevent misuse and damage to the assets.

11.3.3 SUSTAINABILITY

Sustainable management of assets is an important element of asset management plan. Sustainable development has been defined as “meeting the needs of present generation without compromising the ability of future generations to meet their own needs”. A long term financial plan to provide necessary resources to operate, rehabilitate and ultimately replace the asset at the optimal time to achieve lowest life cycle cost is required. Preventive and operational maintenance at regular intervals can prevent higher cost associated with the full replacement of the asset. Such a plan would ensure that the current users pay a fair share for the service they receive so the future users do not have the burden to pay a higher cost for the same level of the service. Sustainable management calls for a contribution from the users to meet partially or fully the O&M cost associated with the utilization of assets. Hence user charges and fees is critical for a sustainable and a successful asset management programme

11.3.4 INTEGRATION OF TECHNICAL AND FINANCIAL PLANS

An integrated plan combining technical aspects (to minimize life cycle cost & reduce the risk level) and financial aspects (Financial plan) are required to quantify the level of service and the cost associated with the same. The technical and financial plans need to be flexible enough to suit the changing requirements of the public.

11.3.5 CONDITION ASSESSMENT SURVEY (CAS)

The Town Panchayat could look to undertake CAS for various assets owned by the ULB, which could bring to light the deficiencies in a system or a component, the extent of defects, estimated cost of repairs and the prioritizing the work to be undertaken. This systematic review could enhance the life of the asset and minimize huge capital outlay on account of delay in taking remedial actions.

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11.3.6 RISK ASSESSMENT

Asset management needs to take into account various risk factors such as financials, environmental, regulatory, legal, public health and safety.

11.3.7 MONITORING AND EVALUATION

To optimize an asset management plan, performance of the assets and rehabilitation strategies should be monitored regularly, and adjustments made at the appropriate stage in the asset life cycle to achieve an acceptable balance between cost and the performance (Level of service). It is also imperative to monitor and take damage control measures when the Town Panchayat takes up any development works to prevent damage to the other assets of the Town Panchayat. Prioritizing the works to be undertaken can prevent unnecessary maintenance and capital cost.

11.3.8 BUDGETING

A regular budgeting exercise regarding the possible O&M cost for various assets needs to be undertaken by the Town Panchayat. There should be a clear link to the financials plans and the budgeting exercise undertaken by the Town Panchayat. An Asset Management Plan should incorporate expenses relating to maintenance, renewal and augmentation of the asset of the Town Panchayat.

11.3.9 TRAINING IN DATABASE MANAGEMENT

All the above requires proper training to the concerned staff. Training would involve various issues such as methods of simplified updation of data, methods of monitoring and follow up and training in issues relating to infrastructure facilities management, land use, litigation, encroachment etc.

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CONSOLIDATED ISSUES

The issues identified during Rapid Urban Assessment and the issues indicated by the review committee and stakeholders were consolidated sector wise and are presented below:

Table 12-A : Consolidated Issues

<i>Sector</i>	<i>Issues</i>
Water Supply	<ul style="list-style-type: none"> • Dependent entirely on bore wells for water supply requirements • Per capita water supply is low (63lpcd) against the standard norm of 70 lpcd. • 17% of the existing roads are not covered by Water Supply distribution network • Only 26% of the assessments are having household service connections (HSCs)
Sewerage and Sanitation	<ul style="list-style-type: none"> • 46% households have no sanitation facilities • No sullage lorry available for septic tank cleaning since town has no sewerage system and dependent mainly on septic tanks
Storm water drainage	<ul style="list-style-type: none"> • All drains are open • Only 20 % of the existing roads have Pucca storm water drains.
Roads, Traffic and Transportation	<ul style="list-style-type: none"> • 16% of the roads are kutcha earthen roads • 16% of the roads are WBM roads
Solid Waste management	<ul style="list-style-type: none"> • Only 16% of the total assessments are covered by Door – Door collection system • Only 22% of the total assessments are involved in waste segregation • State inadequacy (1 person per 3.5 Km against the standard norm of 1 person per 0.5 Km)
Street lighting	<ul style="list-style-type: none"> • Spacing between lights is 46 Meters against the norm of 30 meters

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<i>Sector</i>	<i>Issues</i>
	<ul style="list-style-type: none"> • <i>Energy saving devices is not yet adopted like solar lamps, Timer switches, electronic chokes, 36W tube lights instead of 40 W tube lights.</i>
Slums and Urban Poverty	<ul style="list-style-type: none"> • <i>Slums are un-notified due to which Town Panchayat is not able to avail funds for development purposes.</i> • <i>15 un-notified slums accommodate 21% of the total population.</i>
Socio-Economic Infrastructure	<ul style="list-style-type: none"> • <i>43 approved layouts are still undeveloped</i> • <i>Town has no land for Weekly market and the existing land is on lease</i> • <i>All the 8 Burial grounds have infrastructure inadequacies</i> • <i>Town has no commercial complexes for revenue generation.</i> • <i>Town has 10 water bodies in the form of ponds and lakes which are poorly maintained.</i>

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13 STRATEGIC PLANNING

In order to address the issues identified during Rapid Urban Assessment stage and during Review Committee meeting as well as during the OWG meeting, the sectoral strategies and action plans have been proposed in this stage. Such action plans and strategies are converted into projects and are phased out based on the priority suggested by the review committee members which is explained in the subsequent chapters.

13.1 ACTION PLAN FOR SECTORAL DEVELOPMENT

Action plans for improving the existing situation of various sectoral components as well as for creating new infrastructure facilities have been formulated in consultation with the Operational Working Group members and are listed below:

<i>Sector</i>	<i>Action plan</i>
Land Use and Growth Management	<ul style="list-style-type: none"> • <i>Preparing development plan for Vadalur Town Panchayat area for the next twenty five years</i> • <i>Setting up local planning authority</i>
Water Supply	<ul style="list-style-type: none"> • <i>Creating Distribution network for 13 Km by 2023-24</i>
Sewerage and Sanitation	<ul style="list-style-type: none"> • <i>Purchasing Sullage lorry for waste water collection purpose</i> • <i>Public toilets / community toilets in Indira Nagar, Abatharanapuram, Periya Colony, RC Saveriar Nagar and in Maruva Chinna colony.</i>

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Sector	Action plan
Storm water drainage	<ul style="list-style-type: none"> • "Provision of Pucca drains for 86 Kms by 2023-24 (assuming 1/3rd of the storm water drain would be developed) • Priority projects are listed below • Provision of SWDs in Ward Nos 6,8,12,17,14,15,16 and 11 • Lining Kannikovil odai for a length of 3 Kms • Creating disposal drain for a length of 2.5 Km from Ayyaneri • Lining Vadakku Theru Odai for a length of 1.5 Km (3 meter width X 3 meter depth) with 2 minor bridges." • 2 minor bridges across Vadakku Theru Odai
Solid Waste Management	<ul style="list-style-type: none"> • Public awareness for Waste segregation and D-D collection and Creating awareness about protective gear among conservancy workers • Procuring segregation bins for each assessments • Procuring protective gear for conservancy workers (once in two years) • Contribution to scientific land fill site
Traffic and Transportation	<ul style="list-style-type: none"> • Converting existing 10.828 Km kutcha roads into BT road. • Converting 600 meter 2 lane Podhiyankuttai earthen road in to BT road • Converting 700 meter single lane Arpaathiyappa earthen road in to BT road • Converting 12.373 Km WBM roads into BT road. • Creating Bridge connecting Ragavendra city and Serakuppam • Converting 5 Km BT road into CC road • Creating Pedestrian foot path on both the sides for 1 Km in Neyveli road. • Creating subways in Seerakuppam and Kattukottai railway crossing. • Creating Railway Over bridge in VKT road (NH – Implementing agency)
Street Lighting	<ul style="list-style-type: none"> • Replacing 40W Tube lights into 36 W • Installing electronic chokes for all tube light fittings • Replacing 250 W 423 Nos SVL with (4 X 24) W T5 lamps • Installing 300 street lights with poles in the next fifteen year period
Slums and Urban	<ul style="list-style-type: none"> • Infrastructure scheme for un-notified slum areas

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<i>Sector</i>	<i>Action plan</i>
Poverty	
Water bodies Improvement	<ul style="list-style-type: none"> • Improving the condition of water bodies (Aiyar Eri, Thamarai Eri, Nathanan Kuppam Eri, Sundukuli Eri, Karapakkam Eri, Vengalathu eri, Thathan kuttai, shetty kulam in ward No.04, Maruvarur kulam in ward No. 02 and Alamparappu lake in ward No. 01)
Socio-Economic Infrastructure	<ul style="list-style-type: none"> • Creating green spaces in 43 approved layouts (Developing 14 layouts into parks and creating compound walls in remaining layouts to prevent encroachments) • Gassifier crematorium in one of the 8 burial grounds • Burial ground improvement scheme in all remaining 7 burial grounds • Creating weekly market in Ragavendra city

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14 CAPITAL INVESTMENT PLAN

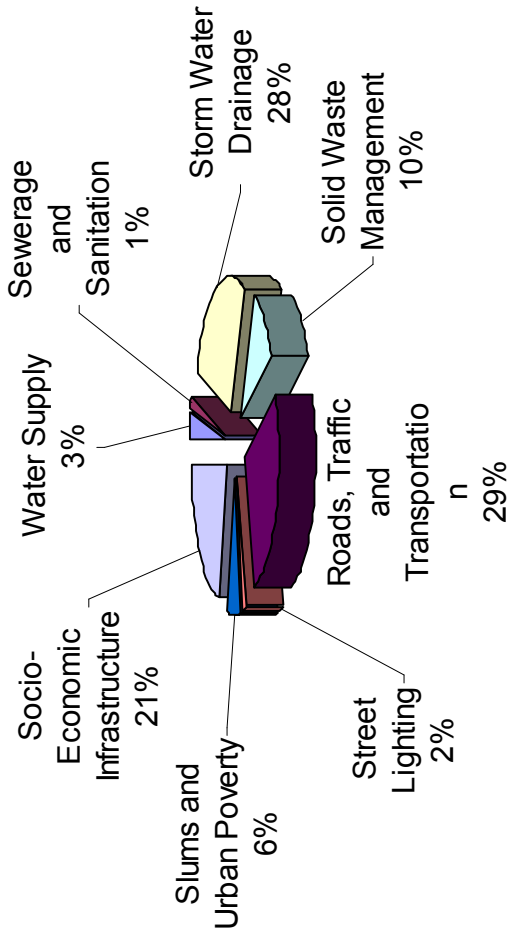
The Capital Investment Plan (CIP) identifies the investment requirement of the town for the next fifteen year period without taking into consideration the financial feasibility of the projects, which would be covered in Financial Operating Plan (FOP). Vadalur investment requirement for the next fifteen year period is Rs. **2384.01** lakhs. Consolidated Sector wise Investment requirement for Vadalur Town Panchayat is shown in *Table 14-4*.

Table 14-4 : Consolidated Sector wise Capital Investment requirements

Sector	Total Investment in Lakhs	Percentage share	2009-10 to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
Water Supply	78.00	3.27	30.00	30.00	18.00
Sewerage and Sanitation	35.00	1.47	35.00	0.00	0.00
Storm Water Drainage	650.00	27.27	225.00	225.00	200.00
Solid Waste Management	248.78	10.44	79.77	83.73	85.28
Roads, Traffic and Transportation	659.16	27.65	599.16	60.00	0.00
Street Lighting	49.87	2.09	31.87	9.00	9.00
Slums and Urban Poverty	154.20	6.47	154.20	0.00	0.00
Socio-Economic Infrastructure	509.00	21.35	440.00	34.00	35.00
Total	2384.01	100.0	1595.00	441.73	347.28
% Share	100.00		66.90	18.53	14.57

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Figure 14-1 Sector wise percentage share



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14.1 PHYSICAL INFRASTRUCTURE

During Review Committee meetings, stakeholder consultation meetings and on the basis of demand supply gap analysis, various works have been identified under different sectors like Water Supply, Sewerage, Solid Waste Management, Storm Water Drains, Roads and Street Lighting which are classified as Physical Infrastructure sectors. The Budget Estimates for the identified projects have been carried out based on TWAD Board Standard Schedule of Rates, market rates and with some assumptions on the technical aspects and wherever the estimates are available with Town Panchayat the same has been considered for those works.

14.1.1 WATER SUPPLY

Various works have been identified under Water Supply Sector on the basis of Stakeholder’s suggestion and on the basis of Demand Supply Gap analysis. The works identified and phase wise investment for the various works are listed in Table 14-B.

Table 14-B : Project List and Budget Estimates for Water Supply Works

S.No	Project Components	Capital Investment in Lakhs	2009-10 to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
A	Water Supply				
1	Creating Distribution network for 13 Km by 2023-24	78.00	30.00	30.00	18.00
	Sub Total	78.00	30.00	30.00	18.00

It is suggested that Vadalur Town Panchayat has to undertake water audit, energy audit and leak deduction studies to minimize Unaccounted Water Flow (UFW) and minimize the energy expenditure. The goals and service outcomes based on the proposed strategy for the horizon period is presented in Table 14-C.

Table 14-C : Goals and Service outcomes related to Water Supply sector

Goals	2009-10	Up to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
Network coverage in % of available road network	83	90	96	100
Per Capita Supply in LPCD	63	70	70	70
Service connections in % of assessments	26.1	45.7	65.4	85

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To address system rehabilitation in the upcoming years, mapping and establishing a GIS system is pertinent to detail out system location, characteristics, age and condition. This would enable identifying dilapidated sections of the network and those that require replacement.

14.1.2 SEWERAGE AND SANITATION

During stakeholder’s meeting, toilet block requirements have been identified. Further, Sullage lorry is proposed to be purchased for cleaning Septic tanks since the town is dependent on septic tanks for safe disposal of sullage waste. Detailed list of works, costing and phase wise investment plan is given in *Table 14-D*.

Table 14-D : Project List and Budget Estimates for Sewerage and Sanitation Works

S.No	Project Components	Capital Investment in Lakhs	2009-10 to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
B	Sewerage and Sanitation				
2	Purchasing Sullage lorry for waste water collection purpose	10.00	10.00	0.00	0.00
3	Public toilets / community toilets in Indira Nagar, Abatharanapuram, Periya Colony, RC Saveriar Nagar and in Maruva Chinna colony.	25.00	25.00	0.00	0.00
	Sub Total	35.00	35.00	0.00	0.00

14.1.3 STORM WATER DRAINAGE

Under Storm Water Drainage sector, works like construction of new drains identified during Rapid Town Assessment and during stakeholder’s consultation are considered. The works identified and phase wise investments are listed below.

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Table 14-E : Project List and Budget Estimates for Storm Water Drainage works

S.No	Project Components	Capital Investment in Lakhs	2009-10 to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
C	Storm Water Drainage				
	Provision of Pucca drains for 86 Kms by 2023-24 (assuming 1/3rd of the storm water drain would be developed)				
4	Priority projects are listed below 1. Provision of SWDs in Ward Nos 6,8,12,17,14,15,16 and 11 2. Lining Kannikovil odai for a length of 3 Kms 3. Creating disposal drain for a length of 2.5 Km from Ayyaneri 4. Lining Vadakku Theru Odai for a length of 1.5 Km (3 meter width X 3 meter depth) with 2 minor bridges. 2 minor bridges across Vadakku Theru Odai	600.00	200.00	200.00	200.00
5	Sub Total	50.00	25.00	25.00	0.00
		650.00	225.00	225.00	200.00

The goals and service outcomes based on the proposed strategy for the horizon period is presented in Table 14-F.

Table 14-F : Goals and Service outcomes related to Storm Water Drainage sector

Goals	2009-10	Up to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
Storm Water Drainage Coverage (% of road length)	20	33	46	58

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14.1.4 SOLID WASTE MANAGEMENT

Protective gear for conservancy workers is proposed in such a way that workers would get protective gear once in two years (50% workers is planned to be covered each year). In addition, Household segregation bins (2 Nos) are proposed for each assessment in Vadalur Town Panchayat with due consideration given to projected assessments also. Household segregation bins are proposed to be replaced once in 5 years.

Awareness drive to improve Door-Door collection efficiency, waste segregation efficiency and awareness about the importance of protective gear among the conservancy workers is proposed to be conducted by the Town Panchayat. Town Panchayat's contribution for setting up regional land fill site in association with nearby Municipalities and Town Panchayats is also considered. The works identified and phase wise investment for the various works are listed in *Table 14-G*

Table 14-G : Project List and Budget Estimates for Solid Waste Management works

S.No	Project Components	Capital Investment in Lakhs	2009-10 to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
D	Solid Waste Management				
6	Public awareness for Waste segregation and D-D collection and Creating awareness about protective gear among conservancy workers	5.00	5.00	0.00	0.00
7	Procuring segregation bins for each assessments	228.35	70.92	76.00	81.43
8	Procuring protective gear for conservancy workers (once in two years)	11.55	3.85	3.85	3.85
9	Contribution to scientific land fill site	3.89	0.00	3.89	0.00
	Sub Total	248.78	79.77	83.73	85.28

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The goals and service outcomes based on the proposed strategy for the horizon period is presented in Table 14-H.

Table 14-H : Goals and Service outcomes related to Solid Waste Management works

Goals	2009-10	Up to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
Door to Door Collection (% of assessments covered)	16.2	100	100	100
Source Segregation (% of assessments covered)	22.5	100	100	100
Scientific disposal	0	0	√	√
Collection efficiency in %	84	100	100	100

14.1.5 ROADS, TRAFFIC AND TRANSPORTATION

Under this sector it is proposed to construct new roads, widening existing roads, converting earthen and WBM roads in to BT roads. Further, subways, rotary intersections are proposed after having discussion with stakeholders in stakeholder’s consultation meeting. Projects, for which the implementing agencies are Highways and other para-statal agencies, have also been identified. For budget cost estimates unit rates per km length are considered. The works identified and phase wise investment for the various works are listed in Table 14-I.

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Table 14-I : Project List and Budget Estimates for Roads, Traffic and Transportation works

S.No	Project Components	Capital Investment in Lakhs	2009-10 to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
E	Roads, Traffic and Transportation				
10	Converting existing 10.828 Km kutchha roads into BT road.	211.15	211.15	0.00	0.00
11	Converting 600 meter 2 lane Podhiyankuttai earthen road in to BT road	15.60	15.60	0.00	0.00
12	Converting 700 meter single lane Arpaathiyappa earthen road in to BT road	9.10	9.10	0.00	0.00
13	Converting 12.373 Km WBM roads into BT road.	98.98	98.98	0.00	0.00
14	Creating Bridge connecting Ragavendra city and Serakuppam	100.80	100.80	0.00	0.00
15	Converting 5 Km BT road into CC road	100.00	100.00	0.00	0.00
16	Creating Pedestrain foot path on both the sides for 1 Km in Neyveli road.	3.53	3.53	0.00	0.00
17	Creating subways in Seerakuppam and Kattukottai railway crossing.	120.00	60.00	60.00	0.00
18	Creating Railway Over bridge in VKT road (NH – Implementing agency)	0.00	0.00	0.00	0.00
	Sub Total	659.16	599.16	60.00	0.00

The goals and service outcomes based on the proposed strategy for the horizon period is presented in Table 14-J.

Table 14-J : Goals and Service outcomes related to Roads, Traffic and Transportation sector

Goals	2009-10	Up to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
Per Capita road length in meters	2.6	2.5	2.3	2.1
Percentage of kutcha and WBM roads to total road length	32	0	0	0

14.1.6 STREET LIGHTING

It is proposed to convert all conventional lights into energy saving lighting systems to save more energy and reduce carbon emission. It is proposed to replace 40W tube lights into 36 W energy saving lamps when the life of existing 40 W lamp gets over. It is proposed to install electronic chokes in all fittings. It is further proposed to replace 250 W Sodium Vapor with (4X24) W T5 lamps. The tender process for procurement of T5 lamps can have the provision for purchase of existing Sodium Vapor lamps at a competitive rate. It is proposed to install nearly 300 additional light fittings in phases to cater future demand (1/3 rd demand is considered).

Table 14-K : Project List and Budget Estimates for Street lighting works

S.No	Project Components	Capital Investment in Lakhs	2009-10 to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
F	Street Lighting				
19	Replacing 40W Tube lights into 36 W	0.87	0.87	0.00	0.00
20	Installing electronic chokes for all tube light fittings	4.03	4.03	0.00	0.00
21	Replacing 250 W 423 Nos SVL with (4 X 24) W T5 lamps	17.98	17.98	0.00	0.00
22	Installing 300 street lights with poles in the next fifteen year period	27.00	9.00	9.00	9.00
	Sub Total	49.87	31.87	9.00	9.00

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It is suggested that Town Panchayat has to undertake energy audit studies before and after installing energy savers and devices to find out the exact energy savings.

The goals and service outcomes based on the proposed strategy for the horizon period is presented below.

Table 14-L : Goals and Service outcomes related to Street lighting sector

Goals	2009-10	Up to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
Spacing between lamps in meters	46.6	44	42	40
Energy auditing	Not done	To be done		to be done
Energy saving initiatives	Done partially			to be done completely

14.2 SLUMS AND URBAN POVERTY

In order to improve the living conditions in slum un-notified slum areas, CC, BT road, drainage and distribution lines are considered under this scheme.

Infrastructure requirements	Length in Kms	Cost in lakhs
CC road	2.384	47.68
BT road	2.955	38.415
Drainage	2.925	58.5
Distribution network	1.6	9.6
Total cost in lakhs		154.195

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Table 14-M : Project List and Budget Estimates for Slums and Urban Poverty

S.No	Project Components	Capital Investment in Lakhs	2009-10 to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
G	Slums and Urban Poverty				
23	Infrastructure scheme for un-notified slum areas	154.195	154.195	0.00	0.00
	Sub Total	154.195	154.195	0.00	0.00

14.3 SOCIO-ECONOMIC INFRASTRUCTURE

Socio-Economic Infrastructure works are identified based on Demand Supply Gap analysis and during Stakeholder consultation meetings. These works include improving the existing weekly and fish market, creating green spaces like parks and playgrounds, creating gassifier crematorium and improving burial ground infrastructure, renovation of slaughter house and improving the condition of water bodies. Project list and Budget estimates for Socio-Economic Infrastructure works are listed out in Table 14-N.

Table 14-N : Project List and Budget Estimates for Socio-Economic Infrastructure works

S.No	Project Components	Capital Investment in Lakhs	2009-10 to 2013-14	2014-15 to 2018-19	2019-20 to 2023-24
H	Socio-Economic Infrastructure				
24	Creating green spaces in 43 approved layouts (Developing 14 layouts into parks and creating compound walls in remaining layouts to prevent encroachments)	99.00	70.00	14.00	15.00

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25	Improving the condition of water bodies (Aiyan Eri, Thamarai Eri, Nathanan Kuppam Eri, Sundukuli Eri, Karapakkam Eri, Vengalathu eri, Thathan kuttai, shetty kulam in ward No.04, Maruvarur kulam in ward No. 02 and Alamparappu lake in ward No. 01)	200.00	200.00	0.00	0.00
26	Gasifier crematorium in one of the 8 burial grounds	90.00	90.00	0.00	0.00
27	Burial ground improvement scheme in all remaining 7 burial grounds	70.00	30.00	20.00	20.00
28	Creating weekly market in Ragavendra city	50.00	50.00	0.00	0.00
	Sub Total	509.00	440.00	34.00	35.00

14.4 CONSOLIDATED CAPITAL INVESTMENT PLAN

14.4.1 FIRST PHASE INVESTMENT PLAN (2009-10 TO 2013 – 14)

First Phase investment plan for Vadalur is given in Table 14-O. The total Estimated Cost for all the Sectors is Rs. 1595.00 lakhs. The total estimated cost after considering escalation for I phase is Rs. 1900.65 lakhs which is shown in Table 14-P.

Table 14-O First Phase Capital Investment Plan for Vadalur Town Panchayat

Project Sector	2009-10	2010-11	2011-12	2012-13	2013-14	Investment in phase I
	Water Supply	0.00	7.50	7.50	7.50	7.50
Sewerage	0.00	10.00	0.00	0.00	0.00	10.00
Sanitation	0.00	10.00	5.00	5.00	5.00	25.00

Rs. in Lakhs

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Project Sector	2009-10	2010-11	2011-12	2012-13	2013-14	Investment in phase I
Storm Water Drainage	0.00	50.00	75.00	50.00	50.00	225.00
Solid Waste Management without gear and bins	0.00	0.00	0.00	0.00	0.00	0.00
Solid Waste Management	15.95	15.95	15.95	15.95	15.95	79.77
Roads, Traffic and Transportation	0.00	211.15	123.68	100.80	163.53	599.16
Street Lighting	6.37	6.37	6.37	6.37	6.37	31.87
Slums and Urban Poverty	0.00	70.00	51.40	51.40	51.40	154.20
Socio-Economic Infrastructure	0.00	90.00	80.00	80.00	200.00	440.00
Total	22.33	380.97	374.91	317.03	499.76	1595.00

Table 14-P First Phase Capital Investment Plan for Vadalur Town Panchayat (after considering escalation cost)

Rs. in Lakhs

Project Sector	2009-10	2010-11	2011-12	2012-13	2013-14	Investment in Phase I
Water Supply	0.00	8.27	8.68	9.12	9.57	35.64
Sewerage	0.00	11.03	0.00	0.00	0.00	11.03
Sanitation	0.00	11.03	5.79	6.08	6.38	29.27
Storm Water Drainage	0.00	55.13	86.82	60.78	63.81	266.54
Solid Waste Management without gear and bins	0.00	0.00	0.00	0.00	0.00	0.00
Solid Waste Management Bins and Gears	16.75	17.59	18.47	19.39	20.36	92.56
Roads, Traffic and Transportation	0.00	232.79	143.18	122.52	208.71	707.20
Street Lighting	6.69	7.03	7.38	7.75	8.14	36.98
Slums and Urban Poverty	0.00	0.00	59.50	62.47	65.60	187.57
Socio-Economic Infrastructure	0.00	77.18	104.19	97.24	255.26	533.86
Total	23.44	420.02	434.01	385.35	637.83	1900.65

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14.4.2 SECOND PHASE INVESTMENT PLAN (2014-15 TO 2018 – 19)

Second Phase investment plan for Vadalur is given in *Table 14-Q*. The total Estimated Cost for all the Sectors is Rs. 441.73 lakhs. The total estimated cost after considering escalation for II phase is Rs. 638.56 lakhs which is shown below.

Table 14-Q Second Phase Capital Investment Plan for Vadalur Town Panchayat

Project Sector	2014-15	2015-16	2016-17	2017-18	2018-19	Investment in phase II
Water Supply	6.00	6.00	6.00	6.00	6.00	30.00
Sewerage	0.00	0.00	0.00	0.00	0.00	0.00
Sanitation	0.00	0.00	0.00	0.00	0.00	0.00
Storm Water Drainage	40.00	65.00	40.00	40.00	40.00	225.00
Solid Waste Management without gear and bins	3.89	0.00	0.00	0.00	0.00	3.89
Solid Waste Management	15.97	15.97	15.97	15.97	15.97	79.85
Roads, Traffic and Transportation	60.00	0.00	0.00	0.00	0.00	60.00
Street Lighting	1.80	1.80	1.80	1.80	1.80	9.00
Slums and Urban Poverty	0.00	0.00	0.00	0.00	0.00	0.00
Socio-Economic Infrastructure	34.00	0.00	0.00	0.00	0.00	34.00
Total	161.66	88.77	63.77	63.77	63.77	441.73

Rs. in Lakhs

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Table 14-R Second Phase Capital Investment Plan for Vadalur Town Panchayat (after considering escalation cost)

Rs. in Lakhs

Project Sector	2014-15	2015-16	2016-17	2017-18	2018-19	Investment in Phase II
Water Supply	8.04	8.44	8.86	9.31	9.77	44.43
Sewerage	0.00	0.00	0.00	0.00	0.00	0.00
Sanitation	0.00	0.00	0.00	0.00	0.00	0.00
Storm Water Drainage	53.60	91.46	59.10	62.05	65.16	331.37
Solid Waste Management without gear and bins	5.21	0.00	0.00	0.00	0.00	5.21
Solid Waste Management Bins and Gears	21.40	22.47	23.59	24.77	26.01	118.25
Roads, Traffic and Transportation	80.41	0.00	0.00	0.00	0.00	80.41
Street Lighting	2.41	2.53	2.66	2.79	2.93	13.33
Slums and Urban Poverty	0.00	0.00	0.00	0.00	0.00	0.00
Socio-Economic Infrastructure	45.56	0.00	0.00	0.00	0.00	45.56
Total	216.64	124.91	94.22	98.93	103.87	638.56

14.4.3 THIRD PHASE INVESTMENT PLAN (2019-20 TO 2023-24)

Third phase investment plan for Vadalur is given in *Table 14-S*. The total Estimated Cost for all the Sectors is Rs. 347.28 lakhs. The total estimated cost after considering escalation for III phase is Rs. 647.64 lakhs which is shown below.

Table 14-S Third Phase Capital Investment Plan for Vadalur Town Panchayat

Rs. in Lakhs

Project Sector	2019-20	2020-21	2021-22	2022-23	2023-24	Investment in phase III
Water Supply	9.00	9.00	0.00	0.00	0.00	18.00
Sewerage	0.00	0.00	0.00	0.00	0.00	0.00
Sanitation	0.00	0.00	0.00	0.00	0.00	0.00
Storm Water Drainage	40.00	40.00	40.00	40.00	40.00	200.00
Solid Waste Management without gear and bins	0.00	0.00	0.00	0.00	0.00	0.00
Solid Waste Management	17.06	17.06	17.06	17.06	17.06	85.28
Roads, Traffic and Transportation	0.00	0.00	0.00	0.00	0.00	0.00
Street Lighting	1.80	1.80	1.80	1.80	1.80	9.00
Slums and Urban Poverty	0.00	0.00	0.00	0.00	0.00	0.00
Socio-Economic Infrastructure	35.00	0.00	0.00	0.00	0.00	35.00
Total	102.86	67.86	58.86	58.86	58.86	347.28

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Table 14-T Third Phase Capital Investment Plan for Vadalur Town Panchayat (after considering escalation cost)

Rs. in Lakhs

Project Sector	2019-20	2020-21	2021-22	2022-23	2023-24	Investment in Phase III
Water Supply	15.39	16.16	0.00	0.00	0.00	31.56
Sewerage	0.00	0.00	0.00	0.00	0.00	0.00
Sanitation	0.00	0.00	0.00	0.00	0.00	0.00
Storm Water Drainage	68.41	71.83	75.43	79.20	83.16	378.03
Solid Waste Management without gear and bins	0.00	0.00	0.00	0.00	0.00	0.00
Solid Waste Management Bins and Gears	29.17	30.63	32.16	33.77	35.46	161.19
Roads, Traffic and Transportation	0.00	0.00	0.00	0.00	0.00	0.00
Street Lighting	3.08	3.23	3.39	3.56	3.74	17.01
Slums and Urban Poverty	0.00	0.00	0.00	0.00	0.00	0.00
Socio-Economic Infrastructure	59.86	0.00	0.00	0.00	0.00	59.86
Total	175.92	121.86	110.98	116.53	122.36	647.64

15 REFORMS AND RESOURCE MOBILIZATION

15.1 OVERVIEW

Urban reforms are the main focus of good governance and service delivery to the inhabitants of the urban area. Several initiatives and reforms have been taken up at the national level and state level. These reforms need to be replicated and implemented by the ULBs completely in a time bound manner. The State Government and the Urban Local Bodies have executed a Memorandum of Agreement with the Government of India, committing to implement the reform programme.

Under the Urban Local Bodies level, reforms committed viz., E-Governance, shift to Accrual based double entry accounting, property tax (85% coverage), property tax collection efficiency (90%). 100% cost recovery for water supply and solid waste services have been committed to be achieved in the year 2012. Internal earmarking of funds for services to Urban Poor has been done and provision of Basic services to urban poor has been committed to be achieved in the year 2012.

Encouragement of Public Private Partnership to be carried on through outsourcing in solid waste management, street light maintenance, pumping station maintenance, STP maintenance and hiring of vehicles. Many of the suggested reforms have been implemented to some extent though at the ULB level further refinement and qualitative implementation needs to be carried out. Besides these mandatory reforms the ULBs have initiated Institutional Strengthening, Capacity building for administrative and elected representatives under various reform programs of TNUDP and State Government.

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15.2 REFORM MEASURES FOR VADALUR TOWN PANCHAYAT

The reform measures to be undertaken by the Town Panchayat can be broadly classified into 3 broad heads:

- ✓ Financial and Accounting Reforms
- ✓ Institutional reforms
- ✓ Reforms in physical infrastructure

15.2.1 FINANCIAL & ACCOUNTING REFORMS

15.2.1.1 FINANCIAL REFORMS

As a part of financial reforms, tax mobilization reforms in tax and non tax collection needs to be taken up for improving the financial position of the Town Panchayat. The reform process of tax collection should be comprehensive and should focus on structural and systematic changes so that the increase in efficiency is sustained. This is vital for achieving self-sufficiency and improving its financial health to make it possible for the TP to undertake various projects for the welfare of the people.

The Executive officer and the bill collectors are responsible for collection of various taxes and charges from its citizens including raising the demand for key revenue items like property tax, profession tax, water charges etc., follow up on outstanding payment and prepare the Demand Collection Balance (DCB) statement. There are four number of sanctioned post for Bill Collector in the revenue collection department and out of four three posts are filled in and exist one vacant.

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One of the most important yard stick for measuring the robustness of tax collection is collection efficiency. The Collection Efficiency of important revenue sources of Vadalur Town Panchayat for the last 6 years ending 2008-09 is given as under:

Table 15-A: Collection Efficiency of key revenue sources

Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Property Taxes						
Arrears	0%	0%	0%	0%	0%	0%
Current	100%	100%	100%	100%	100%	100%
Total	25%	23%	24%	24%	26%	34%
Professional Taxes						
Arrears	12%					
Current	100%	100%	100%	100%	100%	100%
Total	68%	100%	100%	100%	100%	100%
Water Charges						
Arrears						
Current	100%	100%	100%	100%	100%	100%
Total	100%	100%	100%	100%	100%	100%
Library Cess						
Arrears	0%	0%	0%	0%	0%	0%
Current	100%	100%	100%	100%	100%	100%
Total	29%	26%	28%	28%	30%	38%

Source: DCB of Vadalur Town Panchayat

Table 15-B: Efficiency parameters of key taxes and water charges

Particulars	Current Collection efficiency	Arrears Collection efficiency	CAGR in no of assessments (%) Last 5 years	CAGR in the terms of value (%)
Property taxes (2008-09)	100%	NA	1.27%	9.12%
Profession Taxes (2008-09)	100 %	NA	-6.95%	15.61%
Water Charges (2007-08)	100%	NA	3.11%	4.31%

Source: Vadalur Town Panchayat

15.2.1.1.1 Property taxes:

The most important category in the own sources of income is the property tax. This tax is imposed on land and buildings depending upon their class of areas & nature of use. About 85% of the tax revenue comes through property taxes. The CAGR of property tax revenue has been around 9.12% over the last few years. (2003-04 till 2008-09). The Town Panchayat enjoys very good collection efficiency only in the current demands.

15.2.1.1.2 Profession Tax:

Profession tax has contributed about 15% of the total Taxes in the last few years. The CAGR has been close to 15.61% for the past few years. The Town Panchayat enjoys a very good current and arrear collection efficiency. Robust growth in Taxes is required to fund the projects. Proper implementation of reforms is a pre-requisite for healthy revenue generation. Healthy growth in number of assessments, updated tax demand, periodic revisions and high collection efficiency is important for strong growth in property tax collection

Hence the following reforms have been suggested to bring about improvement in property tax collection

Table 15-C: Reforms in property Taxes

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<i>Suggested Property taxes Reforms</i>
<ul style="list-style-type: none"> • Mandatory Implementation of Revision of Property Tax once in every five years is required • Digitization of the property maps through GIS to identify un-assessed and under assessed properties is required. GIS based mapping system is advisable for each property identified on GIS (Whether it is residential, commercial or industrial).The above database can be crossed checked with the data from various governmental authorities/sources such as Income Tax, Profession Tax, and Electricity Bills etc. Such database also would help the Town Panchayat to verify the utility of the property against the purpose for which permission was taken. • Computerization of records of encroached properties, action taken, list of

Suggested Property taxes Reforms

encroachers through MIS would enable linking the same with GIS.

- Making the payment of property tax more convenient for the assesses through the use of various alternative modes can be explored through a decentralized approach such as :
 1. Through banks
 2. Through Post Offices, Bus terminus, Kiosks etc.
 3. Through online payment through using internet.
 4. Through ECS/ EFT
- Using special schemes and incentives to encourage people to make the payment of property tax before the lapse of the due date can be considered. Rebates can be offered for advance payment of property taxes.
- The Town Panchayat can do more initiatives to increase the number of self assessed tax payers by creating well awareness among the people themselves about the social responsibility of paying tax in time
- Collection of arrears through innovative means such as community participation and fast track litigation methods need to be attempted. Law enforcement powers should be given to the Town Panchayat to compel payment of taxes and other charges levied by them.
- Improve enforcement against defaulters by modifying byelaws with adequate recourse to Town Panchayat within the current framework for enforcing disconnections on defaulters.
- PSP involvement in computerization, billing, collections and survey of properties can be explored.
- Rewarding collection efforts of the employees to encourage more aggressive collection.
- List of consistent major defaulters can be published in the notice board of the Town Panchayat office. This can be resorted in the case of extreme default.
- Suitable legislation at state level to ensure that in the case of disputed property tax the assessee should first pay the tax under protest and then can take the necessary legal recourse as done in customs/excise duties can be considered.
- Currently the payment of property taxes is possible only in the Town Panchayat office. The ULB can look to the possibility of introducing additional collection

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<i>Suggested Property taxes Reforms</i>
<p>centers to enable the citizens to pay the taxes easily</p> <ul style="list-style-type: none"> • Late payment of property tax after the grace period can be penalized with nominal charges as being done in the case of insurance payments etc

15.2.1.2 ACCOUNTING REFORMS

The administrative section is responsible for maintenance of all income and expenditure statements, payment, preparation and implementation of budget. The system of accounting has undergone a transformation from cash based accounting system to accrual accounting system in line with the State government’s reforms initiative. Presently they do not have fully computerized accounts department. As on date Vadalur Town Panchayat has completed finalizing its accounts up to FY 2008-09 (Un audited).

The following reform measures are suggested:

Table 15-D: Accounting Reforms

<i>Suggested Accounting Reforms</i>
<ul style="list-style-type: none"> ✓ Zero based budgeting would need to be carried out for continual monitoring of budgets and cash flow management. ✓ As a part of a larger accounting reform process at the State level, it is suggested that the ULB can include disclosures in its Annual Accounts and other published documents details on cost recovery of essential services through direct “user charges”, indirect “taxes” and Environmental status report. This information can be made available to the public through various channels (Such as hosted the details on the website, distribution of pamphlets, Involving SHGs/NGOs/Woman Groups for spreading awareness, Public announcements etc) in simple effective language to facilitate substantial/full recovery of O&M costs of the various essential services such as Water Supply, Solid Waste Management, etc. The awareness creation at various levels will increase the “willingness to pay” actions of the citizens of the area. ✓ The audited annual accounts can contain ULB Discussion and Analysis Report (UDAR) providing a holistic view on the financial health, quality of service level rendered, initiatives taken/proposed by the ULB to improve the city, areas of concern, targets and action plan to achieve the same etc. This report along with the Urban Performance indicators can provide a

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Suggested Accounting Reforms

qualitative edge to the accounting and financial reporting system that can go a long way towards achieving high levels transparency, accountability and easy and smoother facilitation of the reform process required. Thus the support from the stake holders of the city would become easier if the awareness is created with these qualitative reports being prepared and shared with the key stake holders of the city.

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15.2.2 INSTITUTIONAL REFORMS

The Institutional reforms suggested for Vadalur Town Panchayat can be broadly divided into the following heads:

- Training and Capacity Building for administrative staff and elected officials
- Private Sector Participation
- User charges
- E-Governance

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15.2.2.1 TRAINING AND CAPACITY BUILDING FOR ADMINISTRATIVE STAFF AND ELECTED OFFICIALS

• Training

The various training undergone by the staff of Vadalur Town Panchayat has been elaborated as under:

- 1) Bhavani Sagar Training has been provided to the Junior Assistant
- 2) Training to the Executive Officer
 - a) Accounts training – Annual Accrual Accounting System in ULB conducted by Comptroller and Auditor General (C&AG) for a period of 2days in Feb 2009 in Thanjavur

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• Public Grievance Redressal Mechanism

Public Grievance registers maintained for all key sectors such as Public Health, Water Supply, and Street Lights. The Public also approach their respective ward councilors with their complaints on service delivery system.

It is recommended that the periodicity of the training can be enhanced coupled with more qualitative in-depth focus on the type of training offered. This would result in increased awareness among the administrative staff on various issues there by enhancing their productivity and creating awareness about their responsibility towards the public. For both elected and administrative members educational and awareness tours can be organized to understand the best practices in various services of other ULBs.

As the ULB is already maintaining a public grievance register for all key sectors, it should now depute one person as the in charge for this grievance book and the complaints needs to be redressed within 24 hours.

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15.2.2.2 PRIVATE SECTOR PARTICIPATION

Government of Tamil Nadu (GoTN) has laid down a policy clearance order for the ULBs in the State, indicating the areas of privatization in the sectors of Solid Waste Management, Water Supply, Sewerage, Drain Cleaning, Public Toilets, Road Maintenance, Street Lighting, Parking lots, parks and play grounds, and vehicle maintenance. The GoTN states that this list is indicative and local bodies are free to investigate other areas of privatization. The local body would be saving the indirect cost towards pension, gratuity, etc if privatization efforts are initiated and effective monitoring and evaluation on the delivery of services of private contractor is adopted.

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Following are the private sector participation in the service delivery system of Vadalur Town Panchayat.

<i>Sector</i>	<i>Name of the work</i>	<i>Coverage</i>	<i>Payment per annum</i>
Street Light	Fitting of lamps (Materials are provided by TP and only labour provided by Private Contractor)	All the 18 Wards	Rs.72000

Water Supply	Changing of Busted Pipes (Materials are provided by TP and only labour provided by Private Contractor)	All the 18 Wards	Rs.42000 Appx. (Rs.18 per meter of pipe changed)
Solid Waste Management (SWM)	Door to door collection and segregation	Poosali Kuppam Ward No.2	Rs.900 per person per month to the Self Help Group Members
User Charges for SWM: The Town Panchayat collects a Rs.10 from 290 households in the prime locality			

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Table 15-E: Possible areas of privatization/outsourcing

Areas of privatization
<ul style="list-style-type: none"> ✓Privatization of Solid Waste Management covering all wards of the town. <ul style="list-style-type: none"> ➤ Providing household segregation bins once in five years for source segregation and D-D collection. ➤ Procuring protective gear (gumboots, gloves and masks) for conservancy workers once in two years ✓The ULB can also seek private sponsorship for purchase of household bins for waste segregation once awareness is created among the public on the waste segregation

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15.2.2.3 USER CHARGES

There is a need to introduce in phases “User Charges” for various infrastructure amenities provided by the Town Panchayat. Cross subsidization of tariff, Innovative product structuring and community participation are some of the measures which could be explored to provide services for the urban poor.

Currently only for water supply the ULB is able to generate direct revenue in the form of water charges, initial deposit and connection charges and indirectly through water tax which is a component of property tax. For other services the ULB depends on its taxes

and external funds to fund its activities. As these are inadequate the ULB faces constraints to initiate any major improvement scheme for development of the city.

To enhance its revenue the ULB would need to increase the deposit charges for new connections and can explore the option of increasing the water charges. This backed by higher collection efficiency and enhanced service coverage of water connections can minimize revenue leakages from water sources.

15.2.2.4 E-GOVERNANCE & COMPUTERIZATION

E-governance is the application of information & communication technologies to transform the efficiency, effectiveness, transparency and accountability of informational & transactional exchanges with in government, between govt. & govt. agencies of National, State, Municipal & Local levels, citizen & businesses, and to empower citizens through access & use of information.

At ULB level, an e-governance shall serve the following three basic requirements in a user friendly manner

- Information to the office bearers for their effective discharges of their duties, safeguard the assets of the municipality and for future planning and development of their city.
- Information to councilors to do effective service delivery to their constituents.
- Information to public to pay their duty, update the information on assessment and to get the right services of the ULB in time.

Best Practices in e-governance:

Five key components of best practices in e-governance system are as below:

- ✓ Better service delivery to citizens.
- ✓ Improved services for business.
- ✓ Transparent & anticorruption.
- ✓ Empowerment through information.
- ✓ Efficient Government purchasing.

Current Status in Vadalur Town Panchayat

The Town Panchayat has initiated steps for computerization of Birth & Death, Salary, Accounts and Property Tax records

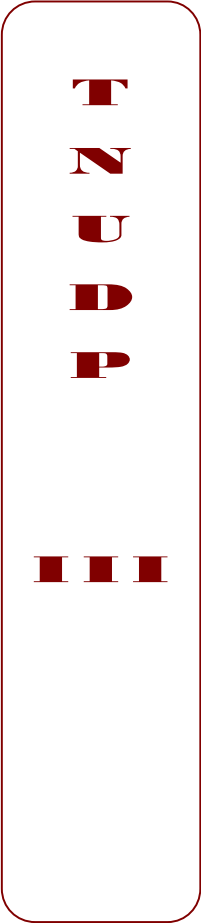
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The GoTN has prescribed a list of E-Governance Module to all the municipalities; hence the Town Panchayat should also start working on E-Governance module. The following are the standard module suggested by GoTN

- Birth & Death,
- Property Tax
- Non-Tax
- Water Charges
- Building Plan
- F.A.S
- Vehicle Maintenance
- Pay Roll
- Professional Tax
- D&O
- Movable& immovable
- Solid Waste Management
- Grievance Records



15.2.3 REFORMS IN PHYSICAL INFRASTRUCTURE

Table 15-F: Reforms in Physical Infrastructure

Sectors	Suggested Reforms
Water Supply	<ul style="list-style-type: none"> ➤ Service coverage of water connections to be increased from current 35% to 85% by 2023-24 ➤ Water supply charges and connection charges need to be revised on periodic basis i.e. once in 5 years to fund its future investments in water supply. ➤ Monthly service charges for the consumers can be increased minimum of 25% every 5 years. ➤ For funding its investments in water supply, the Town Panchayat can consider alternative payment structures for water. It could offer one-time payment options, where the connection fee is bundled with usage fees for a number of years. The packages could be made attractive by offering suitable levels of discounts.

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Sectors	Suggested Reforms
	<p>This could result in reduction in collection risk and reduced cost of billing and collections. The same could be used for other services, where the collection requires the effort of the municipal staff.</p> <ul style="list-style-type: none"> ➤ To improve the collection levels, the Town Panchayat could look at providing an incentive and penalty structure for payment of water taxes and charges. ➤ For reducing operating and maintenance costs, water leakage audit, installation of leak detection equipment and replacement of pipes needs to be done on regular basis. ➤ Prior to the year 1987-88, there existed a water supply leak detection system for minimizing the cost of water supply. It can be now redefined and updated to serve as a record maintained for Unaccounted for Water (UFW). UFW is the difference between the volume of water delivered into the distribution system and the water sold/billed or accounted for by legitimate consumption. There is need for maintaining such a record for reducing the possibilities of revenue leak through unauthorized/illegal connections. ➤ It may be mentioned that the percentage of non-revenue water is ascertained based on the condition assessment of the water supply system. It is necessary to carry out a detailed study to estimate the non-revenue losses to enhance the efficiency of the water supply system. In addition, the Town Panchayat has to under take a series of initiatives to arrest illegal water connections and enhance the coverage of House Service Connections (HSC). ➤ Pumps, motors and distribution network which undergo severe wear and tear impact power costs of the Town Panchayat besides reducing operational efficiency. Hence periodic maintenance of the system with regular investments in up gradation and replacement of pipelines, motors and pumps needs to be followed to avoid huge one time expenditure to the maximum extent

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Sectors	Suggested Reforms
	<p>possible.</p> <ul style="list-style-type: none"> ➤Privatization in routine maintenance relating to water supply such as hand pumps can be considered ➤Periodic technical training to its engineering cell is required. ➤Implementation of 24/7 water supply system with the main features of: <ul style="list-style-type: none"> ▪ Anytime full availability of water. ▪ Confessional water user charges to slum dwellers and higher charges for commercial users. ▪ Reduction of water wastages and unaccounted water flow by installing water audit equipments, energy saving equipments, water metering and conducting periodic water audits, energy audits etc. ▪ 100% accounting of water received and distributed. ▪ Water quality monitoring system on daily basis. ▪ Chlorinators at each pumping station. ▪ Increased collection of revenue on water charges at ULB level by using GIS based billing system on 24*7 systems.
Solid Waste Management	<ul style="list-style-type: none"> ➤Door to door collection of garbage at household level and segregation of waste at source need to be implemented after creating suitable awareness level. In case of Vadalur 16 % of assessments covered by Door to Door collection and 22 % of assessments involved in waste segregation ➤Private sponsorship of bins for waste segregation at house hold level can be looked into ➤Vehicles used in SWM and conservancy activities such as tipper lorries, tractors; dumper blazer etc can be maintained through outsourcing arrangement with reputed contractors. The Annual Maintenance Contract should be all comprehensive covering various critical clauses in order to protect the Town Panchayat from possible claims from the Ways to improve the revenue from

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Sectors	Suggested Reforms
	<p>charges that are being collected from different commercial establishments like hotels including kiosks, eating houses, restaurants, star hotels and retail markets should be studied.</p> <ul style="list-style-type: none"> ➤ The Town Panchayat can identify the ways to generate revenue from Solid Waste by selling compost at market. ➤ The Town Panchayat can auction to the private parties for disposal of recyclables. ➤ Potential for getting carbon credit benefit through the Clean Development Mechanism (CDM) need to be studied in making a comprehensive solid waste management scheme. ➤ Privatization of services for the following activities should be undertaken to reduce the establishment charges and O&M charges of Town Panchayat: <ul style="list-style-type: none"> ○ Door to door collection of domestic waste ○ Door to door collection of commercial waste, construction waste and Market waste. ○ Setting up and operation and maintenance of waste treatment plants. ○ Supplying vehicles on rent ○ Transportation of waste on contract basis. ➤ Delegation of powers and fixing accountability should be done for better management of the system. . ➤ Human Resources Development <ul style="list-style-type: none"> ▪ Special training to unqualified staff ▪ Refresher courses for all levels of staff about advances in the field of SWM ▪ Exposure to elected members ▪ Design of SWM course to Public Health staff
Street lights	<ul style="list-style-type: none"> ➤The Town Panchayat shall replace its other existing non-energy saving lamps to energy saving lamps. ➤Meeting the target of one pole per 40 meters by 2023-24 ➤Energy Audit needs to be conducted periodically.

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Sectors	Suggested Reforms
	<ul style="list-style-type: none"> ➤Private parties can be involved for financing, operation and maintenance of energy efficient street light projects to reduce the cost incurred for the same.
Roads	<ul style="list-style-type: none"> ➤Relaying Bitumen roads once in three years with patch works to be undertaken based on the need in between years ➤Future roads to be laid with dedicated service lanes. ➤Relaying roads with recyclable materials like fly ash, can be explored.

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15.3 ADDITIONAL RESOURCE MOBILIZATION

Vadalur has initiated both the traditional and non-traditional alternatives for resource mobilization. Resource Mobilization efforts need to be directed towards generating additional revenue from existing avenues such as property taxes, profession tax, water charges, service charges and fees and remunerative assets of the Town Panchayat. Besides this the Town Panchayat would need to take measures to control expenditure in water supply, solid waste management, street lighting etc. Additional resource mobilization options such as Daily market fees, Weekly market fees, Bus stand fees, Fess from Pay & Use toilets, rent from commercial complex and rent from shopping mall and community hall for the Town Panchayat are discussed in detail in subsequent paragraphs.

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Incase of Vadalur the share Non-Tax revenue to the total revenue has been more than 80% in the last few years. The Non-Tax Revenue has grown at a CAGR of around 11.85% in the last 6 years ending .The “Other income” under the Non-tax revenue consists mainly of Income from Weekly market and Rent from shopping complex accounting for about 50% of this income. This income has grown at a CAGR of over 11.11 % in the last few years.

Revenue from Social Assets

Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Fees for bay and other receipts in the Bus Stand	5.88	6.01	6.12	6.37	6.22	7.00
Fees for Pay & Use toilets	2.71	3.25	3.96	4.90	4.90	2.45
Cart Stand – Lorry Stand - Taxi Stand Fees	1.50	1.78	2.05	3.82	3.82	3.43
Market fees – weekly market	1.73	1.82	1.76	2.11	2.14	2.17
Rent on Shopping Complex	0.00	15.30	18.03	22.11	25.03	23.92

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Particulars	Area	Annual Income (2008-09) in Rs.Lakhs
Fees for bay and other receipts in the Bus Stand	11350 Sq.mts.	7.00
Fees for Pay & Use toilets	Inside the Bus stand	2.45
Cart Stand – Lorry Stand - Taxi Stand Fees	NA	3.43
Market fees – weekly market	3 Acres, at Ward No.6	2.17
Rent on Shopping Complex	1 (144 Shops) inside the Bus stand	23.92

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From the above table it is clear that Vadalur Town Panchayat earns an average of Rs.2.00 Lakhs from Market fees (Weekly) and about Rs. 17.39 Lakhs from shopping complex rentals. The Bus stand fees also significantly contribute a significant share to the Non-Tax revenue with an average fee of about Rs.6.27 Lakhs.

Based on our analysis and discussions with the officials/stake holders, the following are additional revenue projects which are conceived in the Capital Investment Plan of the Town Panchayat:

- ✓ Creating weekly market in Ragavendra city at an estimated cost of Rs.50 Lakhs

16 FINANCIAL OPERATING PLAN

16.1 BACKGROUND- NEED FOR AN FOP

The Financial Operating Plan (FOP) assesses the financial strength of the Town Panchayat to implement the identified investments. The Financial Operating Plan (FOP) forecasts the Town’s finances on the basis of certain assumptions on income and expenditure. The primary objective of the FOP is to ascertain the investment sustenance capacity of the Town Panchayat under full project scenario of revenue enhancement and expenditure control.

In the FOP following scenarios are envisaged

Scenarios	Details
Base Case Scenario	No New Projects and No Reforms (“Business as Usual” Scenario)
Full Project -Scenario II	Implementation of all Projects required for the next 15 years with Reform implementation

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The key reforms are highlighted in Table below. The total reforms suggested have been elaborated in Reforms Implementation Schedule (Annexure IV)

Key reforms

Particulars	Current practice	Reform suggested
Revision in Property tax rates	Revision once in 10 years	25% increase in every 5 years
Service level Coverage (Water)	26%	4% to 5% increase every year achieving 85%

Supply- Number of assessments)		coverage by 2023-24
Revision in Initial Deposit for New Water Connections	Adhoc revision	Rs.2000 increase every 5 years for each new connection
Revision in Water Charges	Adhoc revision	25% increase every 5 years
Revision in Initial Deposit for New UGD Connections	No UGD currently	No UGD Proposed in Capital Investment Plan
Revision in Monthly user charges for UGD	No UGD currently	No UGD Proposed in Capital Investment Plan

16.2 FINANCIAL SUSTAINABILITY

The financial sustainability Analysis is carried out with the basic assumption that the Town Panchayat will carry out reforms and projects envisaged under full project scenario. The Financial Operating plan prepared for Vadalur Town Panchayat evaluates the Town Panchayat’s financial position based on the base care scenario and the full project scenario which are described below:

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16.2.1 BASE CASE SCENARIO

In the base case scenario, the finances of the Town are forecast for next 15 years without taking into consideration any new projects envisaged in Capital Investment Plan. . Current practices with regard to tariff revision of key services are only considered. Additional resources mobilized through various initiatives such as resource mobilization through enhanced revision of property tax rates and the number of assessments (based on projected population increase), increased revenue realization through faster growth in

service charges and fees including revision of user charges and connection charges for water supply, other income etc are loaded to the FOP in the base case scenario. Routine revenue expenses including Operations and Maintenance of existing assets have also been considered and loaded to the FOP. Revenue surplus thus generated indicates Town's capacity to service the usual capital expenditure in the normal course of running its operations.

16.2.2 FULL PROJECT SCENARIO

Full Project scenario for Vadalur has been worked out based on estimated demand supply analysis of various physical and social infrastructure requirements of the Town and feedback of Operating Working Group's (OWG'S) consultation on the Town's needs for the next 15 years. The financial mix for funding these projects has been based on prudent financial norms of funding and existing practices of funding currently being followed today. The projects identified are vital for meeting the basic requirements of the Town as per the infrastructure standards. Furthermore all the projects identified fall under the obligatory functions under the 12th Schedule. In the event of the Town not undertaking the project, the key problems would be poor infrastructure resulting in poor service delivery and loss of potential revenue from new revenue streams. To overcome these issues the framework for FOP is developed taking into account existing strengths of the Town and also reducing the inefficiencies in the system.

Phasing of the identified projects is done based on the possible year of construction, demand supply gap analysis and investment priority of the OWG. Implications of the investments worked out in terms of external borrowing required & the resulting debt servicing commitments, external support in form of grants and additional operation and maintenance expenditure anticipated due to the new projects identified have been worked out for the next 15 years. Debt servicing capabilities, gaps in required investments from Town for the said projects vs the actual availability with the Town Panchayat for the Town's contribution for the said projects has been worked out to estimate the extent of Town's capability to meet its contribution for financing the new projects identified under Capital Investment Plan.

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The implications on the investment and borrowing capability of the Town for all the identified projects is worked out taking into consideration of all suggested reforms.

The objective of working out with all the reforms mainly to highlight the importance of implementing the reforms on improving the financial capability of the Town for successful implementation of the projects envisaged in CIP.

16.3 ASSUMPTIONS FOR FOP

This FOP is based on a whole range of assumptions related to income and expenditure. These are critical to understand the financial projections worked out, sustenance of the projected increase in revenue and expenditure under various scenarios and surplus thus generated. Assumptions regarding interest rates, repayment terms and conditions, financing pattern have also been explained in subsequent paragraphs. Assumptions regarding additional Operation and Maintenance Expenses for the new projects identified have also been provided. The assumptions would help in understanding the extent of investment sustenance for future projects envisaged.

16.3.1 REVENUE INCOME

In case of taxes and non tax revenue such as property taxes and water charges, where the base and basis of revenue is fairly well known and predictable the likely revenue is forecast based on certain assumptions regarding growth in number of assessment, revision in average revenue per property (for property taxes), revision in charges/Tariffs (water charges). Table 16-A and Table 16-B, lists out the assumptions with regard to forecasting income from property tax and water charges respectively. Assumptions regarding other sources of revenue income have been given in Table 16 C. Tables indicate the assumptions in revenue income in base case scenario and investment scenario.

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16.3.1.1 PROPERTY TAXES

Table 16-A : Key assumptions for forecasting income from Property Taxes

Description	Current Level	Base Case Scenario	Investment Scenario
Annual Growth in Number of Assessment	0.55% (From 2003-04 till 2008-09)	Projected based on the estimated increase in population of the city	Projected based on the estimated increase in population of the city
Periodic Increase in Average Revenue per property (%)		25% increase in every 10 years	25% increase in every 5 years

Source: Analysis

16.3.1.2 WATER CHARGES

Table 16-B: Key assumptions for forecasting income from Water Charges

Description	Current Level	Base Case Scenario	Investment Scenario
% OF WATER CONNECTIONS TO PROPERTY TAX ASSESSMENT			
2007-08	26%		
2013-14		45%	45%
2018-19		65%	65%
2023-24		85%	85%
INITIAL DEPOSIT FOR NEW WATER SUPPLY CONNECTIONS (Rs. per connection)			
Domestic (Rs.)			
From 2009-10 till 2013-14	Rs.2000	Rs.2000	Rs.2000
From 2014-15 till 2018-19		Rs.2000	Rs.4000
From 2019-20 till 2023-24		Rs.4000	Rs.6000
Non-Domestic (Rs.)			
From 2008-09 till 2012-13	Rs.5000	Rs.5000	Rs.5000
From 2013-14 till 2017-18		Rs.5000	Rs.7000

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From 2018-19 till 2022-23		Rs.7000	Rs.9000
WATER CHARGES (per month)			
Domestic (Rs.)			
From 2009-10 till 2013-14		Rs. 55	Rs. 55
From 2014-15 till 2018-19		Rs. 55	Rs. 68.75 (25% increase)
From 2019-20 till 2023-24		Rs. 68.75(25% increase)	Rs. 85.94 (25% increase)
Non-Domestic (Rs.)			
From 2009-10 till 2013-14		Rs.110	Rs.110
From 2014-15 till 2018-19		Rs.110	Rs.137.50 (25% increase)
From 2019-20 till 2023-24		Rs.137.50 (25% increase)	Rs.171.85 (25% increase)

Source: Analysis

16.3.1.3 OTHER SOURCES OF REVENUE INCOME

Table 16-C: Assumption for Income

Particulars	CAGR-(%)	Projected growth Rates (%)	Notes
Profession Tax	16% (2003-04 till 2008-09)	10%	-
External Sources (Assigned Revenue+ Devolution Funds + Grants & Contribution)	25% (2003-04 till 2008-09)	15%	

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Service Charges & fees(Excluding Water Charges)	4%	7% to 10%	7% to 10% growth rate assumed on account Service charges & other fees excluding water charges.
Other Income	Inconsistent trend	5%	2008-09 (Budget) is taken as the base year for projections. This includes project overhead appropriation expenses.

Source: Analysis based on past financials provided by Vadalur Town Panchayat

16.3.2 REVENUE EXPENDITURE

16.3.2.1 CURRENT REVENUE EXPENDITURE

Table 16-D: Assumption for Revenue Expenditure

Particulars	CAGR-(%)	Projected Growth Rates (%)
Personnel Cost & Retirement Benefits (Salaries)	Salaries- 15% (2003-04 till 2007-08) Retirement Benefits- Inconsistent trend	6%
Operating Expenses	6 %	10%
Repairs & Maintenance	4 %	6%
Administrative Expenses	Inconsistent Trend	5%

Source: Analysis based on past financials provided by Vadalur Town Panchayat

16.3.2.2 ADDITIONAL O&M EXPENDITURE DUE TO SUB-PROJECTS

This has already been covered in Chapter 11: Asset Management Plan: Table 11 E- O&M for Proposed works

16.3.2.3 FUTURE DEBT OBLIGATIONS

Table 16-E: Key assumptions for forecasting future debt obligations

Sector	Tenure	Moratorium	Rate of Interest (%)
Water Supply, UGD	20	5	10.00
Roads, Storm Water Drains	10	2	9.00
Others	5	NIL	9.00

Source: Analysis

16.3.3 FUNDING MECHANISM

Table 16-F: Financing Pattern for Proposed projects as per prudent Funding norms

Particulars	Loan	Grant	TOWN Share/ Public Contribution	Notes
Water Supply	50	30	20	
Sanitation		50	50	
Storm Water Drainage	60	30	10	
Solid Waste Management	60	30	10	
Roads, Traffic and Transportation	60	30	10	
Street Lighting	60	30	10	
Socio-Economic Infrastructure				
<i>School Building</i>			100	
<i>Parks and Playgrounds</i>		50	50	
<i>Creating Green Spaces</i>		50	50	
<i>Water Bodies improvement</i>		50	50	
<i>Daily and Weekly Market</i>	90		10	PPP
<i>Slum Improvement- IHSDP</i>		80	20**	** Equal Contribution from the TOWN and the beneficiaries

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<i>Burial Ground Improvement</i>		50	50	
<i>Gassifier</i>		50	50	
<i>Slaughter House</i>		50	50	
<i>Land Development/ Creating Weekly market</i>	90		10	
<i>Community Hall</i>		50	50	
<i>Municipal Building</i>		50	50	

Source: Analysis

16.4 OUTCOME OF FINANCIAL OPERATING PLAN

16.4.1 BASE CASE SCENARIO (“BUSINESS AS USUAL SCENARIO”)

In the Base Case Scenario, the finances of TOWN are forecast for the next 15 years without taking into consideration any new projects envisaged in Capital Investment Plan (CIP). The past trends in growth rates in revenue income and expenditure are assumed to continue over the next 15 years. No new revenue sources such as user charges for service delivery systems of the Town are envisaged under this scenario. Revenue surplus thus generated indicates Town’s capacity to service the usual capital expenditure in the normal course of running its operations. Table 16 G indicates the revenue surplus position of the Town over the 15 year period.

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The following are the outcome under this scenario:-

- The projected cumulative revenue surplus (Closing Balance) of the TOWN shows a healthy surplus position over the 15 year period with a revenue surplus touching **Rs.5028.51 Lakhs** in the year 2023-24 after meeting its current debt obligations.

Table 16-G : Financial Operating Plan of Vadalur Base Case Scenario

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
INCOME															
Opening Balance (X)	119.17	215.36	327.11	456.54	606.10	778.61	977.89	1207.36	1478.04	1788.14	2143.34	2581.12	3079.28	3646.41	4292.38
Property Tax	30.03	30.36	30.70	31.04	31.38	31.83	32.27	32.72	33.17	33.62	42.63	43.23	43.83	44.43	45.03
Other Taxes(Profession Tax)	7.44	8.18	9.00	9.90	10.89	11.98	13.18	14.50	15.94	17.54	19.29	21.22	23.35	25.68	28.25
Assigned Revenue	71.56	82.30	94.64	108.84	125.16	143.94	165.53	190.36	218.91	251.75	289.51	332.93	382.87	440.31	506.35
Devolution Fund	77.01	86.25	96.60	108.19	121.17	135.71	152.00	170.23	190.66	213.54	239.17	267.87	300.01	336.01	376.33
Service Charges & Fees	49.65	54.17	58.92	63.94	69.25	75.34	81.50	88.06	95.08	102.59	133.08	142.90	153.42	164.71	176.87
Other Income	55.40	58.17	61.07	64.13	67.33	70.70	74.24	77.95	81.84	85.94	90.23	94.75	99.48	104.46	109.68
Revenue Income (A)	291.08	319.42	350.93	386.03	425.18	469.49	518.71	573.82	635.61	704.97	813.91	902.90	1002.96	1115.60	1242.52
EXPENDITURE															
Personnel Cost	37.94	40.22	42.63	45.19	47.90	50.78	53.82	57.05	60.48	64.10	67.95	72.03	76.35	80.93	85.79
Operating Expenses	77.71	85.48	94.03	103.43	113.78	125.16	137.67	151.44	166.58	183.24	201.56	221.72	243.89	268.28	295.11
Repairs and Maintenance Expenses	23.02	24.40	25.87	27.42	29.07	30.81	32.66	34.62	36.70	38.90	41.23	43.71	46.33	49.11	52.05
Programme Expenses	37.19	37.94	38.70	39.47	40.26	41.07	41.89	42.73	43.58	44.45	45.34	46.25	47.17	48.12	49.08
Administrative Expenses	12.30	12.92	13.56	14.24	14.95	15.70	16.48	17.31	18.17	19.08	20.04	21.04	22.09	23.19	24.35
Debt Repayment of Existing Loans	6.71	6.71	6.71	6.71	6.71	6.71	6.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revenue Expenditure (B)	194.88	207.67	221.50	236.47	252.67	270.22	289.23	303.14	325.51	349.78	376.12	404.74	435.83	469.63	506.38
SURPLUS OR DEFICIT (A-B)=C	96.20	111.75	129.43	149.56	172.51	199.27	229.47	270.68	310.11	355.20	437.79	498.16	567.13	645.97	736.13
Closing Balance (C+X)=D	215.36	327.11	456.54	606.10	778.61	977.89	1207.36	1478.04	1788.14	2143.34	2581.12	3079.28	3646.41	4292.38	5028.51

16.4.2 FULL PROJECT SCENARIO WITH SUGGESTED REFORMS

The cash flows from the new projects under this scenario are shown in Table 16 H, the financial impact for the Town Panchayat in implementing full projects through additional resources generated on account of reforms suggested and as per the norms of funding is given in Table 16 I and also the debt service capability of the corporation is given in Table 16 J. 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 are applied to sub-project cash flows emerging from full project investments – the Town’s fund net surpluses indicates its ability to **sustain full investments**

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Table 16-H: Full Project Cash Flow - As per Prudent Financial norms

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Balance (A)	0.00	-1.27	-18.89	-45.79	-84.21	-123.52	-158.95	-188.99	-207.06	-222.37	-236.47	-249.10	-232.70	-221.41	-214.90
Sources of Funds															
Debt Drawn Down	14.07	191.65	157.85	130.82	185.40	101.84	74.10	55.64	58.43	61.35	68.09	71.50	66.59	69.92	73.41
ULB Own Contribution	2.34	86.38	99.42	91.88	188.72	42.97	13.34	10.31	10.82	11.36	46.07	13.80	11.10	11.65	12.24
Grants	7.03	141.99	176.74	162.64	263.71	71.83	37.47	28.26	29.68	31.16	61.75	36.56	33.29	34.96	36.71
Total Inflow (B)	23.44	420.02	434.01	385.35	637.83	216.64	124.91	94.22	98.93	103.87	175.92	121.86	110.98	116.53	122.36
Disposition of Funds															
Project Capex	23.44	420.02	434.01	385.35	637.83	216.64	124.91	94.22	98.93	103.87	175.92	121.86	110.98	116.53	122.36
O&M For New Project	0.00	0.33	11.71	21.31	29.96	44.74	51.56	55.57	59.10	62.83	66.80	72.51	77.34	81.46	85.80
Debt Servicing (Principal + Interest)	1.27	18.56	34.08	62.90	93.56	114.21	137.43	151.49	163.27	173.64	182.30	160.19	144.07	133.44	113.61
Total Outflow (C)	24.71	438.91	479.80	469.56	761.35	375.59	313.90	301.28	321.30	340.35	425.02	354.56	332.39	331.43	321.76
Net Cash Flow (B-C)= D	-1.27	-18.89	-45.79	-84.21	-123.52	-158.95	-188.99	-207.06	-222.37	-236.47	-249.10	-232.70	-221.41	-214.90	-199.41
Closing Balance (A+D)=E	-1.27	-20.16	-64.68	-130.01	-207.73	-282.47	-347.94	-396.06	-429.43	-458.84	-485.58	-481.81	-454.11	-436.31	-414.31

Table 16-I: Financial Operating Plan of Vadalur - Full Project with Reforms-Prudent Funding Norms

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
INCOME															
Opening Balance (X)	119.17	216.82	228.47	217.97	196.82	62.58	90.54	149.49	235.82	347.00	489.87	674.56	969.86	1349.73	1816.03
Property Tax	30.03	30.36	30.70	31.04	31.38	39.78	40.34	40.90	41.47	42.03	53.28	54.04	54.79	55.54	56.29
Other Taxes(Profession Tax)	7.44	8.18	9.00	9.90	10.89	11.98	13.18	14.50	15.94	17.54	19.29	21.22	23.35	25.68	28.25
Assigned Revenue	71.56	82.30	94.64	108.84	125.16	143.94	165.53	190.36	218.91	251.75	289.51	332.93	382.87	440.31	506.35
Devolution Fund	77.01	86.25	96.60	108.19	121.17	135.71	152.00	170.23	190.66	213.54	239.17	267.87	300.01	336.01	376.33
Service Charges & Fees	49.06	53.56	58.30	63.31	68.60	74.73	81.56	89.00	97.14	105.93	115.49	125.87	137.10	149.19	162.00
Other Income	55.40	58.17	61.07	64.13	67.33	70.70	74.24	77.95	81.84	85.94	90.23	94.75	99.48	104.46	109.68
Revenue Income (A)	290.5	318.8	350.312	385.40	424.535	493.84	544.1	600.34	663.2	733.72	849.1	939.5	1041.03	1155.15	1283.6
EXPENDITURE															
Personnel Cost	37.94	40.22	42.63	45.19	47.90	50.78	53.82	57.05	60.48	64.10	67.95	72.03	76.35	80.93	85.79
Operating Expenses	77.71	85.48	94.03	103.43	113.78	125.16	137.67	151.44	166.58	183.24	201.56	221.72	243.89	268.28	295.11
Repairs and Maintenance Expenses	23.02	24.40	25.87	27.42	29.07	30.81	32.66	34.62	36.70	38.90	41.23	43.71	46.33	49.11	52.05
Programme Expenses	31.53	32.16	32.80	33.46	34.13	34.81	35.51	36.22	36.94	37.68	38.43	39.20	39.99	40.78	41.60
Administrative Expenses	12.30	12.92	13.56	14.24	14.95	15.70	16.48	17.31	18.17	19.08	20.04	21.04	22.09	23.19	24.35
Debt Repayment of Existing Loans	6.71	6.71	6.71	6.71	6.71	6.71	6.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt Repayment of New Loans	1.27	18.56	34.08	62.90	93.56	114.21	137.43	151.49	163.27	173.64	182.30	160.19	144.07	133.44	113.61
New project operating Expenses (O&M)	0.00	0.33	11.71	21.31	29.96	44.74	51.56	55.57	59.10	62.83	66.80	72.51	77.34	81.46	85.80
TP's Contribution for new projects	2.34	86.38	99.42	91.88	188.72	42.97	13.34	10.31	10.82	11.36	46.07	13.80	11.10	11.65	12.24
Revenue Expenditure (B)	192.8	307.2	360.817	406.6	558.773	465.88	485.2	514.00	552.1	590.84	664.39	644.2	661.149	688.855	710.55
SURPLUS OR DEFICIT (A-B)=C	97.66	11.65	-10.50	-21.15	-134.24	27.96	58.95	86.33	111.17	142.88	184.68	295.30	379.88	466.30	573.03
Closing Balance (C+X)=D	216.82	228.47	217.97	196.82	62.58	90.54	149.49	235.82	347.00	489.87	674.56	969.86	1349.73	1816.03	2389.06

Table 16-J: Calculation of Debt Service Coverage Ratio (DSCR) With FULL PROJECT WITH REFORMS- As per Prudent Financial Norms

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Cumulative Net Surplus(Rs.in Lakhs)	225	262	292	340	306	455	658	896	1171	1487	1854	2310	2834	3433	4120
Cumulative Debt repayment obligation (New +Old)	8	33	74	144	244	365	509	660	824	997	1180	1340	1484	1617	1731
Cumulative DSCR	28.18	7.87	3.94	2.37	1.26	1.25	1.29	1.36	1.42	1.49	1.57	1.72	1.91	2.12	2.38
Average	4.01														
Minimum	1.25														
Maximum	28.18														

The full project investment proposed for the Town is to the tune of Rs. 3186.86 lakhs, the details of sector wise financing pattern is presented in the following table.

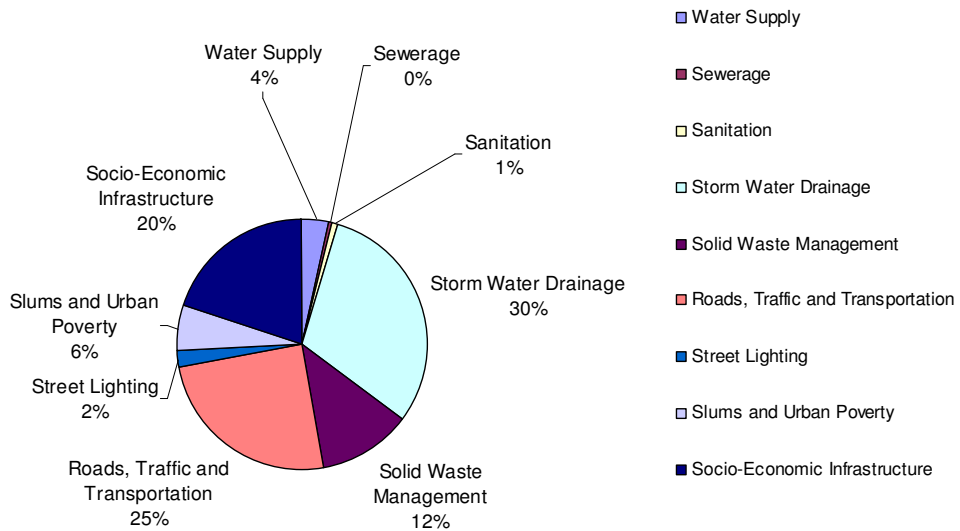
Table 16-K: Sector wise Investments.

Project Sector	Total Investment (Rs. In lakhs)
Water Supply	111.62
Sewerage	11.03
Sanitation	29.27
Storm Water Drainage	975.94
Solid Waste Management with gear and bins	377.21
Roads, Traffic and Transportation	787.61
Street Lighting	67.32
Slums and Urban Poverty	187.57
Socio-Economic Infrastructure	639.28
Total	3186.86

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Sector wise Investment Pattern



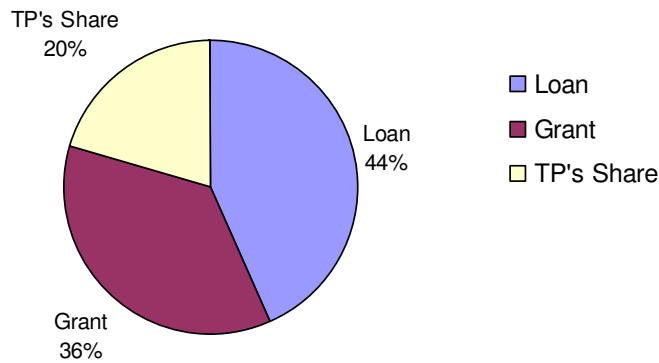
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Funding pattern for the full projects is as stated in table below:

Table 16-L: Funding Pattern based on Prudent Financial Norms

Particulars	Full project Scenario- Funding based on prudent financial norms (Rs.lakhs)
Loan Amount	1380.66
External Support	1153.80
TOWN's Contribution	652.40
Project Cost	3186.86
% of loan on Project cost	44%

Funding Pattern



Out of the total project costs, the share of Town Panchayat is Rs. 652.40 lakhs, which would be financed through internal accruals, after implementing the reforms with external borrowings. The Town Panchayat would mobilize the resources to the tune of 20% from their internal accruals with the remaining 80 % funding from lending agencies by way of Grant and Loan components. Full reform implementation by the Town within the scheduled time frame (as shown in Annexure IV – Reform Implementation schedule) backed by strong external support is a must for bringing in projects required for improving the Town over the next 15 years. The reform efforts of the Town need to be supported and rewarded by financial assistance from funding agencies and strong external support in order to implement all projects suggested under CIP.

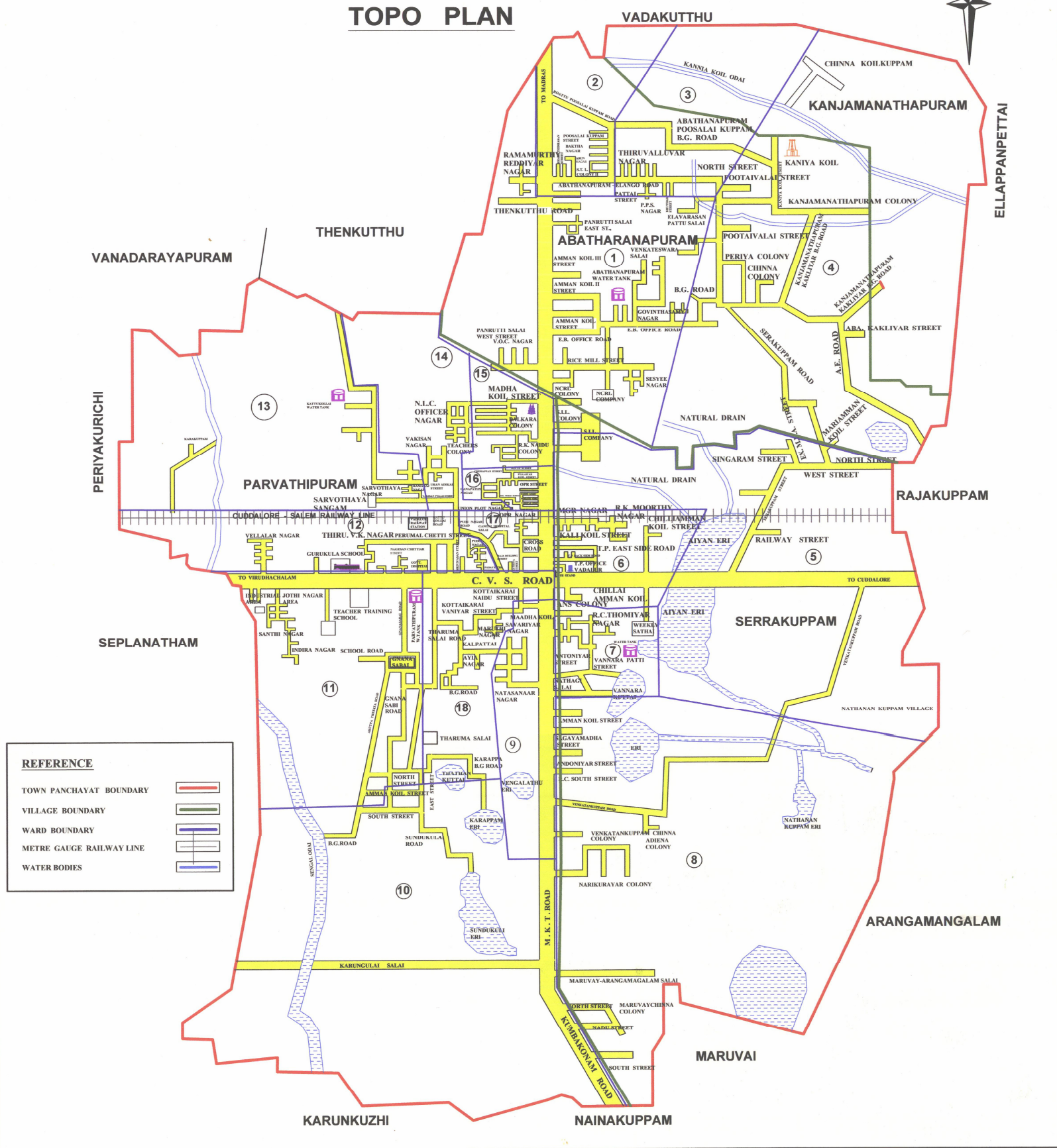
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VADALUR TOWN PANCHAYAT

TOPO PLAN













REFERENCE	
TOWN PANCHAYAT BOUNDARY	
VILLAGE BOUNDARY	
WARD BOUNDARY	
METRE GAUGE RAILWAY LINE	
WATER BODIES	

Annexure I: Norms Vs Current Status for Vadalur

Reform Agenda for Vadalur Town Panchayat				
Sector	Indicators	Unit	Current Status	Norms/Standard
Water Supply	Daily per capita supply	Litres	63	70/100
	Roads covered with distribution network	Percent	83	100
	Storage capacity with respect to supply	Percent	157	33
	Service connection	Percent	26	85
	Collection efficiency in water charges	Percent	100%	100
Storm Water Drainage	Roads covered with Storm water drainage	Percent	20	130
Solid Waste management	Waste generation per Capita per day	Grams	83.3	< 350 grams
	Collection efficiency	Percent	84	100
	Conservancy staff per Km	Persons	0.3	2
	Door-Door collection efficiency(Assessments covered)	Percent	16.2	100
	Assessments involved in waste segregation	Percent	22.5	100
Roads	Per capita road length	Meters/Person	2.6	1.5
	Percentage of Surface roads	Percent	68	100
Street Lighting	Spacing between lamps	Meters	46.6	30
Urban Finance	Collection efficiency in Property taxes	Percent	100%(2008-09)	100
	Revision in Property tax	Years	Once in 10 years	Once in 5 years
Institutional Reforms	Privatisation	Areas	There is privatization with respect to repair and maintenance of Street Lights ,Water Supply and participation of SHG in SWM collection & Segregation at one ward (Ward Number 2)	Solid Waste Management
	E-Governance	Modules	The Town Panchayat has initiated steps for computerization of Birth & Death, Accounts, Pay Bills and Property Tax records	18

Annexure IV Reforms Implementation Schedule For Vadalur

		Vadalur														
Reforms	Current status	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Property Tax																
100% Collection Efficiency	100% (current collection)		—————													
Mandatory Implementation of Revision of Property Tax once in every five years is required	Once in 10 years															
Digitization of the property maps through GIS	Not done							—————								
Computerization of Property tax records	To be Initiated				—————											
Introducing alternate methods of tax payment (ECS/EFT/Online Payment)	Currently in Municipal office only							—————								
Other Reforms in property taxes as mentioned in Chapter 15 of this report	Limited extent							—————								
Water Supply																
Service coverage of water connections to be increased from current 26% to 85%	26%	30%	34%	38%	42%	46%	50%	54%	58%	61%	65%	69%	73%	77%	81%	
Revision of Water supply charges and initial deposit for new water connection	Ad hoc basis															
















Annexure IV Reforms Implementation Schedule For Vadalur

Reforms	Current status	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
One time payment options for monthly water charges	Not done															
Incentive and penalty structure for payment of water taxes and charges.	Not done															
Water Leakage Audit for Un-accounted for Water (UFW)	Not done															
Periodic maintenance of Water supply systems	Ad hoc maintenance															
Periodic Training to Water Supply Staff	Not done. To be imparted on a regular basis															
Privatization in routine maintenance relating to water supply	Not done															
Storm Water Drainage																
Achieving drain length of 58 percent of road length by 2023-24	20%						33%				46%					

Annexure IV Reforms Implementation Schedule For Vadalur

Reforms	Current status	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	
Roads, Traffic & Transportation																	
Relaying Bitumen roads once in three years with patch works to be undertaken based on the need in between years (Through use of recyclable materials)	Adhoc basis																
Street Lighting & Energy Saving Mechanism																	
Achieving 40 meters street light spacing by 2023-24	46.60 metres																
Energy Audit Studies	To be Initiated. At present None																
Private parties can be involved for financing, operation and maintenance of energy efficient street light projects to reduce the cost incurred for the same.	Not initiated																

Annexure IV Reforms Implementation Schedule For Vadalur

Reforms	Current status	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	
Municipal Assets																	
Creation and updating the Comprehensive asset register with regard to land and building	Not Comprehensive			—————													
Valuation of assets and liabilities of the Municipality	Not done																
Periodic maintenance of Social Infrastructure	Ad hoc		—————														
Accounting Reforms																	
Comprehensive Budgeting incorporating O&M costs of various assets	Not Done			—————													
Periodic Training to Accounting Staff	Regularly																
Finalisation of accounts and completion of audit of accounts with in that specific year	Not done			—————													
Zero based budgeting would need to be carried out for continual monitoring of budgets and cash flow management	Not done			—————													

Minutes of the Inception Report review meeting for the consultancy assignment for City Investment Plan (CIP) prepared by M/s. Darashaw & Company Limited for Annamalai Nagar, Vadalur, Tharangampadi, Ottenchataram, Thudiyalur, Thirupattur, S. Kannanur and Peravurani Town Panchayats (Cluster 1) held on 28.08.2009 at 3.00 PM at TNUIFSL office.

Members Present:

S.No.	Name	Designation / Organisation
1	Mr.T.P.Subramanian	President, Thudiyalur
2	Mr.A.Mahalingam	EO, Thudiyalur
3	Mr.R.Subramanian	Sanitary Inspector, Tharangampadi
4	Mr.A.Amanulla	EO, Tirupattur
5	Mr.M.Jeyakodi	EO, Ottenchataram
6	Mr.S.Gunalan	EO, S.Kannanur
7	Mr.T.Srinivasan	Junior Assistant, Vadalur
8	Mr.D.Ranganathan	EO, Annamalai Nagar
9	Mr.B.Janarthanan	EO,Peravurani
10	Mr.G.Habeeb Raja	Jr.Asst, Tirupattur
11	Mr.D.Rajendiran	AVP, TNUIFSL
12	Mr.U.Vijayaraghavan	DM, TNUIFSL
13	Ms.K.Vyjyanthi	Head-Southern Region,Darashaw
14	Mr.C.Gandhiraj	Sr.Associate, Darashaw
15	Ms.R.Devi	Associate, Darashaw

The consultants made the presentation through power point for inception report for the consultancy assignment for City Investment Plan (CIP) for Annamalai Nagar, Vadalur, Tharangampadi, Ottenchataram, Thudiyalur, Thirupattur, S. Kannanur and Peravurani Town Panchayats (Cluster 1) in detail and the consultants are requested to

1. To conduct stakeholders' consultations to ascertain the demands from public to identify infrastructure gaps.

2. To present the draft final report to respective ULBs in the council after incorporating the suggestions of stake holders meeting.
3. Recheck the financials of ULBs including debt status.
4. Analyse last 5 years financials and furnish the data on existing loan, loan repaid on due date, overdue loan, loan balance and loans sanctioned but yet to be availed. In this regard, all Town Panchayats were requested to provide 5 years audited accounts and recent years' un-audited accounts along with DCB and loan statements and any other relevant details to the consultants.
5. Study on the unused / under utilized assets of the ULB and suggest ways for the better utilization of the same.
6. To identify any vacant land for development.

Annamalai Nagar:

- The consultants were requested to include the Storm Water Drain Project.
- Street light provision calculation to be rechecked with ULB.

Vadalur:

- DCB presented to be rechecked with ULB.

Tarangambadi:

- The consultants were requested to include the treatment plant in the Water Supply Project.
- Reason for reduction in property tax assessment to be addressed

Ottanchataram:

- SWM on wastage generated in the markets area to be addressed and suggest the ways / methodologies for improvement.

Thudiyalur:

- Address the land issue for UGSS project.
- Address the need of the commercial centre
- Street light provision calculation to be rechecked with ULB.

Tirupathur:

- Address the need of the water body improvement.

The representatives of ULBs were requested to provide details of all the assets to the consultants and the consultants were requested to include the same and suggest optimum utilization of the assets.

The inception report submitted by the consultant is approved and consultant was requested to incorporate the above comments in draft final report and adhere to the schedule as per the Term of Reference for submitting the Draft Final Report.

Minutes of the Draft Final Report review meeting for the consultancy assignment for Town Investment Plan (TIP) submitted by M/s. Darashaw & Company Limited for Annamalai Nagar, Vadalur, Tharangambadi, Ottenchataram, Thudiyalur, Thirupattur, S. Kannanur and Peravurani Town Panchayats (Cluster 1) held on 23.12.2009 at 2.30 P M at Directorate of Town Panchayats office, Chennai - 108.

Members Present:

S.No.	Name	Designation / Organisation
1	Mr. D. Rajendiran, IAS	Director of Town Payanchayat
2	Mr. T.P. Subramanian	President, Tudiyalur TP
3	Mr. G. Rajendiran	EE / DTP
4	Mr. Nellai Sivagaminathan	AEE / DTP
5	Mr. U. Vijayaraghavan	DM / TNUIFSL
6	Mr. A. Sadayappan	ADTP / Cuddalore
7	Ms. R. Joychirstel	ADTP / Coimbatore
8	Mr. M. Balasubramanian	ADTP / Thanjavore
9	Mr. K.S. Rajagopalan	Asst. / DTP
10	Mr. M. Jayakodi	EO, Ottanchatiram
11	Mr. S. Gunalan	EO, S. Kannanur
12	Mr. D. Ranganathan	EO, Annamalai Nagar
13	Mr. A. Mahalingam	EO, Tudiyalur
14	Mr. G. Mangaleswaran	EO, Tiruppattur
15	Mr. K. Balasubramanian	EO, Tarangambadi
16	Mr. B. Janarthanan	EO, Peravurani
17	Mr. K. Sridhar	Associate, Darashaw & Co.,
18	Mr. C. Gandhiraj	Sr. Associate, Darashaw & Co.,
19	Ms. R. Devi	Associate, Darashaw & Co.,

The consultants submitted the draft final report and made presentation for the consultancy assignment for Town Investment Plan (TIP) for Annamalai Nagar, Vadalur, Tharangampadi, Ottenchataram, Thudiyalur, Thirupattur, S. Kannanur and Peravurani Town Panchayats (Cluster 1) in detail and the consultants are requested to incorporate the following suggestions / comments in the final report which are listed below:

Thudiyalur:

- To recheck the financial of ULB for the financial year 2007-08, 2008-09 based on the actuals financial statement and do the FOP.
- Any changes in the rates, etc may be obtained from ULB and incorporate the same in final report.

Vadalur:

- The ULB is requested to provide the break up of Programme expense for preparation of FOP for the town.

Tharangambadi:

- The land ownership details of the agricultural office building in the same premises of the Town Panchayat Office has to be provided by the ULB to the consultants and the project cost of Rs. 30 lakhs for the same can be shifted to second phase.

Oddanchatram:

- After consultation with EO, TP the Combined Water Supply Scheme the finalise the priority of the project from second phase to third phase in CIP.
- Creating Green spaces in the Gassifier crematorium ground – As the town has already taken up the project worth Rs. 5 Lakhs the same needs to be removed from the CIP.
- The cost of ponnagramkulam improvement project which was earlier suggested under revenue department purview can be implemented by TP and the cost for the same needs to be incorporated in the CIP.

- After consultation with EO the cost of office building to be included in the CIP.
- The ULB is requested to provide the break up of Programme expense to consultants in detail.

Peravurani:

- Strengthening banks in ward 13 & 14 has to be checked as the same is repeated twice in the CIP.

The representatives of TPs were requested to provide details of their updated financials, Loan details, and also on the works/projects already taken up by them to the consultants. The Draft Final Report submitted by the consultant is hereby approved and consultants were requested to incorporate the above comments in Final Report and adhere to the schedule as per the Term of Reference for submitting the Final Report.

TOWN INVESTMENT PLAN

VADALUR - OWC - Meeting - 25.9.09

பெயர்	வாங்கி (₹)	செலாவணியம்
1. சே. அனாண்டி	15	சே. அனாண்டி
2. ச. சேனாத்திரா	14	ச. சேனாத்திரா
3. R. சிவசாமி	5	R. Rami
4. ச. பழனிவேல்	8	ச. Palaniappan
5. N. சிவசாமி	16	N. Siva
6. P. சிவசாமி	18	P. Siva
7. சிவசாமி	11	S. Siva
8. A. சிவசாமி	9	A. Siva
9. K. Nataraj	2	K. Nataraj
10. R. சிவசாமி	10	R. Siva
11. சி. க. சிவசாமி	4	S. K. Siva
12. சி. சிவசாமி	3	S. Siva
13. ADR. சிவசாமி	13	A. Siva
14. சி. சிவசாமி	1	S. Siva
15.		
16.		
17.		
18.		

அனுப்புதல்

செ. விசுவநாதன்,
செயல் அலுவலர்,
பேரூராட்சி அலுவலகம்,
வடலூர்.

பெறுதல்

Darashaw and Company (P) Ltd.,
8/2, Unique Sterling Apartments,
3rd Cross Street, Sterling Road,
Nugambakkam, Chennai 600-034.

ந.க.எண். அ1/366/2009 நாள். 05.03.2010

அய்யா,


பொருள் : நகர மதிப்பீட்டுத் திட்டம் (Town Investment Plan)- கடலூர் மாவட்டம் - வடலூர் பேரூராட்சி - நகர மதிப்பீட்டுத் திட்ட இறுதி அறிக்கையின் கீழ் தயாரிக்கப்பட்ட கருத்துரு மற்றும் சீர்திருத்தங்கள் மன்ற தீர்மானம் பெறப்பட்டு தீர்மான நகல் சமர்ப்பித்தல் தொடர்பாக.

பார்வை : 1. Chennai, Darashaw and Company (P) Ltd., Roc.No. ConCh/Ca/277/2009 -2010 dt. 05/03/2010.

2. வடலூர் பேரூராட்சி மன்ற தீர்மானம் எண். 234 நாள் 26.02.2010

✓ ✓ ✓ ✓ ✓

பார்வையில் காணும் கடிதத்தில் குறிப்பிட்டுள்ளதற்கிணங்க, கடலூர் மாவட்டம், வடலூர் பேரூராட்சியில் நகர மதிப்பீட்டுத் திட்டத்தின் கீழ் வடலூர் நகரின் எதிர்கால வளர்ச்சியைக் கருத்தில்கொண்டு தராஷா ஆலோசகர்கள் தமிழ்நாடு நகர்புற வளர்ச்சித் திட்டம் - III மூலம் தயாரிக்கப்பட்ட கருத்துரு மன்றத்தின் அனுமதிக்கு வைக்கப்பட்டு, மன்ற அங்கீகாரம் பெறப்பட்ட தீர்மான நகலினை இத்துடன் இணைத்து சமர்ப்பித்துள்ளேன் என்பதை பணிந்து தெரிவித்துக் கொள்கிறேன்.


செயல் அலுவலர்
பேரூராட்சி அலுவலகம்
வடலூர்.

இணைப்பு : தீர்மான நகல்.

- நகல் : 1. பேரூராட்சிகளின் இயக்குநர், சென்னை அவர்களுக்கு தகவலுக்காக பணிந்து சமர்ப்பிக்கப்படுகிறது.
2. பேரூராட்சிகளின் உதவி இயக்குநர், கடலூர் மண்டலம், கடலூர் அவர்களுக்கு தகவலுக்காக பணிந்து சமர்ப்பிக்கப்படுகிறது.

5/3/2010

2010-ம் ஆண்டு பிப்ரவரி மாதம் 26 ஆம் தேதி வெள்ளிக்கிழமை காலை 10.30 மணிக்கு வடலூர் பேரூராட்சி மன்றத்தின் சாதாரணக்கூட்டத்தின் நடவடிக்கைகளின் நகல்.

முன்னிலை : திரு. நா. அர்ச்சுணன் அவர்கள்
தலைவர் மற்றும்
17-வார்டு உறுப்பினர்கள்.

பொருள் எண். 10

வடலூர் நகரின் எதிர்கால வளர்ச்சியைக் கருத்திற்கொண்டு, அடுத்து வரும் 15 ஆண்டுகளுக்கான உள் கட்டமைப்பு வசதித் தேவைகளை பேரூராட்சி மன்றத் தலைவர், துணைத்தலைவர், மன்ற உறுப்பினர்கள், பேரூராட்சி செயல் அலுவலர் உள்ளிட்ட பேரூராட்சி அலுவலர்கள், நகர வளர்ச்சியின் பங்கீட்டாளர்கள் ஆகியோர்களுடன் கலந்தாலோசித்து, தராஷா ஆலோசகர்கள் தமிழ்நாடு நகர்ப்புற வளர்ச்சித் திட்டம் III மூலம், வடலூர் பேரூராட்சிக்கு நகர மதிப்பீட்டுத் திட்டம் (Town Investment Plan) ஒன்றிணைத் தயாரித்துள்ளனர். இத்திட்டத்தில் குடிநீர் வழங்கல் மேம்பாடு, புதை வடிகால், மழை நீர் வடிகால், திட்டக்கழிவு மேலாண்மை, சாலை வசதி, தெரு விளக்கு, பூங்கா மற்றும் விளையாட்டுத்திடல் பராமரிப்பு பேரூந்து நிலையம் சந்தை, குடிசைப்பகுதி மேம்பாடு மற்றும் இதர வசதிகளின் மேம்பாடு குறித்தும் பரிந்துரை செய்துள்ளனர்.

நகர மதிப்பீட்டுத் திட்ட இறுதி அறிக்கையின் கீழ் ரூ. 2384.01/- இலட்சத்திற்கு (Current prices) கீழ்க்கண்ட கருத்துரு மற்றும் சீர்திருத்தங்கள் (Urban Reforms) தயாரிக்கப்பட்டு, மன்றத்தின் பார்வைக்கு வைக்கப்படுகிறது. மேலும் இத்திட்டங்களுக்கு ஒப்புதல் வழங்கவும், இத்திட்டங்களைச் செயற்படுத்துவதற்கு DTP, TNUIFSL, TUFIDCO போன்ற அரசுத் துறை நிறுவனங்களுடன் பேரூராட்சி செயல் அலுவலர் அவர்களை ஒப்பந்தம் செய்து கொள்வதற்கும் அனுமதிக்கும் வைக்கப்படுகிறது.

உள் கட்டமைப்பு திட்டப்படியல் (2009- 2010 - 2023 - 2024)

வ.எண்.	திட்டத்தின் பெயர்	மொத்த மதிப்பு (ரூ. இலட்சத்தில்)
1.	குடிநீர் வழங்கல் மேம்பாடு	78.00
2.	சுகாதாரம்	35.00
3.	மழைநீர் வடிகால் மேம்பாடு	650.00
4.	திட்டக்கழிவு மேலாண்மை	248.78
5.	போக்குவரத்து மேம்பாடு	659.16
6.	தெரு விளக்கு	49.87
7.	குடிசைப்பகுதி மேம்பாடு மற்றும் நகர்ப்புற வறுமை குறைப்புத் திட்டங்கள்	154.20
8.	சமுதாய உள் கட்டமைப்பு வசதிகள்	509.00
மொத்தம்		2384.01

மேற்குறிப்பிட்ட திட்டங்களை செயற்படுத்துவதற்கு அரசு மானியம், கடன் தவிர பேரூராட்சி தன்னுடைய சொந்த நிதியில் இருந்து சுமார் ரூ. 652.40 இலட்சங்கள் வருகிற 15 ஆண்டு காலத்திற்கு பேரூராட்சியின் பங்காக ஒதுக்க வேண்டியுள்ளது. இதனை சாத்தியப்படுத்த கீழ்க்கண்ட சீர்திருத்தங்களை நடைமுறைப்படுத்த வேண்டியுள்ளது.

சீர்திருத்தங்கள் குறித்த நிகழ்வறிதல்


வ. எண்.	பொருள்	சீர்திருத்தம் குறித்த கருத்துகள்
1.	சொத்துவரி உயர்வு	ஒவ்வொரு 5 ஆண்டுகளுக்கு ஒரு முறை 25% சொத்துவரியை உயர்த்துதல்
2.	குடிநீர் வழங்கல் வீட்டு இணைப்புகளை அதிகரித்தல்	ஒவ்வொரு ஆண்டும் 4% - 5% வரை வீட்டு இணைப்புகளை அதிகரித்து 2023-2024ம் ஆண்டில் நகரில் 85% குடியிருப்புகளுக்கு (Assessments) குடிநீர் குழாய் இணைப்பு வழங்குதல்
3.	புதிய குடிநீர் குழாய் இணைப்பிற்கான வைப்புத் தொகையை உயர்த்துதல்	ஒவ்வொரு 5 ஆண்டுகளுக்கு ஒரு முறை, புதிய குடிநீர் குழாய் இணைப்பிற்கு மட்டும், வைப்புத் தொகையை ரூ. 2000/- உயர்த்துதல்.
4.	குடிநீர் கட்டணத்தை உயர்த்துதல்	5 ஆண்டுகளுக்கு ஒரு முறை 25% குடிநீர் கட்டணத்தை உயர்த்துதல்.

தீர்மானம் எண். 234

ஏற்கப்பட்டது.

(ஓம்) நா. அர்ச்சுணன்,
தலைவர்,
பேரூராட்சி மன்றம்,
வடலூர்.

// உண்மை நகல் //


செயல் அலுவலர்,
பேரூராட்சி அலுவலகம்,
வடலூர்.


5/3/2010