

TOWN INVESTMENT PLAN FOR THARANGAMBADI TOWN PANCHAYAT

TNUIDP III



FINAL REPORT



MARCH 2010

DARASHAW
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Disclaimer...

The contents of this report are based primarily on discussions with Tharangambadi 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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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> |

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| 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> |
| 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> |
| m2 | : | <i>Square Meter</i> |
| m3 | : | <i>Cubic Meter</i> |
| MIS | : | <i>Management Information System</i> |
| Mld | : | <i>Million litres per day</i> |
| MOA | : | <i>Memorandum of Association</i> |

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| 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> |
| 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> |

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| | | |
|---------|---|--|
| 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> |
| UDPMI | : | <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, Tharangambadi, 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 Tharangambadi.

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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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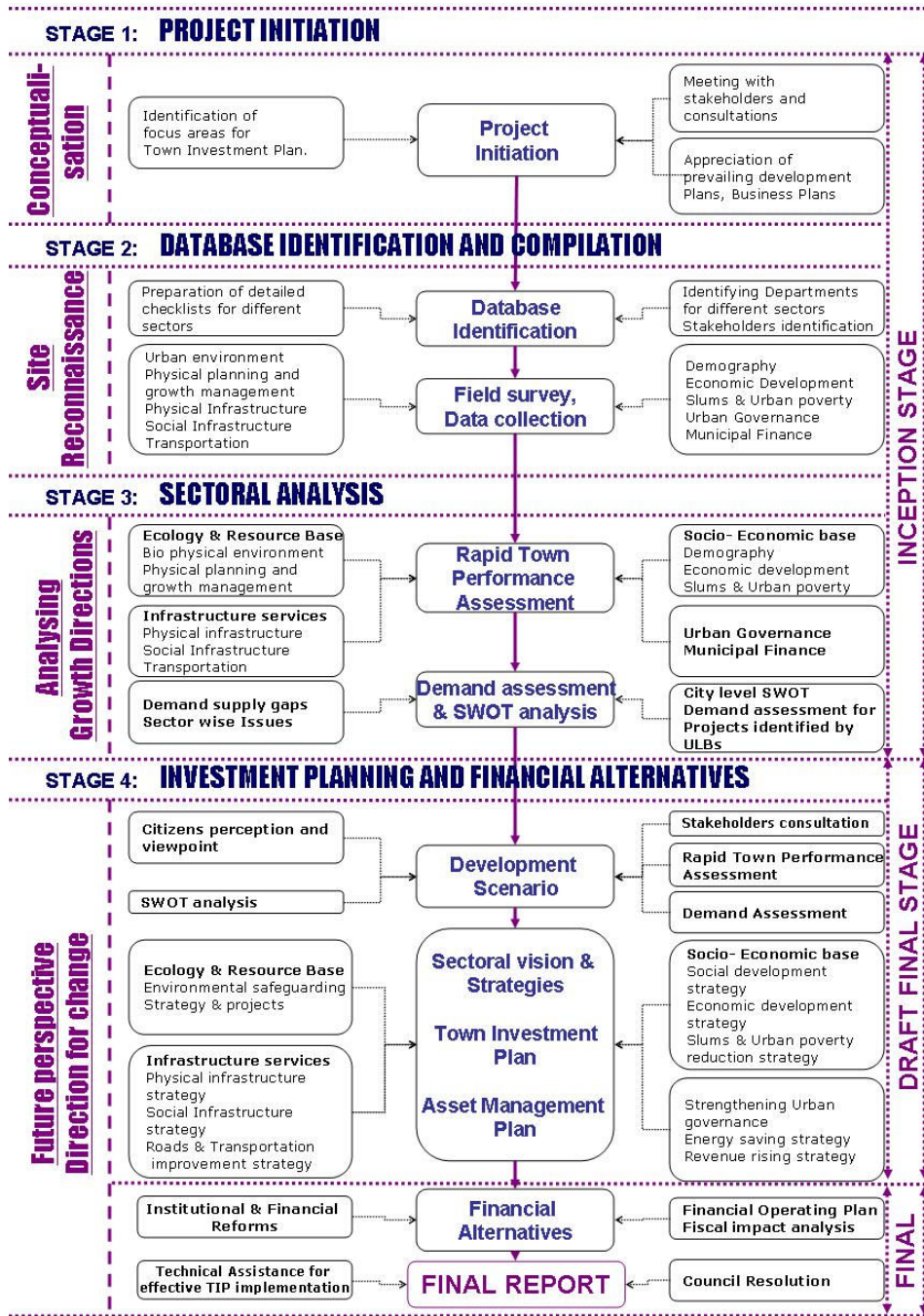
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1.3METHODOLOGY ADOPTED

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:

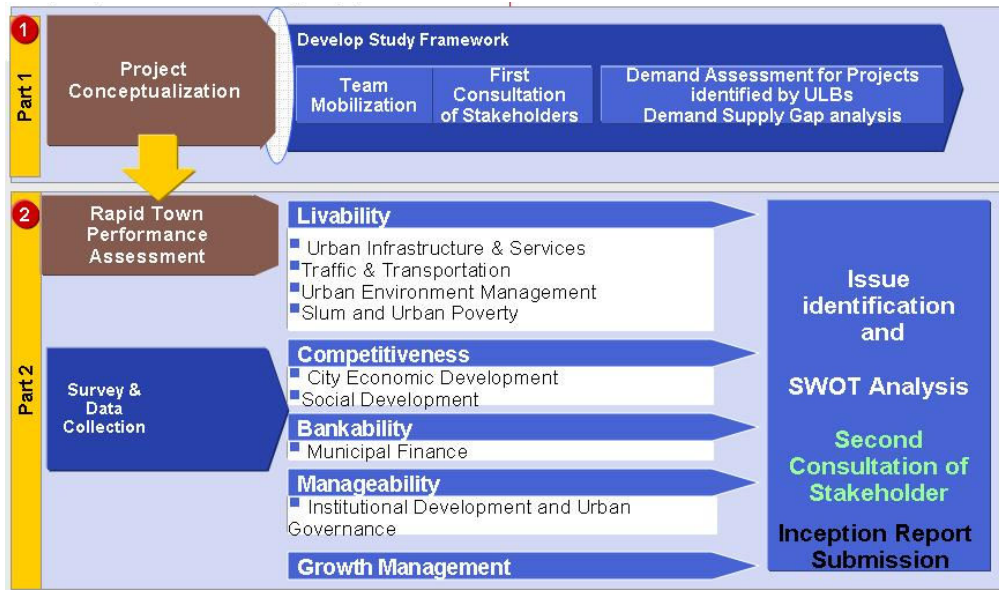
- i. Town Infrastructure Services
- ii. Town Economic Development
- iii. Roads, Traffic and Transportation
- iv. Slums and Urban Poverty
- v. Human resources and Institutional Issues
- vi. Financial management
- vii. Environmental Management
- viii. Asset Management
- ix. O&M Requirements, Energy Saving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

1.4.1.3 SUGGESTIONS OF THE REVIEW COMMITTEE ON THE INCEPTION REPORT

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

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

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and services. The project phasing was also worked out so that the financials of 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 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.

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 for the 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

Tharangambadi is a Selection Grade Panchayat Town in Nagapattinam district in Tamilnadu. It was a Danish colony in India from 1620-1845. It is spelled Trankebar or Tranquebar in Danish, which came from the native Tamil, Tharangambadi, meaning "place of the singing waves". It is located in Nagapattinam district, about 100 km south of Pondicherry, near the mouth of a distributary of Kaveri River.

2.1 HISTORY OF THARANGAMBADI

It was founded by the Danish East India Company in 1620 when the main fort in Trankebar city, known as Fort Dansborg, was built by a Danish captain named Ove Gjedde as the residence of the governor and other officials. It is now a museum hosting a collection of artefacts from the time of Danish presence in the region. A Danish factory (commercial settlement) was opened here as early as 1620.

Tranquebar was controlled by the British in 1801 due to the Napoleonic Wars in Europe, and restored to Denmark following the Kiel Peace in 1814. It was sold, along with the other Danish settlements in India, Serampore and the Nicobars, to Great Britain in 1845. In Danish times Tranquebar was a busy port, but it lost its importance when the railway was opened to Nagapattinam.

The first Protestant missionaries to set foot in India were two Lutherans from Germany, Bartholomäus Ziegenbalg and Heinrich Pluetschau, who began work in 1705 in the Danish settlement of Tranquebar. They translated the Bible into the local Tamil language, and afterwards into Hindustani. They made little progress at first, but gradually the mission spread to Madras, Cuddalore and Tanjore. Today bishop of Tranquebar is the official title of a bishop in the Tamil

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Evangelical Lutheran Church (TELC) in South India which was founded in 1919 as a result of the German Lutheran Leipzig Mission and Church of Sweden Mission. The seat of the Bishop, the Cathedral and its Church House ("Tranquebar House") is in Tiruchirappalli.

Moravian Brethren missionaries from Herrnhut, Saxony established the Brethren's Garden at Porayar near Tranquebar as a missionary center for a number of years. The Italian Catholic, Father Constanzo Beschi, who worked from 1711 to 1740, found himself in conflict with the Lutheran pioneers at Tranquebar, against whom he wrote several polemical works.

2.2 REGIONAL SETTING AND NETWORK LINKAGES

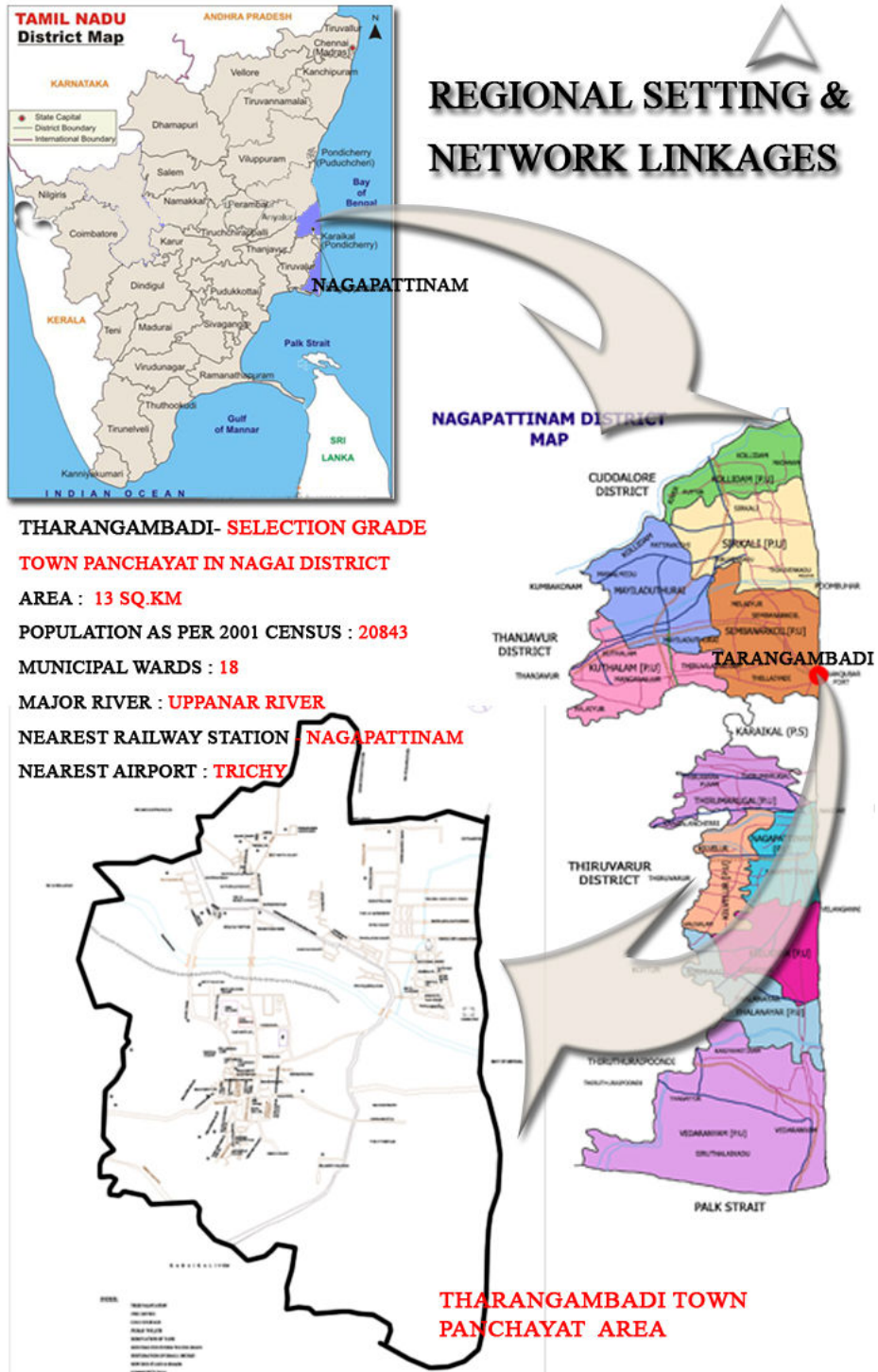
It is located at a distance of 35 Km north of Nagapattinam and 100 Km south of Pondicherry abutting the Bay of Bengal. Tharangambadi is located at 11.03° north of the Equator 79.84° east of the prime meridian. Tharangambadi is located on the National Highway (NH 45A) connecting Pondicherry and Nagapattinam. Tharangambadi is well connected with Nagapattinam, the district head quarters and Chennai, the state head quarters and with other towns of Karaikal, Cuddalore and Velankanni by road transport facilities. The main mode of transportation is buses operated mainly by Government Transport Corporation and by some private agencies. The nearest airport is located in Trichy at a distance of 128 Km. Tharangambadi itself has one railway station connecting Tharangambadi and Mayiladurai but not in much usage as on today.

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Figure 2-1 Regional Setting and Network Linkages



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2.3 DEMOGRAPHY

Tharangambadi has a population of 20843 as per 2001 census and having male population of 9914 and female population of 10929. Tharangambadi has shown a negative growth between 1911 and 1921, 1931 and 1941, and between 1951 and 1961 whereas it has shown a high growth percentage of 35% between 1941 and 1951. Between 1991 and 2001 it has shown a moderate growth rate of 10%. The growth of population and decadal variation from the year 1901 is illustrated in Table 2-A.

Table 2-A : Population growth trends in Tharangambadi

| <i>Year</i> | <i>Population</i> | <i>Growth rate</i> |
|-------------|-------------------|--------------------|
| 1901 | 13142 | |
| 1911 | 13268 | 1.0 |
| 1921 | 11520 | -13.2 |
| 1931 | 12796 | 11.1 |
| 1941 | 11111 | -13.2 |
| 1951 | 15016 | 35.1 |
| 1961 | 14754 | -1.7 |
| 1971 | 17318 | 17.4 |
| 1981 | 18610 | 7.5 |
| 1991 | 18881 | 1.5 |
| 2001 | 20843 | 10.4 |

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

Table 2-B Ward wise Population details

| <i>Ward No</i> | <i>Total</i> | <i>Male</i> | <i>Female</i> | <i>SC</i> | | | <i>ST</i> | | |
|----------------|--------------|-------------|---------------|--------------|-------------|---------------|--------------|-------------|---------------|
| | | | | <i>Total</i> | <i>Male</i> | <i>Female</i> | <i>Total</i> | <i>Male</i> | <i>Female</i> |
| 1 | 1390 | 700 | 690 | 274 | 142 | 132 | 0 | 0 | 0 |
| 2 | 3138 | 1159 | 1979 | 460 | 112 | 348 | 0 | 0 | 0 |
| 3 | 1208 | 585 | 623 | 0 | 0 | 0 | 0 | 0 | 0 |

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| Ward No | Total | Male | Female | SC | | | ST | | |
|--------------|--------------|-------------|--------------|-------------|-------------|-------------|-----------|-----------|-----------|
| | | | | Total | Male | Female | Total | Male | Female |
| 4 | 1127 | 536 | 591 | 514 | 250 | 264 | 0 | 0 | 0 |
| 5 | 764 | 450 | 314 | 74 | 73 | 1 | 0 | 0 | 0 |
| 6 | 1195 | 558 | 637 | 26 | 26 | 0 | 0 | 0 | 0 |
| 7 | 1110 | 592 | 518 | 85 | 64 | 21 | 0 | 0 | 0 |
| 8 | 1091 | 545 | 546 | 193 | 95 | 98 | 0 | 0 | 0 |
| 9 | 663 | 312 | 351 | 285 | 140 | 145 | 0 | 0 | 0 |
| 10 | 992 | 460 | 532 | 83 | 47 | 36 | 0 | 0 | 0 |
| 11 | 919 | 453 | 466 | 13 | 9 | 4 | 0 | 0 | 0 |
| 12 | 1117 | 559 | 558 | 7 | 5 | 2 | 0 | 0 | 0 |
| 13 | 1081 | 540 | 541 | 9 | 4 | 5 | 11 | 7 | 4 |
| 14 | 982 | 505 | 477 | 13 | 7 | 6 | 0 | 0 | 0 |
| 15 | 967 | 461 | 506 | 9 | 6 | 3 | 86 | 37 | 49 |
| 16 | 899 | 446 | 453 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | 1917 | 920 | 997 | 438 | 208 | 230 | 0 | 0 | 0 |
| 18 | 283 | 133 | 150 | 67 | 32 | 35 | 0 | 0 | 0 |
| Total | 20843 | 9914 | 10929 | 2550 | 1220 | 1330 | 97 | 44 | 53 |

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2.3.1 POPULATION PROJECTIONS

Population projections for the next fifteen year period have been done using various methods like Arithmetic Increase, Geometric Increase, Incremental Increase, Least Squares and Graphical Methods. The low and high end projected population based on the methods mentioned above in 2023 could be 23000 and 26000. Since the town is declared as a heritage town and various development schemes are already in the pipeline for improving the infrastructure of this town, it is prudent to consider high end population for future planning purposes. Furthermore, the 2009 population projected in Incremental Increase method is in line with the current year population figures reported by the Town Panchayat

and hence the same method is adopted for future planning purposes. Projections by various methods are shown in *Table 2-C*.

Table 2-C : Population projections by various methods

| <i>Year</i> | <i>Arithmetic Increase</i> | <i>Geometric Increase</i> | <i>Incremental Increase</i> | <i>Least Squares</i> | <i>Graphical Method</i> |
|-------------|----------------------------|---------------------------|-----------------------------|----------------------|-------------------------|
| 1971 | 17318 | 17318 | 17318 | 17318 | 17318 |
| 1981 | 18610 | 18610 | 18610 | 18610 | 18610 |
| 1991 | 18881 | 18881 | 18881 | 18881 | 18881 |
| 2001 | 20843 | 20843 | 20843 | 20843 | 20843 |
| 2009 | 21783 | 21645 | 22254 | 21408 | 22000 |
| 2013 | 22253 | 22058 | 23116 | 21841 | 22700 |
| 2018 | 22841 | 22584 | 24341 | 22384 | 23500 |
| 2023 | 23428 | 23124 | 25730 | 22926 | 24000 |

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2.4 SOCIAL CHARACTERISTICS

2.4.1 SOCIAL COMPOSITION

As per census 2001, SC population is about 12.2 percent of the total population whereas ST population is insignificant which comes around 0.4 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 | 1220 | 1330 | 2550 | 12.23 |
| ST Population | 44 | 53 | 97 | 0.47 |
| Others | 8650 | 9546 | 18196 | 87.30 |
| Total Population | 9914 | 10929 | 20843 | 100.00 |

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2.4.2 GENDER RATIO

Gender ratio in Tharangambadi is much higher than district urban and state urban gender ratio. However, Gender ratio in the case of population below 6 years of age is lower than the general population figures of Tharangambadi. Overall, gender ratio in the town is higher than the State urban and district urban figures in all the three categories as shown in *Table 2-E*. Gender ratio in Tharangambadi is well above 1000 in all the past 4 decades as shown in table above.

| <i>Year</i> | <i>Gender Ratio</i> |
|-------------|---------------------|
| 1971 | 1065 |
| 1981 | 1048 |
| 1991 | 1004 |
| 2001 | 1102 |

Table 2-E Gender Ratio

| <i>Gender ratio</i> | <i>Population 2001</i> | <i>Population below 06</i> | <i>SC</i> |
|--------------------------------|------------------------|----------------------------|-----------|
| Male | 9914 | 1179 | 1220 |
| Female | 10929 | 1154 | 1330 |
| Gender ratio in Tharangambadi | 1102 | 979 | 1090 |
| In Nagapattinam Urban district | 1025 | 956 | 1030 |
| In Tamilnadu urban | 982 | 955 | 1001 |

2.4.3 LITERACY LEVELS

As per census 2001, 81 percent of total population (excluding 0-6 years of age) are literates of which male accounted for 87 percent and female accounted for 76 percent. Literacy levels in Tharangambadi and its comparison with state urban and district urban figures are shown below:

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Table 2-F Literacy levels

| <i>Literacy levels</i> | <i>Total</i> | <i>Male</i> | <i>Female</i> |
|-------------------------|--------------|-------------|---------------|
| Tharangambadi | 81.08 | 86.93 | 75.85 |
| Nagapattinam dist Urban | 83.89 | 90.47 | 77.53 |
| Tamilnadu State Urban | 82.53 | 88.97 | 75.99 |

2.5PHYSICAL CHARACTERISTICS

2.5.1 GEOLOGY AND SOIL TYPE

The soil formation in Tharangambadi is Sandy Coastal Alluvium soil.

2.5.2 CLIMATE AND RAINFALL

Temperature in Nagapattinam district is in the range of Maximum 32.00°C and Minimum 24.60°C. Normal rainfall during North East Monsoon varies between 908.8 mm to 969.2 mm and during South West Monsoon it varies between 250.60 and 265.2 mm.

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3 ECONOMIC DEVELOPMENT

3.1 ECONOMIC BASE

Tharangambadi is a living heritage town with harmonious amalgamation of lavish Danish and the Tamil vernacular architecture. Tharangambadi is having an ozone rich beach. Primary sector activities like fishing and farming along with Tourism is the major contributors to the economy of this town. It attracts large number of domestic and foreign tourists to visit Dansborg fort, Land gate, Zion church, New Jerusalem church, Bungalow on the beach, Tamil monuments like Masilamani Nathar Temple, Shivan Temple and one Old mosque.

Table 3-A : No of tourist visited in the past four Years

| <i>Year</i> | <i>Domestic</i> | <i>Foreign</i> | <i>Total</i> |
|-------------|-----------------|----------------|--------------|
| 2004-05 | 68670 | 7630 | 76300 |
| 2005-06 | 61582 | 10868 | 72450 |
| 2006-07 | 63452 | 11198 | 74650 |
| 2007-08 | 64000 | 16000 | 80000 |

Source: Data collected from Project report: Development of Tranquebar under product / infrastructure and destination development scheme.

3.2 OCCUPATIONAL PATTERN

Major work force in Tharangambadi is still engaged in primary sector activity like fishing and agriculture and its dependency on primary sector is more when compared to district urban and state urban areas. Its economic base is again reflected in its dependency on other service related activity like Tourism which is more or less equivalent to the Cuddalore district urban and state urban occupational figures as shown in *Table 3-B*. However, non workers percentage to

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total population is very high when compared to cuddalore district and state urban non workers share to total population.

Table 3-B Occupational Pattern and its comparison - 2001

| Area | Indicators | Primary | Household Industry | Others | Total workers | Non workers |
|----------------|--------------------------|---------|-----------------------|--------|------------------|----------------|
| Tharangambadi | % to total workers | 21.9 | 2.4 | 75.7 | | |
| District Urban | % to total workers | 20.0 | 2.2 | 77.8 | | |
| State Urban | % to total workers | 14.0 | 6.3 | 79.6 | | |
| Tharangambadi | % to total population | 6.5 | 0.7 | 22.6 | 29.9 | 70.1 |
| District Urban | % to total population | 6.4 | 0.7 | 24.9 | 32.0 | 68.0 |
| State Urban | % to total population | 5.3 | 2.4 | 29.9 | 37.5 | 62.5 |

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3.3INDUSTRIES

Tharangambadi has no major industries in operation as on today.

3.4TOURISM POTENTIAL

The majestic Dansborg Fort, the New Jerusalem Church and the quaint Danish homes off King's Road in Tranquebar are popular sightseeing spots. The first building that welcomes the visitor at the entrance of the town is an old gateway with wooden doors, built by the Danish in 1792. The arch leads to the main street of the town, called King Street. Along this grandly named Road is a memorial at the spot where the Danes landed. A short walk towards the beach brings you Danish Governor Bungalow built in 1784 and is interestingly, still

the largest building in Tranquebar. Opposite the bungalow is the magnificent Dansborg, the Danish fort, built in 1620. This is a stunning piece of Viking architecture, with enclosing stonewalls and cannons facing the sea. The fort has now been converted into an archaeological museum which is under the control of Archeological survey of India (ASI).

In order to improve the Tourism potential of this area and to conserve this heritage town, various projects have been envisaged and some works have already been completed / initiated and are listed below:

| <i>S.No</i> | <i>Development Schemes</i> | <i>Estimated cost in lakhs</i> |
|-------------|--|--|
| 1 | Heritage Town Improvement Scheme | 25 lakhs |
| 2 | Development of Tranquebar in Nagapattinam District under product, Infrastructure and Destination development scheme – Ministry of Tourism, Government of India Assisted scheme 2008-2009 | 520.4 (Estimated cost) 373.08 (Sanctioned amount) 298.47 (released as First Installment) Work under progress |
| 3 | Tsunami Emergency Assistance Project (TEAP) | Rs 263.53 (Completed) |
| 4 | Emergency Tsunami Reconstruction Project (ETRP) | Rs. 341.41 (completed) |
| 5 | APAMT Scheme 2009-2010 | 64.25 (50 lakhs grant from state government) – under progress |
| 6 | Bus stand Improvement Scheme 2007-08 | 95 lakhs - works under progress |

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Tharangambadi with quiet and peaceful beach location along with well developed infrastructure (once the schemes mentioned above gets implemented) can form the part of a tourist circuit with Chidambaram, Pichavaram, Poompuhar, Karaikal, Vellanhanni, Gangaikondacholapuram, Dharasuram and Thanjavoor.

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Dansborg , Danish Fort



Old Gate way – built in 1792



New Jerusalem Church on Kings street



Parade ground with Fort on the background

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Tranquebar Beach



Tranquebar Beach with fishing activity in the dawn



King's Street



Zion's church

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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

Tharangambadi has safe drinking Water Supply Scheme initiated in 1984 with 2 wells as a source and in 2006; one additional well has been added for supplying water to the residents in Tharangambadi. Two wells are located in Porayar Iyyanar Koil whereas one well is located in Thillaiadi Village Panchayat.

One bore well laid in 2005 in T. Manalmedu Village Panchayat is not in usage as on today due to reported water contamination. 24 public wells are used by the residents for non domestic usage.

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In Porayar Iyyanar Koil well No.01, one Monoblock 5 HP pump set is in operation since 1984. One more 2 HP submersible pump set is added for operation as a standby since 2006.

In Porayar Iyyanar Koil well No.02, one Monoblock 4 HP pump set is in operation since 1984. One more 2 HP submersible pump set is added for operation as a standby since 2006. In Thillaiyadi well No.03, 2 HP submersible pump set is in operation since 2006.

In order to reduce water scarcity, “Combined Water Supply Scheme 133” has been initiated by TWAD board, and it is in operation since December 2007 with Kollidam as a source. The source is located at a distance of 60 Km from Tharangambadi in Pappakudi cauvery river bed. Overall, Tharangambadi supplies 2 lakh litres from well source and 8 lakh litres from TWAD CWSS source, resulting in a combined supply of 1 MLD.

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4.1.2 WATER SUPPLY SYSTEM

10 over head tanks with a combined capacity of 11.15 lakh litres are constructed all over the town to supply water and the locations are tabulated below:

| <i>Location</i> | <i>Capacity in LL</i> | <i>Remarks</i> |
|-----------------------------|-----------------------|----------------|
| Porayar Iyyanar Koil | 2 | |
| Porayar Aranmanai Street | 2.5 | |
| Erukkattancheri | 0.75 | damaged |
| Sathangudi | 2 | |
| Tharangambadi fort | 2 | |
| Near Fort | 0.6 | Not in use |
| Kottupalayam Samathuvapuram | 0.1 | |
| Kottupalayam Samathuvapuram | 0.1 | |
| Rajiv Puram | 0.1 | |
| Kuttiandiyur | 1 | |
| Total capacity | 11.15 | |

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In addition, one Ground level reservoir of 0.5 lakh litre capacity is also in operation within the Town. Further, 9 mini tanks of 0.1 lakh lite capacity is placed all over the town for drinking and non drinking purposes.

Tharangambadi has 950 no of assessments having house service connections out of total 5149 assessments. Out of 950 household service connections, 926 are domestic water connections and 24 are Non domestic connections.

Table 4-A Water Supply system in Tharangambadi

| <i>Description</i> | | <i>Details</i> |
|--|---|-------------------------|
| Source of Water Supply | : | Bore wells, CWSS (TWAD) |
| Water Supply Agency | : | Town Panchayat |
| Total Storage Capacity | : | 11.15 lakh litres |
| Description regarding Connections | | |
| Domestic | : | 926 |
| Commercial | : | 24 |
| Total | : | 950 |
| No of Stand posts | | 176 |
| No of public hand pumps | | 234 |

In addition, 176 public fountains (stand Posts) and 234 public hand pumps have been provided within the town. Chlorination method is followed for treating raw water at each tanks and in sump mentioned above. Tharangambadi has 46Km distribution network with 3 Km 150mm AC pipe, 6 Km 140mm PVC pipe, 14 Km 110mm PVC pipe, 21 Km 90mm PVC pipe and 2 Km 2 inch PVC pipe.

Table 4-B : Details regarding Distribution network and its year of installation

| <i>Year</i> | <i>Length in Kms laid</i> | | |
|-------------|---------------------------|-------------------|------------------|
| | <i>140 mm PVC</i> | <i>110 mm PVC</i> | <i>90 mm PVC</i> |
| 1984 | | 8 | 11 |
| 1998 | 4.5 | 3 | 3 |
| 2005 | 1.5 | 3 | 7 |
| Total | 6 | 14 | 21 |

4.1.3 WATER AVAILABILITY

Water is supplied one time in the morning for 1 hour everyday. Overall, 45 LPCD water is being supplied by taking into consideration the population for 2009 would be 22250.

4.1.4 SERVICE ADEQUACY

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

| <i>S.No</i> | <i>Indicators</i> | <i>Unit</i> | <i>Current status</i> | <i>Normative standard</i> |
|-------------|---|-------------|-----------------------|---------------------------|
| 1 | Daily per capita supply | Litres | 45 | 70/100 |
| 2 | Roads covered with distribution network | Percent | 104 | > 100 |
| 3 | Storage capacity with respect to supply | Percent | 112 | 33 |
| 4 | Available Treatment capacity with respect to supply | Percent | 80 | 100 |
| 5 | Assessments covered by service connections | Percent | 18 | 85 |
| 6 | Proportion of non domestic service connections | Percent | 3 | >5 |
| 7 | Slum population per stand post | Persons | 123 | 150 |

4.1.5 SECTORAL ISSUES

- ❖ Per capita water supply is low (45lpcd) against the standard norm of 70 lpcd.
- ❖ Only 18% of the assessments are having household service connections (HSCs)
- ❖ 19 Km distribution network is very old laid in 1984.

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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> |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Tharangambadi projected population | 22254 | 23116 | 24341 | 25730 |
| <i>Water Supply MLD</i> | <i>2009-10</i> | <i>2013-14</i> | <i>2018-19</i> | <i>2023-24</i> |
| Tharangambadi water demand @ 70 lpcd for towns less than 50,000 population (desirable) | 1.56 | 1.62 | 1.70 | 1.80 |
| Existing and proposed Supply in mld | 1.00 | 1.00 | 1.00 | 1.00 |
| Gap | 0.6 | 0.6 | 0.7 | 0.8 |
| <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 | 1.56 | 1.62 | 1.70 | 1.80 |
| Treated water supply | 0.8 | 0.8 | 0.8 | 0.8 |
| Gap | 0.8 | 0.8 | 0.9 | 1.0 |
| TWAD supply is considered as treated water | | | | |
| <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 | 46.0 | 46.0 | 46.0 | 46.0 |
| Road length in Kms (existing and proposed) | 44.0 | 44.0 | 44.0 | 44.0 |
| Gap | -2.0 | -2.0 | -2.0 | -2.0 |
| Per Capita road length of 1.5 meter is considered for calculation | | | | |
| <i>Water Service connections</i> | <i>2009-10</i> | <i>2013-14</i> | <i>2018-19</i> | <i>2023-24</i> |
| No of Assessments | 5149 | 5348 | 5632 | 5953 |
| No of service connections | 950 | 2173 | 3538 | 5060 |
| % service connections existing & proposed | 18.5 | 40.6 | 62.8 | 85 |
| Gap | 81.5 | 59.4 | 37.2 | 15.0 |
| Assessments increased on the basis of Assessment / population ratio | | | | |
| Service connections are proposed to be 85% by 2023-24 | | | | |
| <i>Storage capacity</i> | <i>2009-10</i> | <i>2013-14</i> | <i>2018-19</i> | <i>2023-24</i> |
| Existing & Proposed Storage Capacity in MLD | 1.12 | 1.12 | 1.12 | 1.12 |
| Storage capacity demand in MLD | 0.51 | 0.53 | 0.56 | 0.59 |
| Gap in MLD | -0.6 | -0.6 | -0.6 | -0.5 |

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4.2 SEWERAGE AND SANITATION

4.2.1 SEWERAGE SYSTEM IN THARANGAMBADI

Tharangambadi currently has no underground sewerage system. Night soil is disposed normally through individual toilets with septic tanks and low cost sanitation facilities. 3500 assessments out of nearly 5200 assessments(67%) within the town have individual toilets with septic tank as safe mode of disposal whereas remaining 33% has no sanitation facilities. For Public purpose, 2 public convenience units have been constructed along with one Pay and Use in the Bus stand.

Operation and Maintenance of one of the two public conveniences mentioned above is handed over to SHG. The road side drains constructed are used for disposing both waste water and rainwater. Two Sullage tankers of 6000 and 1000 litres capacity is available for septic tank cleaning with the Town Panchayat.

4.2.2 SECTORAL ISSUES

- ❖ 33% households have no sanitation facilities

4.2.3 SEWERAGE AND SANITATION 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> |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Tharangambadi projected population | 22254 | 23116 | 24341 | 25730 |
| <i>Sewage generation</i> | <i>2009-10</i> | <i>2013-14</i> | <i>2018-19</i> | <i>2023-24</i> |
| Tharangambadi sewage generation | 1.2 | 1.3 | 1.4 | 1.4 |
| Tharangambadi proposed Sewage Collection | 0.0 | 0.0 | 0.0 | 0.0 |
| Gap | 1.2 | 1.3 | 1.4 | 1.4 |
| <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 | 1.2 | 1.3 | 1.4 | 1.4 |

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| <i>Sewer connections</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 | 3604 | 3744 | 3942 | 4167 |
| Gap | 3604.3 | 3743.9 | 3942.3 | 4167.3 |
| <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 |
| Sewer Network Demand | 37.4 | 37.4 | 37.4 | 37.4 |
| Gap | 37.4 | 37.4 | 37.4 | 37.4 |

4.3 STORM WATER DRAINAGE

The total length of the Storm Water Drains constructed within Tharangambadi is around 2 Kms which is single side brick lining drains.

4.3.1 SERVICE ADEQUACY

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

| <i>S.No</i> | <i>Indicators</i> | <i>Unit</i> | <i>Current Status</i> | <i>Normative Standard</i> |
|-------------|---|-------------|-----------------------|---------------------------|
| 1 | Road length covered with pucca storm water drainage | Percent | 5 | 130 |

4.3.2 SECTORAL ISSUES

- ❖ Only 5 % of the existing roads are covered by 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

| <i>Storm water drainage</i> | <i>2009-10</i> | <i>2013-14</i> | <i>2018-19</i> | <i>2023-24</i> |
|-----------------------------|----------------|----------------|----------------|----------------|
| Tharangambadi existing SWD | 2.000 | 2.000 | 2.000 | 2.000 |
| Storm water drain demand | 57 | 57 | 57 | 57 |
| Gap | 55 | 55 | 55 | 55 |

4.4 **SOLID WASTE MANAGEMENT**

4.4.1 **GENERATION AND COLLECTION**

Town Panchayat in partnership with NGO's INTACH & Bestseller Foundation India started a new venture in August 2006 for Solid Waste Management. The idea was to improve the town and its sanitary conditions. The first step was to introduce solid waste management to improve the quality of urban environment.

A system of cleaning of the streets in the neighbourhood and a door-to-door collection of segregated waste followed by recycling and composting the collected waste, was put in place.

Old town of Tranquebar (including the Market Area and 15 Streets in Poraiyar (*Near By town-Thendral Nagar, Ganesha Street, Gnanapillai Street, Hospital Street, Sandhaveli Street, Sivan vadaku and therku Streets, Thota mella and kila Street, Bust stand street, Market Street, Om sakthi Koil Street, Pattunoolar Street, Kattunayakan Street, Veerappapillai Street*) were covered in solid waste management.

Tharangambadi Town generates around 5.5 ton of Garbage per day at the rate of 247 grams per capita per day. Waste is being collected in all the 18 wards. 24% of the total assessments are covered under Door to Door waste collection system and 24% 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 below. Town generates nearly 1.5 MT recyclable wastes per month like old plastic item, milk cover, oil cover, water bottle, TV cover, cardboard box, glass etc.

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Table 4-H Waste Composition

| <i>S.No</i> | <i>Waste Type</i> | <i>Quantity in MT</i> | <i>Percentage share</i> |
|-------------|------------------------------------|-----------------------|-------------------------|
| 1 | Biodegradable | 2 | 36 |
| 2 | Non bio degradable / Recyclable | 3.5 | 64 |
| 3 | Total | 5.5 | 100 |

50 concrete waste bins are placed all over the town for collection purpose. Tharangambadi town has 100 trolleys of 100 litre capacity each and further proposed to purchase additional 100 trolleys for waste collection purpose. Dumper placers are placed at Tharangambadi bus stand, Poraiyar bus stand and in Poraiyar Market of 1200 litre capacity each.

Tharangambadi Town Panchayat has the staff strength of 15 sanitary workers. Other than departmental workers, a team of 3 supervisors, 3 male and 20 female workers, one Team leader and one Co-ordinator were employed by INTACH and Bestseller Foundation India. As a part of collection system, 5 pushcarts and 9 tricycles are engaged in primary waste collection.

4.4.2 DISPOSAL AND TREATMENT FACILITIES

One refuse collector, one tractor trailer and one power tiller and trailer are in operation for secondary waste collection system and disposal. A compost yard is located in Ayyanar Kovil Street, Poraiyar in an area of 4.31 acres and it is in operation since 2006.

Aerobic and vermi compost methods are followed to produce manure from biodegradable waste. 6 rectangular tanks have been constructed for aerobic composting whereas 10 tanks have been constructed for vermi composting. Dumping yard is located in Kazhvanthitu, Poraiyar in an area of 2 acres. However, scientific land fill site is not available in this Town Panchayat.

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 | 247.1 | < 350 grams |
| Collection efficiency | Percent | 45.45 | 100 |
| % of assessments covered by Door to Door collection | Percent | 24.1 | 100 |
| % of assessments involved in waste segregation | Percent | 24.1 | 100 |
| Conservancy staff per Km | persons | 0.3 | 2 |
| % capacity of Fleet vehicles to waste generated | percent | 21.82 | |

As a privatization initiative, Intach takes care of 6 wards in Thrangampadi and about 6 streets in Porayur. They engage only the employees whereas the vehicle for collecting and handling the waste is taken care by the Town Panchayat. Intach has 3 years contract ending soon and there are chances of the contract being renewed.

4.4.4 SECTORAL ISSUES

- ❖ Only 24% of the total assessments are covered by Door – Door collection system
- ❖ Only 24% of the total assessments are involved in waste segregation
- ❖ State inadequacy (1 person per 3 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

| <i>Particulars</i> | <i>2009-10</i> | <i>2013-14</i> | <i>2018-19</i> | <i>2023-24</i> |
|--------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Tharangambadi projected population | 22254 | 23116 | 24341 | 25730 |
| <i>Solid waste generation</i> | <i>2009-10</i> | <i>2013-14</i> | <i>2018-19</i> | <i>2023-24</i> |
| Per capita waste in grams per day | 247 | 268 | 295 | 326 |
| Tharangambadi waste generation | 5.5 | 6.2 | 7.2 | 8.4 |
| Growth rate assumed | 2.00% | | | |

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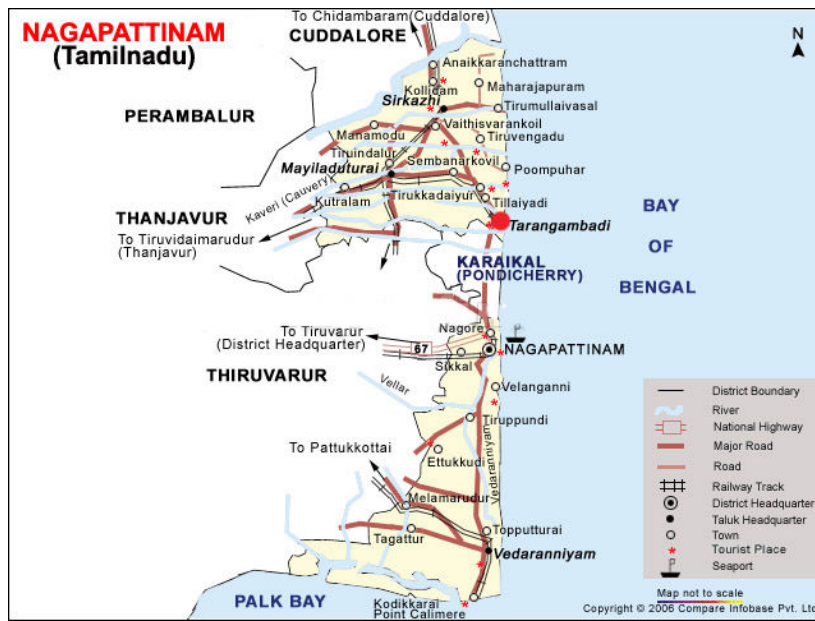
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4.5 ROADS, TRAFFIC AND TRANSPORTATION

4.5.1 REGIONAL NETWORK

Tharangambadi is well connected with Nagapattinam, the district head quarters and Chennai, the state head quarters and with other towns of Karaikal, Cuddalore and Velankanni by road transport facilities.

Figure 4-1 : Regional Network Linkages



The main mode of transportation is buses operated mainly by Government Transport Corporation and by some private agencies. The nearest airport is located in Trichy at a distance of 128 Km. Tharangambadi itself has one railway station connecting Tharangambadi and Mayiladurai but not in much usage as on today.

4.5.2 CITY LEVEL ROAD NETWORK

The total road Length within Tharangambadi is 44.043 Km. Out of 44.043 km road length, 20.88 km are built with bituminous road, 15.28 km roads are made

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up of Cement Concrete, 1.328 Km are made up of WBM and Kutcha road constitutes 6.54 kms. Road length and its type are shown in *Table 4-K*.

Table 4-K: Road network in Tharangambadi

| Road type | Length in Kms | Percentage Share |
|-----------------------|---------------|------------------|
| Cement Concrete Roads | 15.285 | |
| BT Roads | 20.888 | |
| WBM Roads | 1.328 | |
| Earthen Roads | 6.542 | |
| Total | 44.043 | |
| | | |

4.5.3 PUBLIC TRANSPORT SYSTEM

The main mode of transportation is buses operated both by Government Transport Corporation and private owners from Tharangambadi bus stand. Tharangambadi new bus stand is under construction at a sanctioned cost of Rs. 95 lakhs. Total area of the bus stand is 3.9 acres, just located 100 meters from the old bus stand. Administrative Sanction is obtained for Rs.1.50 Crs but has obtained Technical Sanction for Rs. 0.95 Crs. Out of this Government has given grant for Rs.38 Lakhs and the rest is obtained from TUFIDCO 10 year loan. The facilities proposed are listed below

- 1 3 shops and 1 Waiting Shed
- Toilet Block
- Runway (B.T Road)
- Two Wheeler Parking
- 14 Bus Bays
- Urinal 1 and front side compound Wall.

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The Old Bus stand is about 2000 square feet in Porayur Valli Street. The land does not belong to the TP. Facilities available are 1 Pay and use toilet, two wheeler parking, 2 Bus Bays and one waiting hall.

4.5.4 **SECTORAL ISSUES**

- ❖ 15% of the roads are kutchra earthen roads
- ❖ 3% 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> |
|---|----------------|----------------|----------------|----------------|
| Tharangambadi projected population | 22254 | 23116 | 24341 | 25730 |
| <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 | 44.0 | 44.0 | 44.0 | 44.0 |
| Road length demand | 44.0 | 44.0 | 44.0 | 44.0 |
| Gap | 0.0 | 0.0 | 0.0 | 0.0 |
| Per capita road length available is 2 meters which is greater than the standard requirement of 1.5 m / person | | | | |

4.6STREET LIGHTING

Tharangambadi has 1168 street lights positioned all over the Town Panchayat area. Ward wise lights and its classification are shown in table below. As a part of energy saving mechanism, Town Panchayat has placed 53 Nos 36W CFL lamps and 19 Nos 65W CFL lamps with timer switches. Nearly 29 switches are manually operated. All the fittings have conventional chokes which can be converted into electronic chokes.

Table 4-M : Ward wise street lighting details

| Ward No. | 40W Tube | 36W CFL | 65W CFL | 70W S.V. | 150W S.V. | 250W S.V. | 400W HM | Total |
|-------------|----------|---------|---------|----------|-----------|-----------|---------|-------|
| 1 | 92 | 3 | 0 | 3 | 2 | 0 | 0 | 100 |
| 2 | 65 | 2 | 0 | 0 | 0 | 0 | 0 | 67 |
| 3 | 81 | 2 | 1 | 1 | 0 | 0 | 0 | 85 |
| 4 | 62 | 2 | 0 | 0 | 2 | 0 | 0 | 66 |
| 5 | 38 | 3 | 0 | 1 | 1 | 1 | 0 | 44 |
| 6 | 51 | 17 | 1 | 2 | 6 | 1 | 0 | 78 |
| 7 | 28 | 4 | 0 | 3 | 6 | 4 | 0 | 45 |
| 8 | 35 | 1 | 7 | 1 | 1 | 8 | 1 | 54 |
| 9 | 54 | 3 | 1 | 4 | 1 | 1 | 0 | 64 |
| 10 | 32 | 0 | 1 | 2 | 0 | 0 | 0 | 35 |
| 11 | 25 | 2 | 5 | 0 | 7 | 1 | 0 | 40 |
| 12 | 45 | 0 | 0 | 0 | 6 | 0 | 0 | 51 |
| 13 | 37 | 4 | 0 | 2 | 2 | 3 | 0 | 48 |
| 14 | 55 | 0 | 0 | 4 | 3 | 0 | 0 | 62 |
| 15 | 35 | 2 | 2 | 2 | 3 | 3 | 0 | 47 |
| 16 | 40 | 1 | 0 | 2 | 6 | 2 | 0 | 51 |
| 17 | 63 | 6 | 1 | 2 | 4 | 8 | 0 | 84 |
| 18 | 56 | 1 | 0 | 5 | 4 | 0 | 0 | 66 |
| Total | 894 | 53 | 19 | 34 | 54 | 32 | 1 | 1087 |
| Ornaments | | | | | | | | 81 |
| Grand Total | | | | | | | | 1168 |

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4.6.1 ADEQUACY OF SERVICES

Table 4-N : Performance Indicators related to Street lighting

| <i>Indicators</i> | <i>Unit</i> | <i>Current status</i> | <i>Norms</i> |
|--|-------------|-----------------------|--------------|
| Spacing between lamps | Meters | 37.7 | 30 |
| Proportion of tube lights W.R.T to total | Percent | 88 | 60 |
| Proportion of high power fixtures | Percent | 12 | 40 |

4.6.2 SECTORAL ISSUES

- ❖ Spacing between lights is 37 Meters against the norm of 30 meters
- ❖ Energy saving devices is adopted but not for the entire street lighting system in Tharangambadi like solar lamps, Timer switches, electronic chokes.

4.6.3 STREET LIGHTING DEMAND ASSESSMENT

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

| <i>Street Lighting</i> | <i>2009-10</i> | <i>2013-14</i> | <i>2018-19</i> | <i>2023-24</i> |
|--|----------------|----------------|----------------|----------------|
| Tharangambadi existing lights | 1168 | 1168 | 1168 | 1168 |
| Road length in Kms | 44.0 | 44.0 | 44.0 | 44.0 |
| Street light demand @ one light per 30 m | 1468 | 1468 | 1468 | 1468 |
| Gap | 300 | 300 | 300 | 300 |

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5 SOCIO-ECONOMIC INFRASTRUCTURE

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

5.1 HEALTH

Tharangambadi has 2 government hospitals one in Poraiyar and another one in Tharangambadi. Each hospital has 4 doctors with bed strength of 20 in Poraiyar and 10 in Tharangambadi. In addition, 3 clinics are there in ward Nos. 11, 07 and 08. Primary health centers are located in Porayar, Tharangambadi and in Erukkatancheri.

5.2 EDUCATION

Tharangambadi has 4 higher secondary schools located in ward Nos 06, 07 (2 Nos) and in 13. Two high schools are located in ward Nos 05 and 07. Three middle schools are located in ward Nos. 17 and 10. In addition, 12 primary schools are there in Tharangambadi, out of which one is Panchayat union primary school and remaining are management schools.

5.3 RECREATION

Tharangambadi has 2 parks located in Tharangambadi, Borgan Street, Terasa School & Inside TP Office. Tharangambadi has one approved layout in Valiyar theru in ward No.08 where community hall has been constructed. One more approved layout is located in ward No.04 which needs to be developed.

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5.4 OTHER AMENITIES

Tharangambadi has banking facilities provided by Indian Bank in ward No. 06, City Union Bank in ward No.15 and Central Co-op Bank in ward No. 08. One community hall is there in ward No. 08 and one more community hall is proposed near new bus stand.

Town has no markets and one private market is there in ward No 11. Town has one Slaughter house in an area of 750 Sq. ft in ward No.15 constructed in 2006-07. Existing Town Panchayat office is located in ward No.07 and has no space available for further extension as suggested by Town Panchayat officials.

Town has 5 burial grounds located in Sandhavalli Street - Poraiyar in an area of 1 acre, Itchaladi Street – Poraiyar in an area of 0.5 acre, Tharamgambadi in an area of 1 acre, Erukatancheri in an area of 0.5 acre & Sathankudi in an area of 250 Sq.ft.

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5.5 PROBLEMS AND ISSUES

| <i>Sector</i> | <i>Issues</i> |
|-----------------------|--|
| Social Infrastructure | <ul style="list-style-type: none"> • Town has no major recreational parks and playgrounds • All the 5 Burial grounds have infrastructure inadequacies • Town has no market infrastructure and it depends on private market in ward No.11 • Existing Town Panchayat office has no Space available for its expansion. • Town has no remunerative assets like commercial complexes other than shops under construction in Bus stand. |

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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 THARANGAMBADI

In Tharangambadi, 9 notified slums are in existence. All the 9 notified slums together have 986 households which is equivalent to 23 percent of the total households in Tharangambadi. Slums in tharangambadi are shown in *Table 6-A*.

Table 6-A Slums in Tharangambadi

| <i>Name</i> | <i>Ward No.</i> | <i>Households</i> | <i>Stand Post</i> | <i>Road Length (in Meters)</i> | <i>Street Lighting</i> |
|-----------------------|-----------------|-------------------|-------------------|------------------------------------|----------------------------|
| Seeman Street | 4 | 50 | 2 | 125 | 7 |
| North Mettu Street | 16 | 142 | 4 | 350 | 9 |
| South Mettu Street | 17 | 167 | 4 | 350 | 22 |
| Sonavan Thottam | 16 | 48 | 2 | 250 | 7 |
| Thanjavuran Medu | 16 | 37 | 1 | 150 | 10 |
| Porayur Church Street | 13 | 132 | 3 | 120 | 13 |
| Podiyan Colony | 3 | 20 | 1 | 75 | 2 |
| Maraghatham Colony | 9 | 300 | 13 | 490 | 19 |
| Rajeev Colony | 9 | 90 | 10 | 400 | 33 |
| Total | | 986 | 40 | 2310 | 122 |

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6.2 URBAN POOR IN THARANGAMBADI

Tharangambadi has 37% of the total population living below poverty line. Ward Nos 02, 03, 09, 14 and 17 has BPL population more than around 8 percent of the total BPL population. Ward wise BPL population is shown in *Table 6-B*.

Table 6-B Ward wise BPL population in Tharangambadi

| Ward No | BPL population | Ward wise share of BPL population |
|---------|----------------|-----------------------------------|
| 1 | 97 | |
| 2 | 127 | |
| 3 | 127 | |
| 4 | 80 | |
| 5 | 37 | |
| 6 | 66 | |
| 7 | 80 | |
| 8 | 66 | |
| 9 | 105 | |
| 10 | 62 | |
| 11 | 41 | |
| 12 | 96 | |
| 13 | 81 | |
| 14 | 130 | |
| 15 | 35 | |
| 16 | 100 | |
| 17 | 122 | |
| 18 | 80 | |
| Total | 1532 | |
| % share | 7.35% | |

| Ward No | Share (%) |
|---------|-----------|
| 1 | 6% |
| 2 | 8% |
| 3 | 8% |
| 4 | 5% |
| 5 | 2% |
| 6 | 4% |
| 7 | 5% |
| 8 | 4% |
| 9 | 7% |
| 10 | 4% |
| 11 | 3% |
| 12 | 6% |
| 13 | 5% |
| 14 | 8% |
| 15 | 2% |
| 16 | 7% |
| 17 | 8% |
| 18 | 5% |

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6.3 IHSDP

IHSDP project report, prepared by Tharangambadi Town Panchayat earlier is now revised as per the current requirements and the project components under the revised scheme are listed below:

| <i>Ward No.</i> | <i>Sl.No.</i> | <i>Name of the Area</i> | <i>Dwelling units Nos.</i> |
|-----------------|---------------|-------------------------------|----------------------------|
| 9 | 1 | Maragatham Colony | 65 |
| 14 | 2 | Church Street | 45 |
| 16 | 3 | Annasalai, Kaduthasi Pattarai | 25 |
| 17 | 4 | Thanjavuran Medu | 20 |
| 10 | 5 | Periya Colony | 35 |
| 17,18 | 6 | South Mettu Street | 60 |
| | 7 | North Mettu Street | |
| | 8 | Kannithoppu | |
| | 9 | Biman Thoppy | |
| | | Total | 250 |

| <i>Sl.No</i> | <i>Name of the Roads in Slum Area</i> | <i>Meters</i> |
|--------------|---------------------------------------|--------------------|
| 1 | Maragatham Colony | 300 |
| 2 | Church Street | 500 |
| 3 | Anna Colony | 150 |
| 4 | Thanjavuran Medu | 200 (With Culvert) |
| 5 | Periya Colony | 250 |
| 6 | Erukattancheri | 400 (With Culvert) |

| <i>Other requirements</i> | |
|---------------------------|---|
| 1 | 60000 Liters of OHT required at Erukattancherry |
| 2 | One Public Toilet at Periya Colony. |

6.4 PROBLEMS AND ISSUES

- 23% households are living in slums
- IHSDP project proposals are not yet implemented.

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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 Tharangambadi Town Panchayat

Table 7-A Income & Expenditure Account

Rs. in lakhs

| Particulars | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
|---|--------------|--------------|--------------|---------------|---------------|
| INCOME | | | | | |
| Property Tax | 14.18 | 14.56 | 14.68 | 14.49 | 16.04 |
| Other Taxes (Profession Tax) | 3.85 | 4.28 | 4.28 | 4.94 | 5.16 |
| Assigned Revenue | 10.09 | 2.47 | 7.97 | 2.93 | 2.97 |
| Devolution Fund | 25.75 | 25.95 | 41.93 | 56.37 | 73.33 |
| Service Charges & Fees | 7.64 | 8.40 | 9.19 | 9.66 | 9.06 |
| Building License Fees | 1.35 | 1.37 | 2.28 | 2.84 | 1.74 |
| Metered / Tap rate water supply under /ground | 5.21 | 5.19 | 5.24 | 5.12 | 5.23 |
| Granted Contribution | 4.27 | 2.99 | 0.00 | 2.13 | 25.84 |
| Sales and Hire Charges | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Income | 4.46 | 6.11 | 5.40 | 26.54 | 9.06 |
| Projects Overhead Appropriation – Expenses | 3.36 | 2.06 | 4.24 | 18.33 | 4.79 |
| TOTAL INCOME | 70.23 | 64.75 | 83.45 | 117.07 | 141.48 |
| EXPENDITURE | | | | | |
| Personnel Cost | 21.07 | 22.05 | 24.56 | 31.82 | 30.50 |
| Terminal and Retirement Benefits | 0.00 | 0.10 | 0.18 | 0.15 | 0.24 |
| Operating Expenses | 16.55 | 16.46 | 14.89 | 30.94 | 18.73 |
| Power charges for Head water works / pumping station / Booster station – water supply | 2.79 | 1.09 | 0.00 | 4.42 | 0.00 |

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| | | | | | |
|---|---------------|---------------|---------------|---------------|---------------|
| Power charges for street lights | 6.50 | 6.22 | 9.16 | 22.03 | 10.62 |
| Maintains Expenses for street light | 1.03 | 3.02 | 2.91 | 2.43 | 2.75 |
| Sanitary / conservancy expenses | 0.57 | 0.96 | 0.00 | 0.00 | 1.28 |
| Expenses on sanitary materials | 0.96 | 2.64 | 2.81 | 1.98 | 2.79 |
| Hire charges for water supply through private Lorries / Tankers | 4.69 | 2.37 | 0.00 | 0.00 | 1.15 |
| Repairs and Maintenance Expenses | 13.95 | 8.57 | 7.52 | 10.22 | 12.76 |
| Light Vehicle Maintenance | 1.29 | 0.00 | 0.00 | 0.00 | 0.58 |
| Heavy Vehicle – Maintenance | 0.00 | 0.92 | 1.15 | 1.92 | 1.78 |
| Office Building Power Charges | 2.92 | 0.29 | 0.08 | 4.90 | 3.52 |
| Repairs & Maintenance Roads and Pavements | 2.82 | 1.02 | 1.16 | 0.00 | 0.30 |
| Maintenance expenses – water supply / sewerage system | 6.92 | 5.22 | 3.75 | 3.21 | 3.75 |
| Repairs & Maintains Instruments – Plant & machinery | 0.00 | 1.12 | 1.14 | 0.19 | 0.42 |
| Programme Expenses | 10.94 | 4.99 | 26.88 | 14.49 | 12.42 |
| Administrative Expenses | 2.62 | 2.29 | 3.41 | 5.51 | 4.62 |
| Finance Expenses | 3.30 | 10.84 | 15.41 | 9.38 | 4.21 |
| Depreciation | 36.39 | 27.55 | 27.29 | 69.52 | 22.50 |
| TOTAL EXPENDITURE | 104.83 | 92.85 | 120.16 | 172.02 | 105.98 |
| SURPLUS OR DEFICIT | -34.60 | -28.09 | -36.70 | -54.96 | 35.50 |

Source: Annual Accounts. Tharangambadi Town Panchayat

7.3 ANALYSIS OF INCOME

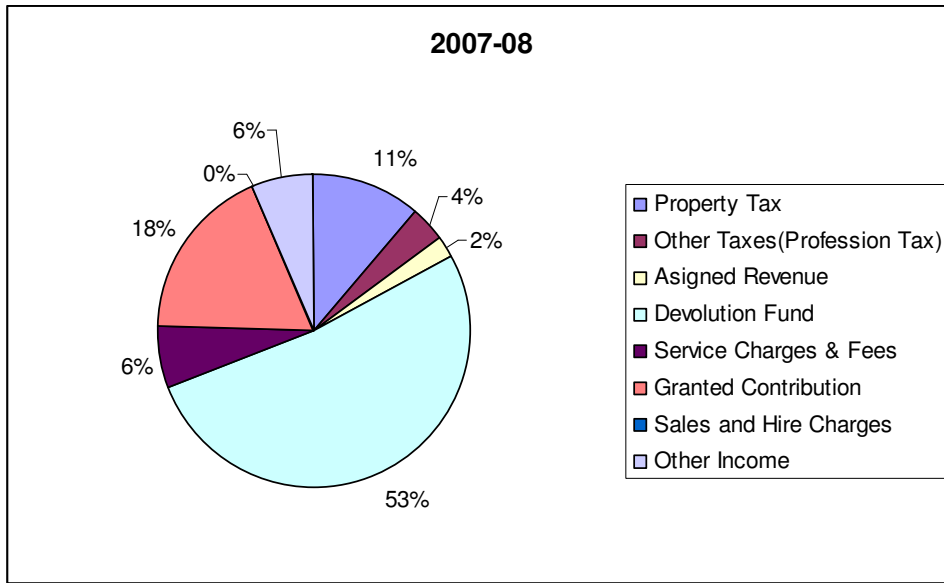
Table 7-B Income Analysis

| Particulars | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
|--|---------|---------|---------|---------|---------|
| Sectoral Contribution to the Total Income | | | | | |
| Property Tax | 20.18% | 22.48% | 17.59% | 12.38% | 11.34% |
| Profession Tax | 5.48% | 6.62% | 5.13% | 4.22% | 3.65% |
| Assigned Revenue | 14.37% | 3.82% | 9.56% | 2.50% | 2.10% |
| Devolution Fund | 36.66% | 40.07% | 50.24% | 48.15% | 51.83% |
| Service Charges & Fees | 10.88% | 12.96% | 11.01% | 8.25% | 6.41% |
| Granted Contribution | 6.08% | 4.61% | 0.00% | 1.82% | 18.26% |
| Sales and Hire Charges | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other Income | 6.35% | 9.44% | 6.47% | 22.67% | 6.41% |

Source: Analysis based on data provided by Tharangambadi Town Panchayat

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Figure 7-2 Break up of Income of Tharangambadi Town Panchayat for the year 2007-08



Source: Tharangambadi Town Panchayat

The income of the Town Panchayat has increased from Rs.64.75 lakhs in year 2004-05 to Rs.141.48 lakhs in the year 2007-08. Overall the CAGR in the income of the Town Panchayat has been more than 19% in the last 5 years ending 2007-08. Inflows through assigned revenue and devolution funds accounted for about 55% of the Town Panchayat revenue during the year 2007-08. The Town Panchayat has had a deficit in the last four years except for the year 2007-08 which has shown a surplus account mainly due to healthy inflows from external contribution through devolution funds and grants & contribution.

7.3.1 OWN SOURCES

Taxes

Taxes consisting of Property and Professional Taxes have contributed about 15% of the total income during the year 2007-08. The Municipal taxes have been growing at a CAGR of over 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 nature of use. About 11% of the tax revenue comes through property tax collections. The CAGR of property tax revenue is around 3.14% over the last 4 years.

Table 7-C Property Tax Particulars

| Categories | Rate per Sq .ft.(Rs.) |
|---|-----------------------|
| A | 0.9 |
| B | 0.7 |
| C | 0.4 |
| No. of Assessments | 2008-09 |
| | 5149* |
| No. of Assessments | 2007-08 |
| | 6439 |
| No. of Assessments | 2003-04 |
| | 5087 |
| % Increase in Number Assessments for the Past 5 years | 0.24% |
| CAGR in Property Tax Revenue over the Last 4 years | 3.14% |
| Total Property Tax (Rs. in Lakhs in 2007-08) | 16.04 |
| Number of sanctioned Staff in Revenue Department – Bill Collector | 2 |
| Revenue per sanctioned person in revenue section (Rs. in Lakhs) | 8.02 |
| Average Tax Demand per property (Rs.) | 249.16 |
| * Note: There were around 1500 house destroyed due to Tsunami hence reduction in the number of assessment | |

Source: Tharangambadi Town Panchayat

Table 7-D Property Tax (Number of Assessment)

| Year | Residential | Commercial | Total |
|---------|-------------|------------|-------|
| 2003-04 | 4895 | 192 | 5087 |
| 2004-05 | 5192 | 200 | 5392 |
| 2005-06 | 5421 | 212 | 5633 |
| 2006-07 | 5741 | 212 | 5953 |
| 2007-08 | 6221 | 218 | 6439 |
| 2008-09 | 4931 | 218 | 5149 |

Source: Tharangambadi Town Panchayat

Profession Taxes:

Professional tax account for less than 5% of the Total income of the Town Panchayat. The revenue from professional taxes has been stagnating at less than Rs.5 Lakhs over the last few years

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Table 7-E Profession Tax Particulars

| | |
|---|---------|
| Total Professional Tax Revenue (Rs. in Lakhs 2007-08) | 5.16 |
| No. of Assessment 2007-08 | 435 |
| Slab for Professional Tax (Half yearly) w.e.f. 01-10-2008 | |
| Rs.21000 | Nil |
| Rs.21001to Rs.30000 | Rs.104 |
| Rs.30001 to Rs.45000 | Rs.254 |
| Rs.45001 to Rs.60000 | Rs.507 |
| Rs.60001 to Rs.75000 | Rs.761 |
| Above Rs.75001 | Rs.1014 |

Source: Tharangambadi Town Panchayat

Table 7-F Property Tax(Number of Assessment)

| Year | Number of Assessments |
|---------|-----------------------|
| 2003-04 | 389 |
| 2004-05 | 402 |
| 2005-06 | 419 |
| 2006-07 | 419 |
| 2007-08 | 435 |
| 2008-09 | 435 |

Source: Tharangambadi 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 over 10% in the last few years.

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. The income under this head has shown an increasing trend with a CAGR of over 4%.

Other Income

The other income of the Town Panchayat has increased from Rs.4.46 Lakhs in the year 2003-04 to Rs 9.06 Lakhs in the year 2007-08. The “other income” consists of Project overhead appropriation and development charges etc. Overall CAGR of “other Income” has been over 19% in the past few years.

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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. The contribution from Assigned Revenue has declined from Rs.10.09 lakhs in the year 2003-04 to Rs.2.97 Lakhs in the year 2007-08

Devolution Fund

Based on the Second State Finance Commission recommendations, GOTN transfers 8% of its state revenue to the local government. The growth trend in the devolution funds over the years has been increased from Rs.25.75 lakhs in the year 2003-04 to Rs.73.33 lakhs in the year 2007-08. CAGR of devolution funds has been around 30 % over the last few years.

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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

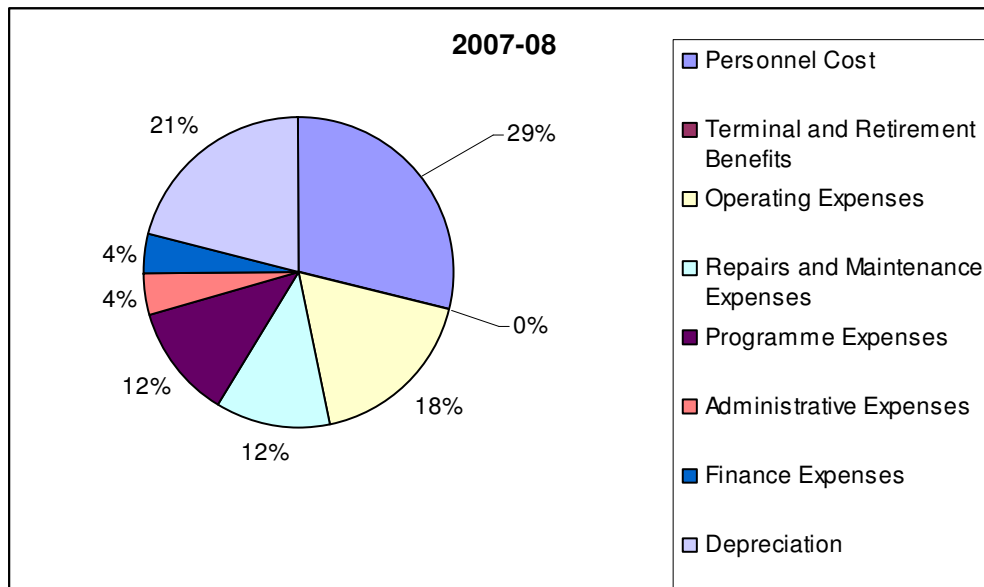
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Table 7-G Expenditure Analysis

| Particulars | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
|----------------------------------|---------|---------|---------|---------|---------|
| Personnel Cost | 20.10% | 23.75% | 20.44% | 18.50% | 28.78% |
| Terminal and Retirement Benefits | 0.00% | 0.10% | 0.15% | 0.08% | 0.23% |
| Operating Expenses | 15.79% | 17.73% | 12.39% | 17.98% | 17.67% |
| Repairs and Maintenance Expenses | 13.31% | 9.23% | 6.26% | 5.94% | 12.04% |
| Programme Expenses | 10.44% | 5.38% | 22.37% | 8.43% | 11.72% |
| Administrative Expenses | 2.50% | 2.47% | 2.84% | 3.20% | 4.36% |
| Finance Expenses | 3.15% | 11.67% | 12.83% | 5.45% | 3.97% |
| Depreciation | 34.71% | 29.67% | 22.71% | 40.41% | 21.23% |

Source: Analysis based on data provided by Tharangambadi Town Panchayat

Table 7-H Break up of Expenditure of Tharangambadi Town Panchayat for the year 2007-08



Source Annual Accounts of Tharangambadi Town Panchayat

The Expenditure of the Town Panchayat has shown a declining trend over the last four years. The overall expenditure of the town has varied between Rs.92.85 lakhs and Rs.172.02 lakhs for the past few years.

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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 9.69% in the past 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. For Tharangambadi Town Panchayat, these expenses accounted for about 30% of the total expenses

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 have increased from Rs.16.55 lakhs in the year 2003-04 to Rs.18.73 lakhs in the year 2007-08. The CAGR of this expense has been over 3% for the past few years.

Repairs & Maintenance:-

Repairs & Maintenance expenses mainly consist of such expenses such as Heavy Vehicle Maintenance, Maintenance expenses on account of water supply. Repairs and maintenance expense accounted for about 12% of the Total expenses of the Town Panchayat for the year 2007-08

Energy Costs:-

The energy costs for Water Supply for the year 2006-07 is Rs.4.42 lakhs and that for Street lighting is Rs. 22.03 lakhs. This accounts for 58% of the water supply expenditure and 90% 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.

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7.5 SOURCE & USE OF FUNDS

Table 7-1 Balance Sheet

Rs. in lakhs

| Particulars | 2003-04 | 2004-05 | 2005-06 | 2006-07 |
|--|---------------|---------------|---------------|---------------|
| Uses of Funds | | | | |
| Fixed Assets | 240.43 | 265.70 | 308.57 | 445.48 |
| Project in progress | 0.00 | 0.00 | 0.00 | 0.00 |
| Tax & Non Tax recoverable | 15.98 | 11.89 | 15.34 | 10.93 |
| Stock | 0.18 | 0.14 | 0.08 | 0.13 |
| Others Receivable/Recoverable | 0.71 | 0.72 | 0.76 | 0.20 |
| Cash on Hand | 2.16 | 1.51 | 1.22 | 0.71 |
| Cash in Bank | 10.42 | 6.90 | 10.23 | 67.20 |
| TOTAL ASSETS | 269.88 | 286.86 | 336.21 | 524.65 |
| Sources of Funds | | | | |
| Loans & Advances | 36.09 | 36.09 | 36.09 | 35.77 |
| Deposits | 12.89 | 13.55 | 17.76 | 16.87 |
| Government contribution/Mpl fund / Private Parties/Government Grants | 52.18 | 70.58 | 109.71 | 158.54 |
| Diversion of funds | 0.00 | 0.00 | 0.00 | 0.00 |
| Provision for doubtful Collection of Revenue Items | 0.00 | 0.00 | 0.00 | 0.00 |
| Accumulated depreciation | 93.63 | 0.00 | 148.46 | 217.98 |
| Accumulated surplus | 48.10 | 20.00 | -16.70 | -74.07 |
| Others | 27.00 | 146.64 | 40.90 | 169.57 |
| TOTAL LIABILITIES | 269.88 | 286.86 | 336.21 | 524.65 |

Source : Annual Accounts of Tharangambadi Town Panchayat

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Table 7-J Fixed Assets

Rs. in Lakhs

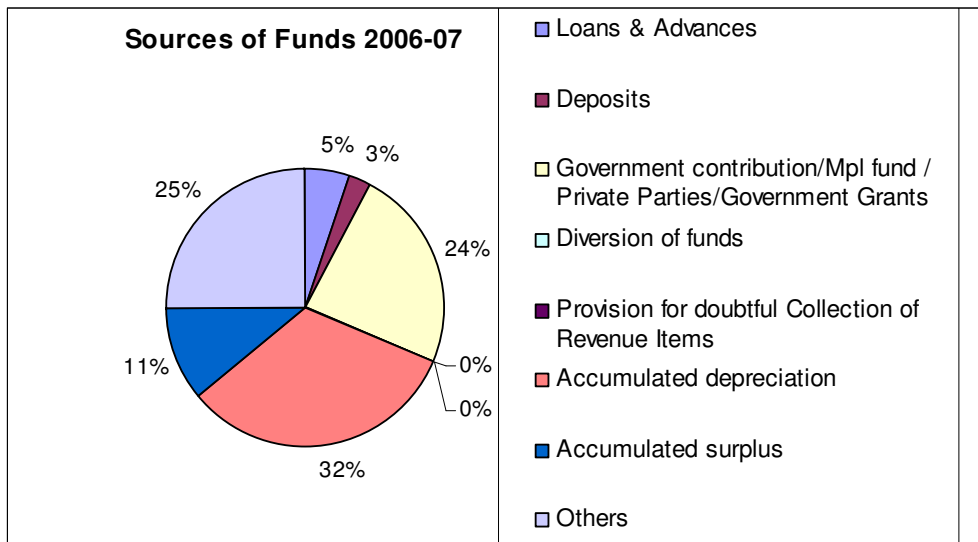
| Fixed Assets | 2002-03 | 2003-04 | 2004-05 | 2005-06 |
|---------------------------------------|---------------|------------|--------------|---------------|
| Lands | 0 | 0 | 0 | 0.43 |
| Buildings | 12.13 | 15.67 | 32.39 | 35.19 |
| Culverts and SWDs | 33.13 | 71.73 | 123.1 | 183.26 |
| Heavy Vehicles | 3 | 12 | 21.83 | 31.52 |
| Light Vehicles | 0.13 | 0.13 | 0.13 | 5.45 |
| Furniture's, Fixtures & Office Equip | 0.28 | 0.82 | 0.82 | 1.1 |
| Electrical Installation & Fittings | 4.1 | 4.1 | 4.1 | 4.1 |
| Electrical Fittings | 0 | 0.77 | 0 | 0 |
| Plant and Machinery | 0 | 0 | 0 | 1.04 |
| Roads & Pavements concrete G.B | 15.79 | 26.36 | 40.02 | 62.41 |
| Roads & Pavements B.T G.B | 229.04 | 229.04 | 351.24 | 399.97 |
| Roads & Pavements others | 11.08 | 11.08 | 14.29 | 16.4 |
| Instruments & Equipments | 0 | 0.54 | 1.32 | 1.32 |
| Tools & Plants G.B | 0.02 | 0.02 | 0.02 | 0.02 |
| Public Fountains G.B | 0 | 0 | 0 | 0.03 |
| O.H.T'S, H.W. Works, W.S Mains | 6.25 | 12.15 | 15.97 | 24.07 |
| Deep Borewell/Ground Water wells- G.B | 1.81 | 17.77 | 22.74 | 22.74 |
| Hand Pumps India Mark II | 0.29 | 0.29 | 5.41 | 6 |
| Other Assets | 0.49 | 0.49 | 0.49 | |
| Trees | 0.04 | 0.04 | 0.04 | 0.04 |
| TOTAL | 317.57 | 403 | 633.9 | 795.06 |

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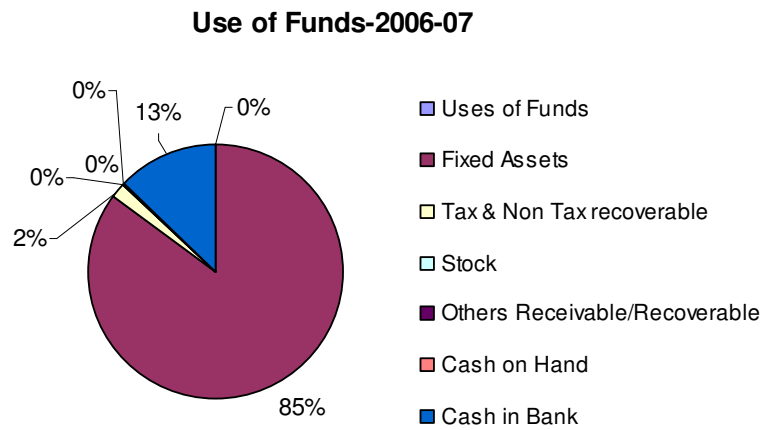
Table 7-K Source of Funds of Tharangambadi Town Panchayat as on 2006-07

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Source : Tharangambadi Town Panchayat

Table 7-L Use of Funds of Tharangambadi Town Panchayat as on 2006-07



Source : Tharangambadi Town Panchayat

More than 85% of the funds have been deployed in creation of Fixed Assets. About 70% of the funds invested have been deployed in Infrastructure relating to storm water drains, water supply and road works.

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7.6 DEMAND, COLLECTION AND BALANCE

Table 7-M DCB for the Past 5 years

Rs. In Lakhs.

| Particulars | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
|---|--------------|--------------|--------------|--------------|--------------|
| Property Tax- Demand, Collection and Balance | | | | | |
| Total Number of Assessment | 5087 | 5392 | 5633 | 5953 | 6439 |
| Demand | | | | | |
| 1.Arrears | 10.53 | 6.78 | 8.79 | 6.62 | 5.70 |
| 2.Current | 14.18 | 12.84 | 14.68 | 14.49 | 16.04 |
| 3.Total | 24.71 | 19.61 | 23.47 | 21.11 | 21.74 |
| Collection | | | | | |
| 1.Arrears | 3.44 | 2.25 | 3.59 | 3.60 | 5.70 |
| 2.Current | 9.18 | 8.58 | 10.21 | 11.78 | 16.00 |
| 3.Total | 12.62 | 10.83 | 13.80 | 15.38 | 21.70 |
| Balance | | | | | |
| 1.Arrears | 7.09 | 4.52 | 5.20 | 3.02 | 0.00 |
| 2.Current | 5.00 | 4.26 | 4.47 | 2.72 | 0.04 |
| 3.Total | 12.08 | 8.79 | 9.67 | 5.74 | 0.04 |
| Profession Tax- Demand, Collection and Balance | | | | | |
| Total Number of Assessments | 389 | 402 | 419 | 419 | 435 |
| Demand | | | | | |
| 1.Arrears | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.Current | 3.85 | 4.28 | 4.28 | 4.94 | 5.16 |
| 3.Total | 3.86 | 4.28 | 4.28 | 4.94 | 5.16 |
| Collection | | | | | |
| 1.Arrears | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.Current | 3.85 | 4.28 | 4.28 | 4.94 | 5.16 |
| 3.Total | 3.86 | 4.28 | 4.28 | 4.94 | 5.16 |
| Balance | | | | | |
| 1.Arrears | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.Current | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3.Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Water charges- Demand, Collection and Balance | | | | | |
| Total Number of Assessments | 914 | 922 | 926 | 931 | 942 |
| Demand | | | | | |
| 1.Arrears | 2.73 | 2.41 | 3.11 | 5.24 | 4.44 |
| 2.Current | 5.21 | 3.35 | 5.24 | 5.12 | 4.96 |
| 3.Total | 7.95 | 5.76 | 8.35 | 10.36 | 9.40 |
| Collection | | | | | |
| 1.Arrears | 1.51 | 1.22 | 1.49 | 2.83 | 2.95 |
| 2.Current | 2.57 | 1.43 | 1.19 | 2.34 | 3.21 |

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|--|-------------|-------------|-------------|-------------|-------------|
| 3.Total | 4.07 | 2.65 | 2.68 | 5.17 | 6.16 |
| Balance | | | | | |
| 1.Arrears | 1.23 | 1.19 | 1.62 | 2.41 | 1.49 |
| 2.Current | 2.64 | 1.92 | 4.06 | 2.78 | 1.75 |
| 3.Total | 3.87 | 3.11 | 5.68 | 5.19 | 3.25 |
| Others | | | | | |
| Library Cess Demand, Collection and Balance | | | | | |
| Demand | | | | | |
| 1.Arrears | 1.06 | 0.68 | 0.88 | 0.97 | 0.88 |
| 2.Current | 1.42 | 1.29 | 1.47 | 1.45 | 1.61 |
| 3.Total | 2.47 | 1.97 | 2.35 | 2.42 | 2.50 |
| Collection | | | | | |
| 1.Arrears | 0.34 | 0.23 | 0.36 | 0.36 | 0.88 |
| 2.Current | 0.92 | 0.86 | 1.02 | 1.18 | 1.61 |
| 3.Total | 1.26 | 1.08 | 1.38 | 1.54 | 2.49 |
| Balance | | | | | |
| 1.Arrears | 0.71 | 0.46 | 0.52 | 0.61 | 0.00 |
| 2.Current | 0.50 | 0.43 | 0.45 | 0.27 | 0.00 |
| 3.Total | 1.21 | 0.88 | 0.97 | 0.88 | 0.00 |

Source : Tharangambadi Town Panchayat

The Collection Efficiency of important revenue sources of Tharangambadi Town Panchayat for the last 5 years is given as under:

Table 7-N Collection Efficiency (%)

| Particulars | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
|---------------------------|----------------|----------------|----------------|----------------|----------------|
| Property Taxes | | | | | |
| Arrears | 32.71% | 33.23% | 40.84% | 54.39% | 100.00% |
| Current | 64.75% | 66.80% | 69.55% | 81.25% | 99.76% |
| Total | 51.10% | 55.20% | 58.80% | 72.83% | 99.82% |
| Professional Taxes | | | | | |
| Arrears | | | | | |
| Current | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| Total | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| Water Charges | | | | | |
| Arrears | 55.07% | 50.60% | 47.97% | 54.03% | 66.41% |
| Current | 49.29% | 42.77% | 22.61% | 45.64% | 64.65% |
| Total | 51.28% | 46.04% | 32.04% | 49.88% | 65.48% |
| Library Cess | | | | | |
| Arrears | 32.64% | 33.02% | 40.61% | 37.05% | 100.00% |
| Current | 64.67% | 66.78% | 69.49% | 81.25% | 99.76% |
| Total | 51.01% | 55.08% | 58.64% | 63.51% | 99.85% |

Source : DCB of Tharangambadi Town Panchayat

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7.7 OUTSTANDING LOAN AND NON-DEBT LIABILITY

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

Table 7-O Outstanding Loan and Non-Debt Liability

Rs. in Lakhs

| Sl.No | Particulars | 2007-08 |
|---|--|--------------|
| 1.Outstanding Principal on Loans | | |
| 1 | Loan from the Government(Drinking Water) | 6.83 |
| 2 | Loan from LIC (Drinking Water) | 14.41 |
| 3 | Loan From TUFIDCO (Road Development) | 15.00 |
| 4 | Advance | 0.90 |
| | Total Loan Outstanding | 37.14 |
| 2 Non-Debt Liability | | |
| 1 | Library cess | 2.51 |
| 2 | Sales Tax Payable | 0.09 |
| 3 | Income Tax Payable | 0.10 |
| 4 | Interest Payable | 0.00 |
| 5 | Group Insurance Schemes | 0.01 |

Source: Tharangambadi Town Panchayat

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8 INSTITUTIONAL ASSESSMENT

CAPACITY

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8.1 STAFF STRENGTH

Table 8-A The Staff strength of the Tharangambadi Town Panchayat

| Executive Staff | Sanctioned | Appointed | Post Vacant |
|---------------------------|-------------------|------------------|--------------------|
| Executive Officer | 1 | 1 | 0 |
| Junior Assistant | 3 | 2 | 1 |
| Office Assistant | 1 | 1 | 0 |
| Pump Mechanic | 1 | 1 | 0 |
| Line Man | 1 | 1 | 0 |
| Bill Collectors | 2 | 0 | 2 |
| Sanitary Inspector | 1 | 1 | 0 |
| Sanitary Supervisor | 2 | 2 | 0 |
| Sanitary Workers | 19 | 15 | 4 |
| <u>NMR Workers</u> | | | |
| Driver | 0 | 1 | 0 |
| Lineman Helper | 0 | 1 | 0 |
| Data entry operator | 0 | 1 | 0 |
| Pump Operator | 0 | 2 | 0 |

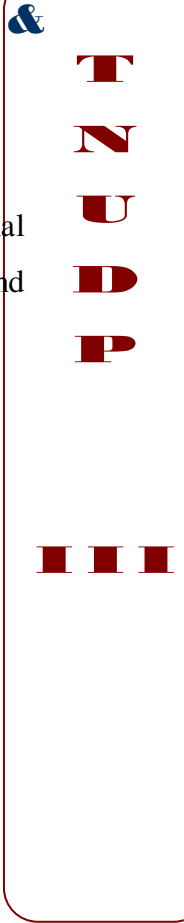
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Source : Tharangambadi Town Panchayat

- Presently there is no Bill Collector appointed against the sanctioned post of 2 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 Privatisation initiatives**
 - 5. Tendering Process**
- **Computerization & E-Governance**

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



- **Training**
 - ✓ Computer training has been imparted for 10 days to Junior Assistants at Mayiladuthurai (Organized by DTP) and also one day training on birth and Death module conducted by Joint Director of Public Health during 2005-06
 - ✓ The Sanitary Inspector (SI) had attended one day training on the Birth and Death Module in Madurai on 25th Feb 2009 conducted by Joint Director of Public Health.
 - ✓ Sanitary Inspector also attended the TWAD training on Maintenance of Sewerage Scheme in Tsunami affected areas to the staff of Local Bodies for 1 day in April 2009. It covered topics like Single Pass Intermittent Sand Filter (ISF), Decentralized Waste water treatment system (DEWATS), Floating Bed Biological Reactor (FBBR), Sewer System Maintenance.

- **Public Grievance Redressal Mechanism**

- ✓ Public Register to record complaints is maintained for all the sectors in the Town Panchayat. The Public also approach their respective ward councilors with their complaints on service delivery system. On an average about 3 to 4 complaints are received mainly relating to Water Supply System. Complaints are also received during Grievance day meetings held at the Collector office.

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- **Public Private Partnership including Privatisation initiatives**

- ✓ Sector: Solid Waste Management ; Contract Period: For the past 3 years
- ✓ Contractor Name: M/s.INTACH.
- ✓ Task Assigned: They provide only the labour and the vehicle for collecting and handling the waste in provided by the Town Panchayat.
- ✓ Coverage: 7/18 Wards
- ✓ Compost Yard at Ayyan Kovil Street (Spread over 3.90 acres)
- ✓ Dumping Yard at Kazhvanthitu Poraiyur (Spread over 2 Acres)
- ✓ The TP had distributed one bin (Green Colour) and one gunny bag (White Colour) as a part of their SWM awareness campaign to 1200 households.

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- **Tendering Process:**

The projects required for the infrastructure works are decided by the Council .The Engineer prepares the estimate and bids received for the same 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

- ✓ Tharangambadi is a heritage town and tourist destination having fort and beach.
- ✓ Tharangambadi lies in close proximity to Nagapattinam and other important religious places
- ✓ Fishing and Agricultural based beach town.
- ✓ Lies on National Highway 45-A

Opportunities

- ✓ Develop as an important Tourist destination by implementing all proposed development projects
- ✓ Improving Infrastructure facilities in slum areas by implementing IHSDP
- ✓ Creating environment friendly town by developing green spaces, preserving small water bodies and cleaning Uppanar river

Weakness

- ✓ Existing Railway line is not currently under usage.
- ✓ Town has no surface source and Uppanar River is not perennial.
- ✓ Per capita supply is low and only 18% households are covered by Household Service Connections.

Threats

- ✓ Natural disaster like Tsunami
- ✓ Flooding 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 Tharangambadi Town Panchayat on 2nd July 2009 and subsequently Stakeholders meeting was held in 30th October 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 2nd July 2009



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

Further, projects already identified by Tharangambadi 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.

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Table 10-A: Suggestions and projects

| <i>Physical Infrastructure</i> | <i>Sector Components</i> | <i>Key Suggestions / Projects identified</i> |
|--------------------------------|---|---|
| Water Supply | Water Sources | • Dependent on TWAD for water supply |
| | Head works and Pumping main | • Maintained by TWAD |
| | ESR / GSR | • Providing 1 Nos 5 lakh capacity OHT in Sattankudi |
| | Distribution Network | • Replacing 19 Km distribution network laid in 1984 in the second phase. |
| Sewerage and Sanitation | Underground Drainage | • Not required • Sullage lorry is required |
| | Public Toilets | • Needs to be provided. |
| | Pay and Use Toilets | • Not suggested. |
| Storm Water Drainage | Renovating existing drains | • Nil |
| | Creating New Drain | • Need to provide drains as the demand rises |
| Roads | Kutchra road upgradation | • Converting all kutchra and WBM road into BT / CC road |
| | Pucca road improvement | • Relaying 5 Km BT road • Converting BT to CC road for a length of 500 meter |
| | Road widening | • Widening Porayar to Tharangambadi for a length of 1.5 Km into 2 lane bye-pass. |
| Traffic and Transportation | Traffic Management / Junction Improvement | • Bridges in 7th ward and 16th ward across Uppanar River needs to be newly constructed (2 lane width and 15 meter |

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length) connecting Porayar town.

• Creating round about near Porayar Rajiv

| | | |
|------------------------|---|--|
| | | <p>Gandhi statue</p> <ul style="list-style-type: none"> • Creating footpath from Kattanchavadi to Porayar for a length of 1500 meter. • Creating footpath from Oligaimangalam to Porayar for a length of 1500 meter. |
| | Bus stand / railway station Imp | <ul style="list-style-type: none"> • Implementing Bus stand Improvement scheme (phase II) |
| 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 |
| | Vehicle requirements | <ul style="list-style-type: none"> • One Tractor Trailor is required |
| | Dumping site / Compost yard | <ul style="list-style-type: none"> • Already in operation |
| | 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 public awareness about protective gear among conservancy workers |
| Street Lighting | Energy Saving Initiatives | <ul style="list-style-type: none"> • Needs to be installed |

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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 one approved layout in ward No. 04. |
| Daily / Weekly | Infrastructure | <ul style="list-style-type: none"> • Land is a constraint |

Town Investment Plan – Tharangambadi

| Market | Improvement | |
|------------------------------|---|--|
| Community hall | Creating Community hall | <ul style="list-style-type: none"> • One community hall can be provided (Land has to be identified) |
| Municipal building | Creating new blocks / Improving existing blocks | <ul style="list-style-type: none"> • Additional one block can be constructed by demolishing existing dilapidated building block |
| Burial grounds / Gasifier | Burial ground Improvement | <ul style="list-style-type: none"> • Improving 4 out of burial ground infrastructure facilities by providing compound wall, road, creating burning ghat and providing drinking water facilities |
| | Gasifier provision | <ul style="list-style-type: none"> • Creating gasifier crematorium in the 5th burial ground space (location needs to be finalized) |
| Commercial complexes / Shops | Creating new complexes | <ul style="list-style-type: none"> • Land is not available |
| Revenue enhancement measures | Tourism Development | <ul style="list-style-type: none"> • Implementing Tourism development proposals to attract more tourists from which Town Panchayat and Locals can generate more income. |

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| <i>Sector</i> | <i>Sector Components</i> | <i>Key Suggestions</i> |
|-------------------------|---------------------------------|--|
| Slums and Urban Poverty | Toilet provision in slum areas | <ul style="list-style-type: none"> • Implementing IHSDP project |
| | Other Infrastructure provisions | <ul style="list-style-type: none"> • Implementing IHSDP project |

| <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 privatized Solid waste management for 7 out of 18 wards. They can explore to privatize in other sectors such as water supply, street lighting etc |
| | User charges | <ul style="list-style-type: none"> The TP can look to collect user charges from the Non-Domestic assesses and after providing adequate awareness can start collecting from the Domestic assesses |

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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.

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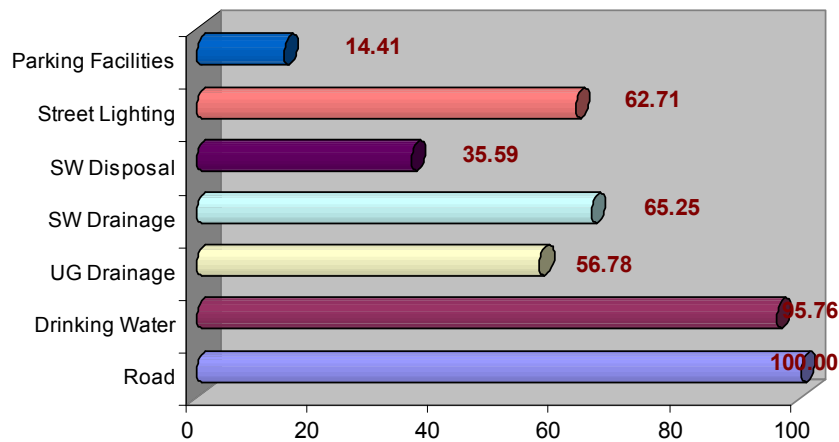
¹ Sector is highly prioritized by the Stakeholders if it gets 100 score and least prioritized if it gets 0 score.

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. Under Ground Drainage
6. Solid Waste Disposal
7. Parking facilities

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. Health facilities (Maternity Center)

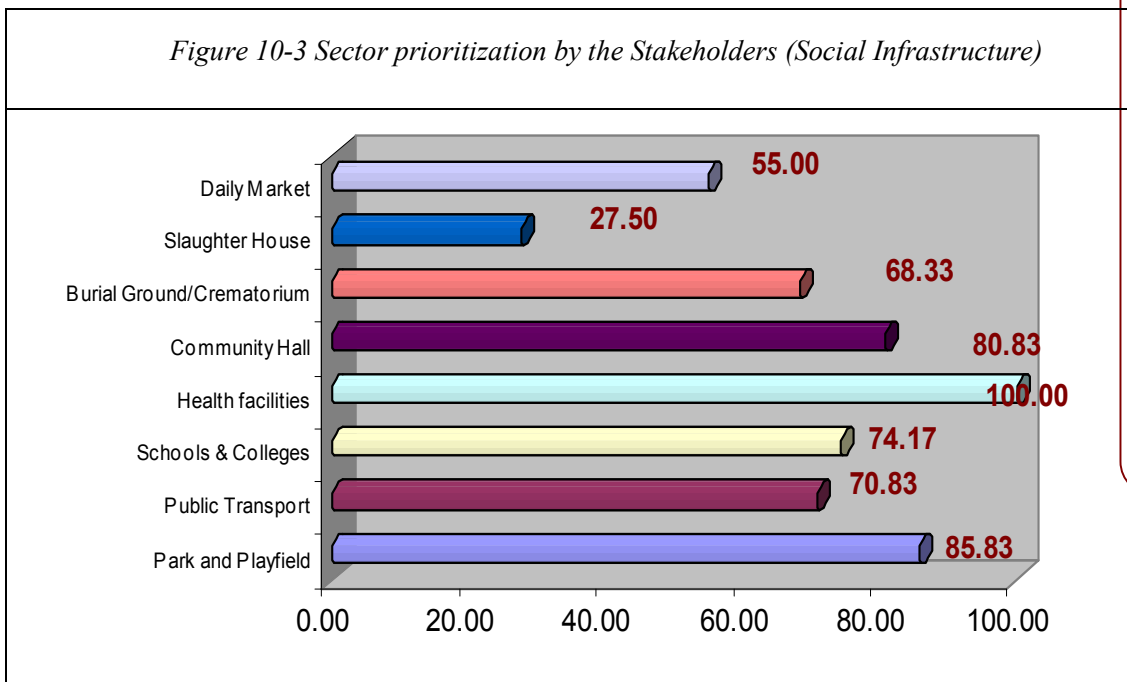
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2. Parks, Playfields
3. Community Hall
4. Schools / Colleges
5. Public Transport
6. Burial ground / Gassifier crematorium
7. Market
8. Slaughter House

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



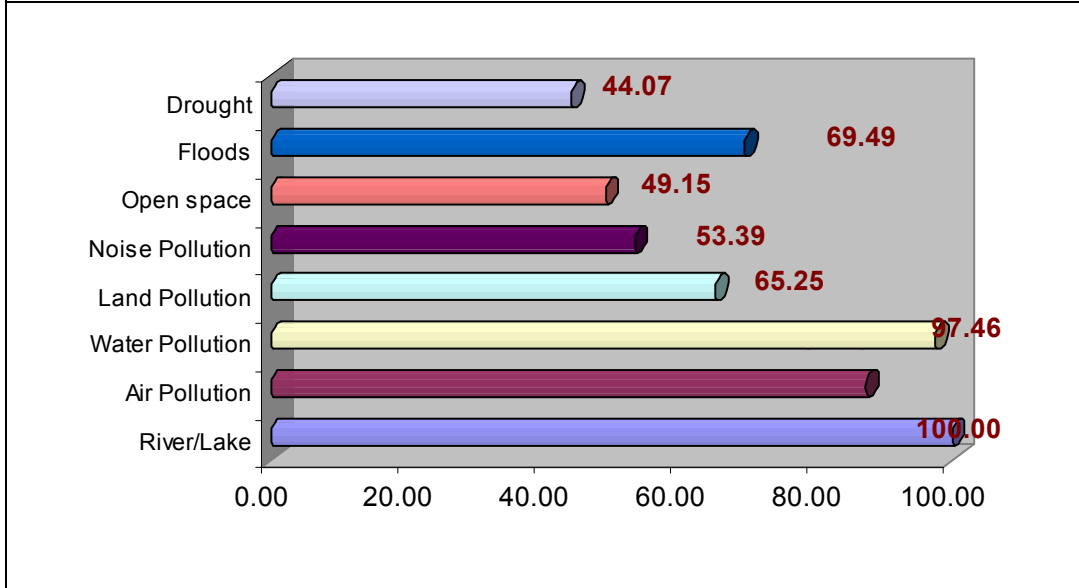
10.2.3 ENVIRONMENTAL ISSUES

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

1. River/Lake
2. Water Pollution
3. Air Pollution
4. Floods

5. Land Pollution
6. Noise Pollution
7. Open space inadequacy in the form of parks / Playgrounds
8. Drought

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



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Figure 10-5 Consultation in Tharangambadi Town Panchayat



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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.

Tharangambadi 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 Tharangambadi 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, Tharangambadi has revenue generating assets like bus stand, community hall, slaughter house, taxi stand, pay & use toilets, shops etc 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 a minimum income of Rs.1.33 Lakhs (2007-08) annually from the remunerative assets .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 | Proposed Bus stand Area-3.90 Acres | New Bus stand project is now 50% Complete. |
| Taxi Stand | 1 | | Inside the new bus stand |

| | | | |
|--|----|--|--|
| Office Buildings | 1 | 8800 Sq.Ft. | Town Panchayat Building |
| Public Toilet & Pay and Use Latrines | 3 | | 1. One maintained by Women Self Help Group, 2. Near Bus stand and 3. Maragatham Colony (Slum). |
| Slaughterhouse | 1 | 1000 Sq.Ft. | |
| Community Hall | 1 | 750 Sq.Ft. | |
| Parks & Play Grounds | 2 | 300 Sq.Ft. & 500 Sq.Ft. | Tharangambadi, Borgan Street, Terasa School & Inside TP Office |
| Overhead Tank | 10 | | 10 over head tanks with a combined capacity of 11.15 lakh litres |
| Burial Ground | 5 | 1 Acre. 0.5 acre, 1 acre, 0.5 acre and 250 sq. ft. | Sandhavalli Street -, Poraiyar, Itchaladi Street – Poraiyar, Tharamgambadi, Erukatancheri & Sathankudi |
| Number of Motor Vehicles for different departments (Including SWM) | 5 | | One Tractor, 2 Power Tiller, 1 Mini Lorry (Refuse Collection 1000 lts.) & 1 Water Tanker |

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Source: Tharangambadi Town Panchayat

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> |
|----------------------|------------------------------|---------------------------------|--|
| Office Building | Nil | Adhoc basis | -Periodic inspection and maintenance is required The TP is proposing a new office building by demolishing the existing the office complex. |
| Bus Stand | Rs.0.71 Lakhs | Adhoc Basis | - Periodic annual maintenance is required -Additional Income generating activities such as paid parking lots can be explored. - The TP is already implementing a bus stand improvement Phase I and they are also proposing Phase II with a total project cost of Rs.55 Lakhs |
| Slaughterhouse | Rs.0.06 Lakhs | Ad hoc basis | Periodic annual maintenance is required |
| Pay and Use Latrines | Rs.0.17 Lakhs | Ad hoc basis | The SHG's are maintaining already one Toilet. This can be extended to other toilets as well i.e. some of the routine maintenance work can be |

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Town Investment Plan – Tharangambadi

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|--------------------------------|-----|--------------|---|--|
| | | | handed over to SHGs with only major maintenance/new work to be taken up by the Panchayat. | T N U I F S L DARASHAW 1926 ALL ABOUT TRUST |
| Burial Ground | NIL | Ad hoc basis | Periodic annual maintenance can sustain the quality of the asset As per OWG discussions, TP is proposing for improvement works in 4 of their burial grounds by providing infrastructure facilities like compound wall, road, creating burning ghat and providing drinking water facilities and also 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 The TP is proposing for Creating green spaces in one approved layout in ward No. 04. | |

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Source: Analysis based on Information provided by Tharangambadi 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 2007-08 (%) | |
| Water Supply | |
| Operating Expenses | 3.14% |
| Power Charges for Head Water Works | Fluctuating Trend |
| Maintenance expense for Water Supply Works | Fluctuating Trend |
| Solid Waste Management | |
| Heavy vehicle expenditure | Increasing Trend (2004-05 to 2007-08) |
| Street lighting | |
| Maintenance Expense for Street Lights | More than 25% |
| Power charges for street lighting | 13.05% |

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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

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systematic review could enhance the life of the asset and minimize huge capital outlay on account of delay in taking remedial actions.

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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12**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

| Sector | Issues |
|-----------------------------------|--|
| Water Supply | <ul style="list-style-type: none"> • Per capita water supply is low (45lpcd) against the standard norm of 70 lpcd. • Only 18% of the assessments are having household service connections (HSCs) • 19 Km distribution network is very old laid in 1984. |
| Sewerage and Sanitation | <ul style="list-style-type: none"> • 33% households have no sanitation facilities |
| Storm water drainage | <ul style="list-style-type: none"> • Only 5 % of the existing roads are covered by Pucca storm water drains. |
| Roads, Traffic and Transportation | <ul style="list-style-type: none"> • 15% of the roads are kutcha earthen roads • 3% of the roads are WBM roads |
| Solid Waste management | <ul style="list-style-type: none"> • Only 24% of the total assessments are covered by Door – Door collection system • Only 24% of the total assessments are involved in waste segregation • State inadequacy (1 person per 3 Km against the standard norm of 1 person per 0.5 Km) |
| Street lighting | <ul style="list-style-type: none"> • Spacing between lights is 37 Meters against the norm of 30 |

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| Sector | Issues |
|-------------------------------|---|
| | <p><i>meters</i></p> <ul style="list-style-type: none"> • <i>Energy saving devices are adopted but not for the entire street lighting system in Tharangambadi like solar lamps, Timer switches, electronic chokes.</i> |
| Slums and Urban Poverty | <ul style="list-style-type: none"> • <i>23% households are living in slums</i> • <i>IHSDP project proposals are not yet implemented</i> |
| Socio-Economic Infrastructure | <ul style="list-style-type: none"> • <i>Town has no major recreational parks and playgrounds</i> • <i>All the 5 Burial grounds have infrastructure inadequacies</i> • <i>Town has no market infrastructure and it depends on private market in ward No.11</i> • <i>Exisitng Town Panchayat office has no Space available for its expansion.</i> • <i>Town has no remunerative assets like commercial complexes other than shops under construction in Bus stand.</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:

| Sector | Action plan |
|--------------------------------|---|
| Land Use and Growth Management | <ul style="list-style-type: none"> • <i>Preparing development plan for Tharangambadi 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>Digging 2 Nos Bore well for water supply in the adjacent villages</i> • <i>Replacing 6 valves</i> • <i>Providing 1 Nos 5 lakh capacity OHT in Sattankudi</i> |
| Sewerage and Sanitation | <ul style="list-style-type: none"> • <i>Purchasing Sullage lorry for waste water collection purpose</i> • <i>Providing Public toilets / community toilets at 5 locations</i> |
| Storm water drainage | <ul style="list-style-type: none"> • <i>Provision of Pucca drains for 18 kms by 2023-24 in phases (1/3rd demand is considered)</i> |
| Solid Waste | <ul style="list-style-type: none"> • <i>Creating scientific land fill site</i> |

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| Sector | Action plan |
|-----------------------------------|---|
| Management | <ul style="list-style-type: none"> • <i>Public awareness for Waste segregation and D-D collection</i> • <i>Procuring segregation bins for each assessments</i> • <i>Procuring protective gear for conservancy workers</i> |
| Roads, Traffic and Transportation | <ul style="list-style-type: none"> • <i>Relaying 5 Km BT road</i> • <i>Converting 6.542 Km kutchra roads into BT road by 2013-14 and 1.328 Km WBM roads into BT road by 2013-14.</i> • <i>Bridges in 7th ward and 16th ward across Uppanar river needs to be newly constructed (2 lane width and 15 meter length) connecting Porayar town.</i> • <i>Creating round about near Porayar Rajiv Gandhi statue</i> • <i>Creating footpath from Kattanchavadi to Porayar for a length of 1500 meter.</i> • <i>Creating footpath from Oligaimangalam to Porayar for a length of 1500 meter.</i> • <i>Converting BT to CC road for a length of 500 meter</i> • <i>Widening Porayar to Tharangambadi for a length of 1.5 Km into 2 lane bye-pass.</i> • <i>Bus stand Improvement scheme (phase II)</i> |
| Street Lighting | <ul style="list-style-type: none"> • <i>Replacing 40W Tube lights into 36 W</i> • <i>Installing electronic chokes for all tube light fittings</i> • <i>Replacing 70 W 34 Nos SVL with (2*24 W) T5 lamps</i> • <i>Replacing 150 W 54 Nos SVL with (2*36W) T5 lamps</i> • <i>Replacing 250 W 32 Nos SVL with (4 X 24) W T5 lamps</i> • <i>Installing 30 energy saving light fittings with poles by 2013-14, additional 30 numbers between 2014-15 to 2018-19, additional 40 numbers between 2019-20 to 2023-24</i> |
| Slums and Urban Poverty | <ul style="list-style-type: none"> • <i>Implementing IHSDP project</i> <ul style="list-style-type: none"> ▪ <i>Housing component</i> ▪ <i>Infrastructure Component - Roads</i> ▪ <i>Infrastructure Component - Culvert</i> ▪ <i>Providing 1Nos OHT in Erukkatancheri of 3 lakh capacity.</i> ▪ <i>One Public Toilet at Periya Colony.</i> |

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| Sector | Action plan |
|-------------------------------|--|
| Water bodies Improvement | <ul style="list-style-type: none"> • Improving the condition of water bodies (11 in Poraiyar, 11 in Erukkatancheri and 5 in Sattankudi) by dredging |
| Socio-Economic Infrastructure | <ul style="list-style-type: none"> • Creating new block within Town Panchayat office premises. • Creating green spaces in one approved layout in ward No. 04. • Improving 4 out of burial ground infrastructure facilities by providing compound wall, road, creating burning ghat and providing drinking water facilities • Creating gassifier crematorium in the 5th burial ground space (location needs to be finalized) |
| Tourism Development | <ul style="list-style-type: none"> • Implementing all proposed Tourism related projects swiftly to induce economic growth and development. <p>1.Improvement of the surroundings of the destination and illumination of the Tourist destination and around</p> <ul style="list-style-type: none"> • Revitalisation of Kings street, parade ground, Queens street, Goldsmith street and Beautification of Beach promenade walk way – Estimated cost 734.1 lakhs • Schemes for the streetscapes in the heritage precinct – 50 lakhs. • Facade renovation of some of some crucial buildings – 25 lakhs • Model street restoration – 50 lakhs • Improving the water canal and the Uppan river edge -120 lakhs • Visitors parking and Basic amenities – 20 lakhs <p>2.Refurbishment of monuments</p> <ul style="list-style-type: none"> • Restoration of the Town gate – 50 lakhs. • Renovation of the museum in Dansbong fort – 14 lakhs • Renovation of Vinayagar temple in King’s street – 3 lakhs • Renovation of the old mosque and water tank – 15 lakhs • Renovation of some important buildings of Tranquebar – 35 lakhs |

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| Sector | Action plan |
|--------|--|
| | <p>3. Signages</p> <ul style="list-style-type: none"> • Improving the existing street signages – 15 lakhs • Providing building plaque to important buildings – 5 lakhs <p>4. Construction of wayside public conveniences</p> <ul style="list-style-type: none"> • Enhancing the tourism by providing tourist information centre, Security Kiosks along the beach area, boat club, commercial outlets – 30 lakhs <p>5. Other Activities Related to Tourism</p> <ul style="list-style-type: none"> • Awareness generation Programmes – 12 .5 lakhs |

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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). Tharangambadi investment requirement for the next fifteen year period is Rs. **1879.98** lakhs. Consolidated Sector wise Investment requirement for Tharangambadi Town Panchayat is shown in *Table 14-A*.

Table 14-A : 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 | 205.98 | 10.96 | 91.98 | 114.00 | 0.00 |
| Sewerage and Sanitation | 35.00 | 1.86 | 35.00 | 0.00 | 0.00 |
| Storm Water Drainage | 360.00 | 19.15 | 120.00 | 120.00 | 120.00 |
| Solid Waste Management | 158.68 | 8.44 | 57.74 | 53.68 | 47.27 |
| Roads, Traffic and Transportation | 409.67 | 21.79 | 337.67 | 72.00 | 0.00 |
| Street Lighting | 14.94 | 0.79 | 8.64 | 2.70 | 3.60 |
| Slums and Urban Poverty | 342.56 | 18.22 | 342.56 | 0.00 | 0.00 |
| Socio-Economic Infrastructure | 353.15 | 18.78 | 353.15 | 0.00 | 0.00 |
| Total | 1879.98 | 100.00 | 1346.74 | 362.38 | 170.87 |
| % Share | 100.00 | | 71.64 | 19.28 | 9.09 |

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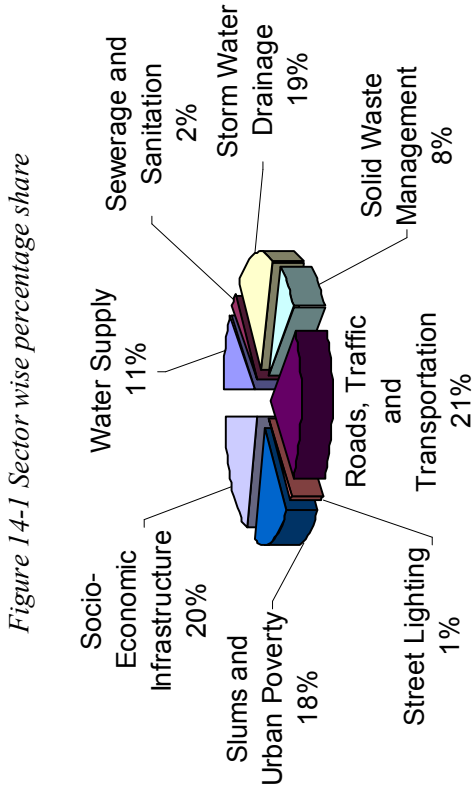


Figure 14-1 Sector wise percentage share

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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. 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 | Investment in Lakhs | 2009-10 to 2013-14 | 2014-15 to 2018-19 | 2019-20 to 2023-24 |
|------|---|------------------------|-----------------------|-----------------------|-----------------------|
| A | Water Supply | | | | |
| 1 | Digging 2 Nos Bore well for water supply in the adjacent villages | 39.00 | 39.00 | 0.00 | 0.00 |
| 2 | Replacing 6 valves | 0.48 | 0.48 | 0.00 | 0.00 |
| 3 | Providing 1 Nos 5 lakh capacity OHT in Sattankudi | 52.50 | 52.50 | 0.00 | 0.00 |
| 4 | Replacing 19 Km distribution network in the second phase | 114.00 | 0.00 | 114.00 | 0.00 |
| | Sub total | 205.98 | 91.98 | 114.00 | 0.00 |

It is suggested that Tharangambadi 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 below.

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 | 104 | 104 | 104 | 104 |
| Per Capita Supply in LPCD | 45 | 70 | 70 | 70 |
| Service connections in % of assessments | 18.5 | 40.6 | 62.8 | 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 | Investment in Lakhs | 2009-10 to 2013-14 | 2014-15 to 2018-19 | 2019-20 to 2023-24 |
|-------------|---|----------------------------|---------------------------|---------------------------|---------------------------|
| B | Sewerage and Sanitation | | | | |
| 5 | Purchasing Sullage lorry for waste water collection purpose | 10.00 | 10.00 | 0.00 | 0.00 |
| 6 | Providing Public toilets / community toilets at 5 locations | 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.

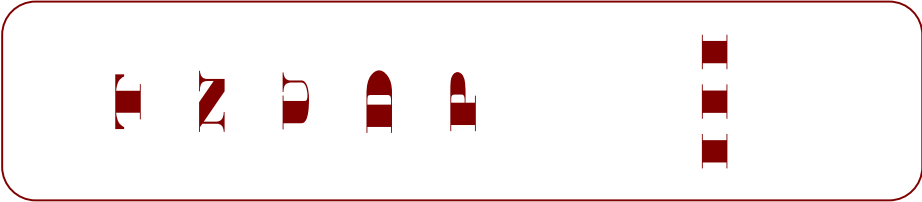


Table 14-E : Project List and Budget Estimates for Storm Water Drainage works

| S.No | Project Components | Investment in Lakhs | 2009-10 to 2013-14 | 2014-15 to 2018-19 | 2019-20 to 2023-24 |
|-------------|--|----------------------------|---------------------------|---------------------------|---------------------------|
| C | Storm Water Drainage | | | | |
| 7 | Provision of Pucca drains for 18 kms by 2023-24 in phases (1/3rd demand is considered) | 360.00 | 120.00 | 120.00 | 120.00 |
| | Sub total | 360.00 | 120.00 | 120.00 | 120.00 |

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) | 5 | 18 | 32 | 45 |

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 Tharangambadi Town Panchayat with due consideration given to projected assessments also. Household segregation bins are proposed to be replaced once in 5 years. It is proposed to purchase one Tractor Trailer for secondary waste collection and disposal.

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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 | Investment in Lakhs | 2009-10 to 2013-14 | 2014-15 to 2018-19 | 2019-20 to 2023-24 |
|------|---|---------------------|--------------------|--------------------|--------------------|
| D | Solid Waste Management | | | | |
| 8 | Creating scientific land fill site | 8.81 | 0.00 | 8.81 | 0.00 |
| 9 | Public awareness for Waste segregation and D-D collection | 5.00 | 5.00 | 0.00 | 0.00 |
| 10 | Procuring segregation bins for each assessments | 127.00 | 40.11 | 42.24 | 44.65 |
| 11 | Purchasing Tractor with trailor | 10.00 | 10.00 | 0.00 | 0.00 |
| 12 | Procuring protective gear for conservancy workers | 7.88 | 2.63 | 2.63 | 2.63 |
| | Sub total | 158.68 | 57.74 | 53.68 | 47.27 |

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) | 24.1 | 100 | 100 | 100 |
| Source Segregation (% of assessments covered) | 24.1 | 100 | 100 | 100 |
| Scientific disposal | 0 | 0 | √ | √ |
| Collection efficiency in % | 45.45 | 100 | 100 | 100 |

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14.1.5 ROADS, TRAFFIC AND TRANSPORTATION

Under this sector it is proposed to widen existing roads, converting BT to CC roads at water logging areas, converting earthen and WBM roads in to BT roads and constructing minor bridges across Uppan River at two locations. Further, footpaths, rotary intersections are proposed after having discussion with stakeholders in stakeholder’s consultation meeting. 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*.

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

| S.No | Project Components | Investment in Lakhs | 2009-10 to 2013-14 | 2014-15 to 2018-19 | 2019-20 to 2023-24 |
|-------------|--|--------------------------------|-------------------------------|-------------------------------|-------------------------------|
| E | Roads, Traffic and Transportation | | | | |
| 13 | Relaying 5 Km BT road | 40.00 | 40.00 | 0.00 | 0.00 |
| 14 | Converting 6.542 Km kutchra roads into BT road by 2013-14 and 1.328 Km WBM roads into BT road by 2013-14. | 95.67 | 95.67 | 0.00 | 0.00 |
| 15 | Bridges in 7 th ward and 16 th ward across Uppan river needs to be newly constructed (2 lane width and 15 meter length) connecting Porayar town. | 144.00 | 72.00 | 72.00 | 0.00 |
| 16 | Creating round about near Porayar Rajiv Gandhi statue | 5.00 | 5.00 | 0.00 | 0.00 |
| 17 | Creating footpath from Kattanchavadi to Porayar for a length of 1500 meter. | 10.50 | 10.50 | 0.00 | 0.00 |
| 18 | Creating footpath from Oligaimangalam to Porayar for a length of 1500 meter. | 10.50 | 10.50 | 0.00 | 0.00 |
| 19 | Converting BT to CC road for a length of 500 meter | 10.00 | 10.00 | 0.00 | 0.00 |
| 20 | Widening Porayar to Tharangambadi for a length of 1.5 Km into 2 lane bye-pass. | 39.00 | 39.00 | 0.00 | 0.00 |
| 21 | Bus stand Improvement scheme (phase II) | 55.00 | 55.00 | 0.00 | 0.00 |
| | Sub total | 409.67 | 337.67 | 72.00 | 0.00 |

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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 | 2.0 | 1.9 | 1.8 | 1.7 |
| Percentage of kutchra and WBM roads to total road length | 18 | 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, 150 W Sodium Vapor with (2X36) W T5 lamps and 70 W Sodium Vapor with (2 X 24) 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 100 additional light fittings in phases to cater future demand (1/3 rd demand is considered).

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

| S.No | Project Components | Investment in Lakhs | 2009-10 to 2013-14 | 2014-15 to 2018-19 | 2019-20 to 2023-24 |
|----------|--|---------------------|--------------------|--------------------|--------------------|
| F | Street Lighting | | | | |
| 22 | Replacing 40W Tube lights into 36 W | 0.63 | 0.63 | 0.00 | 0.00 |
| 23 | Installing electronic chokes for all tube light fittings | 2.91 | 2.91 | 0.00 | 0.00 |
| 24 | Replacing 70 W 34 Nos SVL with (2*24 W) T5 lamps | 0.37 | 0.37 | 0.00 | 0.00 |
| 25 | Replacing 150 W 54 Nos SVL with (2*36W) T5 lamps | 0.68 | 0.68 | 0.00 | 0.00 |
| 26 | Replacing 250 W 32 Nos SVL with (4 X 24) W T5 lamps | 1.36 | 1.36 | 0.00 | 0.00 |
| 27 | Installing 30 energy saving light fittings with poles by 2013-14, additional 30 numbers between 2014-15 to 2018-19, additional 40 numbers between 2019-20 to 2023-24 | 9.00 | 2.70 | 2.70 | 3.60 |
| | Sub total | 14.94 | 8.64 | 2.70 | 3.60 |

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 in Table 14-L.

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 | 37.7 | 37 | 36 | 35 |
| Energy auditing | Not done | To be done | | to be done |
| Energy saving initiatives | Done partially | | | to be done completely |

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14.2 **SLUMS AND URBAN POVERTY**

IHSDP project report already prepared is now revised by the Town Panchayat for a revised cost of Rs.342.56 lakhs in order to improve the living conditions in slum areas. Housing component, road, culvert, OHTs and public toilets are considered under this scheme.

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

| S.No | Project Components | Investment in Lakhs | 2009-10 to 2013-14 | 2014-15 to 2018-19 | 2019-20 to 2023-24 |
|-------------|--|--------------------------------|-------------------------------|-------------------------------|-------------------------------|
| G | Slums and Urban Poverty | | | | |
| 28 | Implementing IHSDP project | 0.00 | 0.00 | 0.00 | 0.00 |
| a | Housing | 262.50 | 262.50 | 0.00 | 0.00 |
| b | Infrastructure Component - Roads | 23.40 | 23.40 | 0.00 | 0.00 |
| c | Infrastructure Component - Culvert | 20.16 | 20.16 | 0.00 | 0.00 |
| d | Providing INos OHT in Erukkatancheri of 3 lakh capacity. | 31.50 | 31.50 | 0.00 | 0.00 |
| e | One Public Toilet at Periya Colony. | 5.00 | 5.00 | 0.00 | 0.00 |
| | Sub total | 342.56 | 342.56 | 0.00 | 0.00 |

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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 condition of water bodies, creating green spaces like parks and playgrounds, creating gassifier crematorium, improving burial ground infrastructure and creating new blocks within Town Panchayat office premises. 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 | Investment in Lakhs | 2009-10 to 2013-14 | 2014-15 to 2018-19 | 2019-20 to 2023-24 |
|----------|---|------------------------|-----------------------|-----------------------|-----------------------|
| H | Socio-Economic Infrastructure | | | | |
| 29 | Creating new block within Town Panchayat office premises. | 30.00 | 30.00 | 0.00 | 0.00 |
| 30 | Creating green spaces in one approved layout in ward No. 04. | 5.00 | 5.00 | 0.00 | 0.00 |
| 31 | Improving the condition of water bodies (11 in Poraiyar, 11 in Erukkatancheri and 5 in Sattankudi) by dredging | 208.15 | 208.15 | 0.00 | 0.00 |
| 32 | Improving 2 burial ground infrastructure facilities by providing compound wall, road, creating burning ghat and providing drinking water facilities | 20.00 | 20.00 | 0.00 | 0.00 |
| 33 | Creating gassifier crematorium in the 5th burial ground space (location needs to be finalized) | 90.00 | 90.00 | 0.00 | 0.00 |
| | Sub total | 353.15 | 353.15 | 0.00 | 0.00 |

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14.4 CONSOLIDATED CAPITAL INVESTMENT PLAN

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

First Phase investment plan for Tharangambadi is given in Table 14-O. The total Estimated Cost for all the Sectors is Rs. 1346.74 lakhs. The total estimated cost after considering escalation for I phase is Rs. 1591.90 lakhs which is shown in Table 14-P.

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

| Project Sector | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | Investment in phase I |
|--|--------------|---------------|---------------|---------------|---------------|-----------------------|
| | Rs. in Lakhs | | | | | |
| Water Supply | 0.00 | 39.48 | 52.50 | 0.00 | 0.00 | 91.98 |
| 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 |
| Storm Water Drainage | 0.00 | 30.00 | 30.00 | 30.00 | 30.00 | 120.00 |
| Solid Waste Management without gear and bins | 0.00 | 10.00 | 0.00 | 0.00 | 0.00 | 10.00 |
| Solid Waste Management | 9.55 | 9.55 | 9.55 | 9.55 | 9.55 | 47.74 |
| Roads, Traffic and Transportation | 0.00 | 95.67 | 95.00 | 72.00 | 75.00 | 337.67 |
| Street Lighting | 1.73 | 1.73 | 1.73 | 1.73 | 1.73 | 8.64 |
| Slums and Urban Poverty | 0.00 | 0.00 | 80.06 | 262.50 | 0.00 | 342.56 |
| Socio-Economic Infrastructure | 0.00 | 5.00 | 208.15 | 120.00 | 20.00 | 353.15 |
| Total | 11.28 | 211.43 | 481.99 | 500.78 | 141.28 | 1346.74 |

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Table 14-P First Phase Capital Investment Plan for Tharangambadi 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 | 43.53 | 60.78 | 0.00 | 0.00 | 104.30 |
| 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 | 33.08 | 34.73 | 36.47 | 38.29 | 142.56 |
| Solid Waste Management without gear and bins | 0.00 | 11.03 | 0.00 | 0.00 | 0.00 | 11.03 |
| Solid Waste Management Bins and Gears | 10.02 | 10.53 | 11.05 | 11.60 | 12.18 | 55.39 |
| Roads, Traffic and Transportation | 0.00 | 105.48 | 109.97 | 87.52 | 95.72 | 398.69 |
| Street Lighting | 1.81 | 1.91 | 2.00 | 2.10 | 2.21 | 10.03 |
| Slums and Urban Poverty | 0.00 | 0.00 | 92.68 | 319.07 | 0.00 | 411.75 |
| Socio-Economic Infrastructure | 0.00 | 5.51 | 240.96 | 145.86 | 25.53 | 417.86 |
| Total | 11.84 | 233.10 | 557.96 | 608.70 | 180.31 | 1591.90 |

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

Second Phase investment plan for Tharangambadi is given in Table 14-Q. The total Estimated Cost for all the Sectors is Rs. 362.38 lakhs. The total estimated cost after considering escalation for II phase is Rs. 513.04 lakhs which is shown below.

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

Rs. in Lakhs

| Project Sector | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | Investment in phase II |
|--|---------------|--------------|--------------|--------------|--------------|------------------------|
| Water Supply | 57.00 | 57.00 | 0.00 | 0.00 | 0.00 | 114.00 |
| 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 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 120.00 |
| Solid Waste Management without gear and bins | 8.81 | 0.00 | 0.00 | 0.00 | 0.00 | 8.81 |
| Solid Waste Management | 8.97 | 8.97 | 8.97 | 8.97 | 8.97 | 44.87 |
| Roads, Traffic and Transportation | 72.00 | 0.00 | 0.00 | 0.00 | 0.00 | 72.00 |
| Street Lighting | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | 2.70 |
| Slums and Urban Poverty | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Socio-Economic Infrastructure | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 171.32 | 90.51 | 33.51 | 33.51 | 33.51 | 362.38 |

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Table 14-R Second Phase Capital Investment Plan for Tharangambadi 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 | 76.39 | 80.20 | 0.00 | 0.00 | 0.00 | 156.59 |
| 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 | 32.16 | 33.77 | 35.46 | 37.23 | 39.09 | 177.72 |
| Solid Waste Management without gear and bins | 11.81 | 0.00 | 0.00 | 0.00 | 0.00 | 11.81 |
| Solid Waste Management Bins and Gears | 12.02 | 12.63 | 13.26 | 13.92 | 14.62 | 66.44 |
| Roads, Traffic and Transportation | 96.49 | 0.00 | 0.00 | 0.00 | 0.00 | 96.49 |
| Street Lighting | 0.72 | 0.76 | 0.80 | 0.84 | 0.88 | 4.00 |
| Slums and Urban Poverty | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Socio-Economic Infrastructure | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 229.59 | 127.36 | 49.51 | 51.99 | 54.59 | 513.04 |

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

Third phase investment plan for Tharangambadi is given in Table 14-S. The total Estimated Cost for all the Sectors is Rs. 170.87 lakhs. The total estimated cost after considering escalation for III phase is Rs. 322.97 lakhs which is shown below.

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

Rs. in Lakhs

| Project Sector | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | Investment in phase III |
|--|----------------|----------------|----------------|----------------|----------------|--------------------------------|
| Water Supply | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 120.00 |
| Solid Waste Management without gear and bins | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Solid Waste Management | 9.45 | 9.45 | 9.45 | 9.45 | 9.45 | 47.27 |
| Roads, Traffic and Transportation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Street Lighting | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 3.60 |
| Slums and Urban Poverty | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Socio-Economic Infrastructure | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 34.17 | 34.17 | 34.17 | 34.17 | 34.17 | 170.87 |

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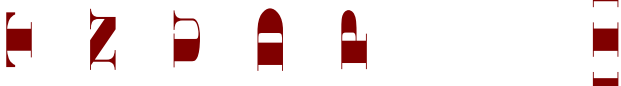


Table 14-T Third Phase Capital Investment Plan for Tharangambadi Town Panchayat (after considering escalation cost)

Rs. in Lakhs

| Project Sector | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | Investment in Phase III |
|--|----------------|----------------|----------------|----------------|----------------|--------------------------------|
| Water Supply | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 41.05 | 43.10 | 45.26 | 47.52 | 49.89 | 226.82 |
| 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 | 16.17 | 16.98 | 17.83 | 18.72 | 19.66 | 89.35 |
| Roads, Traffic and Transportation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Street Lighting | 1.23 | 1.29 | 1.36 | 1.43 | 1.50 | 6.80 |
| Slums and Urban Poverty | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Socio-Economic Infrastructure | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 58.45 | 61.37 | 64.44 | 67.66 | 71.05 | 322.97 |

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 THARANGAMBADI 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 two sanctioned number of Bill Collectors post in town panchayat and exist vacant as on July 2009.

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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 Tharangambadi Town Panchayat for the last 5 years ending 2007-08 is given as under:

Table 15-A: Collection Efficiency of key revenue sources

| Particulars | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
|---------------------------|----------------|----------------|----------------|----------------|----------------|
| Property Taxes | | | | | |
| Arrears | 32.71% | 33.23% | 40.84% | 54.39% | 100.00% |
| Current | 64.75% | 66.80% | 69.55% | 81.25% | 99.76% |
| Total | 51.10% | 55.20% | 58.80% | 72.83% | 99.82% |
| Professional Taxes | | | | | |
| Arrears | | | | | |
| Current | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| Total | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| Water Charges | | | | | |
| Arrears | 55.07% | 50.60% | 47.97% | 54.03% | 66.41% |
| Current | 49.29% | 42.77% | 22.61% | 45.64% | 64.65% |
| Total | 51.28% | 46.04% | 32.04% | 49.88% | 65.48% |
| Library Cess | | | | | |
| Arrears | 32.64% | 33.02% | 40.61% | 37.05% | 100.00% |
| Current | 64.67% | 66.78% | 69.49% | 81.25% | 99.76% |
| Total | 51.01% | 55.08% | 58.64% | 63.51% | 99.85% |

Source: DCB of Tharangambadi 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) | 99.76% | 100% | 0.20% * | 2.45%* |
| Profession Taxes (2008-09) | 100 % | NA | 2.67% | 5.36% |
| Water Charges (2007-08) | 64.65% | 66.41% | 0.78% | 7.54% |

* Note: There were around 1500 house destroyed due to Tsunami hence reduction in the number of assessment

Source: Tharangambadi 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 70% of the tax revenue comes through property taxes. The CAGR of property tax revenue has been around 2.45% over the last few years. (2003-04 till 2008-09). There were around 1500 house destroyed due to Tsunami hence reduction in the number of assessment

15.2.1.1.2 Profession Tax:

Profession tax has contributed about 30% of the total Taxes in the last few years. The CAGR has been close to 5.36% for the past few years. The Town Panchayat enjoys a very good current collection efficiency.



Issues:

- a) Growth rate in no of assessment of property tax is less than 1%
- b) Growth rate in water charges in value terms is less than 1%

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

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

Table 15-C: Reforms in property Taxes

| <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 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 :<ol style="list-style-type: none">1. Through banks2. 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 |

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Suggested Property taxes Reforms

- 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 centers to enable the citizens to pay the taxes easily
- 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

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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 Tharangambadi Town Panchayat has completed finalizing its accounts up to FY 2007-08.

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The following reform measures are suggested:

Table 15-D: Accounting Reforms

Suggested Accounting Reforms

- ✓ 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

Suggested Accounting Reforms

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 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 Tharangambadi 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

15.2.2.1 TRAINING AND CAPACITY BUILDING FOR ADMINISTRATIVE STAFF AND ELECTED OFFICIALS

• Training

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

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- ✓ Computer training has been imparted for 10 days to Junior Assistants at Mayiladuthurai (Organized by DTP) and also one day training on birth and Death module conducted by Joint Director of Public Health during 2005-06
- ✓ The Sanitary Inspector (SI) had attended one day training on the Birth and Death Module in Madurai on 25th Feb 2009 conducted by Joint Director of Public Health.
- ✓ Sanitary Inspector also attended the TWAD training on Maintenance of Sewerage Scheme in Tsunami affected areas to the staff of Local Bodies for 1 day in April 2009. It covered topics like Single Pass Intermittent Sand Filter (ISF), Decentralized Waste water treatment system (DEWATS), Floating Bed Biological Reactor (FBBR), Sewer System Maintenance.

- **Public Grievance Redressal Mechanism**

Public Register to record complaints is maintained for all the sectors in the Town Panchayat. The Public also approach their respective ward councilors with their complaints on service delivery system. On an average about 3 to 4 complaints are received mainly relating to Water Supply System. Complaints are also received during Grievance day meetings held at the Collector office.

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.

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,

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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.

No sectors have been privatized till now except participation of SHG in SWM collection & Segregation for 7/18 wards.

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 |

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 Tharangambadi Town Panchayat

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

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

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- 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

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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 18% 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. 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. ➤ 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 |

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| Sectors | Suggested Reforms |
|----------------|---|
| | <p>pipes needs to be done on regular basis.</p> <ul style="list-style-type: none"> ➤ 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 possible. ➤ 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. |

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| Sectors | Suggested Reforms |
|-------------------------------|--|
| | <ul style="list-style-type: none"> ▪ 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 Tharangambadi 24.10 % of assessments covered by Door to Door collection and 24.10 % 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 charges that are being collected from different commercial establishments like hotels including kiosks, eating houses, restaurants, star hotels and retail markets should be studied. ➤ 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 |

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| Sectors | Suggested Reforms |
|----------------------|---|
| | <p>comprehensive solid waste management scheme.</p> <ul style="list-style-type: none"> ➤ 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"> ➤ As a measure to save energy, the Town Panchayat shall replace its other existing non-energy saving lamps to energy saving lamps. ➤ Meeting the norms of one pole per 35 meters by 2022-23 ➤ Energy Audit needs to be conducted periodically. ➤ 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 MOBILIZATION

RESOURCE

Tharangambadi has been both in 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.

Incase of Tharangambadi 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 20% in the last 6 years ending. The other income has grown at a CAGR of over 19.41 % in the last few years.

Revenue from Social Assets

| Particulars | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 (Budget) |
|--|----------------|----------------|----------------|----------------|----------------|-------------------------|
| Fees for bay and other receipts in the Bus Stand | 0.52 | 0.58 | 0.60 | 0.63 | 0.71 | 10.00 |
| Fees for Pay & Use toilets | 0.06 | 0.08 | 0.11 | 0.14 | 0.17 | 1.15 |
| Market fees – Daily market | 0.16 | 0.20 | 0.23 | 0.24 | 0.26 | 0.30 |
| Rent on Shopping Complex | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.00 |
| Other charges / Income | 0.86 | 1.78 | 0.82 | 7.84 | 3.87 | 2.95 |

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| Particulars | Area | Annual Income (2008-09) Budget in Rs.Lakhs |
|--|---|--|
| Fees for bay and other receipts in the Bus Stand | Proposed Bus stand Area- 3.90 Acres | 10.00 |
| Fees for Pay & Use toilets | Three numbers. 1.One maintained by Women Self Help Group, 2. Near Bus stand and 3. Maragatham Colony (Slum). | 1.15 |
| Market fees – Daily market | NA | 0.30 |
| Other charges / Income | NA | 2.95 |

From the above table it is clear that Tharangambadi Town Panchayat is earning a very low level of other income from remunerative assets. It earns an average of less than Rs.50, 000 from Market fees and a very minimal amount from the rentals of shopping complex.

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:

- ✓ Bus stand Improvement scheme (phase II) at an estimated cost of Rs.55 Lakhs.

The Town Panchayat needs to concentrate on realization of the revenue from the New Bus Stand.

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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 |
| Full Project – Scenario III (Funding pattern based on borrowing capacity of the Town) | Implementation of all Projects required for the next 15 years with Reform implementation with additional External support to cater the financial needs of the Town |

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

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 Supply- Number of assessments) | 18% | 4% to 5% increase every year achieving 85% 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 |

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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 Tharangambadi Town Panchayat evaluates the Town Panchayat's financial position based on the base care scenario and the full project scenario which are described below:

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 Tharangambadi 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

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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.

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.

16.2.3 FULL PROJECT SCENARIO BASED ON BORROWING CAPACITY OF THE TOWN

Full project scenario based on borrowing capacity of the town is worked out to overcome the financial inability of the Town in order to bring in all the projects envisaged in the Capital Investment Plan. In this case Town's own contribution for the project has been reduced to match with its constraint financial position by increasing an additional external funding pattern to suit the financial leverage of the Town on implementing all the suggested Capital Investment Plan.

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

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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 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 | 0.24% (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 |
|---|--|--------------------------------|-------------------------------|

* Note: There were around 1500 house destroyed due to Tsunami hence reduction in the number of assessment

Source: Analysis

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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 | 18% | | |
| 2013-14 | | 40% | 40% |
| 2018-19 | | 63% | 63% |
| 2023-24 | | 85% | 85% |
| INITIAL DEPOSIT FOR NEW WATER SUPPLY CONNECTIONS (Rs. per connection) | | | |
| Domestic (Rs.) | | | |
| From 2009-10 till 2013-14 | Rs.4050 | Rs.4050 | Rs.4050 |
| From 2014-15 till 2018-19 | | Rs.4050 | Rs.6050 |
| From 2019-20 till 2023-24 | | Rs.6050 | Rs.8050 |
| Non-Domestic (Rs.) | | | |
| From 2008-09 till 2012-13 | Rs.8100 | Rs.8100 | Rs.8100 |
| From 2013-14 till 2017-18 | | Rs.8100 | Rs.10100 |
| From 2018-19 till 2022-23 | | Rs.10100 | Rs.12100 |
| WATER CHARGES (per month) | | | |
| Domestic (Rs.) | | | |
| From 2009-10 till 2013-14 | | Rs. 51 | Rs. 51 |
| From 2014-15 till 2018-19 | | Rs. 51 | Rs. 63.75 (25% increase) |
| From 2019-20 till 2023-24 | | Rs. 63.75(25% increase) | Rs. 79.69 (25% increase) |
| Non-Domestic (Rs.) | | | |

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| | | | |
|---------------------------|--|--------------------------|--------------------------|
| From 2009-10 till 2013-14 | | Rs.101 | Rs.101 |
| From 2014-15 till 2018-19 | | Rs.101 | Rs.126.25 (25% increase) |
| From 2019-20 till 2023-24 | | Rs.126.25 (25% increase) | Rs.157.81 (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 | 8 % (2003-04 till 2007-08) | 8 % | - |
| External Sources (Assigned Revenue+ Devolution Funds + Grants & Contribution) | 30 % (2003-04 till 2007-08) | 7 % for Assigned Revenue and 15 % for Devolution funds | |
| Service Charges & fees (Excluding Water Charges) | 4% | 5% to 11% | 5% to 11% growth rate assumed on account Service charges & other fees excluding water charges. |
| Other Income | Inconsistent | 5% | 2008-09 (Budget) is taken as the |

| | | | |
|--|-------|--|---|
| | trend | | base year for projections. This includes project overhead appropriation expenses. |
|--|-------|--|---|

Source: Analysis based on past financials provided by Tharangambadi 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- 10% (2003-04 till 2007-08) Retirement Benefits- Inconsistent trend | 6% |
| Operating Expenses | 3 % | 10% |
| Repairs & Maintenance | Inconsistent Trend | 6% |
| Administrative Expenses | 15 % | 5% |

Source: Analysis based on past financials provided by Tharangambadi 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 |
| <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 | |
| Municipal Building | | 50 | 50 | |

Source: Analysis

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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.

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.3545.17 Lakhs** in the year 2023-24 after meeting its current debt obligations.

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Table 16-G : Financial Operating Plan of Tharangambadi- 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) | 18.22 | 96.22 | 187.29 | 290.08 | 406.14 | 537.26 | 685.95 | 854.36 | 1052.78 | 1276.94 | 1532.92 | 1845.77 | 2197.21 | 2592.99 | 3039.75 |
| Property Tax | 16.12 | 16.25 | 16.37 | 16.50 | 16.62 | 16.80 | 16.97 | 17.15 | 17.32 | 17.50 | 22.13 | 22.37 | 22.62 | 22.87 | 23.12 |
| Other Taxes (Profession Tax) | 5.40 | 5.83 | 6.30 | 6.80 | 7.35 | 7.93 | 8.57 | 9.25 | 10.00 | 10.79 | 11.66 | 12.59 | 13.60 | 14.69 | 15.86 |
| Assigned Revenue | 7.25 | 7.76 | 8.31 | 8.89 | 9.51 | 10.17 | 10.89 | 11.65 | 12.46 | 13.34 | 14.27 | 15.27 | 16.34 | 17.48 | 18.71 |
| Devolution Fund | 69.00 | 79.35 | 91.25 | 104.94 | 120.68 | 138.78 | 159.60 | 183.54 | 211.07 | 242.73 | 279.14 | 321.02 | 369.17 | 424.54 | 488.22 |
| Service Charges & Fees | 92.82 | 96.40 | 100.11 | 103.96 | 107.96 | 112.48 | 116.92 | 121.54 | 126.36 | 131.39 | 148.74 | 154.88 | 161.28 | 167.97 | 174.95 |
| Other Income | 8.40 | 13.08 | 13.73 | 14.42 | 15.14 | 15.90 | 16.69 | 17.53 | 18.40 | 19.33 | 20.29 | 21.31 | 22.37 | 23.49 | 24.66 |
| Revenue Income (A) | 199.00 | 218.67 | 236.08 | 255.51 | 277.26 | 302.07 | 329.64 | 360.66 | 395.62 | 435.08 | 496.23 | 547.44 | 605.38 | 671.04 | 745.53 |
| EXPENDITURE | | | | | | | | | | | | | | | |
| Personnel Cost | 33.07 | 35.06 | 37.16 | 39.39 | 41.75 | 44.26 | 46.91 | 49.73 | 52.71 | 55.87 | 59.23 | 62.78 | 66.55 | 70.54 | 74.77 |
| Operating Expenses | 24.17 | 26.58 | 29.24 | 32.17 | 35.38 | 38.92 | 42.81 | 47.09 | 51.80 | 56.98 | 62.68 | 68.95 | 75.85 | 83.43 | 91.77 |
| Repairs and Maintenance Expenses | 13.52 | 14.33 | 15.19 | 16.11 | 17.07 | 18.10 | 19.18 | 20.33 | 21.55 | 22.85 | 24.22 | 25.67 | 27.21 | 28.84 | 30.57 |
| Programme Expenses | 14.12 | 14.41 | 14.69 | 14.99 | 15.29 | 15.59 | 15.91 | 16.22 | 16.55 | 16.88 | 17.22 | 17.56 | 17.91 | 18.27 | 18.64 |
| 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 | 23.81 | 24.31 | 23.44 | 22.56 | 21.69 | 20.81 | 19.93 | 11.55 | 10.68 | 7.43 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Revenue Expenditure (B) | 120.99 | 127.61 | 133.29 | 139.45 | 146.14 | 153.37 | 161.23 | 162.24 | 171.47 | 179.10 | 183.38 | 196.00 | 209.60 | 224.28 | 240.11 |
| SURPLUS OR DEFICIT (A-B)=C | 78.01 | 91.07 | 102.79 | 116.06 | 131.12 | 148.69 | 168.41 | 198.42 | 224.15 | 255.98 | 312.86 | 351.44 | 395.78 | 446.76 | 505.42 |
| Closing Balance (C+X)=D | 96.22 | 187.29 | 290.08 | 406.14 | 537.26 | 685.95 | 854.36 | 1052.78 | 1276.94 | 1532.92 | 1845.77 | 2197.21 | 2592.99 | 3039.75 | 3545.17 |

16.4.2 FULL PROJECT SCENARIO WITH SUGGESTED REFORMS

Under **FULL REFORM** Scenario, the FOP for full project has been worked out as under:

- Funding pattern as per Prudent Financial norms of funding – Scenario II
- Funding pattern based on the borrowing capacity of the TOWN – Scenario III

The same has been elaborated under heading 16.4.2.1 and 16.4.2.2 respectively

16.4.2.1 FULL PROJECT SCENARIO WITH REFORMS AND FUNDING PATTERN BASED ON PRUDENT FINANCIAL NORMS

The cash flows from the new projects under this scenario are shown in Table 16 H. The financial impact for the TOWN in implementing full projects through additional resources generated on account of reforms suggested and as per the prudent financial norms of funding is given in Table 16 I

The following are the outcome under this scenario:-

| Financing Criteria | Results obtained |
|--|--|
| Whether new project O&M is being met by the revenue of the TOWN? | The TOWN is able to meet the O&M of the new projects after implementing all reforms suggested as additional revenues are realized. |
| Whether TOWN is able to meet its debt repayment obligations? | TOWN is unable to meet its loan repayment obligations. The same has been shown in Table 16 J with DSCR is less than 1.25 times (Minimum acceptable DSCR norms) |
| Whether TOWN is able to contribute the required amount as per prudent funding norms? | The TOWN would not be able to meet its financial contribution to new projects as required under prudent financial norms of funding |

To address this issue, the TOWN would require additional external support as the capacity of the TOWN to borrow and meet its contribution under this scenario is limited. Hence additional external support over and above the prudent financial norms is required to match with that of the borrowing capacity of the town. The same has been discussed under heading 16.4.2.2

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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 | -0.64 | -12.29 | -44.78 | -106.73 | -192.79 | -304.05 | -441.24 | -597.76 | -762.65 | -936.33 | -1119.27 | -1295.74 | -1465.54 | -1631.39 |
| Sources of Funds | | | | | | | | | | | | | | | |
| Debt Drawn Down | 7.10 | 118.97 | 125.04 | 82.61 | 89.04 | 130.12 | 68.40 | 29.71 | 31.19 | 32.75 | 35.07 | 36.82 | 38.66 | 40.60 | 42.63 |
| ULB Own Contribution | 1.18 | 38.96 | 181.89 | 160.84 | 32.07 | 30.60 | 20.76 | 4.95 | 5.20 | 5.46 | 5.84 | 6.14 | 6.44 | 6.77 | 7.10 |
| Grants | 3.55 | 75.17 | 251.03 | 365.24 | 59.20 | 68.88 | 38.21 | 14.85 | 15.60 | 16.38 | 17.53 | 18.41 | 19.33 | 20.30 | 21.31 |
| Total Inflow (B) | 11.84 | 233.10 | 557.96 | 608.70 | 180.31 | 229.59 | 127.36 | 49.51 | 51.99 | 54.59 | 58.45 | 61.37 | 64.44 | 67.66 | 71.05 |
| Disposition of Funds | | | | | | | | | | | | | | | |
| Project Capex | 11.84 | 233.10 | 557.96 | 608.70 | 180.31 | 229.59 | 127.36 | 49.51 | 51.99 | 54.59 | 58.45 | 61.37 | 64.44 | 67.66 | 71.05 |
| O&M For New Project | 0.00 | 0.09 | 8.72 | 21.94 | 29.45 | 35.06 | 45.68 | 53.05 | 56.04 | 59.20 | 62.54 | 66.10 | 69.86 | 73.85 | 78.07 |
| Debt Servicing (Principal + Interest) | 0.64 | 11.56 | 23.77 | 40.01 | 56.61 | 76.19 | 91.51 | 103.47 | 108.85 | 114.49 | 120.39 | 110.38 | 99.93 | 92.00 | 83.26 |
| Total Outflow (C) | 12.48 | 244.75 | 590.45 | 670.65 | 266.36 | 340.85 | 264.55 | 206.04 | 216.87 | 228.28 | 241.38 | 237.85 | 234.24 | 233.51 | 232.38 |
| Net Cash Flow (B-C)= D | -0.64 | -11.65 | -32.49 | -61.95 | -86.06 | -111.26 | -137.19 | -156.52 | -164.88 | -173.69 | -182.93 | -176.47 | -169.80 | -165.85 | -161.33 |
| Closing Balance (A+D)=E | -0.64 | -12.29 | -44.78 | -106.73 | -192.79 | -304.05 | -441.24 | -597.76 | -762.65 | -936.33 | -1119.27 | -1295.74 | -1465.54 | -1631.39 | -1792.72 |

Table 16-I: Financial Operating Plan of Tharangambadi - 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) | 18.22 | 94.40 | 134.85 | 23.26 | -83.47 | -70.48 | -50.37 | -26.06 | 25.30 | 94.36 | 186.78 | 329.76 | 518.24 | 758.22 | 1053.58 |
| Property Tax | 16.12 | 16.25 | 16.37 | 16.50 | 16.62 | 20.99 | 21.22 | 21.44 | 21.66 | 21.88 | 27.66 | 27.97 | 28.28 | 28.59 | 28.90 |
| Other Taxes (Profession Tax) | 5.40 | 5.83 | 6.30 | 6.80 | 7.35 | 7.93 | 8.57 | 9.25 | 10.00 | 10.79 | 11.66 | 12.59 | 13.60 | 14.69 | 15.86 |
| Assigned Revenue | 7.25 | 7.76 | 8.31 | 8.89 | 9.51 | 10.17 | 10.89 | 11.65 | 12.46 | 13.34 | 14.27 | 15.27 | 16.34 | 17.48 | 18.71 |
| Devolution Fund | 69.00 | 79.35 | 91.25 | 104.94 | 120.68 | 138.78 | 159.60 | 183.54 | 211.07 | 242.73 | 279.14 | 321.02 | 369.17 | 424.54 | 488.22 |
| Service Charges & Fees | 92.82 | 96.40 | 100.11 | 103.96 | 107.96 | 121.56 | 126.51 | 131.67 | 137.02 | 142.60 | 162.11 | 168.95 | 176.06 | 183.47 | 191.18 |
| Other Income | 8.40 | 13.08 | 13.73 | 14.42 | 15.14 | 15.90 | 16.69 | 17.53 | 18.40 | 19.33 | 20.29 | 21.31 | 22.37 | 23.49 | 24.66 |
| Revenue Income (A) | 199.00 | 218.67 | 236.08 | 255.51 | 277.26 | 315.34 | 343.48 | 375.08 | 410.62 | 450.66 | 515.13 | 567.10 | 625.82 | 692.26 | 767.54 |
| EXPENDITURE | | | | | | | | | | | | | | | |
| Personnel Cost | 33.07 | 35.06 | 37.16 | 39.39 | 41.75 | 44.26 | 46.91 | 49.73 | 52.71 | 55.87 | 59.23 | 62.78 | 66.55 | 70.54 | 74.77 |
| Operating Expenses | 24.17 | 26.58 | 29.24 | 32.17 | 35.38 | 38.92 | 42.81 | 47.09 | 51.80 | 56.98 | 62.68 | 68.95 | 75.85 | 83.43 | 91.77 |
| Repairs and Maintenance | 13.52 | 14.33 | 15.19 | 16.11 | 17.07 | 18.10 | 19.18 | 20.33 | 21.55 | 22.85 | 24.22 | 25.67 | 27.21 | 28.84 | 30.57 |
| Programme Expenses | 14.12 | 14.41 | 14.69 | 14.99 | 15.29 | 15.59 | 15.91 | 16.22 | 16.55 | 16.88 | 17.22 | 17.56 | 17.91 | 18.27 | 18.64 |
| 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 | 23.81 | 24.31 | 23.44 | 22.56 | 21.69 | 20.81 | 19.93 | 11.55 | 10.68 | 7.43 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Debt Repayment of New Loans | 0.64 | 11.56 | 23.77 | 40.01 | 56.61 | 76.19 | 91.51 | 103.47 | 108.85 | 114.49 | 120.39 | 110.38 | 99.93 | 92.00 | 83.26 |
| New project operating Expenses | 0.00 | 0.09 | 8.72 | 21.94 | 29.45 | 35.06 | 45.68 | 53.05 | 56.04 | 59.20 | 62.54 | 66.10 | 69.86 | 73.85 | 78.07 |
| TP's Contribution for new | 1.18 | 38.96 | 181.89 | 160.84 | 32.07 | 30.60 | 20.76 | 4.95 | 5.20 | 5.46 | 5.84 | 6.14 | 6.44 | 6.77 | 7.10 |
| Revenue Expenditure (B) | 122.81 | 178.22 | 347.66 | 362.24 | 264.27 | 295.23 | 319.18 | 323.72 | 341.55 | 358.24 | 372.16 | 378.61 | 385.85 | 396.89 | 408.54 |
| SURPLUS OR DEFICIT (A-B)=C | 76.19 | 40.45 | -111.59 | -106.73 | 12.99 | 20.11 | 24.30 | 51.36 | 69.07 | 92.42 | 142.97 | 188.49 | 239.97 | 295.37 | 359.00 |
| Closing Balance (C+X)=D | 94.40 | 134.85 | 23.26 | -83.47 | -70.48 | -50.37 | -26.06 | 25.30 | 94.36 | 186.78 | 329.76 | 518.24 | 758.22 | 1053.58 | 1412.58 |

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 | 119 | 195 | 131 | 87 | 178 | 295 | 431 | 597 | 786 | 1000 | 1263 | 1562 | 1902 | 2290 | 2732 |
| Cumulative Debt repayment obligation (New +Old) | 24 | 60 | 108 | 170 | 248 | 345 | 457 | 572 | 691 | 813 | 934 | 1044 | 1144 | 1236 | 1319 |
| Cumulative DSCR | 4.86 | 3.24 | 1.22 | 0.51 | 0.72 | 0.85 | 0.94 | 1.04 | 1.14 | 1.23 | 1.35 | 1.50 | 1.66 | 1.85 | 2.07 |
| Average | 1.61 | | | | | | | | | | | | | | |
| Minimum | 0.51 | | | | | | | | | | | | | | |
| Maximum | 4.86 | | | | | | | | | | | | | | |

16.4.2.2 FULL PROJECT SCENARIO WITH REFORMS BASED ON THE BORROWING CAPACITY OF THE TOWN

Under this **FULL REFORM** Scenario, to match the limited borrowing capacity of the town, an additional external support has been introduced in the funding pattern; the FOP for full project has been worked out as under:

The cash flows from new projects is shown in Table 16 K and the financial impact in implementing the Full projects WITH reforms but with additional external support is given in Table 16 L

The following are the outcome under this scenario:-

III

| Financing Criteria | Results obtained |
|--|--|
| Whether new project O&M is being met by the revenue of the TOWN? | The TOWN is able to meet the O&M of the new projects after implementing all reforms suggested as additional revenues are realized |
| Whether TOWN is able to meet its debt repayment obligations? | TOWN is now able to borrow funds required for the full project implementation. The same has been shown in Table 16 M where the DSCR is more than 1.25 times for the current & new loans (Minimum acceptable DSCR norms is 1.25) |
| Whether TOWN is able to contribute the required amount as per additional external support based on its borrowing capacity? | TOWN is now able to contribute the full amount required for the projects based on its financial strength with additional external funding. |

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Table 16-K: Full Project Cash Flow - As per Borrowing Capacity

| 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 |
|---------------------------------------|--------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <i>Opening Balance (A)</i> | 0.00 | -0.64 | -12.29 | -44.78 | -106.73 | -192.79 | -304.05 | -441.24 | -597.76 | -762.65 | -936.33 | -1119.27 | -1295.74 | -1465.54 | -1631.39 |
| Sources of Funds | | | | | | | | | | | | | | | |
| Debt Drawn Down | 7.10 | 118.97 | 125.04 | 82.61 | 89.04 | 130.12 | 68.40 | 29.71 | 31.19 | 32.75 | 35.07 | 36.82 | 38.66 | 40.60 | 42.63 |
| ULB Own Contribution | 0.59 | 21.63 | 133.35 | 108.32 | 21.71 | 11.48 | 6.37 | 2.48 | 2.60 | 2.73 | 2.92 | 3.07 | 3.22 | 3.38 | 3.55 |
| Grants | 4.14 | 92.50 | 299.57 | 417.76 | 69.55 | 88.00 | 52.60 | 17.33 | 18.20 | 19.11 | 20.46 | 21.48 | 22.55 | 23.68 | 24.87 |
| Total Inflow (B) | 11.84 | 233.10 | 557.96 | 608.70 | 180.31 | 229.59 | 127.36 | 49.51 | 51.99 | 54.59 | 58.45 | 61.37 | 64.44 | 67.66 | 71.05 |
| Disposition of Funds | | | | | | | | | | | | | | | |
| Project Capex | 11.84 | 233.10 | 557.96 | 608.70 | 180.31 | 229.59 | 127.36 | 49.51 | 51.99 | 54.59 | 58.45 | 61.37 | 64.44 | 67.66 | 71.05 |
| O&M For New Project | 0.00 | 0.09 | 8.72 | 21.94 | 29.45 | 35.06 | 45.68 | 53.05 | 56.04 | 59.20 | 62.54 | 66.10 | 69.86 | 73.85 | 78.07 |
| Debt Servicing (Principal + Interest) | 0.64 | 11.56 | 23.77 | 40.01 | 56.61 | 76.19 | 91.51 | 103.47 | 108.85 | 114.49 | 120.39 | 110.38 | 99.93 | 92.00 | 83.26 |
| Total Outflow (C) | 12.48 | 244.75 | 590.45 | 670.65 | 266.36 | 340.85 | 264.55 | 206.04 | 216.87 | 228.28 | 241.38 | 237.85 | 234.24 | 233.51 | 232.38 |
| Net Cash Flow (B-C)= D | -0.64 | -11.65 | -32.49 | -61.95 | -86.06 | -111.26 | -137.19 | -156.52 | -164.88 | -173.69 | -182.93 | -176.47 | -169.80 | -165.85 | -161.33 |
| <i>Closing Balance (A+D)=E</i> | -0.64 | -12.29 | -44.78 | -106.73 | -192.79 | -304.05 | -441.24 | -597.76 | -762.65 | -936.33 | -1119.27 | -1295.74 | -1465.54 | -1631.39 | -1792.72 |

Table 16-L: Financial Operating Plan of Tharangambadi - Full Project with Reforms-Borrowing Capacity

| 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) | 18.22 | 94.99 | 152.77 | 89.72 | 35.51 | 58.86 | 98.09 | 136.79 | 190.62 | 262.29 | 357.44 | 503.33 | 694.89 | 938.08 | 1236.83 |
| Property Tax | 16.12 | 16.25 | 16.37 | 16.50 | 16.62 | 20.99 | 21.22 | 21.44 | 21.66 | 21.88 | 27.66 | 27.97 | 28.28 | 28.59 | 28.90 |
| Other Taxes (Profession Tax) | 5.40 | 5.83 | 6.30 | 6.80 | 7.35 | 7.93 | 8.57 | 9.25 | 10.00 | 10.79 | 11.66 | 12.59 | 13.60 | 14.69 | 15.86 |
| Assigned Revenue | 7.25 | 7.76 | 8.31 | 8.89 | 9.51 | 10.17 | 10.89 | 11.65 | 12.46 | 13.34 | 14.27 | 15.27 | 16.34 | 17.48 | 18.71 |
| Devolution Fund | 69.00 | 79.35 | 91.25 | 104.94 | 120.68 | 138.78 | 159.60 | 183.54 | 211.07 | 242.73 | 279.14 | 321.02 | 369.17 | 424.54 | 488.22 |
| Service Charges & Fees | 92.82 | 96.40 | 100.11 | 103.96 | 107.96 | 121.56 | 126.51 | 131.67 | 137.02 | 142.60 | 162.11 | 168.95 | 176.06 | 183.47 | 191.18 |
| Other Income | 8.40 | 13.08 | 13.73 | 14.42 | 15.14 | 15.90 | 16.69 | 17.53 | 18.40 | 19.33 | 20.29 | 21.31 | 22.37 | 23.49 | 24.66 |
| Revenue Income (A) | 199.00 | 218.67 | 236.08 | 255.51 | 277.26 | 315.34 | 343.48 | 375.08 | 410.62 | 450.66 | 515.13 | 567.10 | 625.82 | 692.26 | 767.54 |
| EXPENDITURE | | | | | | | | | | | | | | | |
| Personnel Cost | 33.07 | 35.06 | 37.16 | 39.39 | 41.75 | 44.26 | 46.91 | 49.73 | 52.71 | 55.87 | 59.23 | 62.78 | 66.55 | 70.54 | 74.77 |
| Operating Expenses | 24.17 | 26.58 | 29.24 | 32.17 | 35.38 | 38.92 | 42.81 | 47.09 | 51.80 | 56.98 | 62.68 | 68.95 | 75.85 | 83.43 | 91.77 |
| Repairs and Maintenance Expenses | 13.52 | 14.33 | 15.19 | 16.11 | 17.07 | 18.10 | 19.18 | 20.33 | 21.55 | 22.85 | 24.22 | 25.67 | 27.21 | 28.84 | 30.57 |
| Programme Expenses | 14.12 | 14.41 | 14.69 | 14.99 | 15.29 | 15.59 | 15.91 | 16.22 | 16.55 | 16.88 | 17.22 | 17.56 | 17.91 | 18.27 | 18.64 |
| 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 | 23.81 | 24.31 | 23.44 | 22.56 | 21.69 | 20.81 | 19.93 | 11.55 | 10.68 | 7.43 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Debt Repayment of New Loans | 0.64 | 11.56 | 23.77 | 40.01 | 56.61 | 76.19 | 91.51 | 103.47 | 108.85 | 114.49 | 120.39 | 110.38 | 99.93 | 92.00 | 83.26 |
| New project operating Expenses (O&M) | 0.00 | 0.09 | 8.72 | 21.94 | 29.45 | 35.06 | 45.68 | 53.05 | 56.04 | 59.20 | 62.54 | 66.10 | 69.86 | 73.85 | 78.07 |
| TP's Contribution for new projects | 0.59 | 21.63 | 133.35 | 108.32 | 21.71 | 11.48 | 6.37 | 2.48 | 2.60 | 2.73 | 2.92 | 3.07 | 3.22 | 3.38 | 3.55 |
| Revenue Expenditure (B) | 122.22 | 160.89 | 299.13 | 309.72 | 253.91 | 276.11 | 304.79 | 321.24 | 338.95 | 355.51 | 369.24 | 375.54 | 382.62 | 393.51 | 404.99 |
| SURPLUS OR DEFICIT (A-B)=C | 76.78 | 57.78 | -63.05 | -54.21 | 23.35 | 39.23 | 38.69 | 53.84 | 71.67 | 95.15 | 145.90 | 191.56 | 243.19 | 298.75 | 362.55 |
| Closing Balance (C+X)=D | 94.99 | 152.77 | 89.72 | 35.51 | 58.86 | 98.09 | 136.79 | 190.62 | 262.29 | 357.44 | 503.33 | 694.89 | 938.08 | 1236.83 | 1599.38 |

Table 16-M: Calculation of Debt Service Coverage Ratio (DSCR) With FULL PROJECT WITH REFORMS- As per Borrowing Capacity

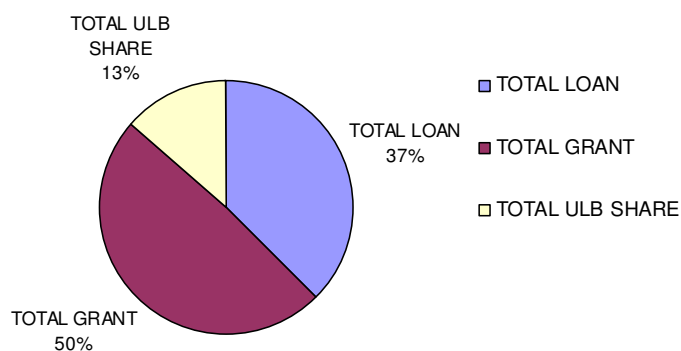
| Particulars | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Cumulative Net Surplus (Rs.in Lakhs) | 119 | 213 | 197 | 206 | 307 | 443 | 594 | 762 | 954 | 1171 | 1437 | 1739 | 2082 | 2473 | 2919 |
| Cumulative Debt repayment obligation (New +Old) (Rs.in Lakhs) | 24 | 60 | 108 | 170 | 248 | 345 | 457 | 572 | 691 | 813 | 934 | 1044 | 1144 | 1236 | 1319 |
| Cumulative DSCR | 4.89 | 3.53 | 1.83 | 1.21 | 1.24 | 1.28 | 1.30 | 1.33 | 1.38 | 1.44 | 1.54 | 1.67 | 1.82 | 2.00 | 2.21 |
| Average | 1.91 | | | | | | | | | | | | | | |
| Minimum | 1.21 | | | | | | | | | | | | | | |
| Maximum | 4.89 | | | | | | | | | | | | | | |

The table below shows the funding and borrowing capacity of the TOWN under “Full Project Scenario WITH Reforms”

Table 16-N : FULL PROJECT SCENARIO WITH REFORMS -Funding requirements as per Prudent Funding Norms vs. Funding Possibilities based on borrowing capacity

| Particulars | Full project Scenario- based on prudent financial norms (Rs.lakhs) | Full Project Scenario – Funding based on borrowing capacity (Rs.lakhs) |
|---------------------------|---|---|
| Loan Amount | 908.71 | 908.71 |
| External Support | 1004.99 | 1191.79 |
| TOWN’s Contribution | 514.21 | 327.41 |
| Public Contribution | 0 | 0 |
| PPP | 0 | 0 |
| Project Cost | 2427.91 | 2427.91 |
| % of loan on Project cost | 37% | |

Funding Pattern based on borrowing capacity



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- As seen from the above table, the TOWN can contribute Rs.3.27 Crores as its share towards funding of projects identified under CIP on account of reform implementation which is 64% of the required contribution of Rs.5.14Crores under the prudential funding norms.
- The TOWN's capability to borrow is **Rs.9.09 crores which is 37% of the total project cost.**
- Total external support required would be **Rs.11.92 Crores** in order to implement all the identified projects envisaged under CIP.

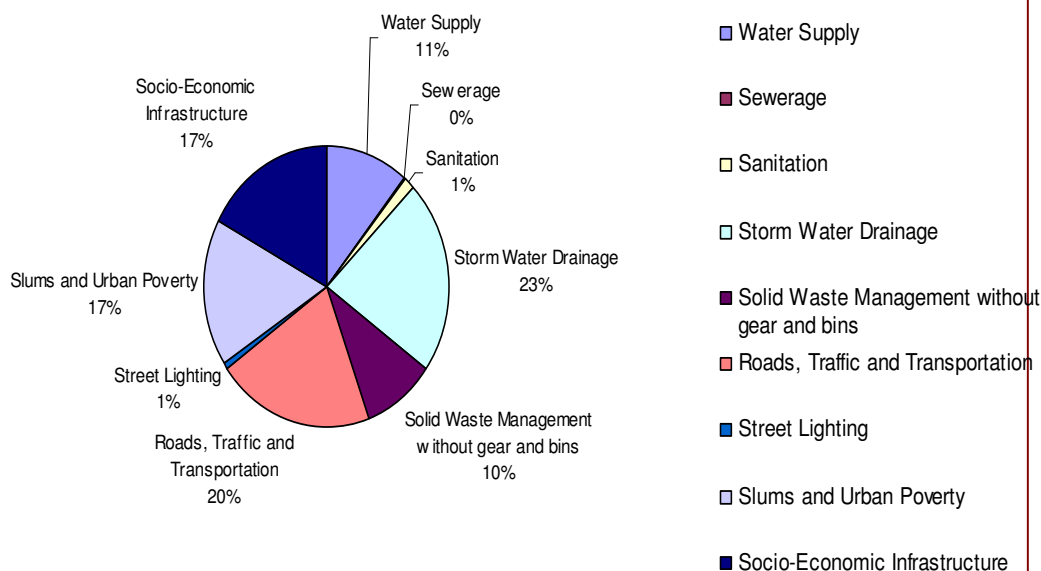
The full project investment proposed for the Town is to the tune of Rs. 2427.91 lakhs, the details of sector wise financing pattern is presented in the following table.

| Project Sector | Total Investment (Rs. In lakhs) |
|-----------------------------------|---------------------------------|
| Water Supply | 260.89 |
| Sewerage | 11.03 |
| Sanitation | 29.27 |
| Storm Water Drainage | 547.09 |
| Solid Waste Management | 234.02 |
| Roads, Traffic and Transportation | 495.18 |
| Street Lighting | 20.83 |
| Slums and Urban Poverty | 411.75 |
| Socio-Economic Infrastructure | 417.86 |
| Total | 2427.91 |

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Out of the total project costs, the share of Town Panchayat is Rs. 327.41 lakhs, which would be financed through internal accruals, after implementing the reforms with additional external borrowings. The Town Panchayat would mobilize the resources to the tune of 14% from their internal accruals with the remaining 86 % funding from lending agencies by way of Grant and Loan components.

Full reform implementation by the Town within the scheduled time frame (as shown Annexure V – 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.

Arithmetical Increase

| |
|--------------------------------------|
| Projected population = $P + ni$ |
| Where P = Present Population |
| And ni = Average increase per decade |

| Year | Population | Increment | | |
|----------------------|----------------|-------------|---------------------|--|
| 1971 | 17318 | | | |
| 1981 | 18610 | 1292 | | |
| 1991 | 18881 | 271 | | |
| 2001 | 20843 | 1962 | | |
| | Total | 3525 | | |
| | Average | 1175 | | |
| Projected Population | | | Percentage Increase | |
| 2009 | 21783 | 0.8 | 4.51 | |
| 2013 | 22253 | 1.2 | 2.16 | |
| 2018 | 22841 | 1.7 | 2.64 | |
| 2023 | 23428 | 2.2 | 2.57 | |

Geometrical Increase Method

| |
|--|
| Projected Population $P_n = P(1+Rg)^n$ |
| where Rg = Geometric mean |
| n=number of decades |

| Census year | Pop | Increment | Geometric growth |
|-------------|--------------------------|-----------|------------------|
| 1971 | 17318 | | |
| 1981 | 18610 | 1292 | 0.07 |
| 1991 | 18881 | 271 | 0.01 |
| 2001 | 20843 | 1962 | 0.10 |
| | Geometric mean Rg | | 0.05 |

| Year | Projected Population | | Percentage increase |
|------|----------------------|-----|---------------------|
| 2009 | 21645 | 0.8 | 3.85 |
| 2013 | 22058 | 1.2 | 1.91 |
| 2018 | 22584 | 1.7 | 2.39 |
| 2023 | 23124 | 2.2 | 2.39 |

POPULATION PROJECTIONS FOR THARANGAMBADI

Incremental Increase

Projected Population $P_n = P_{2001} + nx + \frac{n(n+1)}{2}y$
 Where P = Present Population
 P_n = Projected population for nth decade
 n = number of decades
 x = average increase per decade
 y = average incremental increase per decade

| Year | Population | Increment | Incremental increase |
|------|----------------|-------------|----------------------|
| 1971 | 17318 | | |
| 1981 | 18610 | 1292 | 1292 |
| 1991 | 18881 | 271 | -1021 |
| 2001 | 20843 | 1962 | 1691 |
| | Total | 3525 | 1962 |
| | Average | 1175 | 654 |

| Year | projected population | | Percentage increase |
|------|----------------------|-----|---------------------|
| 2009 | 22254 | 0.8 | 6.77 |
| 2013 | 23116 | 1.2 | 3.88 |
| 2018 | 24341 | 1.7 | 5.30 |
| 2023 | 25730 | 2.2 | 5.70 |

Least Squares

| Year (X) | Population (Y) in lakhs | X ² | XY |
|-------------|-------------------------|-----------------|---------------------|
| 1971 | 17318 | 3884841 | 34133778 |
| 1981 | 18610 | 3924361 | 36866410 |
| 1991 | 18881 | 3964081 | 37592071 |
| 2001 | 20843 | 4004001 | 41706843 |
| 7944 | 75652 | 15777284 | 150299102.00 |

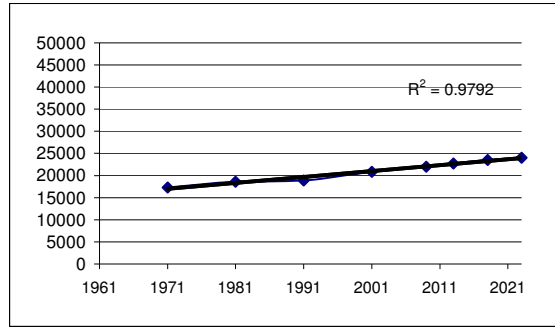
| | |
|--|------------------------------|
| n = | number of items = |
| Y = | a + bX |
| ΣY = | a(n) + bΣX |
| ΣXY = | aΣX + bΣX² |
| 4a + 7944b = | 75652 |
| 7944a + 15777284b = | 150299102.00 |
| | |
| 7944a + 15776784b | 150244872 |
| 7944a + 15777284b | 150299102 |
| 500b = | 54230 |
| b = | 108.46 |
| | |
| 4a + 7944b = | 75652 |
| 4a = | -785954.24 |
| a = | -196488.56 |
| Solving the equation Y = a + bX | |

| Year | Projected Population | Percentage Increase |
|------|----------------------|---------------------|
| 2009 | 21408 | 2.71 |
| 2013 | 21841 | 2.03 |
| 2018 | 22384 | 2.48 |
| 2023 | 22926 | 2.42 |

POPULATION PROJECTIONS FOR THARANGAMBADI

Graphical Method

| Year | Population |
|------|------------|
| 1971 | 17318 |
| 1981 | 18610 |
| 1991 | 18881 |
| 2001 | 20843 |
| 2009 | 22000 |
| 2013 | 22700 |
| 2018 | 23500 |
| 2023 | 24000 |

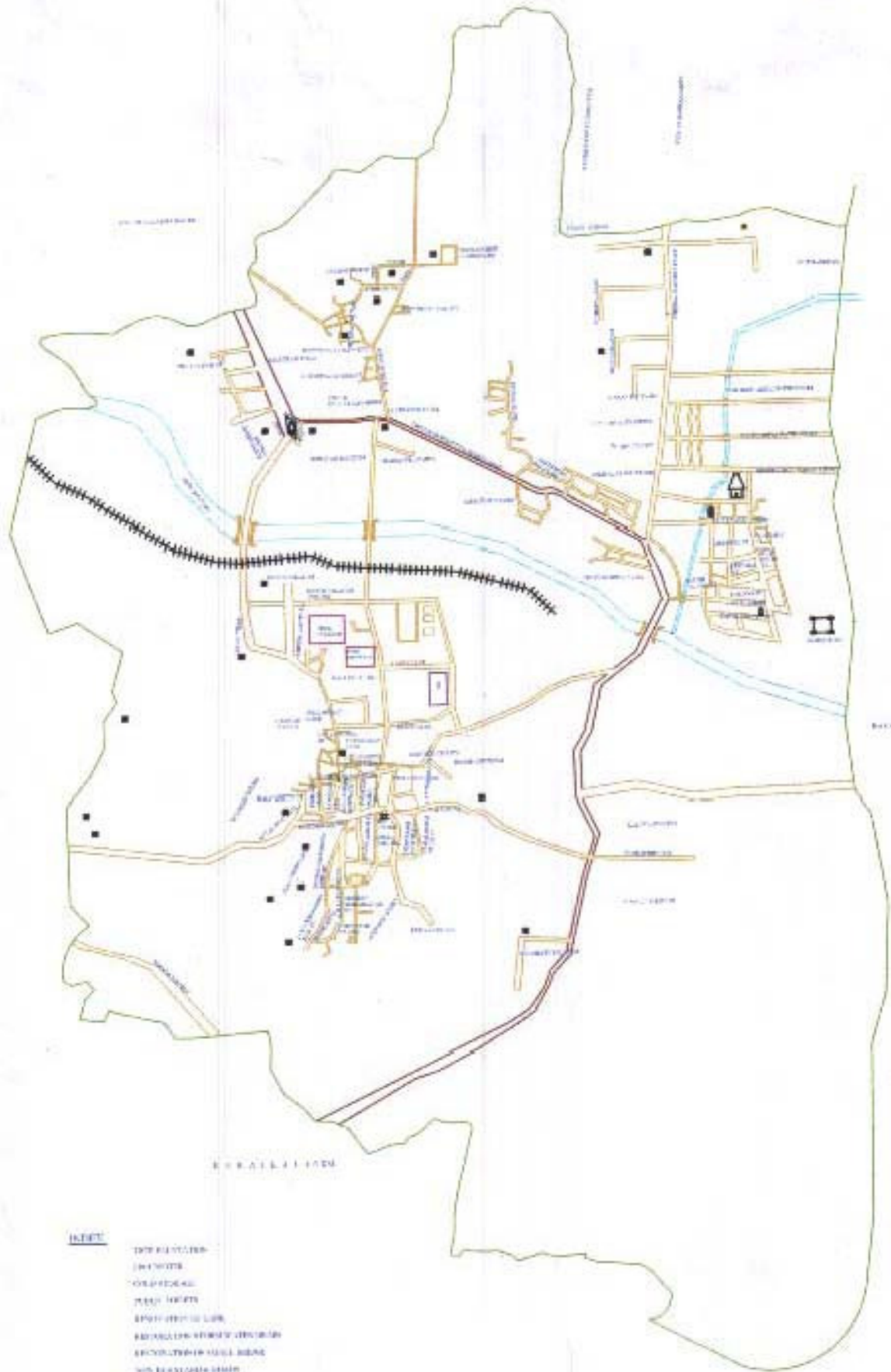


| Year | Arithmetic Increase | Geometric Increase | Incremental Increase | Least Squares | Graphical Method | average |
|------|---------------------|--------------------|----------------------|---------------|------------------|---------|
| 1971 | 17318 | 17318 | 17318 | 17318 | 17318 | 17318 |
| 1981 | 18610 | 18610 | 18610 | 18610 | 18610 | 18610 |
| 1991 | 18881 | 18881 | 18881 | 18881 | 18881 | 18881 |
| 2001 | 20843 | 20843 | 20843 | 20843 | 20843 | 20843 |
| 2009 | 21783 | 21645 | 22254 | 21408 | 22000 | 21818 |
| 2013 | 22253 | 22058 | 23116 | 21841 | 22700 | 22394 |
| 2018 | 22841 | 22584 | 24341 | 22384 | 23500 | 23130 |
| 2023 | 23428 | 23124 | 25730 | 22926 | 24000 | 23842 |

Annexure II: Norms Vs Current Status for Tharangambadi

| Reform Agenda for Tharangambadi Town Panchayat | | | | |
|---|--|---------------|---|---|
| Sector | Indicators | Unit | Current Status | Norms/Standard |
| Water Supply | Daily per capita supply | Litres | 45 | 70/100 |
| | Roads covered with distribution network | Percent | 104 | 100 |
| | Storage capacity with respect to supply | Percent | 112 | 33 |
| | Service connection | Percent | 18 | 85 |
| | Collection efficiency in water charges | Percent | 64.65% (2007-08) | 100 |
| Storm Water Drainage | Roads covered with Storm water drainage | Percent | 5 | 130 |
| Solid Waste management | Waste generation per Capita per day | Grams | 247.1 | < 350 grams |
| | Collection efficiency | Percent | 45.45 | 100 |
| | Conservancy staff per Km | Persons | 0.3 | 2 |
| | Door-Door collection efficiency(Assessments covered) | Percent | 24.1 | 100 |
| | Assessments involved in waste segregation | Percent | 24.1 | 100 |
| Roads | Per capita road length | Meters/Person | 2 | 1.5 |
| | Percentage of Surface roads | Percent | 82 | 100 |
| Street Lighting | Spacing between lamps | Meters | 37.7 | 30 |
| Urban Finance | Collection efficiency in Property taxes | Percent | 99.76%(2007-08) | 100 |
| | Revision in Property tax | Years | Once in 10 years | Once in 5 years |
| Institutional Reforms | Privatisation | Areas | There is no privatization except participation of SHG in SWM collection & Segregation for 7out of 18 wards | Solid Waste Management, Street Light Maintenance, Pumping Station Maintenance, STP Maintenance and Hiring of Vehicles |
| | E-Governance | Modules | The Town Panchayat has initiated steps for computerization of Birth & Death, Accounts, Pay Bills and Property Tax records | 18 |











NAGAPATTINAM DISTRICT
 THARANGAMPADI TOWN PANCHAYATH





















KEY

- TOURIST SPOTS
- WATER
- ROADS
- RAILWAYS
- GOVERNMENT OFFICES
- EDUCATIONAL INSTITUTIONS
- TEMPLES
- INDUSTRIES

Annexure V: Reforms Implementation Schedule For Thanrangambadi

| Tharangambadi | | | | | | | | | | | | | | | | |
|---|---|---|---------|---|---------|---------|---|---------|---------|---------|---------|---|---------|---------|---------|---|
| 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 | 99.76% (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 tax paid only in Municipal office | | | | | |  | ————— | | | | | | | | |
| Other Reforms in property taxes as mentioned in Chapter15 of this report | Limited extent | | | | | |  | ————— | | | | | | | | |
| Water Supply | | | | | | | | | | | | | | | | |
| Service coverage of water connections to be increased from current 35% to 85% | 18% | 23% | 27% | 32% | 36% | 41% | 45% | 50% | 54% | 58% | 63% | 67% | 72% | 76% | 81% |  |
| Revision of Water supply charges and initial deposit for new water connection | Ad hoc basis | | | | | |  | | | | |  | | | | |

Annexure V: Reforms Implementation Schedule For Thanrangambadi

| 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 | | | |  |  | | | | | | | | | | | |
















Annexure V: Reforms Implementation Schedule For Thanrangambadi

| 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 |
|--|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Storm Water Drainage | | | | | | | | | | | | | | | | |
| Achieving drain length of 45 percent of road length by 2023-24 | 5% | | | | | | | | | | | | | | | 45% |
| Solid Waste Management | | | | | | | | | | | | | | | | |
| Door to door collection of garbage at household level and segregation of waste at source | 24.10% of assessments covered by Door to Door collection and 24.10 % of assessments involved in waste segregation | | | | | | | | | | | | | | | |
| Private Sponsorship of bins for waste segregation at source | Not done | | | | | | | | | | | | | | | |
| Annual Maintenance Contract for Vehicles used in SWM | Not done | | | | | | | | | | | | | | | |
| Potential for getting carbon credit benefit through the Clean Development Mechanism (CDM) need to be studied in making a comprehensive solid waste management scheme | Not undertaken | | | | | | | | | | | | | | | |
| Periodic Training to Public Health Staff | Regularly | | | | | | | | | | | | | | | |

Annexure V: Reforms Implementation Schedule For Thanrangambadi

| 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 35 meters street light spacing by 2023-24 | 37.70 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 V: Reforms Implementation Schedule For Thanrangambadi

| 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.

Stakeholders Consultation for Preparation of TIP

Name of the Town: *Tharangampadi*

Date: *30/10/2009*

| S.NO | Name | Ward No | Signature |
|------|-----------------------------|----------------|-------------------------|
| 1 | <i>Dr. G. Rajan</i> | <i>1 ward</i> | <i>[Signature]</i> |
| 2 | <i>Dr. C. S. Srinivasan</i> | <i>2 ward</i> | <i>J. Pradeep Manj.</i> |
| 3 | <i>S. T. Srinivasan</i> | <i>3 ward</i> | <i>[Signature]</i> |
| 4 | <i>Dr. R. Srinivasan</i> | <i>4 ward</i> | <i>R. Srinanthi</i> |
| 5 | <i>R. Srinivasan</i> | <i>5 ward</i> | <i>R. Srinanthi</i> |
| 6 | <i>Dr. K. Srinivasan</i> | <i>6 ward</i> | <i>[Signature]</i> |
| 7 | <i>M. J. Srinivasan</i> | <i>7 ward</i> | <i>M. J. Srinivasan</i> |
| 8 | <i>R. Srinivasan</i> | <i>8 ward</i> | <i>[Signature]</i> |
| 9 | <i>R. Srinivasan</i> | <i>9 ward</i> | <i>[Signature]</i> |
| 10 | <i>Dr. P. Srinivasan</i> | <i>10 ward</i> | <i>[Signature]</i> |
| 11 | <i>Dr. S. Srinivasan</i> | <i>11 ward</i> | <i>[Signature]</i> |
| 12 | <i>R. S. Srinivasan</i> | <i>12 ward</i> | <i>[Signature]</i> |
| 13 | <i>M. Srinivasan</i> | <i>13 ward</i> | <i>[Signature]</i> |
| 14 | <i>K. Srinivasan</i> | <i>14 ward</i> | <i>[Signature]</i> |
| 15 | <i>D. Srinivasan</i> | <i>15 ward</i> | <i>[Signature]</i> |
| 16 | <i>Dr. M. Srinivasan</i> | <i>16 ward</i> | <i>[Signature]</i> |
| 17 | <i>Dr. T. Srinivasan</i> | <i>17 ward</i> | <i>[Signature]</i> |
| 18 | <i>M. Srinivasan</i> | <i>18 ward</i> | <i>[Signature]</i> |

| | |
|---|---|
| <p>அனுப்புதல் திரு. கு. பாலசுப்பிரமணியன் செயல் அலுவலர், தரங்கம்பாடி தேர்வுநிலை பேரூராட்சி, நாகப்பட்டினம் மாவட்டம் ☎ 954364 289843</p> | <p>அடைதல் உதவி இயக்குனர் அவர்கள், பேரூராட்சிகளின் உதவி இயக்ககம், பனகல் கட்டிடம், தஞ்சாவூர்.</p> |
|---|---|

ந.க. எண் 24/2010/அ1/நாள். 10.03.2010

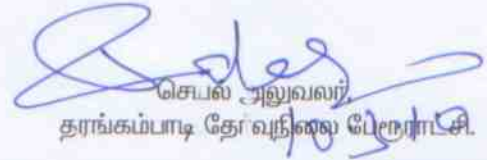
ஐயா,

பொருள் நகர் வளர்ச்சி திட்டம் - நாகப்பட்டினம் மாவட்டம் - தரங்கம்பாடி தேர்வுநிலை பேரூராட்சி - நகர் வளர்ச்சி திட்டம் - உள்கட்டமைப்பு திட்டம் - 2009-10 முதல் 2023-2024 வரை - பேரூராட்சி மன்றத்தில் பொருள் வைக்கப்பட்டது - மன்ற தீர்மானம் நகல்- சமர்ப்பித்தல் - தொடர்பாக.

பார்வை :

- 1) Darashaw & Cmpny Pvt.Ltd 8/2, Unique Sterling Apartment, Sterling Road, Third Cross street. Nungambakkam, Chennai - 34 அவர்களின் திட்டம் குறித்த மதிப்பீட்டு புத்தகம்.
- 2) Darashaw & Company Pvt.Ltd 8/2, Unique Sterling Apartment, Sterling Road, Third Cross street. Nungambakkam, Chennai - 34 அவர்களின் கடிதம், Conch/CA/275/2009-2010 நாள். 05.02.2010
3. தரங்கம்பாடி பேரூராட்சி மன்ற தீர்மானம் எண். 516/26.02.2010
4. மற்றும் இதர தொடர்புடைய ஆவணங்கள்.

நாகப்பட்டினம் மாவட்டம், தரங்கம்பாடி பேரூராட்சியில் . Darashaw & Company Pvt.Ltd மூலம் நகர் வளர்ச்சி முதலீடு திட்டம் - உள்கட்டமைப்பு வசதிகள் மேம்பாடு செய்தல் தொடர்பான திட்ட அறிக்கையை பேரூராட்சி மன்றத்தின் பரிசீலனைக்கு வைக்கப்பட்டது. நீண்ட விவாதத்திற்கு பிறகு பேரூராட்சி மன்றம் இத்திட்டத்தை செயல்படுத்த அங்கீகரிக்கவில்லை என்ற விபரத்தினை பணிவுடன் தெரிவித்துக்கொள்கிறேன். மேலும் திட்டம் குறித்து விபரமாக தீர்மானம் நிறைவேற்றப்பட்டுள்ளது. மேற்படி தீர்மான நகலை இத்துடன் இணைத்து பணிந்து சமர்ப்பித்துள்ளேன்.


 செயல் அலுவலர்
 தரங்கம்பாடி தேர்வுநிலை பேரூராட்சி.

இணைப்பு - தீர்மானம் நகல்

நகல் -

1. பேரூராட்சிகளின் இயக்குனர், பேரூராட்சிகளின் இயக்ககம், குறளகம், சென்னை - 108 அவர்களுக்கு தகவலுக்காக (தீர்மான நகல் இணைப்புடன்) பணிந்து சமர்ப்பிக்கப்படுகிறது.
2. Darashaw & Company Pvt.Ltd 8/2, Unique Sterling Apartment, Sterling Road, Third Cross street. Nungambakkam, Chennai - 34 அவர்களுக்கு தகவலுக்காக (தீர்மான நகல் இணைப்புடன்) அனுப்பப்படுகிறது.

தரங்கம்பாடி தேர்வுநிலை பேரூராட்சி

சாதாரண கூட்ட நடவடிக்கைகளின் நகல்

2009-ம் ஆண்டு பிப்ரவரி மாதம் 26ம் தேதி (26.02.2010) வெள்ளிக் கிழமை மாலை 4.00 மணி அளவில் தரங்கம்பாடி தேர்வுநிலை பேரூராட்சி மன்ற கூடத்தில் சாதாரணக் கூட்டம் கீழ்க்கண்ட பொருள் குறித்து பரிசீலித்து முடிவு செய்ய நடைபெற்றதின் நடவடிக்கைகள்.

முன்னிலை திரு. ஜி. கிருஷ்ணசாமி

தரங்கம்பாடி பேரூராட்சி மன்ற தலைவர், தரங்கம்பாடி பேரூராட்சி.

பொருள் எண் : 10

நாகப்பட்டினம் மாவட்டம், தரங்கம்பாடி தேர்வுநிலை பேரூராட்சியில் நகர் வளர்ச்சி முதலீடு திட்டம் Darashaw & Company Pvt. Ltd. Naraiman Point. Mumbai – 21 அவர்கள் தரங்கம்பாடி பேரூராட்சியின் நகர் வளர்ச்சி திட்டம் தொடர்பாக கீழ்க்கண்டவாறு தீர்மானம் நிறைவேற்றி அனுப்பக் கேட்டு வரப்பெற்ற கடிதம் மன்ற பார்வைக்கு.

தரங்கம்பாடி நகரின் எதிர்கால வளர்ச்சியைக் கருத்தில் கொண்டு, 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, தாரஷா ஆலோசகர்கள் தமிழ்நாடு நகர்ப்புற வளர்ச்சித்திட்டம் III மூலம், தரங்கம்பாடி பேரூராட்சிக்கு நகர மதிப்பீட்டுத்திட்டம் (Town Investment Plan) ஒன்றினைத் தயாரித்துள்ளார்கள். இத்திட்டத்தில் குடிநீர் வழங்கல் மேம்பாடு, புதை வடிகால், மழைநீர் வடிகால், திடக்கழிவு மேலாண்மை, சாலை வசதி, தெரு விளக்கு பூங்கா மற்றும் விளையாட்டுத்திடல் பராமரிப்பு, பேருந்து நிலையம் சந்தை, குடிசைப்பகுதி மேம்பாடு மற்றும் இதர வசதிகள் மேம்பாடு குறித்தும் பரிந்துரை செய்துள்ளனர்.

நகர மதிப்பீடு திட்ட இறுதி அறிக்கையின் கீழ் ரூ. 1879.98/- இலட்சத்திற்கு (Current Prices) கீழ்க்கண்ட கருத்துரு மற்றும் (Urban Reforms) சீர்திருத்தங்கள் தயாரிக்கப்பட்டு, மன்றத்தின் பார்வைக்கு வைக்கப்படுகிறது. மேலும், இத்திட்டங்களுக்கு ஒப்புதல் வழங்கவும், இத்திட்டங்களைச் செயல்படுத்துவதற்கு DTP. TNUIFSL. TUFIDCO போன்ற அரசுத்துறை நிறுவனங்களுடன் பேரூராட்சி செயல் அலுவலர் அவர்கள் ஒப்பந்தம் செய்து கொள்வதற்கும் அனுமதிக்கு வைக்கப்படுகிறது.

உள்கட்டமைப்பு திட்ட பட்டியல் (2009-10 - 2023-24)

| வ.எண். | திட்டத்தின் பெயர் | மொத்த மதிப்பு (ரூ. இலட்சத்தில்) |
|--------|--|---------------------------------|
| 1 | குடிநீர் வழங்கல் மேம்பாடு | 205.98 |
| 2. | சுகாதாரம் | 35.00 |
| 3. | மழைநீர் வடிகால் மேம்பாடு | 360.00 |
| 4. | திடக்கழிவு மேலாண்மை | 158.68 |
| 5. | போக்குவரத்து மேம்பாடு | 409.67 |
| 6. | தெருவிளக்கு | 14.94 |
| 7 | குடிசைப்பகுதி மேம்பாடு மற்றும் நகர்புற வறுமை குறைப்புத் திட்டங்கள் | 342.56 |
| 8. | சமுதாய உள்கட்டமைப்பு வசதிகள் | 353.15 |
| | மொத்தம் | 1879.98 |

மேற்குறிப்பிட்ட திட்டங்களை செயற்படுத்துவதற்கு அரசு மானியம், கடன் தவிர பேரூராட்சி தன்னுடைய சொந்த நிதியில் இருந்து சுமார் ரூ. 327.41 இலட்சங்கள் வருகிற 15 ஆண்டு காலத்திற்கு பேரூராட்சியின் பங்காக ஒதுக்கவேண்டியுள்ளது. இதனை சாத்தியப்படுத்த கீழ்க்கண்ட சீர்திருத்தங்களை நடைமுறைப்படுத்த வேண்டியுள்ளது.

சீர்திருத்தங்கள் குறித்த நிகழ்வறிதல்.

| பொருள் | சீர்திருத்தம் குறித்த கருத்துகள் |
|---|---|
| • சொத்துவரி உயர்வு | ஒவ்வொரு 5 ஆண்டுகளுக்கு ஒருமுறை 25 % சொத்துவரியை உயர்த்தவும் |
| • குடிநீர் வழங்கல் - வீட்டு இணைப்புகளை அதிகரித்தல் | ஒவ்வொரு ஆண்டும் 4% - 5 % வரை வீட்டு இணைப்புகளை அதிகரித்து 2023-24ம் ஆண்டில் நகரில் 85 % குடியிருப்புகளுக்கு (Assessments) குடிநீர் குழாய் இணைப்பு வழங்குதல் |
| • புதிய குடிநீர் குழாய் இணைப்பிற்கான வைப்புத்தொகையை உயர்த்துதல் | ஒவ்வொரு 5 ஆண்டுகளுக்கு ஒரு முறை, புதிய குடிநீர் குழாய் இணைப்பிற்கு மட்டும், வைப்புத் தொகையை ரூ. 2000/- உயர்த்துதல் |
| • குடிநீர் கட்டணத்தை உயர்த்துதல் | 5 ஆண்டுகளுக்கு ஒரு முறை 25 % குடிநீர் கட்டணத்தை உயர்த்துதல். |

அலுவலக குறிப்பு :

1. The Council approves the Town investment plan prepared by the Consultants
2. The Council agrees to implement all the projects identified under various sectors
3. The Council agrees to implement all the suggested.

குறிப்பு

Darashaw & Company Pvt. Ltd. Naraiman Point, Mumbai - 21 அவர்கள் கடிதம்
Coneh/ca/275/2009-10/Dt: 05.02.2010 மன்ற பார்வைக்கு.

தீர்மானம் எண் : 517

நாகப்பட்டினம் மாவட்டம், தரங்கம்பாடி தேர்வுநிலை பேரூராட்சியில் நகர் வளர்ச்சி முதலீடு திட்டம் செயல்படுத்துதல் சம்பந்தமாக தீவிர பரிசீலனைக்குப்பின்கீழ்க்கண்டவாறு தீர்மானம் நிறைவேற்றப்படுகிறது.

தரங்கம்பாடி பேரூராட்சியில் கடந்த காலங்களை விட தற்போது நல்ல வளர்ச்சி பெற்றுள்ளது. சொத்துவரி உயர்வு அரசின் முடிவின் படியும், வரி சீராய்வின் மூலம் 10 ஆண்டுக்கு ஒருமுறை வரி உயர்வு செய்யப்படுகிறது. ஏற்கனவே நகராட்சிகளுக்கு இணையாக வரி விதிப்பு உள்ளது. இதை மேலும் உயர்த்துவது, மக்கள் மீது அதிக சுமையை ஏற்றுவதாகும், வீட்டு குடிநீர் இணைப்புகளை அதிகரிக்க போதிய குடிநீர் ஆதாரம் பேரூராட்சி பகுதிகளில் இல்லை, வெளியிலிருந்து 100 கி. மீட்டருக்கு மேல் இருந்து குறைந்த அளவே குடிநீர் சப்ளை பெறப்படுகிறது. இதனால் குடிநீர் இணைப்பு வைப்புத்தொகை அதிகரிக்கவும், இணைப்பை கூடுதலாக்கவும் வாய்ப்பில்லை. குடிநீர் கட்டணத்தை உயர்த்தவும் வாய்ப்பில்லை.

அரசு மற்றும் அரசு துறை நிறுவனங்களிடமிருந்து 1). LIC. 2), TNUIFSL, 3). TUFIDCO, 4). Ways and Meansa, 5). Nabard Scheme 6). Road Development Scheme மூலம் அதிக அளவில் கடன் பெற்று மேல்நிலை நீர்தேக்கத்தொட்டி மற்றும் பைப்லைன் விஸ்தரிப்பு செய்யப்பட்டுள்ளது. புதிய தார்சாலை மற்றும் சிமெண்ட் சாலை அமைக்கப்பட்டுள்ளது. புதிய பேருந்து நிலைய கட்டுமானம் அதிக கடன் தொகையில் நடைமுறைப்படுத்தப்பட்டு வருகிறது.

மேலும் பணியாளர்களுக்கு ஊதியம் மற்றும் இதர படிகள் செலவினம் அதிக அளவில் உள்ளது. திடக்கழிவு மேலாண்மை திட்டம் செயலாக்கும், தரங்கம்பாடி பேரூராட்சி தமிழகத்தில் முன்னோடியாக திகழ்கிறது. இதற்கு Intach தொண்டு நிறுவனத்துடன் செய்து கொண்ட ஒப்பந்தம் 31.03.2010ல் முடிவுபெறுவதால் அதன் பணியாளர்களுக்கு ஊதியம் வழங்குவதால் மிக கூடுதல் செலவினத்தை வருங்காலத்தில் இப்பேரூராட்சி ஏற்க வேண்டியுள்ளது.

எனவே, தரங்கம்பாடி பேரூராட்சி ஏற்கனவே கடன் சுமை அதிகம் உள்ள நிலையில், மேலும் கடன் பெற்று நகர் வளர்ச்சி திட்ட முதலீடு செய்வதை தவிர்க்க வேண்டும் என இப்பேரூராட்சி மன்றம் ஏகமனதாக தீர்மானிக்கின்றது. எனவே இத்திட்டத்தை செயல்படுத்த மன்றம் அங்கீகரிக்கவில்லை, மேலும் கடன் பெறாமல் நகர் வளர்ச்சி திட்ட முதலீட்டுக்கு அரசு மான்யம் மற்றும் அரசு துறை மான்யம் கிடைப்பதின் மூலம் செயல்படுத்தும் திட்டங்களுக்கு இப்பேரூராட்சி மன்றம், தனது முழு ஒத்துழைப்பை நல்குவது என தீர்மானிக்கிறது.

ஒப்பம் (XXX)

தலைவர் மற்றும் அனைத்து உறுப்பினர்கள்
தரங்கம்பாடி பேரூராட்சி

/உண்மை நகல்/



செயல் அலுவலர், 10.3.10

தரங்கம்பாடி தேர்வுநிலை பேரூராட்சி.

103.10