

...2...

2. The master plan for Thanjavur local planning area with all its enclosures shall be kept open to the inspection of the public in the office of the Commissioner, Thanjavur Municipality during office hours.

(BY ORDER OF THE GOVERNOR)

L.N.VIJAYARAGHAVAN,
SECRETARY TO GOVERNMENT.

To

- The Works Manager, Government Central Press, Madras-79. (for publication of the Notification in Tamil Nadu Government Gazette)
- The Director of Town and Country Planning, Madras-2 (w.c)
- The Regional Deputy Director of Town and Country Planning, Tiruchirapalli Region, Tiruchy.
- The Commissioner of Municipal Administration, Madras-5.
- The Member-Secretary, Thanjavur Local Planning Authority, Thanjavur. . . through the Director of Town and Country Planning, Madras

Copy to:

The Housing and Urban Development (UD.IV.1) Madras-9 (for file).
SF/SC.

/FORWARDED/BY ORDER/

[Signature]
SECTION OFFICER

K
9/13

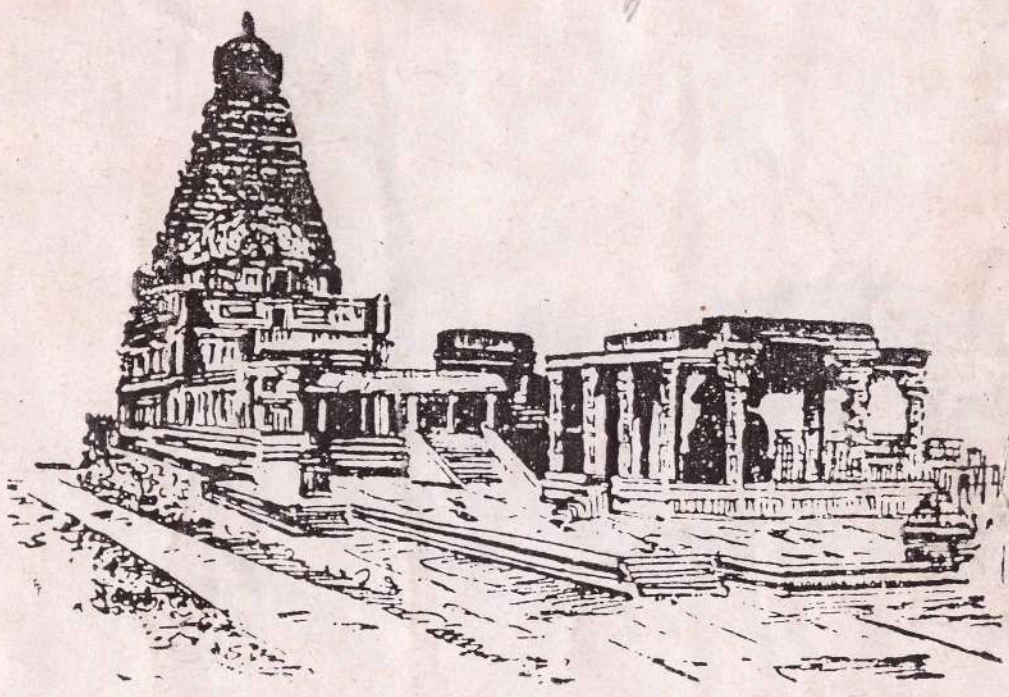
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THANJAVUR LOCAL PLANNING AREA

MASTER PLAN

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THANJAVUR LOCAL PLANNING AUTHORITY,
THANJAVUR

Reference No.

; 5740/88 TR-4

Regional Office

: DIRECTORATE OF TOWN AND COUNTRY PLANNING, TIRUCHY REGION

Head office file No.

: 13847/85 MPAI

Master Plan for

: THANJAVUR LOCAL PLANNING AREA

Approved in Resolution No. 81 dated 2.12.77 of Thanjavur Local Planning Authority

Consented in G.O. Ms. No. 923 Housing and Urban Development Department dated 6-6-1979

EXECUTIVE AUTHORITY / MEMBER SECRETARY, THANJAVUR LOCAL PLANNING AUTHORITY, THANJAVUR

[Signature]
16/12/92
REGIONAL DEPUTY DIRECTOR
TOWN AND COUNTRY PLANNING,
TIRUCHY

[Signature]
ASSISTANT DIRECTOR OF
TOWN AND COUNTRY PLANNING
MASTER PLAN DIVISION

[Signature]
JOINT DIRECTOR OF
TOWN AND COUNTRY PLANNING
MASTER PLAN DIVISION

[Signature]
DIRECTOR OF
TOWN AND COUNTRY PLANNING
MADRAS-2.

[Signature]
FW COMMISSIONER AND SECRETARY TO GOVERNMENT,
HOUSING AND URBAN DEVELOPMENT
DEPARTMENT, MADRAS - 9.

696/95 H&UD dt 9.8.95
Patil's in T. & C. P. dt. 11/1/95

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37221
GOVERNMENT OF TAMIL NADU

ABSTRACT

Master Plan for Thanjavur local planning area - Approval under section 28 of the Tamil Nadu Town and Country Planning Act, 1971 - Accorded.

HOUSING AND URBAN DEVELOPMENT (UD-IV.2) DEPARTMENT.

G.O.Ms.No.696,

Dated: 9.8.95.

Read :

1. G.O.Ms.No.652, Rural Development and Local Administration Department, dated 8.4.75.
 2. G.O.Ms.No.928, Housing and Urban Development Department, dated 6.6.1979.
 3. G.O.Ms.No.909, Housing and Urban Development Department, dated 8.9.1989.
 4. From the Director of Town and Country Planning Letter No.13847/85/MP2, dated 31.3.94 and 11.5.94.
-

ORDER :

In the Government order second read above, the Government have given their consent to the publication of a notice of the preparation of the master plan for Thanjavur local planning area.

2. The Director of Town and Country Planning in his letters fourth read above has submitted the master plan for Thanjavur local planning area for approval of the Government under section 28 of the Town and Country Planning Act, 1971.

3. Under section 28 of the Tamil Nadu Town and Country Planning Act, 1971 (Tamil Nadu Act 35 of 1972), the Governor of Tamil Nadu hereby approves the master plan for Thanjavur local planning area submitted by the Director of Town and Country Planning. The delay of 4638 days in the preparation of the master plan and convening a meeting of the local planning authority is hereby condoned. The copies of the master plan for Thanjavur local planning area as approved by the Government are communicated to the Director of Town and Country Planning.

4. The following Notification will be published in the next issue of the Tamil Nadu Government Gazette :-

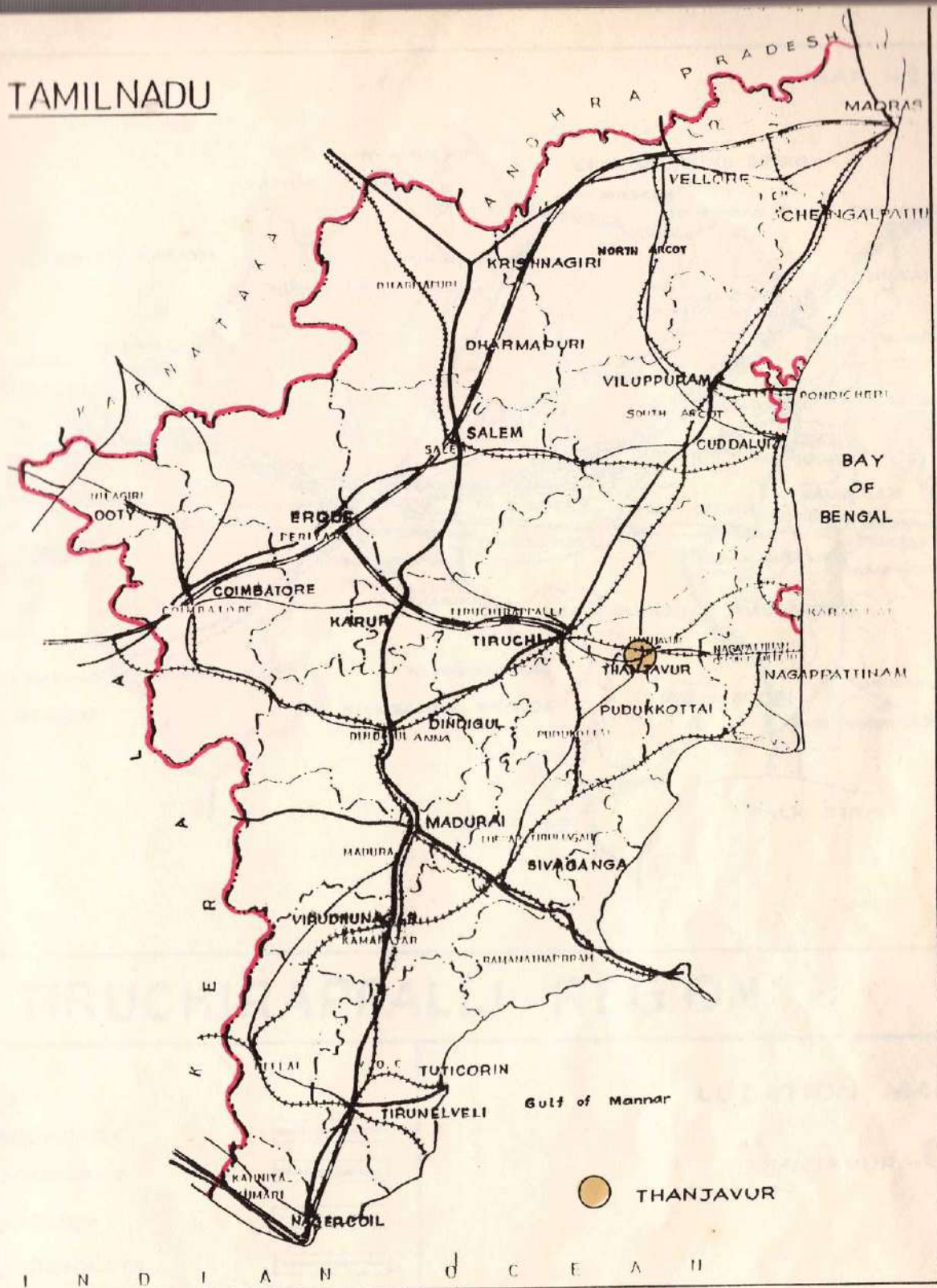
NOTIFICATION

In exercise of the powers conferred by sub-section (1) of section 30 of the Tamil Nadu Town and Country Planning Act, 1971 (Tamil Nadu Act 35 of 1972), the Governor of Tamil Nadu hereby publishes the approval of the Government under section 28 of the said Act for the master plan of Thanjavur local planning area submitted by the Director of Town and Country Planning.

ANNEXURES

- ANNEXURE - A T.S.Nos. covered in sanctioned detailed development plans
- ANNEXURE - B G.O.Ms.No. 1084 RD&LA dated 23-4-1974
- ANNEXURE - C G.O.Ms.No. 1867 RD&LA dated 17-3-1974
- ANNEXURE - D G.O.Ms.No. 850 RD&LA dated 21-3-89
- ANNEXURE - E G.O.Ms.No. 1138 RD&LA dated 7-6-76
- ANNEXURE - F G.O.Ms.No. 189 RD&LA dated 2-2-74
- ANNEXURE - G Notified residential area
- ANNEXURE - H Notified industrial area
- annexure - I Notified park and play field
- ANNEXURE - J Variation Government Orders
Agricultural use zone into residential use zone
 - i) G.O.Ms.No. 1322 H&UD Dept., dt.1.12.37
 - ii) G.O.Ms.No. 1795 H&UD Dept., dt.27.11.37
 - iii) G.O.Ms.No. 1817 H&UD Dept., dt.1.12.87
 - iv) G.O.Ms.No. 1243 H&UD Dept., dt.9-10-90
 - v) G.O.Ms.No. 1597 H&UD Dept., dt.5-12-88
 - vi) G.O.Ms.No. 995 H&UD Dept., dt.19-7-88
 - vii) G.O.Ms.No. 945 H&UD Dept., dt.6.6.91
 - viii) G.O.Ms.No. 179 H&UD Dept., dt.11.2.91
 - ix) G.O.Ms.No. 805 H&UD Dept., dt.13-5-91
 - x) G.O.Ms.No. 912 H&UD Dept., dt.31.5.91
- ANNEXURE - K Primary residential use zone into mixed residential use zone
G.O.Ms.No. 919 H&UD Dept., dt.31.5.91
- ANNEXURE - L Commercial use zone into primary residential use zone
G.O.Ms.No. 887 H&UD Dept., dt.21-5-91
- ANNEXURE - M Residential use zone into controlled industrial use zone
G.O.Ms.No. 1632 H&UD Dept., dt.20-12-88
- ANNEXURE - N Special hazardous industrial use zone into residential use zone
G.O.Ms.No. 1819 H&UD Dept., dt.1.12.87
- ANNEXURE - O Industrial use zone into residential use zone
G.O.Ms.No. 7 H&UD Dept., dated 3-4-92
- ANNEXURE - P Master Plan for Urban Development
G.O.Ms. 928 Housing and Department dt.6.6.1979

TAMILNADU

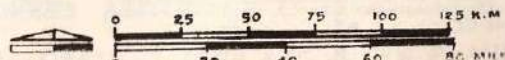


LEGEND:-

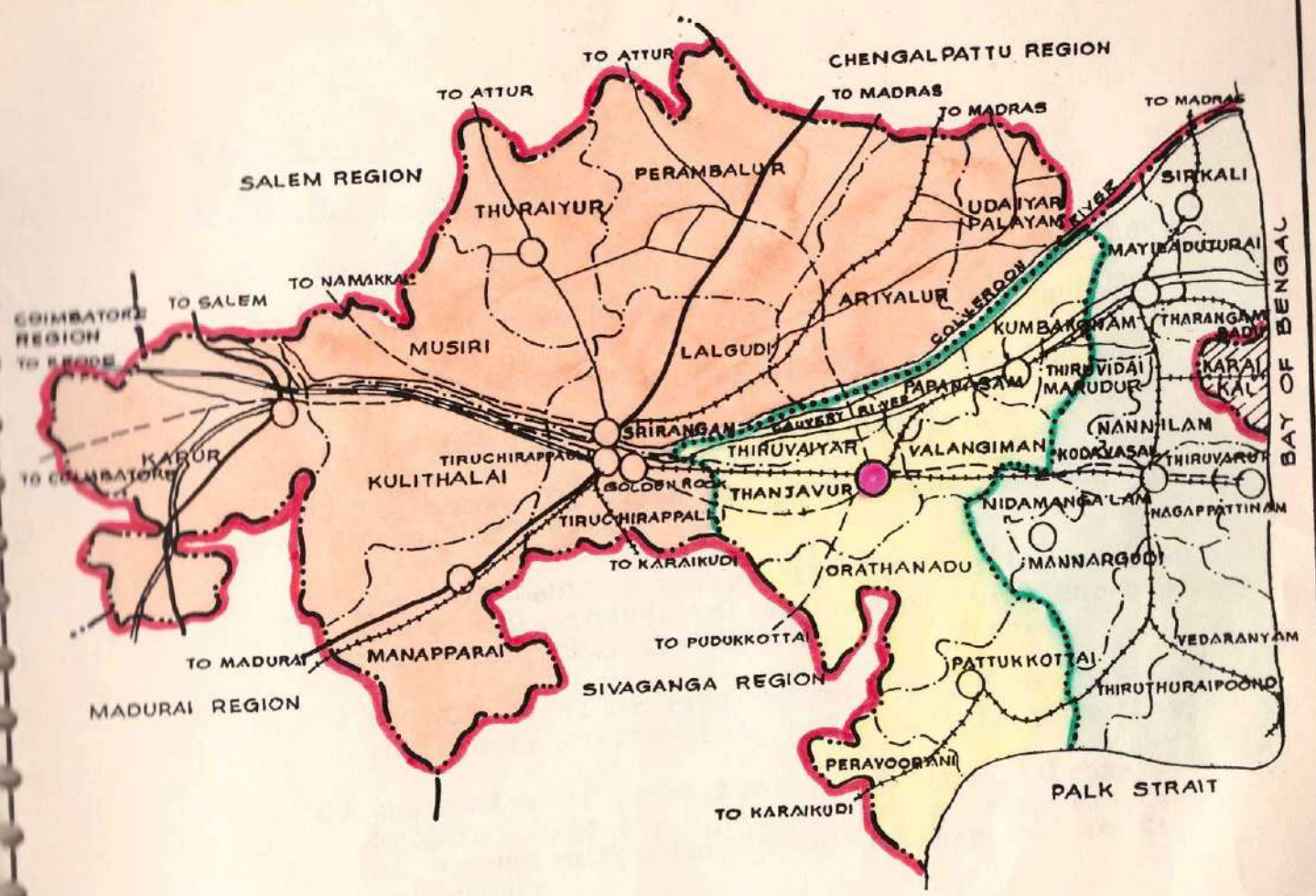
- STATE BOUNDARY
- DISTRICT BOUNDARY
- RAILWAY LINE (BROAD GAUGE)
- RAILWAY LINE (METRE GAUGE)
- NATIONAL HIGHWAYS
- OTHER ROADS



LOCATION MAP



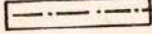
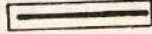
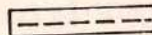

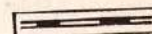
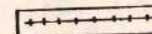
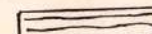



DIRECTORATE OF TOWN & COUNTRY PLANNING,
GOVT. OF TAMILNADU.




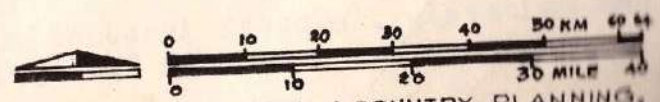
TIRUCHIRAPPALLI REGION

LEGEND:-

- REGION BOUNDARY 
- DISTRICT BOUNDARY 
- TALUK BOUNDARY 
- NATIONAL HIGHWAYS 
- STATE HIGHWAYS 
- DISTRICT ROADS 
- RAILWAY LINE (B.GAUGE) 
- RAILWAY LINE (M.GAUGE) 
- RIVERS 
- OTHER STATE 

LOCATION MAP

THANJAVUR 



DIRECTORATE OF TOWN & COUNTRY PLANNING,
TIRUCHIRAPPALLI REGION,
GOVT OF TAMILNADU.

CHAPTER - IMASTER PLAN - THE LEGAL FRAME WORK:

1.01 The Town and Country Planning Act of 1971 provides for the preparation of Master Plan for each town under Section 17. The Master Plan may propose or provide for all or any of the following matters, namely:-

- a) The manner in which the land in the planning area shall be and
- b) the allotment or reservation of land for residential, commercial, industrial and agricultural purposes and for parks, play fields and open spaces.
- c) the allotment or reservation of land for public buildings, institutions and for civil amenities
- d) the making of provisions for National Highway, arterial roads, ring roads, major streets, lines of communication including railways, air ports and canals
- e) the traffic and transportation pattern and traffic circulation pattern
- f) the major road and street improvements
- g) the areas reserved for future development, expansions and for new housing.
- h) the provision for the improvement of areas of bad layout or obsolete development and slum areas and for relocation of population
- i) the amenities, services, and utilities
- j) the provisions for detailed development of specific areas for housing, shopping, industries and civic amenities and educational and cultural facilities.
- k) the control of architectural features, elevation and frontage of buildings and structures
- l) the provisions for regulating the zone, the location height, number of stories and size of buildings and other structures, the size of yards and other open spaces, and the use of buildings, structures and land

- m) the stages by which the Master Plan shall be carried out, and
- n) such other matters may be prescribed.

PLANNING AREA FOR THANJAVUR:

1.02 Thanjavur has played a vital role as Capital for several Kingdom since from the period of ancient great Chola Kingdoms in the past and has emerged as the 7th largest town of Tamil Nadu today with the population of 1.8 lakhs as per 1981 Census. By its location in the midst of rich agricultural lands by its treasure of ancient monuments and temples which is symbolic of the highly civilized culture with the fresco paintings of the Chola period attracts people from all over the country and abroad.

1.03 Thanjavur District has been all along the celebrated 'Rice Bowl' of Tamil Nadu and even noted for its paddy production in national level. Thanjavur Town serves as the district headquarter, connecting all the important identified urban centres radially by all means of transportation except Airways. It is locally at about 350 K.M. on the south west of Madras City, the Capital of Tamil Nadu and well connected by rails and State Highways.

1.04 This richly cultured town has focussed the attention of Town Planning to set the growth of the town organised and well balanced.

L.P.A. THANJAVUR VILLAGES, AREA AND POPULATION AS PER 1931Table No. 1.01CENSUS

S.No.	Name of the Villages	Village No.	Total Extent in Hec.	Male	Female	Total
1.	2.	3.	4.	5.	6.	7.

Thanjavur Municipality

Thanjavur	3633.00	94495	39520	134015
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Thanjavur Taluk Villages

1.	Sakkaraí samantham ✓	63	325.37	790	774	1564
2.	Palliagraharam	86	258.59	204	228	432
3.	Ramapuram (Part) ✓	87	22.45	241	201	442
4.	Gudalur ✓	89	330.46	496	450	946
5.	Manakkarambai (Part)	94	244.39	951	896	1847
6.	Kurungalur ✓	96	336.55	529	498	1027
7.	Puliyanthoppu	99	345.71	335	303	638
8.	Pudupattinam (Part)	100	215.08	1695	1369	3064
9.	Aushahip thottam	101	47.44	110	145	255
10.	Velur Group	102	338.03	238	262	500
11.	Nilgiri Therkku thottam	107	354.68	1320	1255	2585
12.	Meleveli (Part)	109	388.78	1428	1374	2822
13.	Kadkadappai	110	244.39	307	313	620
14.	Nanjikkottai (Part)	112	1680.03	3312	3204	6516
15.	Pillayarpati	120	1086.62	1275	1221	2496
16.	Ramanathapuram (Part)	147	900.32	1783	1743	3526
17.	Palliyyeri	148	236.20	239	236	475
18.	Melachi thakkadu	149	133.18	72	60	132
19.	Kandi dhampattu	151	522.91	1004	977	1981
20.	Kulichappattu	152	329.87	881	876	1757

1.	2.	3.	4.	5.	6.	7.
21.	Vilar (Surakkottai Village including)	153	1909.68	2859	2880	5739
22.	Inayatkhan pettai (Part)	154	300.02	899	875	1774
23.	Kodikkalur	153	4.58	-	-	-
24.	Kadakkadappai thottam	156	2.21	-	-	-
25.	Kanjanayakkam thottam	157	1.71	-	-	-
26.	Akkamma thottam	86/1	26.23	-	-	-

PAPANASAI TALUK

Ravamutti rakkottai (Dalavai Palayam) (Part)	122	223.41	444	416	860
Arulmalai pettai	154	118.95	350	367	717
Bhavani Ambal puram	155	13.48	102	104	206

 10941.37 21801 21420 43221

1.05 The Tamil Nadu Government in G.O.Ms.No. 1367 dated 17.8.1974 have notified an area of local planning area for this town as per sub-Section (4) of section 10 of the Tamil Nadu Town and Country Planning Act 1971.

1.06 This planning area is so delineated by taking into consideration of the interdependence of the town and the surrounding areas in the particular aspects of education, work and medical aid, the journey time and also the movement of the consumable goods like vegetable, milk etc., the postal zones, trends of growth, density of population etc.

1.07 As such, the town and the villages comprised in Thanjavur Planning Area are listed in Table 1.1 indicating therein the extent and population of each village. The total population of Thanjavur Town in 1981 was 134015 and the population of the planning area was 2,27,236.

CHAPTER II

HISTORY AND GROWTH

EARLY HISTORY:

2.01 The known history of Thanjavur dates back to the Sangam age when the Cholas rule was supreme for nearly a thousand years. A set back in the Chola regime came with the advance of the Pallavas (575-600 A.D.) who in turn gave way to the rising power of the Pandyas. But the Pandyas did not stay long and once again Thanjavur came under the sway of a new Chola line established by King Vijayalaya. By the beginning of the 13th Century, the Chola dynasty became weak and Pandyas once again came to the fore.

2.02 The Pandyas supremacy was short-lived. They were assailed by the Sheras and Moghals from the north. By the end of 13th Century, Thanjavur came under the Muslim rule. Muslim domination remained till the middle of the 14th Century when Vijayanagar chieftains ended the Muslim rule.

2.03 Thanjavur remained under the suzerainty of Vijayanagar for a long period. But the beginning of the 17th Century saw the end of the Vijayanagar Empire.

2.04 The Marathas stepped in the later half of the 17th century. of the Maratta dynasty of Thanjavur, it lasted about 176 years. Princes of this line trace their origin to Shahjee the Great. The Marattas first established themselves as a leading power at Satara and Kolapore of

western coast, and subsequently at Thanjavur of Eastern coast. It will be seen that close coordination was kept up by these principalities by marriage of the two royal houses. The Princes of Thanjavur marrying the daughters of the Chiefs of Satara and Kolapore.

2.05 The French and the English began interfering in the internal affairs of South India. After a series of fights, the supremacy of English was established and a pact was signed between the Maratta Ruler and the English. The status of the Rajah was in effect reduced to a Vassal paying tribute to the English.

2.06 Towards the close of the 18th Century, the administration of Thanjavur was handed over to the English Company which was followed by the Treaty of 1799 according to which Thanjavur was ceded to the English in perpetuity.

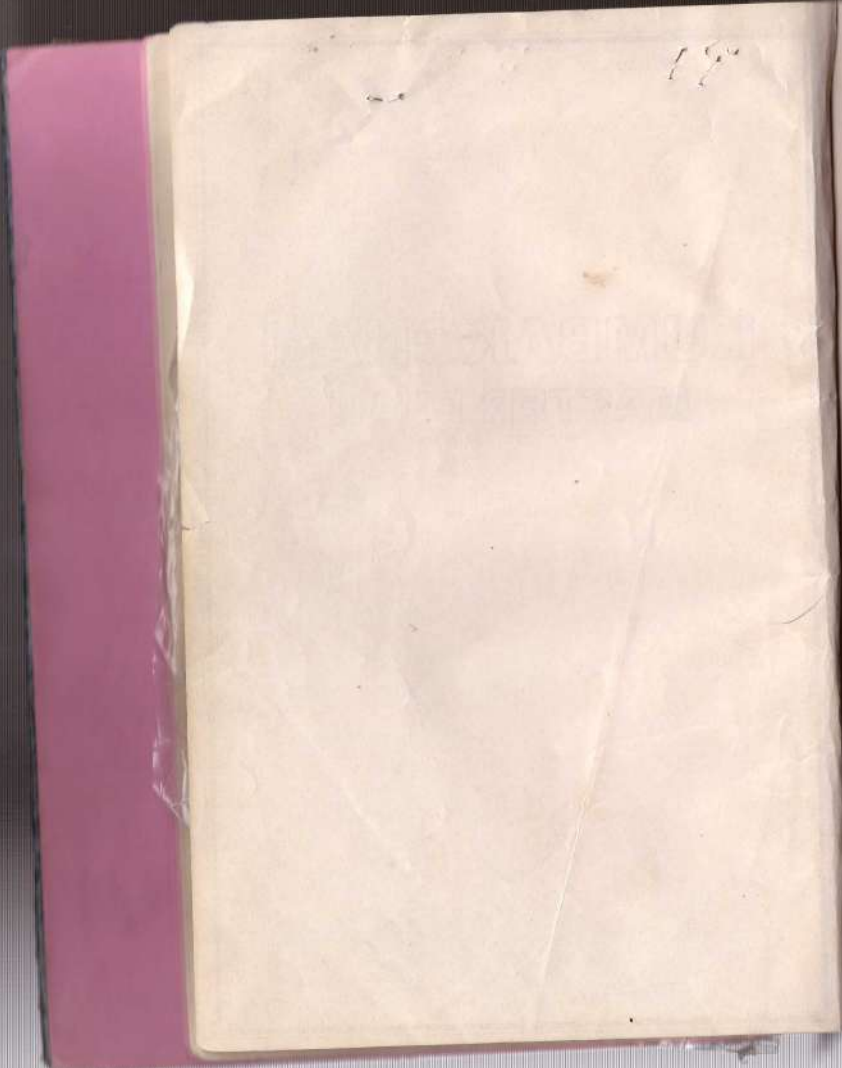
2.07 Under this pact, the ruler of Thanjavur was allowed to retain the Fort of Thanjavur with limited powers in its administration. With the death of the ruler in 1841 without any heir, Thanjavur Fort was annexed by the British and treated as Part of Madras State and remained under the British until 1947.



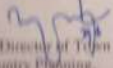
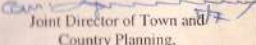
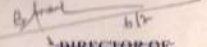
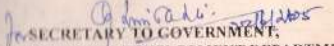
HISTORICAL EVALUATION OF THE TOWN:-

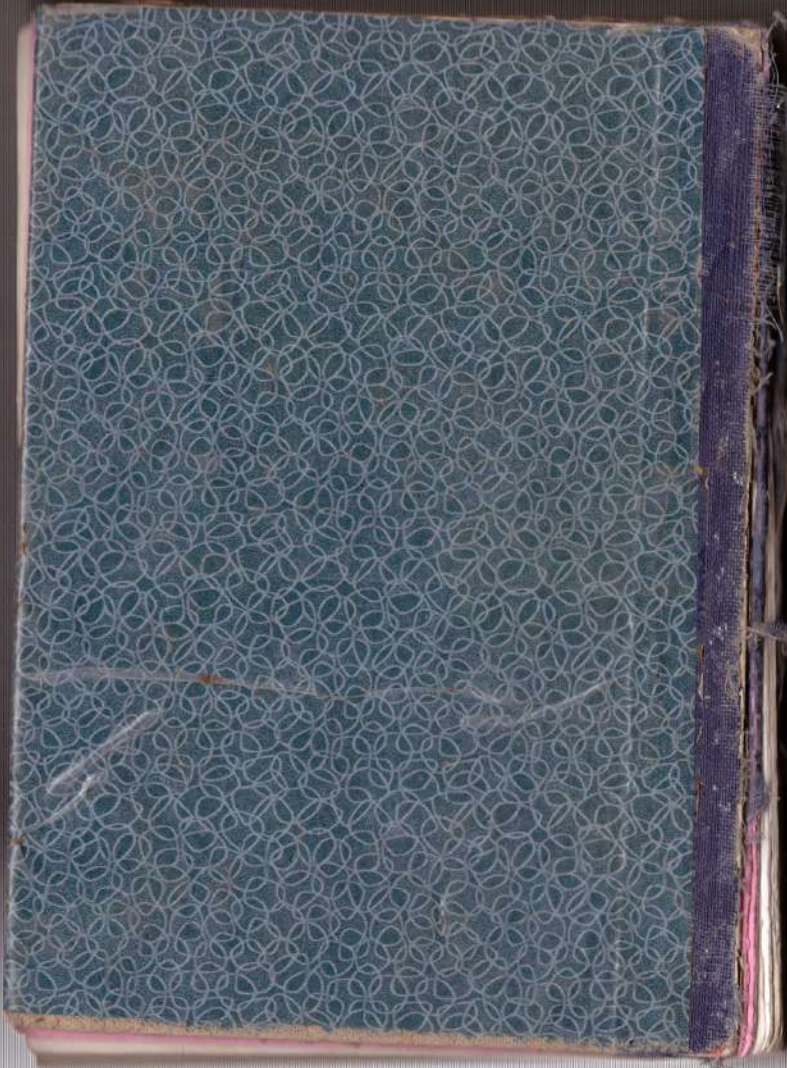
2.08 Summing up the available materials of old manuscripts and inscriptions on stones. Among the cities Thanjavur perhaps stood first in the Chola age. It was the capital of the Chola Kings of the Vijayalaya line


List of maps


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8.	Existing land use	Enclosed with cover
9.	Proposed land use	



Local Planning Area reference No.	282/2003 KLP A
Regional Deputy Director Reference No.	778/02TR1
Director of Town and Country Planning reference No.	30730 / 2000 / mp3
Regional Office	Tiruchirapalli Region, Directorate of Town and Country Planning.
Review Master Plan for	Kumbakonam Local Planning Area
Approved in resolution No. and date of Kumbakonam Local Planning Authority	No. 2 Dated 23-12-2003 of Kumbakonam Local Planning Authority.
 Member Secretary Kumbakonam Local Planning Authority	 Deputy Director of Town and Country Planning, Tiruchirapalli Region
 Deputy Assistant Director of Town and Country Planning, Master Plan Division	 Joint Director of Town and Country Planning, Master Plan Division
Additional Director of Town and Country Planning.	
 DIRECTOR OF TOWN AND COUNTRY PLANNING	
 SECRETARY TO GOVERNMENT, HOUSING AND URBAN DEVELOPMENT DEPARTMENT, GOVERNMENT OF TAMIL NADU	

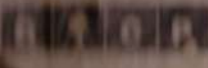



KUMBakonam
REVIEW MASTER PLAN



BURHARDIAN LOCAL PLANNING AUTHORITY
THANJAVUR DISTRICT

TIRUCHIRAPPALLI REGION

 DIRECTORATE OF
TOWN AND COUNTRY PLANNING
GOVERNMENT OF TAMILNADU

until the reign of Rajaraja I. It was studied with a number of Royal Palaces a large number of State residence of the royal family and a large number of busy streets. Here were the big street of Virosola, the big Bazaar of Trichuvanama-ladeviar and the two new important roads running East to West of the whole city known as the Northern and Southern talicerier. Here was also the biggest of all temples, the Raja Rajaswara temple, the wonder of the age and the monumental work of Rajaraja the great the city seems to have grown in size in course of time, for we learn that in the reign of Raja Raja there were two parts of it, the inner (Uttalai) and the outer, (Purambadi). The other attractions of Thanjavur were the Jeyachimma temple and a hospital attached to a Vishnu temple called after Raja Raja's father Sundara Chola Vinayagar Atula-salai and endowed by his sister Kundavai. The whole city was surrounded by a fort wall and a deep moat. From the time of Rajendra-I however the Capital was shifted to the new city of Gangapuri. This capital was famous for the vast tanks called Cholagangam, a big bazaar a big palace and an equally big temple called Gangaikonda Cholawara temple. Kanchi, too, after the conquest of the Pallava country, became a part of subsidiary capital in which the Kings used to spend part of their time. It is a pity that we can glean nothing from the inscriptions about the other Chola cities and towns.

2.09 The town consisted formerly of the larger and the smaller forts and the two suburbs. The walls of the largest fort have now been pulled down and the moat filled up. The smaller fort is in good preservation and its old walls and deep moat are a fine sight.

2.10. The name of Thanjavur is linked with that of the Cholas who have left in the great temple here a striking relic of their genius. The town seems to have been in existence even in the tenth century, for an inscription the Rashtrakuta King Krishna III boasts of having captured Thanjavur. It continued to be the Royal residence till after the reign of Rajaraja-I (885-1013). His successor Rajendra Chola-I (1011-1044) removed his capital to Gangai-konda Cholapuram and Thanjavur seems to have lost its importance temporarily. But it seems to have remained sufficiently important to deserve the boast of the Pandyan king in the 13th century that he burnt Thanjavur and Uraiyur. It does not however appear that any harm was done to the great temple. It is not clear what happened to Thanjavur in the obscure years which intervened between the invasion of Malikkafur (1318) and the establishment of the Nayakas (about 1544). Some inscriptions of the early Vijayanagar dated in the 15th century have been found in Thanjavur, which show that the place had not sunk in the insignificance and when the Nayakas acquired the district, Thanjavur was selected as their capital. They built the two forts Thanjavur was the scene of the death of the last Nayaka King the

details of which are given in one of the Mackenzie Manuscripts. As we have already seen when the Invaders from Madurai forced their way into the large fort and appeared at the palace gate, the king who had previously caused the ladies apartments to be stored with gun powder ordered to be blown up; and then he and his son Mannaru, dashed out of the palace, sword in hand and died fighting to the last.

The story is still kept in mind by the shattered town in the North Western corner of the Palace. That part of the building is believed to be visited by the ghosts of the unfortunate woman who died in it.

2.11 The place is famous for the great Brahadeeswarar temple which has excited the admiration of the all archaeologists. The Chief attraction is the big gopuram with a coping stone carved out of a single block of granite, said to weigh 30 M.T. and so constructed that the shadow of the gopuram never falls in the ground at any time during the day. The still remaining portions of the old palace in this place are the two Durbar Halls which are spacious and brightly coloured apartments with pillared roofs.

LATER HISTORY:

2.12. The headquarters of Collector were set up in 1860 and the District Court was brought from Kumbakonam in 1863. Thanjavur town was constituted as a Municipality in 1862. The Sivaganga tank which prevailed within the smaller part had been laid down into peoples park by the Municipality as Sivaganga park in 1871-72. To cater to the needs of the public in medical field, the Raja

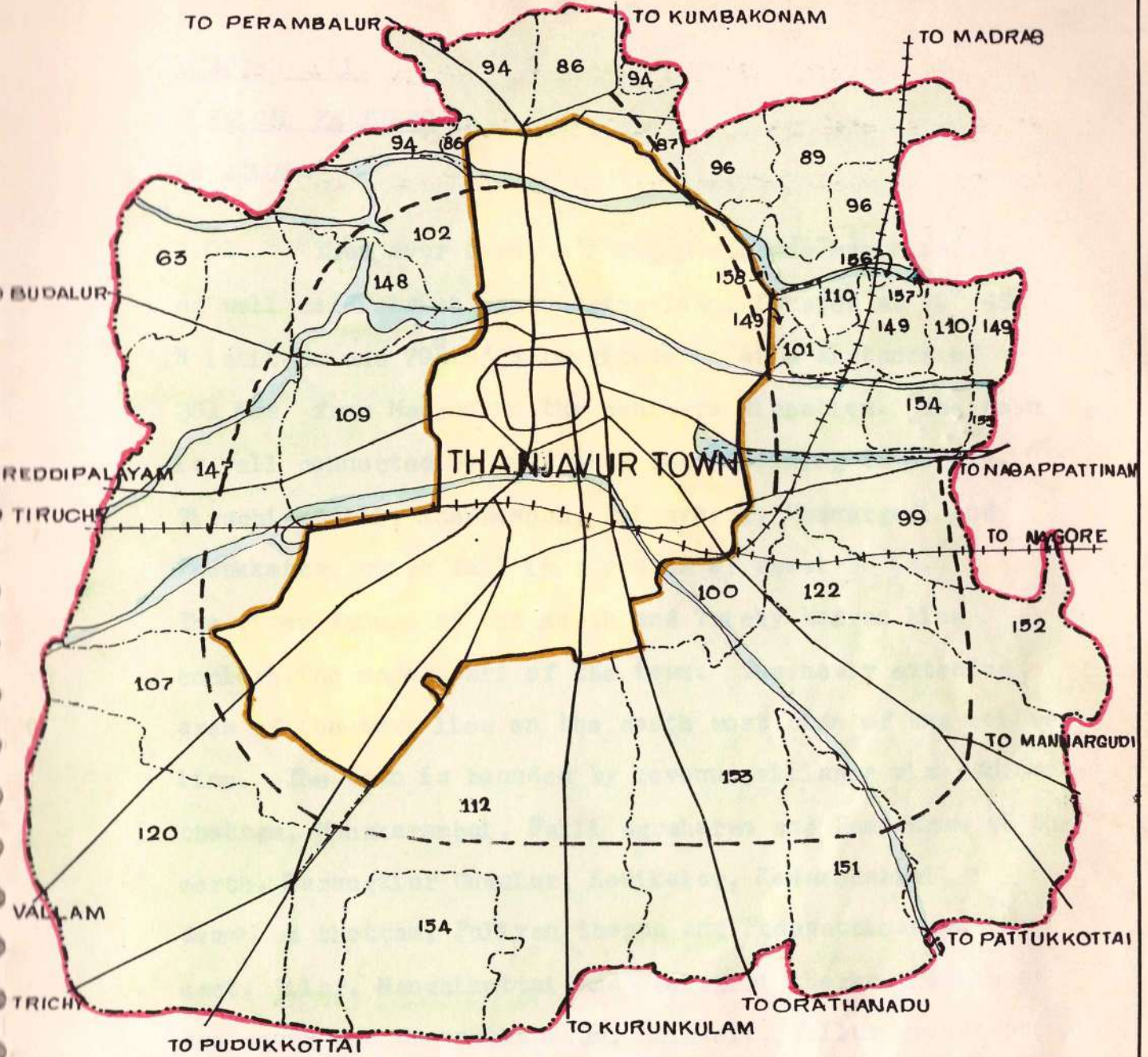
Mirasdar Hospital was opened in 1830. The protected water supply was made to the town in 1895 taking water from the Vennar river which runs in the southern part of the town. The Durbar Hall and their surrounding portions were converted into the Thanjavur Arts Gallery which was inaugurated in 1951. The Raja Sarabhoji Maharaja Saraswathi Mahal library. Where there are rare collections of ancient books and manuscripts on a variety of subjects in Sanskrit, Tamil, Telugu, Marathi and other European languages, is another interesting place in the town. The sangēetha Mahal or hall of music, perfectly planned in accoustic is another interesting monuments. Raja Saraboji College and Medical College were opened in 1956 and 1959 respectively.

PRESENT ADMINISTRATIVE SET UP:


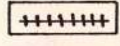

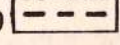

2.13 The governing body of the municipality at present is an elected municipal council leaded by a Chairman and its term of office is 5 years. A municipal area is now divided into 36 wards from which members are elected for the council.

2.14 Further the council, is looking after different subjects like Water supply, Drainage, Education, public Health, Town Planning, Finance, Electricity and General administration of garbage disposal, a maintenance of burial and burning ghats etc.,

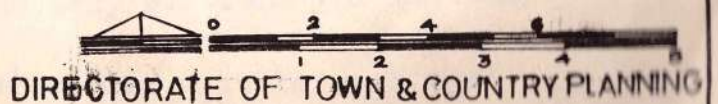
2.15 The General administration is done by a Commissioner who will be assisted by a public health officer, an engineer, a town planning officer, revenue officer and a Manager with their staff.



THANJAVUR LOCAL PLANNING AREA

- P. AREA BOUNDARY 
- RAILWAY LINE 
- WATER BODIES 
- PROPOSED BYE-PASS ROAD 
- MUNICIPAL BOUNDARY 

ADMINISTRATIVE SET-UP



CHAPTER IIIPHYSICAL FEATURESLOCATION:

3.01 Thanjavur town, a special grade municipality as well as district headquarter town, located at $10^{\circ} 45'$ N latitude and $79^{\circ} 8'$ E longitude is at a distance of 351 Kms from Madras in the southern direction. The town is well connected by road with the adjoining towns viz. Truchirapalli, Kumbakonam, Thiruvarur, Mannargudi and Pudukkottai which fall in a radius of about 50 Km. The river Vennar at the north and Trichy-Madras line enclose the major part of the town. The newly extended area of the town lies on the south west side of the railway line. The town is bounded by revenue villages viz. Akkamma thottam, Manakarambai, Palli agraharam and Ramapuram at the north, Kurungalur Gadalur, Kodikalur, Kodakodabhai, Avudh thottam, Pullyan thoppu and Pudupattinam at the east, Vilar, Nanchikottai and Neelagiri therku thottam at the south and Ramanathapuram, Meleveli, Vellur groups at the west. The town is spread in an area of 36.33 sq.Km and the planning area of surrounding villages with an extent of 109.41 sq.km.

GEOLOGY & SOIL:

3.02 This area forms part of a small plateau called Vallam table land. The soil available in this area is mainly of red ferrugious type. They are as fertile as rogor which comes in the next order but irrigated crops are raised chiefly with the help of Grand Anicut canal. This area has a slope towards from west to east and

MINERALS:

3.03 Though Thanjavur town do not show rich in minerals the surrounding areas are fairly rich in mineral wealth.

In the heighbourhood of Vallam, already famous for Vallam stones, iron ore is found to exist. Vallam and Gandarvakottai areas in Thanjavur taluk yield laterite of fine quality. Near Alakkudi railway station and in the villages of Thimmarayasamudram, Murukakudi etc., deposits of Kumbar are noticed.

CLIMATE:

3.04 The climate of Thanjavur is fairly healthy. The first two months of the year January and February form a pleasant period with warm days and cool nights. But by the close of February the climate becomes rather sultry and during March and April, the mercury is on the upward trend reaching its peak by the close of May or early June. The occasional rainfalls that occur during this period seldom affect the temperature. In October, the north east monsoon starts and lowers the temperature.

Summer Max. 32.1

Min. 24.2 as per 1981 census.

RAIN FALL:

3.05 Thanjavur is benefitted by both the monsoons. It gets more rain from north east monsoon. The rainy month fall in two groups.

1. The south west monsoon period - from June to September.
2. The north east monsoon period - from October to early January.

Average rain fall: 969.9 mm as per 1981 census.

FLORA:

3.06 There is nothing special about Flora because all the trees that grow in the eastern coast of the peninsula are found in this area but in small numbers. Palmyrah, Cashew trees grow in plenty and Jack trees in a larger number. Neem and Tamarind are popular avenue trees.

CHAPTER IV

POPULATION AND LAND USE

The Tamil Nadu State have 434 identified urban centres as per 1981 census. Out of which nearly 17 towns have a population of more than one lakh. Thanjavur town is one among them having a population of 1184 lakhs and is placed in the 8th largest town of the Tamil Nadu. The growth of town reveals that the town population was 57870 as per 1971 census has risen to 184015 as per 1981 census i.e. the population has increased three times in a period of 8 decades. The table No. 4.1 gives comparative statement of percentage of decadal population variation of Thanjavur District and Thanjavur town since 1901 - 1981-

Table No. 4.1 -- Percentage of decadal variation of population

Decade	Thanjavur District	Thanjavur town
1901 - 1911	+45.10	+ 4.27
1911 - 1921	+ 2.51	- 0.71
1921 - 1931	+ 4.50	+11.64
1931 - 1941	+ 7.35	+ 2.71
1941 - 1951	+ 31.61	+ 46.55
1951 - 1961	+ 14.47	+ 10.35
1961 - 1971	+ 19.13	+ 26.51
1971 - 1981	+ 21.42	+ 30.73

4.02 The growth of population for local area is shown in table No. 4.2

Table No. 4.2 -- Population growth - Thanjavur sub urban

Year	Persons	Variation	% of variation
1961	28184	--	--
1971	44824	16408	62.14%
1981	43221	408	0.95%

From the above table the planning area reveals that the population was 28184 in 1961 census has risen to 43221 in 1981 census i.e. the population has almost doubled tripled in a period of two decades. The growth of population was 62.14% during the period of 1961-1971.

4.03 The population increase of Thanjavur town from 1901 to 1981 is given in table No. 4.3.

Year	Population	Decade growth	Percentage variation
1901	57870	--	--
1911	60341	2471	4.27
1921	59913	- 428	- 0.71
1931	66889	6976	11.64
1941	68702	1813	2.71
1951	100680	31978	46.55
1961	111099	10978	10.35
1971	140547	29448	26.51
1981	184015	43468	30.93

4.04 Sex ratio of Thanjavur Town -- The sex ratio for Thanjavur town has been worked out for past 8 decades and given in table No. 4.4

Table No. 4.4 -- Female population for 1000 male population

Year	Males	Females	No. of females per 1000 males
1901	27611	30259	1096
1911	28777	31564	1096
1921	29353	30560	1045
1931	33590	33299	994
1941	34165	34537	1010
1951	50044	50637	1015
1961	56135	54964	979
1971	71192	69355	974
1981	94495	89520	947

4.05 From the above table it is observed that the female population was more than male population during earlier decades (i.e. from 1901 to 1921) but in later period the female population has shown a decreasing trend, which indicates the inflow of male population into the town mainly for employment leaving their families at village. As per 1981 census the towns had only 947 females for every 1000 males.

4.06 The sex ratio of Thanjavur planning area has been worked out and given in table No.4.5.

Table No. 4.5 -- Sex ratio for planning area

Year	Male	Female	No. of female for 1000 males
1961	14108	14076	998
1971	23207	21617	931
1981	21801	21420	982

4.07 Age sex ratio for Thanjavur Town: The age group details for the town are not readily available in 1981 census. Hence for practical purposes, the age sex ratio of urban population of Thanjavur district has been taken as a representation figure. In 1961 census nearly 52.17% of the total population are in the age group of 15.59 which indicates the available working force of the town. The percentage distribution of urban population which is given in 1961 census and given in table No.4.6.

Thanjavur District urban population in 1961 Census

Table No.4.6

Age group	Male	Female	Total
0 - 14	18.69	18.46	37.15
15 - 34	15.98	17.15	33.13
35 - 59	12.47	11.58	24.05
60 and above	2.74	2.93	5.67

4.08 In the same way the broad age group structure has been worked for Thanjavur town and planning area and is given in table No. 4.7 and 4.8.

Table No.4.7 - Estimated age group structure for Thanjavur town as per 1981 population

Age group	Total population	% to the total population	Male	% to the total population	Female	% to the total population
0 - 14	68405	37.17	35417	19.25	32988	17.92
15 - 29	60901	33.10	30267	16.45	30634	16.65
30 - 59	44302	24.07	23623	12.84	20679	11.23
60 and above	10407	5.66	5188	2.82	5219	2.82
Total	184015	100.00	94495	51.36	89520	48.64

Table No.4.8 - Estimated age group for Thanjavur planning area as per 1981 population (sub urban)

Age group	Total population	% to the total population	Male	% to the total population	Female	% to the total population
0 - 14	15748	36.44	8056	18.64	7692	17.82
15 - 29	14178	32.83	6878	15.01	7300	16.89
30 - 59	10914	25.24	5666	13.11	5248	12.14
60 & above	2381	5.51	1201	2.78	1180	2.73
Total	43221	100.00	21801	50.44	21420	49.56

4.09 Literacy - As per 1981 the percentage of literates to the total population is 50.36%. It is on the higher side when compared to that of state or region where it ranges to 40% only.

4.10 Occupational structures - Out of 227236 population in the planning area nearly 69424 of them (30.55% to the total population) constitute the working population. As per 1981 census nearly 57.17% of the population are in the age group between 15 to 59. As per the table No. 4.9 which indicates the total workers with respect to the total population for the year 1961, 1971, 1981. Out of the total workers in the town nearly 84.93% of the workers are male workers and it can also be seen that the percentage of the male workers has raised from 82.09% to 88.25% in 1971 and decrease to 84.93% in 1981 and a corresponding decrease in the female workers in the town.

4.11. Even in the planning area a similar trend has been seen and the percentage of male workers has risen from 64.47% to 84.49% in 1971 and decrease from 84.49% to 73.09% in 1981. From the table No. 4.9 & 4.10 it is observed that the high unemployment problem which exists within the planning area.

Table No. 4.9 - Number of workers in 1961, 1971 and 1981 - Thanjavur town

Year	Total population			Total No. of workers (% of the workers)				% of population			
	Male	Female	Total	Male	Female	%	Total	Male	Female	Total	
1961	56135	54964	111099	27574	82.09	6015	17.91	33889	24.82	5.41	30.23
1971	71192	69335	140527	32192	88.25	4287	11.75	36479	22.90	3.05	25.95
1981	94495	89520	184015	45144	84.93	8010	15.07	53154	24.53	4.35	28.88

Table No. 4.10 - Number of workers in 1961, 1971 and 1981 for planning area (rural) sub urban

Year	Total population			Total No. of workers (% of total workers)					% of population		
	Male	Female	Total	Male	%	Female	%	Total	Male	Female	Total
1961	14108	14076	28184	7919	64.47	4364	35.53	12283	28.10	15.48	43.58
1971	23207	23617	44824	11823	84.49	2178	15.51	12994	26.38	4.84	31.22
1981	21801	21420	43221	11892	73.09	4378	26.91	16270	27.51	10.13	37.64

4.12 Sectoral employment - It is observed from the table No. 4.11 out of which the working population of the town is 66.57%, 71.06% and 68.05% of the workers are engaged in tertiary sector as per 1961, 1971 and 1981 census respectively. It indicates that the tertiary sector has opened a large employment opportunities. Therefore it is evident, to improve the economic status of the population of this town, there is a need to increase the employment potentials by starting new industries.

4.13 From the table 4.12 it is seen that in sub urban area nearly 76.45%, 69.77% and 69.40% of the workers are engaged in primary sector as per 1961, 1971 and 1981 census respectively. About 23.55%, 30.23% and 30.60% of the working population are engaged in the secondary and tertiary sector. This indicates that the wave of urbanisation trend prevails in the sub urban areas. The working population of the planning area including town has shown in table No.4.13

Table No. 4.11 - Total workers in Thanjavur town for 1961, 1971 and 1981

Year	popu- lation	total wer- kers	% to popu- lation	Percentage to workers						non wor- kers	% to the popu- lation
				pri- mary	%	secon- dary	%	terti- ary	%		
1961	111099	33589	30.23	2598	7.73	8632	25.70	22359	66.57	77510	69.77
1971	140541	36479	25.96	3204	8.51	7453	20.43	25922	71.06	104062	74.04
1981	184015	53154	28.89	5261	9.90	11297	21.25	36596	68.85	130817	71.11

Table No. 4.12 - Total workers in Thanjavur sub urban area for 1961, 1971 and 1981

Year	popu- lation	total wer- kers	% to popu- lation	Percentage to workers						Non wor- kers	% to the total popu- lation
				pri- mary	%	secon- dary	%	terti- ary	%		
1961	28184	12283	43.58	9390	76.45	648	5.27	2245	18.28	15901	56.42
1971	44824	13994	31.22	9764	69.77	870	6.22	3360	24.01	30830	68.78
1981	43221	16270	37.64	11291	69.40	1168	7.18	3811	23.42	26951	62.36

Table No. 4.13 - Total workers in Thanjavur planning area for 1961, 1971 and 1981

Year	popu- lation	total wer- kers	% to popu- lation	Percentage to workers						non wor- kers	% to total popu- lation
				pri- mary	%	secon- dary	%	terti- ary	%		
1961	139283	45872	32.93	11988	26.13	9280	20.23	24604	53.64	93411	67.07
1971	185371	50478	27.23	12868	25.49	8323	16.43	29282	58.02	134898	72.77
1981	227238	66424	30.55	16552	28.84	12465	17.95	40407	58.20	157812	69.45

4.14 Land use - The existing land use pattern of development within Thanjavur local planning area can be classified into four types.

4.15 The first one being the eldest part of the town developed within the fortified walls in continuation of the palace which was developed during 19th century, the 2nd part in the central town development around the most area where concentration of central activities are developed and 3rd one is the newly developed extension area where planned and medium density development has taken place and the 4th one is the village settlement adjoining to the town.

4.16 The system adopted with the fortified area, the town shown radial pattern of development diverting all radial roads towards the neighbouring town. The important roads thus radiated are Madras road, Tiruchy road, Adiranpattinam road, Kandarvakottai road and Nagapattinam road.

4.17 The entire local planning area has been taken up for study purpose and it extends an area of 14574.37 hectares comprising of 3633 hectares of Thanjavur Municipality and 10941.37 hectares of surrounding villages. The existing land use pattern of Thanjavur town and vicinity area (planning area) as broadly classified are given in table No. 4.14 and 4.15

Table No. 4.14 - Land use pattern of Thanjavur town 1921

Sl No.	Land use	Extent in hectare	Percentage of the total area of the town
1.	Residential	1966.73	
2.	Commercial	109.57	3.02
3.	Industrial	76.65	2.11
4.	Educational	36.62	2.65
5.	Public & semi public	301.64	8.30
6.	Agricultural wet	354.44	24.35
7.	Land under water	137.35	5.43
		<u>3633.00</u>	<u>100</u>

Table No. 4.15 - Land use pattern planning area 1991

Sl No.	Land use	Area in hectares	Percentage to total suburban area
1.	Residential	729.44	6.67
2.	Commercial	5.89	0.05
3.	Industrial	23.37	0.22
4.	Educational	607.29	5.55
5.	Public and semi public	174.32	1.59
6.	Agriculture - wet	2024.23	18.50
7.	Agriculture - dry	6080.18	55.57
8.	Agriculture irrigated dry	468.25	4.28
9.	Land under water	828.4	7.57
		<u>10941.37</u>	<u>100.00</u>

4.18 Residential - The Thanjavur town originally developed as the capital city for the Chola's kingdom was confined within the fortified walls which was surrounded by a moat constructed in defence orientation. A study of the historical evaluation of the town indicates that the area within the fortified walls was utilised for residential use occupying a larger area for the residence of the king and of his military. The area immediately surrounding the moat was utilised for living during the peace time. The above two constitute the old part of the town where more concentration of development exists now.

4.19 Later on the town development took place towards south, south west and northern portion of the old neat town. The reason might be due to the wet land acted as barriers on the remaining sides. The residential development took place really was towards the south and south west portions of the town due to the availability of dry land.

4.20 Nearly 33.33% of developed land of the town is being utilised for residential purpose. The pattern of development of this town closely follows with those of other towns of Tamil Nadu i.e. with high density in the older part of the town and low density in the newly planned residential areas. The perturbations of the old part have placed them as mostly unplanned and haphazardly developed with very narrow lanes as main access to the buildings. The residential area in the planning area occupies 6.76% of total area.

4.21 Commercial - The commercial area in the town is not located in a scattered form but at the same time not so in a pecked manner so as to serve community in the required form especially the extension area which is on the southern side of the present developed area (southern side of railway station) are not clustered around any commercial area for their daily needs or the occational needs. The people in this area are to be depend on shops located at the old town.

4.22 The present commercial area can be broadly classified by the locations as follows:-

1. Gandhi bazaar area which almost dealt with fancy goods, electrical goods and with hotels.
2. Second is the south main bazaar street located behind the present bus stand which deals with cloths, banks and some mini super market for grocery.

clothes, banks and some mini super market for grocery.

3. Third is Manojiappa street and Iyyan kadai street located in the old fort area which serves with jewellery, synthetic covering performance and cosmetics.

4. The fourth is east gate area along Mariamman koil road (present Nagapattinam bus route) starting from Therku vasal to a two furlong distance which almost deals with groceries and vegetables and other daily needs.

4.23 Other than these areas only small petty shops scattered in different localities here and there serve to the immediate needs of the community to certain extent.

4.24 The land occupied by the commercial use at present is 109.57 hectares which works out to 3.02 percentage of total area of town.

4.25 Industries - Thanjavur town is an industrially backward town since only 11.35% of the total workers are engaged in industrial activity. Very few industries employed more than 100 workers like Thanjavur Textile Mill, Tantex factory, Modern rice mill, Tansi workshop and Transport are located in this town. The remaining industries are small in nature. The different category of the existing industries which are in existence within the planning area are given in table 4.16. The majority of these industries are agro based, because this town surrounded by rich agricultural lands. About 260 industries have been identified, of which 40 of them are situated outside the town limit. The list of industries is tabulated by classifications and is given in table No. 4.16.

Table No. 4.16 -- List of Industries

Sl No.	Type of industries	No. of units in Thanjavur town	No. of units in sub urban	Total
1.	Food products (rice mill and flour mill)	59	14	73
2.	Tobacco	2	1	3
3.	Thanjavur flour mill	1	--	1
4.	Textiles	1	2	3
5.	Saw mills	7	--	7
6.	Building materials	3	--	3
7.	Metal industries	2	16	18
8.	Machinery of all kinds	43	--	43
9.	Fertilizer and chemicals	5	--	5
10.	Printing press	27	2	29
11.	Cottage industries	69	5	74
12.	Railway workshop	1	--	1
		220	40	260

Source: Survey undertaken by staff of Directorate of Town and Country Planning

4.26 Therefore there is a necessity to develop large and medium scale industries in the town which may create employment opportunity in the industrial sector, thereby to boost up the economy of the town.

Public and Semi public

4.27 Public offices - This category of use includes Government offices, civic uses, educational and medical institutions etc., There are 214 public offices out of

which 296 belongs to the State Government, 15 Central Government offices and the balance are private.

Community centres

4.23 Education - In Thanjavur Local Planning Area the details of educational institutions from nursery school to college level are indicated in table No. 4.17.

Table No. 4.17 - Details of educational institutions in Thanjavur Local Planning Area

Sl No	Grade of educational institution	Enrolments 1991			% to the total population	No. of teaching staff	
		No	Boys	Girls			
1.	Nursery school	20	2643	2093	4736	2.08	191
2.	Primary school	51	7337	7345	14682	6.46	313
3.	Middle school	24	5792	5239	11031	4.88	315
4.	High school	10	1872	2272	4144	1.83	175
5.	Higher secondary school	13	13020	9330	22900	10.03	487
6.	Technical institution	6	1151	199	1350	0.60	36
7.	Special school	3	359	55	414	0.18	15
8.	Teacher training school	2	60	75	135	0.06	9
9.	College	4	1949	1173	3122	1.37	278
10.	Tamil University	1	--	--	--	--	113
Total		134	34183	28361	62564	27.54	1982

4.29 There are two arts college and one medical college in the town limit. There is also a Tamil Sangam college by name Karanthai Tamil Sangam where a special under graduate course in Tamil language "Tamil Pulavar course" is being conducted. Tamil University was started in the

year 1931 for encouraging research in Tamil and advanced study in Tamil. Other than the above 20 nursery schools for young children, 51 primary schools, 24 middle schools, 10 high schools, 13 higher secondary schools, 6 technical institutions, 3 special schools. For deaf and blind children and 2 teacher training school are also situated within the planning area. Totally there are about 134 educational institutions in existence within the planning area.

4.30 Public Health - At present the public health facilities like maternity centre, dispensary, government hospitals, private hospitals and clinic and specialised medical facilities etc. are catering the needs of the public in the planning area. There are two government hospitals in this town, namely Raja mīrasudar hospital which is a Govt. headquarters hospital attached to Thanjavur Medical College. In addition to this the Thanjavur Municipality is maintained 5 municipal dispensaries and 7 maternity and child welfare centres at various places. In addition to these, there are 32 private nursing homes and hospitals are functioning with their bed strength are given in table No. 4.18

Table No. 4.13 - Details of medical institutions in

Thanjavur Local Planning Area

Sl No.	Name of hospital and its locations	Built up area		bed strength	no. of	
		Ac.	Sq. ft.		doc tors	nur ses
<u>I Government Hospital</u>						
1.	Raja Mirasudher Hospital Gandhi Road	2	12644	632	60	171
2.	Thanjavur Medical College Hospital, Vallam Road	0	25600	1127	50	260
<u>Municipality Dispensary</u>						
1.	Karanthai	0	1200	--	1	1
2.	Vadakku vasal	0	2400	3	1	1
3.	Mela Raja Veedhi	0	240	--	--	1
4.	Poomal rowther street	0	130	--	--	1
5.	Kallu kulam	0	120	--	--	1
<u>Municipal maternity and child welfare centre</u>						
1.	Palli agraaharam	0	1350	3	1	1
2.	Karanthai	0	4300	5	1	2
3.	East Rampart	0	2500	5	1	2
4.	Poomal rowther street	0	1200	3	1	2
5.	Manambu chavadi	0	1350	7	2	4
6.	Mahara noombu chavadi	0	2750	7	2	4
7.	Kallu kulam	0	1250	5	1	2
		3	3432	1733	161	492

4.34 The road length by classification within the planning area are given in table No. 4.19.

Length of Road - Planning Area

Table No. 4.19.

Sl.No.	Classification of roads	Length of roads in Kms.
1.	State Highways	27.27
2.	Major District Roads	24.86
3.	Other District Roads	31.40
4.	Panchayat Union Roads	25.34
5.	Village Roads	90.50

Source: Prespective Plan - Thanjavur.

4.35 The length of roads maintained by Thanjavur Municipality in 187.79 and the details of length of road with reference to surface is given in table No. 4.20.

Road surface Details of Municipal Roads.

Table No. 4.20

S.No.	Types of Roads	Length of roads in Kms.
1.	(Cement) concrete Road	11.82
2.	Bitaminus Road	132.04
3.	Water Bound Maccadam	8.22
4.	Earthern Road	35.71
Total length of road		187.79

Source: Thanjavur Municipality (Engineering section)

Transportation Use

4.31 Thanjavur Town is well served by two major communication systems namely by roads and railways. This town is a Railway Junction connected by rails to other important urban centres like Tiruchirapalli, Madras and Madurai directly. Though no National Highway passes through this town, State highways running through Thanjavur Town connects the nearby district head quaters viz. Tiruchy and other urban centres like Ariyalur, Nagapattinam etc.

4.32 The seven main arterial loads of the town passing through Thanjavur Town are below:-

1. The state Highways leads to Nagapattinam in Eastern Direction.
2. The State Highways lead to Tiruchirapalli in the South west Direction.
3. The State Highways lead to Ariyalur and perambalur in the Northern direction.
4. Major District road lead to Pattukottai in the South East Direction.
5. Major District road lead to vallam and joining to State Highways at Vallam.
6. Major District road lead to Nagapattinam in the eastern direction and joining to state Highways.
7. The other District roads lead to Orathanadu and Kurungulam respectively.

4.33 All the roads conserse inside the town at different points and pass through the thickly built up area. The main Traffic routes are Tiruchy, Nagapattinam, Pudukkottai, Perambalur, Kumbakonam, Pattukottai and Mannargudi etc.

4.36 All roads and street, except state Highways either major District roads or other district roads within the Municipal limit are maintained by the Thanjavur Municipality and outside the Unit by Highway Department and by Panchayat Unions.

Vacant Agricultural and Wet

4.37 Vacant lands which are already for immediate development laid out under detailed Town Planning Schemes are found to occur on the south and south west Part of the town. Large tracks of agricultural land irrigated by river irrigation are found to be seen on the west and last of town in the planning area.

Land Value

4.38 According to the usage and location, the value of land fluctuates within the city. The land value in the heart of the town around the fort area where commercial activities are predominant vary from 200 to 320 lakhs rupees per hectare while in the newly laid out residential colonies it varies from 53.8 to 108 lakhs rupees per hectare. The value of agricultural land within the Municipal limit varies from 3.70 to 4.5 lakhs rupees per hectare and the planning area limit varies from 0.5 to 1.5 lakhs rupees per hectare.

WATER SUPPLY

4.39 The town was originally provided with water supply from sivaganga Tank before the introduction of protected water supply system. Later on the vennar River was declared as potable and the protected water supply system was initiated and tapped from the Vennar river since 1895. Water is collected to the jackwell through infiltration galleries located at Vennar are at Thi rumanur. The water is chlorinated and distributed to the town through over head tanks at different localities.

4.40 In addition to this four over head tanks have been constructed at South Rampart, Contonment road, Trichy Road and Resident Bunglow road. These are yet to be functioned.

4.41 In addition to river source there are eight borewells, digged at different localities viz. Vandipettai, south Alangam near collector office, Municipal campus, Muthukumara Moopnar salai, Resident Bungalow, Kallukulam and Kamaraj Library. The per capita consumption per day works out to 150 litres. The location of the overhead tank is given table No. 4.21.

Location of over Head Tanks

Table No.4.21

S.No.	Locality	Capacity of Over head tanks in litres
1 .	Karunthattangudi	2,70,000
2.	Vandipettai	9,00,000
3.	North Rampart	3,00,000

Drainage

4.42 At present there is no underground Drainage system in Thanjavur town. But there is an existence of the open drainage system throughout the town. However, it is said that under ground drainage system was in existence with in the palace area, but the system is not in proper use as it was not maintained. If a detail study is made and repaired the system may be brought into proper use.

Electricity:

4.43 The distribution system for electricity is being controlled by Thanjavur Municipality unlike other towns in the State. Total consumption is estimated to be nearby 33567.415 K.Watts per year. Out of which 17869.001 K.Watts, 6964.593 K.Watts, and 8733.821 K.Watts. are consumed by residential, commercial and Industrial establishment respectively.

Recreational Facilities

4.44 . Recreation is an internal part of human activities. Unfortunately, due to haphazard and unplanned growth of residential areas, the Urban area suffer from lack of space for recreation activities, At present cinema is to main recreational activity in Thanjavur Town as well as in the sub urban area. There are 14 Cinema Theatres located at Various places with in the planning area. Among, 11 theatres are situated within the Municipal area. One theatre is owned by the Municipality and the rest by private owners

4.45 There are seven notified parks within the Municipal limit in which sivaganga Park is an important one covering an area of 7.44 hectares, which was developed as a peoples park by the Municipality in 1971-72. This park is located on the north of Brahadeeswarar Temple and is one of the most Tourist attractive park in the Town. The remaining parks are not maintained properly by the Municipality.

4.46 There are 13 notified play grounds with in the covering an area of 12.88 hectares out of which Thilagar Thidal located adjacent to Brahadeeswarar Temple is the only Municipal owned public place. The remaining are the private owned schools grounds. In addition to these, the few stretches of the abandoned moat have been notified as the open space which is now being utilised by the Municipality for growing grass on a remunerative scheme.

Housing

4.47 According to Thanjavur Local Planning Area it had 44609 households, accommodated in 42580 houses. Assuming that the ultimate goal shall be providing one house for every family the backlog of shortage of housing stock according to the 1981 census workout to 2029 only. During the decade of 1971 to 1981 the total number of houses in Thanjavur Local Planning Area had increased from 29899 to 42580 i.e. 12,681 houses in a growth rate of 42.41% Among 42580 houses about 12,574 house (29.53%) belongs to Pucca type, 18,143 houses (42%) belongs to semi pucca type and remaining 11,863(27.87%) houses

belongs to thatched type. Though the shortage of Housing in Number 2029 only 11,863 houses of which are thatched should be added an shortage and hence the total shortage is 13,892.

4.43. The over all Housing density in Thanjavur Town work out to 12 houses per hectare and for the entire planning area is 3 houses per hectares. Regarding Thanjavur Town the housing density in ward number 1,2,4,5,10,21,26,34 and 35 is less than to houses be hectare, and in Ward Number 6,7,8,12,15,20,22,23,24,25,27,30,32 and 33 is 10 to 25 houses per hectare, and in ward No.3,9,13,13, 19 and 36 is 26 to 50 houses per hectare. In the ward No. 11,14,17,28 and 29 it varies from 51 to 75 houses per hectare and in the ward No.31 it works out to 127 houses per hectare.

4.49. The Tamil Nadu Housing Board, the co-operative House Building Societies, Private Developers and other Government Agencies like Tamil Nadu Adi-Dravidar Housing Corporation are engaged in the house building activities in Thanjavur Local Planning Area. Housing activities in Thanjavur Municipality and its surrounding Areas are largely engaged through private initiatives. The Co-operative societies, and Tamil Nadu Housing Board have already been combined to construct residential quarters for Government servants.

SLUMS

4.50 At present there are 6337 families living in 24 slum with population of 27320. The Tamil Nadu Slum clearance Board has proposed develop the slum area under the various schemes such as.

1. Mass improvement works
2. Mass house improvement works
3. Mass housing development loan

and 4 to provide basic amenities under Tamil Nadu urban Development Project.

4.51 The details of slum with in the Municipal area is shown in Table No. 4.22.

Table No. 4.22

Details of Slum with in Municipal Area

S.No.	Slum Location Name	Extent in Acre.	No. of Families	Population	
1.	2.	3.	4.	5.	
				6.	
1.	Palli Agraharam	Periya Harizan	4.06	140	560
2.	Palli Agraharam	Chinna Harizan	4.07	200	640
3.	Sungam Thida	Periya Harizan	1.08	116	530
4.	" "	Chinna Harizan	1.30	75	430
5.	Sarukki Harizan		6.31	110	600
6.	Velur Harizan		4.11	200	730
7.	Valampuri Harizan		1.16	300	360
8.	Kuruvikkara street		4.11	45	455

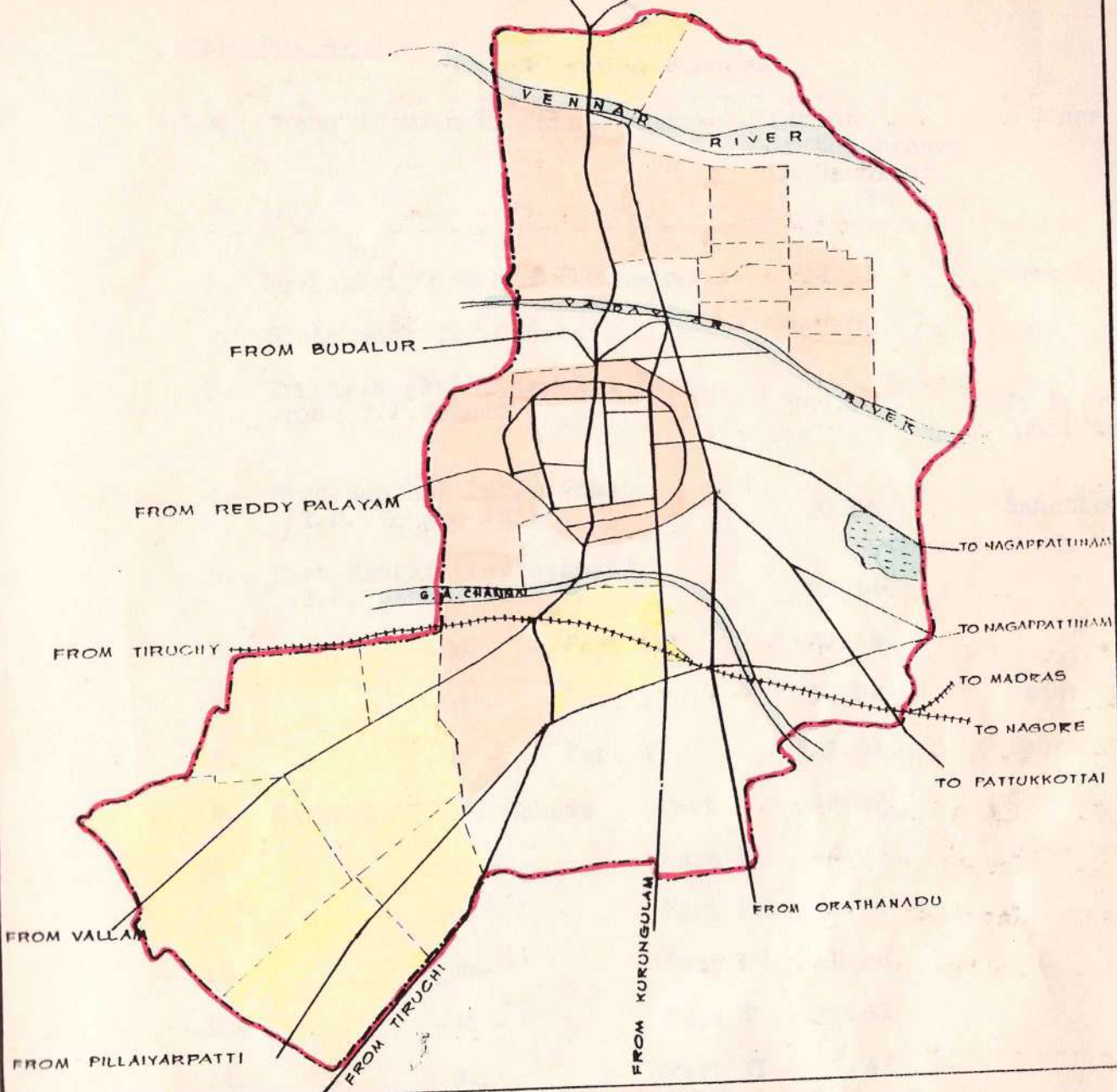
1.	2.	3.	4.	5.	6.
9.	Kallarai Mettu Street		5.50	96	750
10.	Kallakkatti street		29.50	300	1800
11.	Kodikalur Harizan street		6.19	300	435
12.	Kariyahallur street		1.70	35	300
13.	Kavidakara street		2.99	300	950
14.	Mullukara Harizan street		4.26	250	1100
15.	Antoniar koil street		5.35	400	1350
16.	Rowthapalayam Harizan street		3.16	100	1450
17.	Gandhi Medu street		3.29	110	450
18.	Korikkalam Ambalakaran street		9.35	180	950
19.	Karambai Harizan street		3.43	250	320
20.	Anna Nagar		63.93	1000	6230
21.	Sellaikarai Harizan		1.25	150	660
22.	Senappanai ckkan vari		47.35	1200	4630
23.	Konar thottam		1.25	80	562
24.	Kallumedu street(Ganga nagar)		4.76	400	950
Total			217.96	6357	27302

Source: The Executive Engineer, Slum Board.

Town Planning Schemes:

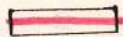
4.52. There are 19 Town Planning Schemes notified in this town. Out of 19 schemes, 18 Town Planning Schemes have been sanctioned by the Director of Town and Country Planning. To implement these schemes proposals, necessary financial assistance may be obtained from the Government. When the scheme loads are developed and the roads are widened as per the scheme provisions. The circulation of the town and residential location will be improved.

FROM PERAMBALUR TO KUMBAKONAM

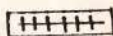


THANJAVUR MUNICIPAL AREA

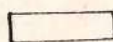
MUNICIPAL BOUNDARY



RAILWAY LINE




WATER BODIES

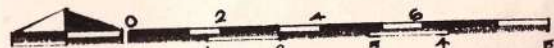


DETAILED DEVELOPMENT PLAN

D.D. PLAN BOUNDARY

SANCTIONED 

DRAFT 



DIRECTORATE OF TOWN & COUNTRY PLANNING
GOVERNMENT OF TAMIL NADU.

Town Planning Schemes.

S.No.	Name of Town Planning Scheme	Extent of the scheme in Hectares.	Stage
1.	2.	3.	4.
1.	Neelagiri Garden T.P. Scheme	74.51	Sanctioned
2.	South west T.P. Scheme	151.00	"
3.	Trichy-Nagapattinam Bye Pass road T.P. Scheme	257.70	To be re-notified
4.	Fort-Rampart Improvement T.P. Scheme Part I	20.65	Sanctioned
5.	Fort-Rampart Improvement T.P. Scheme Part II	21.14	"
6.	-do- Part III	20.58	"
7.	-do - Part IV	12.95	Sanctioned
8.	-do - Part V	26.31	Sanctioned
9.	Karanthai T.P. Scheme Part I	79.47	Sanctioned
10.	-do - Part II	49.77	Sanctioned
11.	-do - Part III	42.51	"
12.	-do- Part IV	58.88	"
13.	-do - Part V	40.51	"
14.	-do - Part VI	27.42	"
15.	-do- Part VII	25.63	"
16.	-do- Part VIII	24.63	"
17.	-do- Part IX	24.36	"
18.	-do- Part X	17.98	"
19.	-do- Part XI	27.29	"

TOURISM:

4.53 Tourism has been gaining much importance most other parts of the world and the growth is being diflected in out country and Tamil Nadu also. Tamil Nadu is noted for its ancient history and for reputed rulers like the pallavas, Cheras, Cholas, Pandiyas and Nayaks. Some of their brilliance which defict the architectural enviurance of the past are even now alive in the various. sculptural network in many of the ancient ttemples in Tamil Nadu especially in Thanjavur District which attract the lovers of art and architecture from many parts of the work and they as listed below.

I NATURAL SCENERY AND RECREATIONAL SPOTS:

1. Budalur - Kallanal (Dam)
2. Nagapattinam - Seashore - Part

II HISTORICAL AND CULTURAL:

1. Sirkali - Ancient Temple - Sculptural Art
2. Mayladuthurai - Ancient temple and sculptural Art, Pilgrim centre.
3. Kumbakonam - Ancient temple of Famous sculptural art, Pilgrim centre, famous Maha maham festival.
4. Thiruvarur - Chola built temple - famous temple car festival, pilgrim centre
5. Papanasam - Ancient Hindu temple.
6. Thanjavur - The big temple built by the great Raja Raja Chola of architectural and sculptural importance.
7. Nagapattinam - Ancient temples, Pilgrim centre, Nagoor noted for mosque.

8. Velankanni - Famous church feast festival
9. Vadaranyam - Historical temple, Pilgrim centre.
10. Kaveri pattanam - Historical and ancient temple,
(referred to in "Silappathigaram"
Tamil Classic)

III. MONUMENTS:-

1. Thanjavur - Great Brihadeeswarar temple, Moat, fort, Schwartz church
2. Panangudi - Vishnu temple.
3. Darasuram - Aravateeswara temple.

4.54 Among several items of worth seeing available for the pilgrims and other visitors to Thanjavur town, a few are narrated here.

BRIHADEESWARA TEMPLE:

4.55 This was built up by the Chola King Raja Raja I (985.1013 A.D.) The temple is famous for two things. One in the vimanam, the tallest structure of that age whose Chief attraction is being gopuram with a coping stone carved out of a single block of granite said to weigh 30 metric tonnes and so constructed that the shadow of the gopuram never falls on the ground at any time during the day and the other is the colossal monolithic figure of the Bull Nandhi in this temple particularly interesting. There above are in addition to its archeological and its historical importance. The temples of Rajagopala Perumal and Thoppul Pillaiyar are the other places of interest to the Pilgrim to Thanjavur. The still

remaining portions of the old palace in this place are the two Durbar halls which are spacious, highly coloured apartments with pillared roofs. The Durbar Halls and their surrounding portions now house the Thanjavur Arts Gallery which was inaugurated in 1951. The Raja Sarabhoji Maharaja Saraswathi Mahal Library where there are a large collection of ancient books and manuscripts on a variety of subjects in Sanskrit, Tamil, Telugu, Marathi and other European languages is another interesting place in this town. The Sangeetha Mahal or the Hall of Music, perfectly planned in acoustics is another interesting monument. Sivaganga Park is one of the most tourist attractions in the town which was developed as a people's park by the Municipality in 1871-72. This is located in the north of Brihadeeswarar temple. The garden has grown into a big park with many attractions and has become the only place where all people congregate for relaxation especially in the evening there are about 20 lodges in the town to cater for the needs of inland and foreign tourists, the lodges are not upto requisite standard to suit the convenience of the tourists. Recently the T.D.C. is undertaking the construction of the tourist lodges.

CHAPTER V

ANALYSIS AND ASSESSMENT

5.01 The studies dealt in the previous chapters have shown ideas about the growth potentials and brought out the land utilisation and the functions of the town. Now, within chapter analysis is made on the potencialities, needs and the limits with in which they are governed. As Thanjavur Master Plan, form part of the regional plan, the planning period fro this master plan is entire with year 2001.

Population Forecasts

5.02 The prediction of population by various methodologies are given below . Though the exact prediction is not possible by any means, attempts have been made to predict and allocate the population in various methods in this chapter.

5.03 The population figures for the Thanjavur town in the previous decades since 1901 are given in Table No. 5.1.

Table No.5.1 Previous Decades
Population Figures of Thanjavur Town.

Year	Persons
1901	57,870
1911	60,341
1921	59,913
1931	66,889
1941	68,708
1951	1,00,680
1961	1,11,099
1971	1,40,547
1981	1,84,015
1991	2,00,216

5.04 It is clearly seen that the increase in population in the first decades is not so appreciable and only after 1941 the population has increased considerably. This may be due to the announcement of peace after World War II and naturally subsequent improvement in urban character have attracted more population into the town from rural side. The increase in life expectancy rate due to technological advancement in medical field and improvement in agriculture industry and administration have increased the population in the town.

5.05. The following are the methods by which attempts have been made to predict the population to the planning period.

I. ARITHMETICAL INCREASE METHOD

5.06 Referring to the table 5.1 the variations are given in table 5.2. Population Variation

Table No.5.2

Decade	Variation in population
1901 - 1911	+2471
1911 - 1921	- 428
1921 - 1931	+6976
1931 - 1941	+1813
1941 - 1951	+31978
1951 - 1961	+10419
1961 - 1971	+29448

Decade	Variation in population
1971 - 1981	+ 43468
1981 - 1991	+ 16201

Total net variation	1,42,346
Average net variation	15,816

Adding the variation to the census of 1991 the estimated population is 2,16,032 in 2001.

II. Geometrical increase Method:

5.07 In this method, the increase in every decade over the previous decade is calculated and the average increase in percentage is found out. This average is applied to as an increase over future decade with cumulative effect.

Referring To the Table 5.3 : Percentage of Decadal Variation of Population.

Decades	Variation in percentage
1901 - 1911	+ 4.26
1911 - 1921	- 0.70
1921 - 1931	+11.64
1931 - 1941	+ 2.71
1941 - 1951	+6.54
1951 - 1961	+10.34
1961 - 1971	+26.51
1971 - 1981	+30.92
1981 - 1991	- 3.8

5.08 So average variation in percentage is 15.65 Say 16
 Applying the average variation to the population for 1991,
 the estimated population for the year 2001=2,32,250

III INCREMENTAL INCREASE METHOD:

5.09 In this method the decade wise difference over the decade wise variation is worked out and the average of them is found out. This average is added to the successive decade in addition to the average variation.

Decade	Variation	incremental increase
1901 - 1911	+ 2,471	
1911 - 1921	- 428	- 2,899
1921 - 1931	+ 6,976	+ 7,004
1931 - 1941	+ 1,813	- 5,153
1941 - 1951	+31,978	+ 30,155
1951 - 1961	+ 10,419	- 21,559
1961 - 1971	+ 29,448	+ 19,029
1971 - 1981	+ 43,468	+ 14,020
1981 - 1991	+ 16,201	- 27,257
	+1,42,346	+ 13,730

5.10 So net variation is 1,42,346 and net incremental increase is 13,730. So average variation is 15,316 and average net incremental increase is 1,716. Therefore for year 2001 the population will be 200,216 +15316 +1x1716=2,17,748.

IV. Population Forecasting By parabolic curve method:

5.11. Three equations are used in this method and they are

$$ax^4 + bx^3 + cx^2 = x^2 y \quad - (1)$$

$$ax^3 + bx^2 + cx = xy \quad - (2)$$

$$ax^2 + bx + nc = y \quad - (3)$$

Where a, b and c are the unknown which are found out by solving these three simultaneous equations and 'n' is the number of decades involved.

5.12 The following tabulation and working will explain the proceeding.

Year	Population	X	Y	X ²	X ³	X ⁴	XY	X ² Y
1931	59,913	-3	-51186	9	-27	81	153553	-450371
1941	63,702	-2	-42397	4	-8	16	34784	-169588
1951	100,630	-1	-10419	1	-1	1	10419	-10419
1961	111,099	0	0	0	0	0	0	0
1971	140,547	1	+29448	1	1	1	29448	29448
1981	134,015	2	+72916	4	8	16	145832	+291832
1991	200,216	3	+89117	9	27	81	267351	+892053
	355,172	0	87479	28	0	196	691402	+432134

Substituting the value

$$196a + 0 + 28c = 4,32,434 \quad (1)$$

$$0 + 28b + 0 = 6,91,402 \quad (2)$$

$$28a + 0 + 7c = 87,479 \quad (3)$$

$$\text{Solving } 23b = 691,402$$

$$b = \frac{691402}{28} = 24,693$$

considering (1) & (3)

$$(3) \times 4 \dots \dots 112a + 28c = 3,49,916 \dots (4)$$

$$(1) - (4) \quad \quad \quad 84a \quad \quad = 1,32,568$$

$$a = 1,573$$

Applying the value of 'a' in equation (3)

$$28 \times 1573 + 7c = 37,479$$

$$44134 + 7c = 37,479$$

$$7c = 37479 - 44134$$

$$c = \frac{37479 - 44134}{7} = 6135$$

So the parabolic equation is $y = ax^2 + bx + c$

$$y = 1573x^2 + 24693x + 6135$$

Applying this, population for 2001 is

$$1573 \times 16 + 24693 \times 4 + 6135 =$$

$$25243 + 98772 + 6135 = y$$

$$y = 1,30,205$$

2001 population -- 2,41,304

5.13 In addition to the above there are predictions about the future population of Thanjavur urban by the Regional plan division in Directorate of Town and Country Planning as indicated below.

Regional plan report Population in 2001
2,60,000

Future Population:

5.14 In the Regional plan prepared by the Department it has suggested a distribution of future population to this urban over as 2,60,000 in 2001. As Master Plan for this forms part of the Regional plan, the population suggested in Regional plan may be taken as the population of Thanjavur, Master Plan area in 2001. Though the predictions of the population of Thanjavur town by different methods tend to estimate the future population, the exact prediction is a too difficult thing. So as such the highest value among the predictions by various methods may suggestively be taken as the population in 2001. But while preparing, the regional planning report, as all these factors have been considered, the predicted population suggested in it may be taken as such i.e. 2,60,000 in year 2001.

5.15 The present population (1991) in Town i.e. about 2,00,213 and in the vicinity area is 43,000 (1981). Allowing the vicinity area population to grow in its own way so as to have an increase of 17,000 population in 2001, the extra of 77,000 population is to be accommodated in town or vicinity area or in both the areas. Hence the estimated population of 3.2 lacs is the design population for the Thanjavur planning area.

5.16 The earlier mention in of increase of 15000 population in rural area is due to the combined effect of natural increase in the rural area, high life expectancy rate due to advancement of medical technologies and air extension in rural areas and due to not migration to this area.

SEX RATIO

5.17 The sex ratio for Thanjavur Town has been worked out for the past 8 decades and given in table No.5.4.

Year	Male	Female	No. of female per 1000 males
1901	27611	30258	1096
1911	28777	31504	1097
1921	29353	30560	1041
1931	33590	33299	991
1941	34165	34537	1011
1951	50044	50636	1012
1961	56135	54964	979
1971	71192	69355	974
1981	94495	89520	947

5.18 From the above table it is observed that the female population was more than male population during earlier decades (i.e. from 1901 to 1921) but in later as period the female population has shown a decreasing trend, which indicates the in flow of male population into the town mainly for employment leaving their families at village. As per 1981 Census the towns had only 947 females for every 1000 males.

Sex Ratio for planning Area

5.19 The sex ratio of Thanjavur Planning Area has been worked out as given in table No.5.5

Year	Male	Female	No. of Female for 1000 males
1961	14108	14076	998
1971	23207	21617	931
1981	21801	21420	982

5.20 From the above talk it is observed that the female population has been decreasing trend, which shows that the in flow of male population towards the Town mainly for employments leaving their families at their village . As per 1981 census the planning area had only 963 female for every 1000 males.

Occupational Pattern

5.21 Workers force is a vital factor to decide the growth structure of the Town and it mostly decides the requirement of land in future under various categories As per 1981 census about 29% of the total population are workers in the Town.

5.22. As per 1961 census the percentage of age group structure of the urban population of the Thanjavur district. is indicated in table No. 4.6. assuming the similar pattern will continue to be during 2001 the estimated population of the Town are indicated in Table No. 5.6. by age wise.

Estimated town population

Table No.5.6 in 2001

Age group	Town population 2001			Vicinity area
	Male	Female	Total	Total
0 - 14	48,594	47,996	96,590	22,290
15 - 34	41,548	44,590	86,138	19,378
35 - 59	32,422	30,103	62,530	14,430
60 and above	7,124	7,613	14,742	3,402
	1,29,688	1,30,312	2,60,000	60,000

5.23 In 1971 there are 80,435 (57.23 of the total population) persons full in the age group of 15-59 while 36,542 (23% of the total population) persons are the actual workers. It is predicted that the population of 1,48,663 will fall in the age group of 15-59 at the end of the planning period. Regarding sexwise break up among workers in the Town it is noticed that out of 85% of total workers (1981) are male and only 15% are female. Assuming a portion of this population will go for collegiate education and a large portion of the female population will not go for employment, it is estimated that only 35% as the total population in 2001 will be actual working force. That works out to be 91,000 persons. However in 1981 there are 53154 persons employed and therefore within the planning period, the employment is to be provided for the additional 37846 persons.

5.24. Among the workers of the Thanjavur Town, the percentage of them engaged in the three sectors namely primary secondary and tertiary is tabulated in table No.4.13 comparing the percentage for 1971 and 1981 which indicated that the workers percentage varies from 8.51% to 9.90% in primary sector 20.43% to 21.25% in secondary sector and 71.06% to 68.85% in Tertiary sector. The categories industries and their importance one dealt in other ensuring chapter so as such considering this economy of this area the occupational pattern during planning period are to be as follows.

Table No. 5.7 Occupational Pattern

Activity	Workers in percentage to total workers
Primary	18
Secondary	32
Tertiary	30

5.25 Many recent studies conducted by eminent planners for Towns of different size and characteristics revealed that a standard can be evolved for future land requirement comprising the present towns of similar size and characteristics. Based on this Directorate of Town and Country Planning has suggested for future. land requirements for different size of Towns. The standard suggested for this size of the town and land requirement for various uses are given in table No. 5.8.

Table No.5.8 Land Requirement for 2001

	Standard suggested hectares per 1000 population	future land (3.2 Lakhs) required in hectares.
1. Residential	8.00	2560
2. Commercial	0.40	128
3. Industries	2.00	640
4. Education & public & semi public	2.00	640
5. Transportation	1.60	512
6. Play ground	2.00	640
7. Others	2.00	640
		5760

Residential

5.26 The present residential area is 1966 hectare in Thanjavur Town with a population 200216 which works out to be a crops residential density 102 persons per hectare. The estimated population as 3.2 laks is to be accommodated in a requisite pattern both in urban and vicinity area.

Commercial

5.27 The predominant category is retail in nature. But for organised market, these commercial establishments are located in a scattered form and in central areas these have been developed along road sides in a continuous form.

5.28 At present there are 110 hectares of land being utilised as commercial use. This includes in area of 16.5 hectares utilised for food corporation. of India Godown. Leaving this special nature of commercial use, the remaining 84.5 hectares serve to the Town population and this works out to be 0.34 hectares per 1000 population as per standard suggested by department, an area as 0.40 hectare/1000 population is taken as the area required for commercial. This works out to be 128 hectares of commercial use. So the balance of about 18 hectares is to be provided during the planning period for the communiting.

5.29 The existing commercial area in and around the moat is to be adopted as a central business district with an area of 56 hectares. The central bussiness district area of 56 hectares will also include certain

incidental uses like service industries with an area of 20 hectares and some public and semi public uses with an area of 10 hectares and recreational facility for 2 hectares. So nearly 24 hectares of the central business district. will be utilised got vommrvtisal put podes. out of 24 hectares existing commercial use will cover about 12 hectares. Also Four more commercial area covering as about 50 hectares may be created in the following road sides (Within the Municipal limit) (1) Nanjikottai road 2) Nagapattinam road
(2) Pattukkottai road.

Industrial

5.30 The Major industries in the planning area is of agro based. out of 260 identified industries only 40 as them are located out side the Town limit. 59 industries are food based and 2 are textile mills. However those two textiles mills employ more then 250 persons. The list of industries is tabulated by classification in Table No.

4.16. At present the area used for industrial use is only 76 hectares. It works out to be 0.23/hect/1000 population. As per standard it is required to have 640 hectares for industrial use at the rate of 2 hectares/ 1000 population as suggested by the Department.

5.31 There is a possibility of developing an industrial complex with an area of 350 hectares on the south and 100 hectares in South east direction of the Town in the vicinity area. The balance area is to be obsorbed with

into residential area as cottage industries. The Town and the vicinity area offers scope for development of following industries to accommodate the ever increasing population and working force.

1. Food stuffs like rice, atta flour, sugar syrubb, fruit products, butter, ghee, edible fats oils hydrogenerated oils etc.
2. Beverage, like aerated and universal water, ice cream, tea, coffee, wines and liquors.
3. Tobacco products like Beddi, Cigars, Choroots, Cigaratts, Cigaratte tobacco, Snuff and other tobacco products.

4. Textile Silk

Spinning and weaving of silk textiles in mill dyeing bleaching, weaving by powerloom and handloom printing of silk textiles manufacture of silk cordage rope and twine.

5. Manufacture of wood and wooden products like sawing and planing of wood, manufacture of wooden furniture and fixtures, structural wooden goods such as beams, doors, windows etc, wooden utensiles etc.

6. All work connected with printing and publishing.

7. Leather and leather products

Tanning and finishing of hides and skins and preparation of finished leather, manufacture of leather footwear manufacture of leather products such as suitcases, packet books and cigarette cases.

8. Chemical and Chemical products.

Manufacturing of basic industrial chemicals such as acids, alkalis and their salts, manufacture of fertilisers, matches, soap and washing compounds, common salt and other chemical products like indelible oils and fats.

9. Non metallic products

Manufacturing of structural day products, such as bricks, tiles manufacture of lime, structural-stone goods, stone dressing and stone crushing manufacturers of stone waves, stone images, plaster of paris, as best of products and mica products, earthen ware and earthen pottery, china ware and crackery, porcelain and its products, glass apparatus status and optical lenses.

10. Metal products other than Machinery and Transport equipment manufacture of iron and steel furniture. bell metal products. Aluminium products, enamelling, galvanishing bolts and screws etc.,

11. Machinery and electrical equipment (including transport equipment)

Manufacture of machine tools, electrical lamps and fans insulated wires electric appliances, assembling of motor vehicles, servicing motor vehicles, repairing of bicycles and Tricycles, manufacture of other transport-equipment like animal drawn and hand drawn vehicles.

12. Miscellaneous manufacturing industries. Assembling and repairing of watches and clocks, manufacture of Jewellery Silver wares, tuning of musical instruments manufacture of stationery articles like pencils found.

PUBLIC AND SEMI PUBLIC

Public Offices

5.22. Thanjavur, the district head quarter town, has many Government and quasi Government offices which are located mostly in between the big Temple and Gandhiji Road and a few in palace building. The building the public offices occupy an area of about 10 hectares. These public offices which are located within the palace shall be shifted outside to leave the palace purely as a monumental one.

5.33. The present public office complex near big temple and Gandhiji road can further be expanded to have an area of 50 hectares to meet the future requirements of this growing public office need. In addition another public office complex is suggested to be created within the neco extension area covering an area of 300 hectares.

Educational Institutions

5.34. There are two arts colleges and one medical College with town limit. There is also a Tamil Sangam College by name Karanthai Tamil Sangam where a special graduate course in Tamil language "Tamil Pulavar Course" is being conducted. Tamil University started in the year 1981 for encouraging research in Tamil and advanced study in Tamil other than the above 20 nursery schools for young children, 51 primary schools, 24 middle schools, 10 high schools, 13 higher secondary schools, 6 technical institutions, 3 special schools for deaf and blind children and 2 teacher training schools are also situated within the planning area. Totally there are about 134 educational institutions in existence within the planning area. These cover 704 hectares.

5.35 From the table 5.6 it is expected to have 106016 persons in 2001 with age group of 15 to 34. Out of this population, it is assumed that 15% of them will go for higher education (say roughly 16000). There are 4 colleges now available within the area which can take up about 5000 persons. Therefore at the end of planning period it is

Necessity to provide facilities for the remaining 10,000 persons adjoining the planning area in the Southern Side (i.e. Tiruchy Road) One Women Poly technic, one engineering college for women and another engineering college for Men and Women (Shanmuga Engineering College) situated at Vallam Town Panchayat area.

5.35 It is also expected that 29,575 persons in 2001 will be with age group of 10 - 14. (11.83% of Town population) is taking cent percent of them will go for Secondary School, we may need 30 high schools at the rate of 1000 students/School. At present, there are 10 high school and 13 Higher Secondary Schools. There are at the end of planning period, it is suggested to have 7 more high schools.

5.37 There will be about 31,100 persons in 2001 will be in the age group of 5 to 9 (12.44%) and assuming 500 students per elementary school, 62 elementary school are needed at present 24 middle school and 20 nursery school and 51 primary schools are functioning. Hence this will sufficient for the planning period.

5.38 The existing medical college and Tamil Sangam College will continue to serve to cater for the needs of this service. The possibility of developing an educational complex is there contains the present medical college and Raja Sarabhoji College. Here one Arts

College and a polytechnic can be induced. These complex may have an area about 275 hectares.

5.39 There are 2 Hospitals namely Raja Mirasdar Hospital and medical college Hospital located within the town limit. with 632 and 1127 beds respectively. In addition to this there are some private nurshing homes, maternity and child welfare centres having 554 beds in total serve to the medical need of the people.

5.40 The Bhore Commission recommended 2 beds/1000 population while the Health survey and Planning Committee has recommended that 1000 population. This standard applied to the Country as a whole. So accordingly taking the higher standard, the planning area may require 640 beds. Since the existing bed strength is 5 times the maximum requirement, the available hospitals and other medical institutions will be sufficient to the needs of the community as a whole.

Recreation and other facilities (open spaces)

5.41 The available four public parks with Town serve at present to the community with an area of 7.34 hectares of these Sivaganga park has got main attrations and where in most of the people conggregate for relaxation especially in the evening.

5.42 An area at the rate of 1 hectare/1000 population has been suggested for future needs. Therefore and extension 320 hectares is required to be provided for this use considering the Town which is the district head quarters and a place of Tourist importance and area of 300 hectares can be acquired and developed as park.

Water Supply

5.43 The present water supply system as explained in para 4.43 is not adequate to the needs of the community. It is assumed that in 2001 the per capita consumption will be 180 LPCa as being adopted in TW AD for this town range. The estimated requirement of water per day at this rate in 2001 is 450 lakhs litres.

5.44 Assuming that overhead tanks under construction can commence their function during the planning period, the total capacity of all the overhead tanks is estimated to be 53.7 lakhs litres. Even if these are filled in thrice, per day it can supply only 161 lakhs of litres of water as against 450 lakhs litres the total requirement of the Town. So construction of a few more such overhead tanks along with the improvement at the Head works at the required level to make up this short fall will be necessary for providing effective water supply system in this Town.

5.45 As for as villages in planning area concerned, the tanks, wells and the rivers available in the area will be adequate to the water needs.

Transportation Facilities:

5.46 Even though the town is well connected by road and rail with neighbouring towns, the road system available within the town is not sufficient to take up the traffic in general and destined at different points of the Town. Hence the town traffic as well as which do not have any function over central areas passes through the central area at present and creates congestions. Therefore improvement of certain important roads by widening, providing bridges, constructing pavement at the road side for pedestrian and constructing bye pass roads will solve these problems.

5.47 Most of the roads which connect the neighbouring towns and this town converge at the central area of the Town. All traffic which do not have any function over this town passes through the central area. Hence to relieve congestion at the central area of the Town. Bye Pass roads may be suggested for these radial roads as follows.

1. Bye pass road connecting - Tiruchy-Thanjavur road and Thanjavur -Kumbakonam road.
2. Bye pass road connecting Thanjavur-Kumbakonam road and Thanjavur-Nagapattinam road and Thanjavur-Trichy Road.

The very good rail link available at present will be sufficient for the planning period.

Tourism

5.48 As Tourism point of view, the state of Tamilnadu is famous for temples and archeology. Thanjavur is an important tourist centre having Brihadeeswarar Temple which has got its archeological and historical importance, the palace area where in the Art Gallery, music hall, and the famous Saraswathi Mahal library are located, the moat and fort constructed during the Chola periods and which are in existence now and the Sivaganga park which is located as the northern side of Brihadeeswarar Temple.

5.49 The moat around the fort wall which was constructed by the Men King on defence point of view is seen today a few portion of it is filled up and utilised for some public uses and residential uses, a portion of as an irrigation channel and remaining major portion which is in existence is used for sewage farming. If this moat around the fort is maintained properly with addition of boating facilities and fishing facilities, this can be a tourist attractive place both for inland and foreign tourists. The fort walls are now indeterminated grade due to the uncared. A proper care on this will keep as a monument. In addition to this the portion in between the moat and road around the moat can be maintained as park with some children play spaces. Formation and proper maintenance of this ring road around the moat, having good link with the existing roads around it are necessary.

5.50 Secondly the offices located within the palace area are to be shifted and the whole palace can be maintained as a monument which will attract more tourists.

5.51 At present, the lodges available in this town are not furnished (excluding one lodge is parisutham lodge) with the requisite facilities for tourists and especially the foreigners. Hence a special programme may be launched by the Government agencies like Tamil Nadu Tourism Development Corporation to construct new lodges with standard facilities. Also the present renovation of Raja Chatram will also help to this problem to contain extent.