HUMAN DEVELOPMENT RESEARCH AND CO-ORDINATION UNIT

STATE PLANNING COMMISSION
EZHILAGAM, CHEPAUK, CHENNAI 600 005.

DISTRICT HUMAN DEVELOPMENT REPORT
KANYAKUMARI DISTRICT

DHAN Foundation
Madurai

Prof.M.Naganathan, M.A.,M.L.,Ph.,D.D.Litt.
Vice-Chairman

STATE PLANNING COMMISSION
"EZHILAGAM"
CHEPAUK, CHENNAI 600 005.
Tel. No: 2858 5705
FAX : 044 - 28528563
E.Mail. : vcspc@tn.nic.in

Date: 25.02.2011

Foreword

Many yardsticks have been applied to evaluate and measure the progress found in the economies of different countries. Human development approach has been evolved by the United Nations in 1990 to ascertain the impact of economic growth on poverty, income and employment. Since the publication of the Human Development Report in 1990, Human Development Index has been widened by including life expectancy, literacy, per capita income, maternal mortality, infant mortality, gender equality, environment issues, cultural and language rights. So far 20 Human Development Reports have been published by UNDP. The Union Planning Commission published its first National Report in 2001, in which Tamil Nadu's achievements in education, health, family welfare were highly commended. States in India have also been publishing Human Development Reports following the UNDP model. To ascertain the inter-district inequalities found among the population and to take appropriate policy intervention programmes, district human development reports have been published by many states in India. This approach may yield good results to design appropriate policies and strengthen the micro level and micro level area planning to address the crucial issues of the backward regions.

The State Planning Commission with the cooperation of the UNDP and Union Planning Commission is seeking the assistance of the academia, scholars and policy makers to study, analyse and prepare reports on human development of different districts. These studies would be helpful to design and apply meaningful intervention programmes to alleviate poverty and to ensure social equalities and social justice in the backward regions.

Already Human Development Reports for Cuddalore, Nagapattinam, Thiruvannamalai, Dindigul, Sivaganga districts have been published by the State Planning Commission in 2009. I feel happy that Human Development Reports for Nilgiris, Dharmapuri and Kanyakumari are being published in 2011.

I commend the services of the District Collectors and officers of District Administrations for the help they rendered to collect data and required information in the preparation of the District Human Development Reports. I convey my thanks to the Chief Secretary, Principal Secretary, Planning Development, Principal Secretary - Member-Secretary, State Planning Commission and senior officers of the Steering Committee for their valuable suggestions in this regard. I congratulate the efforts of the HDRC team at the Planning Commission, Department of Economics, University of Madras and DHAN foundation, Madurai.

பிணியின்மை செல்வம் விளைவின்பம் ஏமம்
அணியென்ப நாட்டிற்கிவ் வைந்து - குறள் 738

(Rich yield, delight, defence and wealth
Are jewels of land with blooming health – Kural 738)

Surprisingly Thiruvalluvar had elegantly pleaded for the enhancement of human development indices of the current era about 2000 years ago and he was of the firm opinion human development alone constitute a vibrant society and a nation. In this context, the District Human Development Reports of Nilgiris, Dharmapuri and Kanyakumari will form a milestone in the overall planning and development of the state of Tamil Nadu.

(M.NAGANATHAN)

Dr. K. Arulmozhi, I.A.S.,
Principal Secretary /
Member-Secretary.

Phone : Off : 28545460
Fax:044- 28545485
State Planning Commission
Ezhilagam, Chepauk,
Chennai 600 005.

FOREWORD

"Human Development" is an alternative development thinking which puts the people at the center of development, by expanding their choices and enhancing their capabilities. With the focus of development shifting to human development globally, many countries have also brought out Human Development Reports including India.

Tamil Nadu released its first Human Development Report in 2003. Taking this concept of Human Development further, the State has prepared District Human Development Reports for five districts with the funding from United Nations Development Programme and the support of the Union Planning Commission, under the Project "Strengthening State Plans for Human Development" and released them in October 2009. These reports served as a tool to identify the status of development of the district in human development framework and prescribe appropriate remedial actions.

Encouraged by the response of the State, the Union Planning Commission and UNDP, provided funds for taking up this exercise in three more districts – district with the least HDI ranking, district with the highest HDI ranking and district with unique geographical terrain. Accordingly, the Human Development Reports of Dharmapuri District,

Kanniyakumari District, and The Nilgiris District have been prepared. These reports measure the status of human development in terms of literacy, health and income parameters in the districts. The flow of Government funds for social sectors into the districts have also been analysed which is a unique feature of these reports.

All these attempts will lead to in-depth knowledge of the intra district disparities, with understanding of the bottlenecks involved so as to enable reorientation of the development strategies. These reports will serve as a useful tool for inclusive growth of the districts.

I place on record my sincere gratitude and appreciation to all the stakeholders for their contributions in bringing out these reports.

24 2 2011

(K.ARULMOZHI)

Rajendra Ratnoo, I.A.S
District Collector
Kanniyakumari District

OFF: (04652) 279090,279555
RES : (04652) 260666,260999
FAX : (04652) 260999
E-mail: collrkkm@tn.nic.in

FOREWORD

I have pleasure in introducing the Human Development Report of Kanniyakumari District. In recent decades much attention has been laid on grass root programmes aimed at human development. The efforts comprise programmes that vary in size, approach and strategy and the responsibility of their execution is entrusted largely to the District Administration. The economic development and higher Gross Domestic Product does not necessarily reflect the actual well being of its people.

We discuss human development in terms of these set parameters, owing to the inspiration given by the pioneering efforts of UNDP. We should also necessary look at human development from the perspective of broader social concerns such as the welfare of women, children and those deprived of their legitimate share in development. As the name suggests, the concept of human development focuses on the actual well-being of the people in terms of indicators like attainment of education health, life expectancy, income, access to safe drinking water, sanitation facilities etc. The drawing up of a Human Development Report at the district level is indeed a major step in making the district a nodal agency of development.

I am glad to be associated with the UNDP –State Planning Commission (SPC) sponsored project of preparing the District Human Development Report. This report portrays the various facts and facets of District development, especially from the human development perspective highlighting the positive Government interventions to achieve a faster and sustainable human development. The District is excelling on all fronts with well-established infrastructure, both physical and social. The report summarizes the overall development of the District. This Human Development Report will serve as an important tool in planning for growth, social justice and equity in the district. This report would help in reassessing the investment strategy and areas for future attention and, if the challenges identified in the report are tackled, the dream of making Kanniyakumari the number one District in Tamil Nadu will be realized.

I thank Dr.K. Arulmozhi, I.A.S., Principal Secretary/Member-Secretary, State Planning Commission, Thiru T.S. Rajasekar, Additional Director and HOD (HDRC), SPC, and the officials of the State Planning Commission, Dr. Damodar Jana and Tmt. Sangeetha of DHAN Foundation, Madurai, district level officials and my colleagues for their sustained efforts towards the completion of this report. I hope that this report is periodically updated, utilized while making important decisions in development sector, and special initiatives and specific schemes are implemented so as to make Kanniyakumari District a forerunner in Human Development.

25/02/11

(Rajendra Ratnoo)
District Collector,
Kanniyakumari District.

HUMAN DEVELOPMENT RESEARCH AND CO-ORDINATION UNIT

STATE PLANNING COMMISSION
EZHILAGAM, CHEPAUK, CHENNAI 600 005.

DISTRICT HUMAN DEVELOPMENT REPORT
KANYAKUMARI DISTRICT

Chapter 1

DISTRICT PROFILE

1.1 Introduction

The concept of Human development indicates that the basic purpose of development is to enlarge people's choices and build human capabilities. By 'choices', it refers to the following: greater access to knowledge; better nutrition and health services; secured livelihoods; security against crime and physical violence; satisfying leisure hours; political and cultural freedoms; sense of participation in community activities

The objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives with freedom and dignity. The Human Development concept places human beings and their wellbeing at the core of development thinking and emphasises that people's development is an end in itself and not a means for development. Central to human development are participation, especially of the vulnerable sections in the process of change and equity in development gains.

The Human Development concept focuses on the diversity of human needs by highlighting that people do enjoy, cherish and value self –respect, dignity and a sense of belongingness to one's own community apart from the income they earn. It considers efficiency, equity, freedom and empowerment, and the sustainability as the four important pillars. These pillars are considered as prerequisites for achieving the human development outcomes.

The characteristics of human development concept reveal that it is dynamic and that it keeps evolving; it is multidimensional, inter-disciplinary and pragmatic in nature. Overall, the concept of Human Development emphasises on the three aspects: building of human Capabilities; enhancement of Freedom; process of achieving Outcomes.

The progress in the human development framework is judged not by the expanding prosperity of the rich, but by how well the poor and socially disadvantaged are faring in society. Implicit in this perspective is not only a strong concern for equity and social justice but also a firm conviction that improvements in the wellbeing of the poor are fundamental to ensuring a better life not just for them but for all.

1.2 Need for the District Human Development Report

The State Planning Commission proposes that District Human Development Reports need to be prepared to gain deeper understanding of the issues at the district and sub-district level. As the 73rd and 74th constitutional amendments mandate the preparation of district level plans, it is envisaged that this DHDR will give an opportunity for preparing district plans from a human development perspective. In other words, it would do so by analysing the status of human development attainment and key human development challenges faced with a special focus on efficiency of delivery systems and financial allocations. The DHDR is viewed as an instrument for policy making on social development expenditure to improve the HD indices.

The specific objectives envisaged through the DHDR are to provide a comprehensive view of the status of human development and gender development at the district level; to highlight the critical concerns and issues so as to examine emerging challenges and also solutions; to highlight and analyse policy intervention of government in the arena of human development in the district, to improve human development and gender development at the district level; to promote deeper understanding of the challenges; to advocate policy dialogue in recognition of the need for equity, people centred policy focus and to create an environment for achieving human development.

Above all, the preparation of a district human development report would mark the beginning of a process whereby district plans are designed and implemented through a human development prism.

Among the thirty two districts of Tamil Nadu, Kanyakumari is one which is known for its good performance in human development indicators. This district is unique in terms of its physiographic conditions of having lands of mountains, sea coast and the strip of undulating valley. It is also known for its abundance of natural resources, scenic beauties and favourable agro climatic conditions. This chapter attempts to give an overview of the district by discussing the history, demography, geographical features and livelihoods such as agriculture, forestry and fisheries along with the status of transport and communication.

1.3 History

During the pre-independence period, Kanyakumari district formed part of the Travancore princely state. The district was quite rich and prosperous due to its natural beauty in terms of greenaries, wetlands, rivers, paddy fields, mountains and sea coast which is evident from

the scriptures that depicts the adoration of the poets and naturalists. This richness in fact had attracted constant invasion across the Aralvaimozhi pass and the kings had built strong forts against the invading armies.

After the independence, the district remained as part of Travancore- Cochin State till the reorganisation of states on linguistic basis in 1956, when the States Reorganisation Act was came into existence, the four taluks of the Tiruvananthapuram merged with the Tamil speaking Madras State (now Chennai). The present form of district was formed on 1st November 1956. The name of the district is traced back to the Goddess Kanyakumari, situated near the sea shore in the southernmost tip of the country.

1.4 Geography and Administrative Set-up

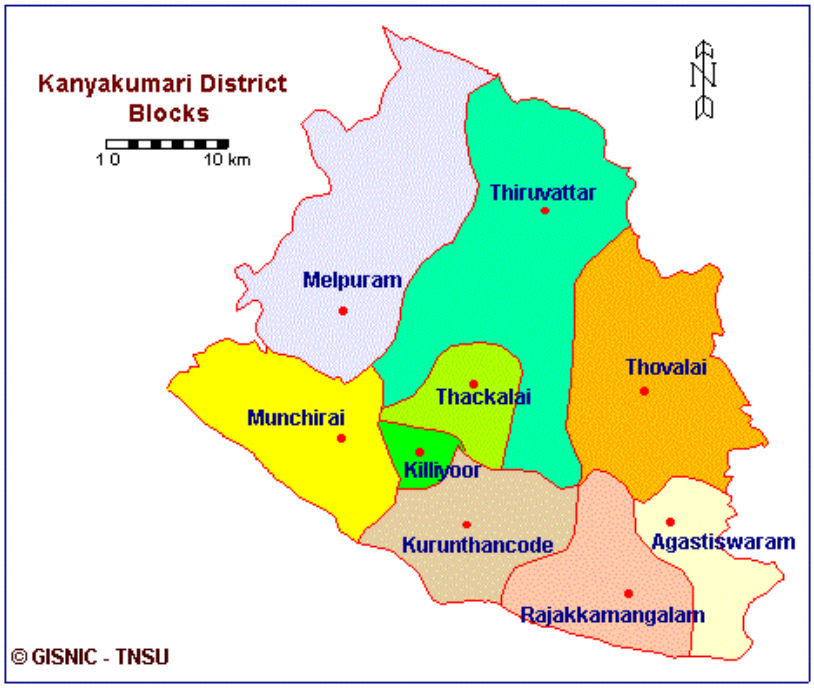
Kanyakumari district is situated in the southernmost part of the Indian peninsula surrounded by Kerala state in the west and north-west, Tirunalveli district in the north and east, Gulf of Mannar in the south-east, Indian Ocean in the south and Arabian Sea in the south-west. It is the smallest district in Tamil Nadu and has a total area of 1,684 sq km which is 1.295 percent of the total area of the state. It lies between 77°15' and 77°36' of the eastern longitude and 8°03' and 8°35' of the north latitude.

Geographically, the district has three distinct divisions- mountains in the north favouring plantation crops, a flat sea-coast in the south suitable for growing fibre crops of coconut and an alluvial tract in the midland suitable for cultivating cereal crops. Except for the Thovalai taluk with a long hilly track, other three taluks have a stretch of coastal area. The soil type is mostly red loam and laterite with coastal alluvium in the south which favours cultivation of diversified crops.

The district has a warm and humid climate with the maximum day temperature ranging between 29°C and 33°C all through the year and with an average annual rainfall of 145 cm. This district is distinct in terms of receiving good rainfall during both the monsoons of South West (June-September) and North East (October-December), which is very unlikely in other districts of Tamil Nadu. Apart from the rain, there are five rivers namely Thamiraparani, Valliyur, Ponnivaikal, Pampoorivaikal and pazhayar flowing in the district which fulfil the requirements of the district.

Administrative set-up of the district includes two revenue divisions[1], four taluks[2] and nine blocks[3]. There are 97 village panchayats, 56 town panchayats and four municipalities. The district has its headquarters based at Nagercoil.

Kanyakumari district map with block boundaries



1.5 Demography

The Kanyakumari district has a total population of 16,76,034 (census 2001) with male population of 8, 32,269 and female population of 8, 43,765. The district has a population density of 992 per sq.km which is higher than the state average (478 per sq.km) and that of the country (324 per sq. km). The district has a sex ratio of 1014 which shows that female population more than the male population. The decadal population growth rate of the district is 4.73 percent

[1] The two revenue divisions are Padmanabhapuram and Nagercoil.

[2] Vilvancode and Kalkulam taluks are under the revenue division of Padmanabhapuram, and Thovalai and Agastheeswaram taluks are under the revenue division of Nagercoil.

[3] Melpuram, Munchirai, Killiyoor blocks are under Vilvancode taluk; Thiruvattar, Thuckalay and Kuruthancode blocks are under Kalkulam taluk; Thovalai block is under Thovalai taluk; Agastheeswaram, Rajakkamangalam blocks are under Agastheeswaram taluk.

(census 2001) which is the lowest when compared to the state. On comparing the data of the past, it is found that the population growth rate of the district is decreasing at an increasing rate.

Of the total population of the district, 4.04 percent constitutes Scheduled Caste population. The Scheduled Tribe population constitutes only 0.32 percent which is very low. The overall dependent population including of both 0-14 years and above 60 years is 5,82,964 which makes the dependency rate to be 34.78 per cent. As far as the urbanisation is concerned, it is found that the the proportion of urban population in Kanyakumari drastically increased from just 16.88 percent in 1991 (Census 1991) to 65.27 percent in 2001 (Census 2001).

1.6 Religion, Caste, Festival and Art

The people of various religions namely Hinduism, Christianity, Islam, Buddhism, and Jainism live in this district. Of all the religion, the Hindu population is more in number with 8, 59,307 and next comes the Christian population with 7, 45,406. The population census 2001 shows that the district is dominated by Hindus (51.27 percent) and Christians (44.47 percent). The district has always maintained peace and harmony with no communal conflicts despite the presence of two major religions at one place.

The social composition in terms of various caste groups shows that the Kanyakumari district has a sizable majority of the Nadar community. It could also be observed that certain caste groups are dominant in certain areas. For example, in the coastal areas, the Mukkuvars are the majority and Paravars are in majority in eastern coastal areas. Similarly, the Nayar community speaks Malayalam are highly prevalent in the taluks of Vilvancode and Kalkulam which are along the border of Kerala.

As far as the artisan communities are concerned, the Kammalars, Kollars are found in all the villages and towns. The Kerala Mudalis who are basically the traditional weaving community live in settlements in select regions of the district. The Vellalas who are basically farming community is found in the southern agrarian region. The communities belonging to the caste group of Vilakkuthalai Nayars and Kanyan (ritual singers), Chunna parathavars (sea shell collectors), Krishnavagai are found in Kalkulam and Vilvancode taluks. Similarly, the Nanchil vellalars are predominantly found in Agastheeswaram and Thovalai taluks.

Linguistically, nearly 40 percent of the population knows Tamil and Malayalam. Around 1.5 lakh people speak Malayalam. The people of this district though they speak Tamil, make out influence of Malayalam, particularly in bordering areas. Some of the famous festivals celebrated

by the people of this district are Mandaikadu Kodai, Vaikunda Yegathesi, and Festival of St.Xavier at Kottar, Suchindrum Therottam and Saint Peer Mohammed Appa Festival at Thuckalay.

Some of the art forms associated with the temple rituals are Villupattu, Thiruvathirai Kali, Kaliyal, Ottam Thullal, Karakattam and Kalari.

1.7 Agriculture

As mentioned earlier, the Kanyakumari district receives rainfall during both the Northeast and Southwest monsoons and it favours the cultivation of diverse crops. Plantation crops of rubber, clove, nutmeg, pepper and pineapple are grown in the uplands. Crops like paddy, tapioca, banana and coconut are grown in the middle regions, and coconut and Cashew are grown in the lowlands.

The district has the favourable agro climatic condition to grow crops of different types such as cereals, pulses, oilseeds, fruits, vegetables, spices and condiments, fodder, rubber and green manure crops. The five rivers namely Thamiraparani, Valliyur, Ponnivaikal, Pampoorivaikal and Pazhayar, and the four dams namely Pechiparai, Perunchanni, Chittar I and Chittar II meet the irrigation needs of the district in addition to the rainfall. Besides, the district has got a number of small water bodies such as tanks and ponds.

This district was considered to be the granary of Travancore as it was well known for its irrigated paddy cultivation in the past. The district is also known for its 4o different genotypes in banana crop, 300 in mango. This is the only district which bears off-season mango during October –November. Besides, the off season bearing on tamarind, pepper, Palmyra is also found.

The share of agriculture and allied sector to the total net domestic product of the district is 7.48 percent which is lower than the state and national average. The total geographic area of the district is 1, 67, 200 ha. Around 78, 497 ha (47 percent) of the total geographic area of the district was under cultivation in 2008-2009. Out of the total cultivable area, the area under the food crops constitutes 48 percent, horticulture crops constitute 50 percent and others constitute 2 percent.

Over the period, this district has experienced a considerable change in agriculture. The landholding pattern shows a decreasing trend in the last five decades. The average size of the

landholding in 2005-2006 was 0.16 ha and it has been declining over the period. Moreover, it is found that 98 percent of operational land holders are marginal farmers. There is a consistent decline in cultivators and increase in agriculture workers.

Also, the district witnesses a shift from food crops to non-food crops. There has been a reduction in paddy cultivation of both Kharif and Rabi from 28594 ha in 2001-2001 to 20063 ha in 2007-2008; millets almost vanished; tapioca is dwindling. The area under horticulture crops is increasing. The area under banana, coconut, vegetables, spices have increased. Also, the area under the medicinal plants has increased.

1.8 Horticulture

Under the horticulture crops, the area under fruit crops constitutes 20.5 percent (8584 ha), Vegetables 21.5 percent (9026 ha), Plantations 52 percent (21,599 ha), Spices and condiments 1 percent (2431 ha). The rest five percent is shared by the flower crops with the area of 201 ha and the medicinal and aromatic crops with the area of 10 ha.

There exists a good scope for horticulture development in the district. The district is suitable for growing both the tropical fruits such as mango, banana, jack, sapota, amla, papaya and the sub-tropical fruits such as mangosteen, avacado and fig, etc. The major vegetable crops grown in the district are tapioca, bhendi, brinjal, amaranthus, gourds, yams etc. As far as the flower crops are concerned, Thovalai taluk is known for growing jasmine, crosandra, tube rose, panneer rose, marikozhunthu.

Different kinds of plantation crops such as tea, coffee, rubber, cashewnuts, arecanut, cocoa and betel vine are cultivated in this district. Among all the districts, Kanyakumari is the only district, where rubber plantations are taken up. Under spices and condiments, clove, nutmeg, pepper, cinnamon, all spice, tamarind etc are grown. The district is bestowed with rare and powerful medicinal herbs which grow in many parts of the district.

1.9 Animal Husbandry

According to the eighteenth livestock census in 2007-2009, the livestock population including of cattle, buffalo, sheep and goat accounts to 2,15,425. The rate of growth of livestock population is 2.76 percent. The population of poultry is 6,53,851 and has been increasing over the census 2004-2006 which is 4,63,824. While cattle, buffalo and sheep show a declining rate of

growth, goat population exhibits an increasing rate of growth when compared between the two last livestock census i.e 2001-2004 and 2005-2009.

The district has no local cattle breed of its own. The milk production of the district is not sufficient to meet the consumption needs of the district. There exists Kanya milk union which collects milk from producer's cooperative society, process it and sells the milk. There also exists Nanjil dairy farm and Mulagumoodu run by an NGO.

1.10 Forestry

Of the total geographic area of the district, the total forest area is 54, 155 ha which constitutes 32.39 percent and is well above the state cover of forest land which is only 17.59 percent of the total geographic area of the state. The contribution of forestry and logging sector to overall net domestic product in Kanyakumari district is showing a declining trend over the period from 1999-2000 to 2006-2007.

The forest area of the Kanyakumari district is rich in flora and fauna. It forms part of Agasthiamalai and situated between Neyyar wildlife sanctuary of Kerala and Kalakkad-Mundanthurai tiger reserve of Tamil Nadu. The district has a few hill ranges. The forest has a good range of wild animals which forms an attraction to the people who likes to trek. The wild animals commonly seen in the Kanyakumari forest are elephants, sambhars, bison, wild dogs, mouse deers, porcupines, giant squirrels, Nilgiri langurs, bears, jungle cats, pythons and Travancore turtles.

The Kanyakumari district has a few sanctuaries and biospheres like Suchindram Theroor Birds Sanctuary and Kanyakumari Wildlife Sanctuary which is basically a tiger reserve and Agasthiamalai Biosphere Reserve

1.11 Fisheries

Kanyakumari has a coastline of 60 km stretching from Vattakottai in the Northeast to Neerodi in the west. The district includes west coast of Arabian Sea and the East coast of Gulf of Mannar. According to the Marine Fisheries Census, 2005, there are totally 47 fishing hamlets in the district covering 37,405 families and a population of 1,48,539 spread in three coastal taluks of Agastheeswaram, Kalkulam and Vilvancode. It is to be noted that the district holds around 18.79 percent of the total fishing population and around one fifth of the total fishing families in the state. The district has 44 fish landing centres.

The population density of the coastal area is very high and the people of this area are involved mainly in fishing and related activities. Most of them are traditional fishermen and they used traditional craft of catamaran and the gears like traps, hooks and line, gill nets and seine nets for fishing until the mechanisation and motorisation of fishing crafts were introduced.

The fishing scenario has undergone considerable change and the level of exploitation in terms of using of crafts and gears has increased tremendously. Moreover, the sea is polluted by the effluents of the coconut retting grounds and the pesticides used in the agriculture farms and this also threatens the stock of fish. Some of the fishes are now extinct and endangered.

The district has got a nutrient rich fish breeding ground named Wedge Bank, for a wide range of fishes, crustaceans and molluscans. The Kanyakumari marine fisheries are rich in biodiversity and have a good number of fish varieties. Around 25 species have significant economic value.

The Kanyakumari fishermen are known for their skilfulness in fishing. The sea being very rough, naturally adds to the skill of the fishermen. Since 1960s, when the Government introduced the mechanised boats, the fishermen of the district resorted to gill net fishing and trawl net fishing. Later came the FRP boats which replaced the traditional catamarans and the fishermen of this district acquired a variety of fishing methods to catch a wide range of fish varieties.

The fishing crafts and its types vary across the coast and are unevenly distributed across the coastline. More number of catamarans are found concentrated in Kanyakumari, Muttom, Kadiapattinam and Enayamputhenthurai villages. Out Board Motor (OBM) crafts are found in Muttom, Kadiapattinam, Kurumpanai, Vallavilai and Neerodi villages. Mechanised Boats are concentrated in Chinnamuttom, Colachel, Vaniakkudy and Thuthur villages.

The district has around 79 percent of the fishermen as 'Active fishermen' and 83 percent of them are almost full time fishermen which is better than the other coastal areas of the state. Their literacy rate is high compared to the fishermen in the other districts of the state. Moreover, almost 99.48 percent of the total fishermen belong to Christianity.

Other than marine fisheries, the district has very high scope for developing inland fisheries too owing to the presence of lot of fresh water bodies and also for the perennial nature

of water availability in those water bodies such as canals, ponds, tanks, lakes and reservoirs. The district has got five estuaries too.

1.12 Industries

Despite the fact that the district stands high in literacy and education, possesses a wide range of natural resources, well connected roads, transport and communication systems, availability of formal credit support through banks, the district is industrially poor. People prefer taking up jobs and secure stable income flow. Mostly, the spirit of entrepreneurship is found missing in the district and its people. Also, the high cost of labour and land also account for to the poor presence of industrial units.

There is no single large scale industry exist in this district. Bakeries, Food processing units, sweet stalls, hosiery and garment units are found in this district. Cashew and net making are some of the small scale industries existing in this district. Cotton mills which come under medium scale industries are also present in this district.

The contribution of industries particularly the home-based or cottage industry is less than five percent to the Net Domestic Product of the district. The construction industry contributes one third of the district income which is higher than that of the state as experienced in 2006-2007 and the trend shows consistent increase over the years. The district provides scope for developing cotton-based industries, coconut-based, rubber-based industries apart from the fishing industry and wind energy generation industry.

1.13 Tourism

The Kanyakumari district attracts a number of tourists of both national and international. The district has an unique blend of architecture, culture and customs of Kerala and Tamil Nadu which is exhibited in the religious centres, historical places and places of natural beauty such as waterfalls, birds and wildlife sanctuaries, and beaches.

The district also attracts the tourists to the Vivekanandarock memorial, Gandhi Mandapam, the 133 feet granite statue of the famous tamil poet Thiruvalluvar and the Kanyakumari temple . Many of the tourists like to witness the sun rise in the early morning and sunset in the evening in the beach of Kanyakumari. Other important tourist places in the district are Suchindrum temple, Padmanabhapuram palace, waterfalls such as Thiruparrappu and Ulakkaruvi and the beaches.

1.14 Infrastructure

Good infrastructure facilities not only contribute to the tourism development, but to the overall development of the district. The district has a well developed network of roads. The remote villages are well connected to the towns and cities by good road network. The total length of the various types of roads in the district during 2009-2010 was 1,189.769 kms which includes the state highways of 216.552 kms, major district roads of 213.300 kms, other district roads and SCP of 759.917 kms. As far as the railways are concerned, the district has got a single line broad gauge that connects Kanyakumari to Nagercoil. Nagercoil is a Junction to connect Tirunelveli and Thiruvananthapuram.

The district has ensured 100 percent power supply to all its villages. Similarly, the district provides a good accessibility to basic services like post office, telephone and bank at every village in the district.

1.15 Human Development Situation of the District

According to the Tamil Nadu State Human Development Report 2003, it is to be noted that the Kanyakumari district fares well both in absolute and relative terms in various parameters of human development. The Human Development Index (HDI) of the district is 0.711 and the Gender development Index is 0.708. In both the cases, it is well above the performance of the State (0.657, 0.654) and all-India (0.571, 0.553).

Among all the districts of Tamil Nadu, the Kanyakumari district stands third in HDI rank next to Kancheepuram and Chennai. It is also to be noted that the district has the HDI rank higher than the GDP per capita rank which implies that the social dimensions of HDI such as health and education are better than the economic dimensions.

The district when compared among the health, education and income parameters, it is found that the district stands as one of the top five districts in educational performance both in terms of literacy rate and combined enrolment ratio. The district has the highest literacy rate of 88.11 percent and is well above the literacy rate of Tamil Nadu (73.47 percent).

The same is the case with the health parameter of life expectancy at birth (LEB), which indicates that the performance of the district is good in all the vital indicators of IMR, MMR, Still birth, Crude birth rate, Crude death rate etc. The life expectancy at birth of the district is 70.36 years for male and 74.96 years for female. Overall, the LEB of the district is 72.65 years

and it stands next to Chennai (74.21 years). This is again well above the State average (66.74 years).

But the district falls back in terms of per capita income rank. The district performs low in terms of income index with 0.453 and by real GDP per capita rank, the district stands 22nd.

This chapter has attempted fairly to give an overview of the status of the district Kanyakumari in various dimensions of development and also has given a brief analysis of the status of the district in terms of Human Development indicators. With this background, the next chapter covers the flow of funds to different government sponsored programmes and its overall achievements, which gives a better overview of the district.

Chapter 2

FLOW OF GOVERNMENT FUNDS

The role of funds is very crucial, though not enough, in ensuring human development. The government is the important stakeholder to arrange fund in this regard. The present chapter deals with the status of the flow of funds allocated and sanctioned, and utilised under different government sponsored development programmes over a period of time (*last seven to eight years)* in Kanyakumari and in different blocks (as per the availability of data).

The different development programmes, which are being implemented through the government in the district, could be divided into three categories: (i) self-employment programmes; (ii) wage employment programmes; and (iii) social security programmes. An attempt has been made to cover the important programmes of the above categories.

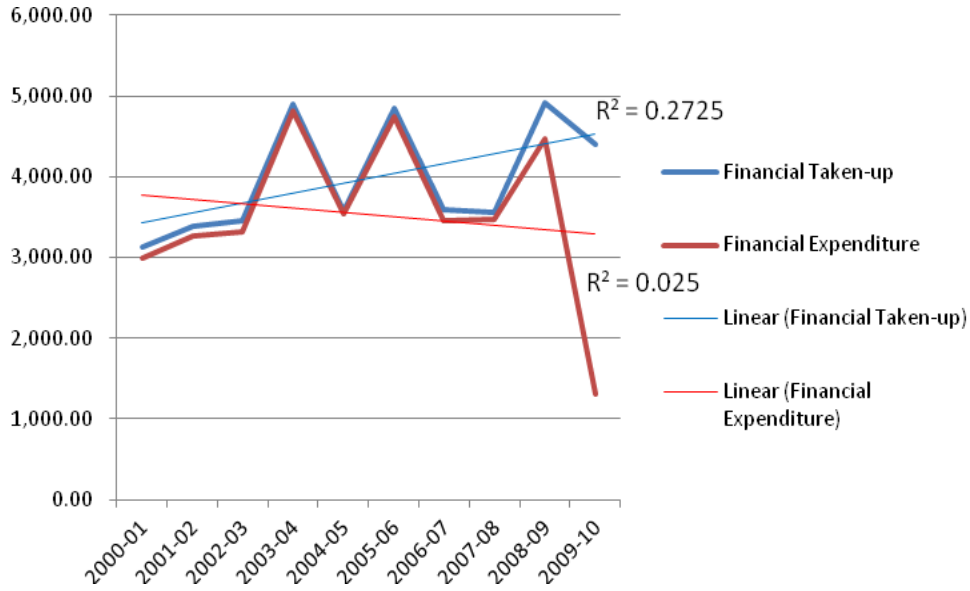
Along with the flow of funds, the utilisation of funds, physical targets and achievements of different programmes are discussed as under. However, the limitation of this chapter is that it does not cover the fund flow and its achievements of the district as a whole because of unavailability of data during the report preparation.

2.1 District Rural Development Agency (DRDA) Programmes

The financial allocation and sanctioned amounts (also termed as *taken*-up) to different development programmes through the District Rural Development Agency (DRDA) of Kanyakumari was Rs. 4403.40 lakh in 2009-10. Of this amount, Rs. 1313.50 lakh (29.83 per cent only) was spent up to January 2010. Moreover, there has been an overall increasing trend of the fund allocation (*taken-up)* over the last 10 years in Kanyakumari (Figure 2.1, Annexure 2.1). Similar pattern of fund expenditure is found in the district. But the area of concern is that the amount of unspent fund, has been increasing over the years particularly during the last three financial years (Figure 2.1). It is worthwhile to mention here that the overall declining amount of fund utilisation is at current prices. This issue of lower amount of fund utilisation or increasing gap between the fund allocation and fund utilisation would be more serious, if one converts the above figures into constant prices especially in the context of inflation.

Another area of concern of fund utilisation or expenditure is that a considerable share of the total amount sanctioned gets utilised or spent during a very short time span, mostly in the last quarter or the month of the year.

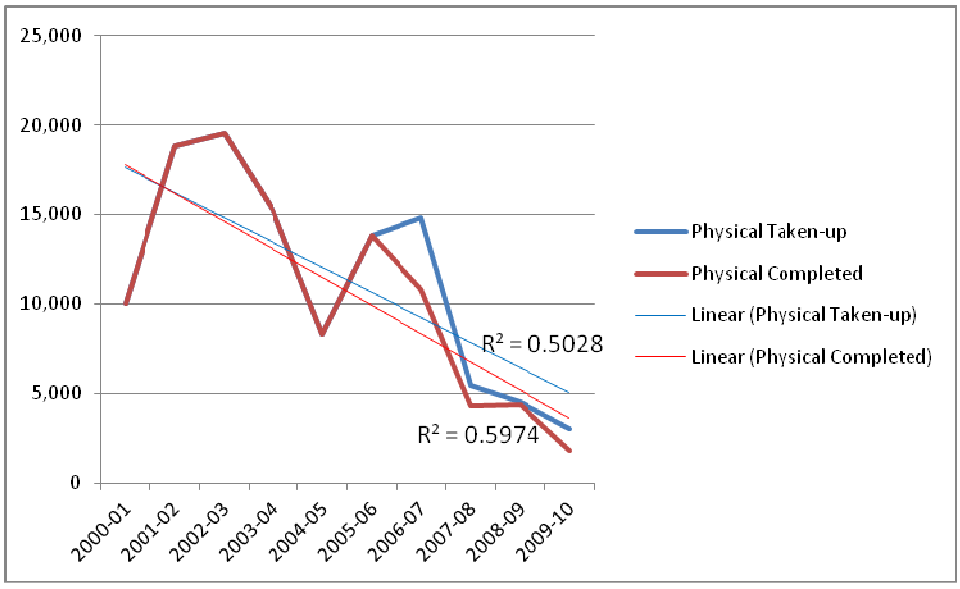
Figure 2-1: Financial allocation and expenditure *(in Rs. lakh)*



Source: District Rural Development Agency (DRDA), Nagercoil.

Financial allocation at current prices remaining almost same over the years, given the increasing price index, it is obvious to cover a declining number of beneficiaries or target population. It corroborates with the fact given in the Figure 2-2

Figure 2-2: Physical Targets and Achievements



Source: District Rural Development Agency (DRDA), Nagercoil.

The similar pattern of fund allocation and utilisation is observed across the blocks of Kanyakumari (Annexure 2-2).

2.2 Road Construction

The funds allocated for construction of different categories of roads and its utilization are given in Table 2-1. During 2008-09, there was a turning point in road construction in the district in terms of allocating higher fund for various types of roads. Unlike other two types of roads (i.e. state highways and major district roads), the people in remote areas depend directly more on 'other district roads'. (Table 2-1).

Table 2-1: Roads – Financial and Physical

Year	State highways		Major district roads		Other district roads and SCP	
	Sanction	Length	Sanction	Length	Sanction	Length
2005-06	436.00	144.935	628.00	186.100	795.00	877.32
2006-07	248.00	122.530	172.00	186.100	241.33	877.317
2007-08	400.92	216.552	650.00	155.400	470.00	817.817
2008-09	1,550.05	216.652	1,050.00	213.300	712.00	759.917
2009-10	1,100.00	216.552	700.00	213.300	650.00	759.917

Source: Divisional Engineer (H), Nagercoil.

In 2009-10, the length of state highways was around 217 km. Similarly the length of major district roads and other district roads was around 213 km and 760 km respectively. Department wise, around 84 km of road was under forest department, 2015 km under town panchayats, and 84 km was under national highways.

2.3 Small Scale Industries and Pradhan Mantri Rojgar Yojana

Village and cottage industries, handicrafts, and small-scale industries (SSI) have a large potential to generate employment and economic development especially for poor. Through the Prime Minister's Employment Generation Programme (PMEGP), Rs.39.02 lakhs has been given in 2008-09.

The government has also been giving various types of subsidies for different purposes viz. capital subsidy, low tension power tariff and generator subsidy to the industries under District Industries Centre (DIC), Nagercoil. However, the subsidy has been declining and even some cases (generator subsidy), it was withdrawn. The details of small scale industries and other industries including khadi and village industries are given in chapter 7 under the industries section.

2.3 Education

Education, particularly the elementary (primary and upper primary) education, is considered as one of the important pillars of human development. Various innovations and initiatives have been taken from time to time for not only universalising the primary education but also for improving the quality of education in India. Funds play an important role in this regard, though the other factors such as motivation and involvement of teachers and parents matter a lot.

Both the fund sanctioned and utilised were found to be increasing from 2004-05 to 2008-09 in Kanyakumari (Figure 2-3 and Annexure 2-3). Interestingly, the percentage of fund utilised to total fund sanctioned was found almost 100 per cent. However, under the head of *research, evaluation, monitoring and supervision,* less than one-fourth of the total sanctioned fund was utilised during 2008-09. The other heads with lower percentage of fund utilisation were: (i) intervention for out of school children; (ii) innovative activities; (iii) intervention for disabled children; and (iv) in-service training for teachers (Table 2-2).

The details of the educational infrastructure created and the achievements in terms of enrolment and quality of education are given in chapter six. However, the district is known for its educational achievements in terms of having close to 100 per cent access to school, enrolment, retention, and pass outs.

Figure 2-3: Fund Utilisation (in Rs. lakh)

Source: SSA, Nagercoil.

Table 2-2 Fund Utilisation - SSA

	Activities	2004-05	2005-06	2006-07	2007-08	2008-09
2	Block Resource Centre	76.56	90.17	91.64	110.16	140.78
3	Cluster Resource Centre	100.00	100.00	100.02	99.87	117.70
4	Civil Works	98.28	100.00	65.95	93.56	98.08
5	Intervention for Out of School Children	32.05	97.09	99.87	100.00	78.85
6	Innovative Activities	167.64	100.00	95.40	99.54	91.90
7	Interventions for Disabled children	100.00	100.00	92.59	98.44	97.87
8	Remedial Teaching	0.00	0.00	0.00	100.12	100.00
9	Maintenance Grant	99.68	99.20	98.88	99.05	91.56
10	Management & MIS	78.65	68.86	92.63	102.74	87.44
11	Research, Evaluation, Monitoring & Supervision	93.28	100.00	177.15	141.29	24.95
12	School Grant	98.96	98.46	99.06	98.65	97.99
13	Teachers Grant	89.52	83.03	80.20	100.00	100.00
14	Total Teacher Salary	92.71	100.00	95.93	100.00	96.76
15	Teaching Learning Equipment	100.00	0.00	100.00	100.00	0.00
16	**Teachers Training**					
	In service training	68.66	91.08	96.01	96.32	91.54
	New Recruit (Residential) training	68.66	91.08	0.00	0.00	0.00
17	Community Mobilisation - Training (VEC Members)	100.00	100.00	100.00	99.97	100.00
	Grand Total	**89.22**	**93.34**	**84.80**	**99.28**	**100.66**

Source: Office of the SSA, Nagercoil.

2.4 Financial Aid for Marriage

The government has been providing financial assistance to different categories of deprived females for their marriage through five different schemes of the District Social Welfare Office. Those programmes are: (1) Moovaloor Ramamirtham Ammaiyar Ninaivu Marriage Assistance Scheme; (2) Anjugam Ammaiyar Ninaivu Kalappu Thirumana Udhavi Thittam; (3) E.V.R. Maniammaiyar Ninaivu Widows Daughters Marriage Assistance Scheme; (4) Annai Theresa Ninaivu Orphan Girls Marriage Assistance Scheme; and (5) Dr.Dharmambal Ammaiyar Widow Remarriage Scheme. It was found from the Office of the District Social Officer that there was no unspent money of the above schemes against the respective budget outlay.

During 2006-07 and 2009-10, a total of 13282 beneficiaries were covered under Moovaloor Ramamirtham Ammaiyar Ninaivu Marriage Assistance Scheme. Similarly 405, 5017, 135, and 53 beneficiaries were covered under Anjugam Ammaiyar Ninaivu Kalappu Thirumana Udhavi Thittam, E.V.R. Maniammaiyar Ninaivu Widows Daughters Marriage Assistance Scheme, Annai Theresa Ninaivu Orphan Girls Marriage Assistance Scheme and Dr.Dharmambal Ammaiyar Widow Remarriage Scheme respectively during 2001-02 to 2009-10.

2.5 Fund Utilisation through Forest Department

The Tamil Nadu Afforestation Project (TAP) includes 35 villages as its project area out of which ten villages are tribal. The project includes two components namely Integrated Water Development Programme (IWDP) and Integrated Tribal Development Programme (ITDP). The activities covered in this projects are Afforestation, promoting income generating activities through self-help groups of tribals and encouraging community development activities especially water supply, community hall construction etc.

During the year 1998-2009, the project has covered 25 villages with the physical achievement of 5350 ha and financial achievement of Rs.777.213 lakh against the financial target of Rs.783.713 lakh. Both the physical and financial target achievement is 100 per cent in all the years since 1998, but with a little variation in achieving financial target in the year 2007-2008 where the financial target is Rs 146.12 lakh and the achievement is Rs.139.62 lakh. The yearwise physical targets and achievements (in ha.) and financial targets and achievements (in Rs.lakh.) are given in Table 2-3.

Table 2-3 Tamil Nadu Afforestation Programme (TAP) in Kanyakumari

S. No	Year	Name of the village	Physical *(in ha.)*		Financial *(Rs. in lakh)*	
			Target	Achievement	Target	Achievement
1		2	3	4	5	6
1	1998-1999	Sivakamipuram	350	350	27.753	27.753
2	1999-2000	Dharmapuram	350	350	28.38	28.38
3	2000-2001	Anna Nagar	350	350	54.13	54.13
4	2000-2001	Oorakonam	300	300		
5	2001-2002	Chockalingapuram	350	350	83.06	83.06
6	2001-2002	Arukani, Pathukani	300	300		
7	2002-2003	Bhaskarapuram	300	300	52.84	52.84
8	2003-2004	Kadambadivilagam	300	300	51.25	51.25
9	2004-2005	Perumalpuram and selvanputhoor	250	250	41.37	41.37
10	2005-2006	Vellanbi Kani	100	100	66.45	66.45
11	2005-2006	Mallamuthankarai	100	100		
12	2005-2006	Puravilai	100	100		
13	2006-2007	Mookkarakkal	100	100	122.18	122.18
14	2006-2007	Villucharimalai	250	250		
15	2006-2007	Korvaikuzhi	100	100		
16	2006-2007	Koovakkadu	100	100		
17	2006-2007	Kaliankadu	250	250		
18	2007-2008	Surulacode-Sasthankoil	250	250	146.12	139.62

S. No	Year	Name of the village	Physical *(in ha.)*		Financial *(Rs. in lakh)*	
			Target	Achievement	Target	Achievement
19	2007-2008	Kodithurai	100	100		
20	2007-2008	Kayalkarai	100	100		
21	2007-2008	MGR Nagar - Indirakudiyiruppu	250	250		
22	2007-2008	Pandarathoppu	250	250		
23	2008-2009	Shenbagaramanputhoor samathuvapuram	250	250	110.18	110.18
24	2008-2009	Mothiramalai	100	100		
25	2008-2009	Mudavanpothai	100	100		
Total			**5350**	**5350**	**783.713**	**777.213**

Source: Office of the District Forest Officer, Nagercoil

2.6 Disability

Kanyakumari district had 60639 different disabled people. Around 58 per cent among them were females. The disabled population in Kanyakumari constitute around 3.69 per cent of districts' against the state's share of 2.69 per cent in the population. It reveals that the district has relatively more disabled population with respect to its share of total population in the state.

The financial targets and achievements under different schemes for disabled population of the district are given in Annexure 2-2.4. The one-year fund flow data is not enough for analysis. However, the highest amount (Rs. 17490850) was sanctioned for 3700 potential beneficiaries under the scheme of *Maintenance Allowance for Severely Disabled or Mentally Retarded Persons*. Of this, about 60 per cent fund was utilised for 37 per cent of targeted beneficiaries.

Similarly the other schemes, which got more than ten lakh rupees, are: (i) scholarship for the physically handicapped students; (ii) free bus pass; (iii) marriage assistance to persons marrying orthopedically handicapped persons; and (iv) self-employed subsidy.

2.7 Expenditure on Social Services

This section deals with the overall expenditure on social services compared to total expenditure in the district. However, this data includes the amount of expenditure made through the district treasury only. It includes both plan and non-plan, and revenue and capital expenditure. It does not include the amount of money, which directly come to the different district departments, e.g. Western Ghat Development Project. Moreover, the data analysed here is at current prices.

The expenditure on social services include the following heads: (1) Education, art & culture, sports; (2) medical and public health; (3) family welfare; (4) water supply and sanitation; (5) housing; (6) urban development; (7) labour and employment; (8) welfare of SC, ST & OBC; (9) social security and welfare; (10) nutrition; (11) relief on account of natural calamities; and (12) other social services, information & publicity.

The total flow of government fund to the different departments and programmes in Kanyakumari district Rs. 439,03,18,037 in 2004-05. It increased to Rs. 1203,27,91,101 (174.08 per cent) in 2009-10. During the same period, the share of expenditure on social services was found to be almost same at 50.20 per cent (Table-2.4).

Table 2.4 Expenditure on social services through Treasury in Kanyakumari district

Items	2004-05	2009-10
Expenditure on social services (Rev.*)	50.21	50.20
Total expenditure	100.00 (Rs.439,03,18,037)	100.00 (Rs. 1203,27,91,101)

Note: 1. Figures in parentheses show the respective total expenditure in the district.
2. Rev. = Revenue expenditure. Capital expenditure in social services is very negligible.
3. *Capital expenditure on social services was so meagre that does not make much difference in analysis here.
4. The expenditure data used in this table are at current prices and made through the district treasury only. It includes both plan and non-plan, and revenue and capital expenditure. It does not include the amount of money, which directly come to the different district departments, e.g. Western Ghat Development Project.

Source: District Treasury, Kanyakumari, Nagercoil.

2.8 Conclusion

As already mentioned, the available data on fund flow with respect to both physical and financial aspects of development programmes is not enough to draw a valid way forward. However, it is recommended to focus on the timely expenditure (instead of pushing the expenditure to the last quarter/month) of sanctioned fund for development programmes, particularly for those under DRDA.

Besides, keeping the inflation and the intensity of the need of development programmes in view, adequate fund has to be allocated and sanctioned on time. Periodical official review (both financial and physical achievements vis-a-vis the targets) has to be prioritised. To make the system more accountable, the social audit may be facilitated.

Elementary education being one of the important areas of human development, focus has to be given to experiment innovative strategies for ensuring quality education through periodic research. In this regard, the allocated fund has to be utilised with definite deliverables. However, the recent initiatives by the district administration to improve the quality of education are appreciable.

Annexure

Annexure 2-1 Expenditure through DRDA

Year	Financial *(in Rs. Lakh)*	
	Taken-up	Expenditure
2000-01	3,133.49	2,986.45
2001-02	3,385.90	3,266.34
2002-03	3,460.04	3,320.55
2003-04	4,891.46	4,816.27
2004-05	3,571.99	3,542.27
2005-06	4,855.65	4,746.41
2006-07	3,593.19	3,454.51
2007-08	3,566.12	3,467.58
2008-09	4,920.03	4,468.89
2009-10	4,403.40	1,313.50 *

Source: District Rural Development Agency (DRDA), Nagercoil .

Annexure 2-2 Blockwise – Expenditure Details

Year	Agastheeswaram		Thovalai		Rajakkamangalam		Thuckalay	
	Taken-up	Expenditure	Taken-up	Expenditure	Taken-up	Expenditure	Taken-up	Expenditure
2000-01	373.11	356.38	360.54	349.95	560.76	527.23	291.37	282.35
2001-02	363.63	347.93	380.72	375.35	673.09	650.61	279.15	269.87
2002-03	413.10	398.06	407.65	402.05	559.06	543.78	279.28	277.21
2003-04	508.61	493.06	541.23	526.71	775.66	757.54	361.72	356.67
2004-05	316.82	314.11	323.36	320.95	624.22	621.80	347.01	345.18
2005-06	650.59	630.29	431.85	425.04	729.15	714.86	479.11	471.83
2006-07	344.59	329.32	467.62	435.81	602.49	574.28	327.34	323.45
2007-08	377.77	368.49	427.71	415.06	625.23	610.09	305.06	298.76
2008-09	596.36	545.73	557.87	508.13	717.23	680.55	403.88	384.75
2009-10	475.25	85.67	397.09	118.68	802.00	193.98	373.62	136.38

* Upto 3rd quarter (2009-10)only

Contd...

.

. Contd.

Year	Kurunthancode		Thiruvattar		Killiyoor		Munchirai	
	Taken-up	Expenditure	Taken-up	Expenditure	Taken-up	Expenditure	Taken-up	Expenditure
2000-01	429.82	393.69	260.44	246.84	266.89	257.01	333.52	323.29
2001-02	281.57	269.52	355.32	349.05	288.51	269.65	438.42	418.75
2002-03	342.05	333.13	347.68	341.96	253.36	247.09	466.71	398.24
2003-04	374.24	374.43	699.86	692.20	460.24	456.40	698.44	693.98
3004-05	334.81	327.81	430.53	429.86	290.18	289.36	478.97	478.40
2005-06	735.73	715.20	439.71	428.89	468.05	454.22	456.28	451.62
2006-07	388.77	379.84	325.13	309.56	303.67	293.80	478.32	465.29
2007-08	372.33	363.71	305.64	294.87	321.71	314.26	472.60	457.19
2008-09	503.02	483.07	443.73	394.96	456.15	448.27	756.15	620.76
2009-10	376.43	138.89	406.40	168.73	381.19	172.22	511.27	130.51

... Contd.

Year	Melpuram		District total		
	Taken-up	Expenditure	Taken-up	Expenditure	
2000-01	257.04	249.71	3,133.49	2,986.45	
2001-02	325.50	315.62	3,385.90	3,266.34	
2002-03	391.13	379.03	3,460.04	3,320.55	
2003-04	471.46	465.29	4,891.46	4,816.27	
2004-05	426.10	414.81	3,571.99	3,542.27	
2005-06	465.20	454.47	4,855.65	4,746.41	
2006-07	355.27	343.15	3,593.19	3,454.51	
2007-08	358.06	345.15	3,566.12	3,467.58	
2008-09	485.64	402.67	4,920.03	4,468.89	
2009-10	680.14	168.44	4,403.40	1,313.50	*

Source: Office of the DRDA, Nagercoil.

* Upto 3rd quarter (2009-10)only

.

Annexure 2-3 Fund Utilisation - SSA (in Rs. lakh)

Activities	2004-2005		2005-06		2006-07		2007-08		2008-09	
	A & S	Utilised	A & S	Utilised	A & S	Utilised	A & S	Utilised	A & S	Utilised
Block Resource Centre	122.115	93.495	122.115	110.115	134.120	122.904	34.875	38.420	40.860	57.524
Cluster Resource Centre	3.304	3.304	8.551	8.551	5.250	5.251	144.536	144.344	166.964	196.511
Civil Works	206.350	202.800	180.350	180.350	246.250	162.402	125.320	117.248	364.400	357.400
Intervention for Out of School Children	15.953	5.113	42.107	40.880	35.490	35.445	20.207	20.207	29.250	23.064
Innovative Activities	50.000	83.820	50.000	50.000	50.000	47.701	50.000	49.770	100.000	91.904
Interventions for Disabled children	18.888	18.888	17.400	17.400	26.016	24.089	34.092	33.561	29.710	29.078
Remedial Teaching	-	-	-	-	-	-	20.160	20.184	5.775	5.775
Maintenance Grant	31.300	31.200	31.300	31.050	31.250	30.900	31.450	31.150	46.800	42.850
Management & MIS	28.954	22.772	42.894	29.536	40.450	37.467	32.480	33.370	50.870	44.482
Research, Evaluation, Monitoring & Supervision	5.628	5.250	1.093	1.093	5.610	9.938	7.254	10.249	9.672	2.413
School Grant	19.240	19.040	19.540	19.240	19.240	19.060	19.320	19.060	56.770	55.630
Teachers Grant	25.760	23.060	27.040	22.450	26.720	21.430	23.590	23.590	21.755	21.755
Total Teacher Salary	8.640	8.010	14.160	14.160	14.760	14.160	32.040	32.040	27.780	26.880
Teaching Learning Equipment	0.500	0.500	-	-	1.000	1.000	0.900	0.900	0.000	
In service teacher training	72.128	49.523	68.140	62.065	67.310	64.621	66.129	63.697	65.295	59.774
New Recruit (Residential) teacher training	72.128	49.523	68.140	62.065	0.040	0.000	0.000	0.000	0.000	0.000
Community Mobilisation - Training (VEC Members)	0.817	0.817	2.876	2.876	1.160	1.160	1.448	1.448	1.372	1.372
Grand Total	597.577	533.182	627.567	585.753	704.666	597.528	636.061	631.498	1031.272	1038.049

Note: A & S = Allocated and sanctioned.
Source: Office of the SSA, Nagercoil.

Annexure 2-4: Assistance for the disabled population during 2009-10

Progress of ongoing schemes implemented during 2009-2010 (Part –I) (*in Rs*)					
Sl. No.	Name of the Scheme	Target		Achievement	
		Physical	Financial	Physical	Financial
1	Maintenance allowance severely Disabled Mentally Retarded Persons Maintenance allowance is given @ Rs.500/- per month to the severely disabled persons who cannot be otherwise rehabilitated by any other assistance. The Allowance is sent through Money Order to their native place itself	3700	17490850	2327	10471500
2	Scholarship for the Physically Handicapped Students	950	1150000	710	956000
3	Bunk – Stall Subsidy	2	10000	2	10000
4	Marriage Assistance for marrying Blind	2	40000	2	40000
5	Self – Employment subsidy	25	75000	25	75000
6	Free Bus Pass	945	1321021	945	--
7	Payment of Readers Allowance to Visually Handicapped Persons	23	60000	23	60000
8	Marriage Assistance to Persons marrying Hearing Impaired Persons	3	60000	3	60000
9	Purchase of Aids and Appliances to Physically Handicapped persons free of cost	47	--	47	--
10	Marriage Assistance to persons marrying Orthopaedically Handicapped Persons	5	100000	5	100000
11	Free Modular Artificial Limb to the Students	3	-	3	-
12	Free Motorised Tricycles to severely Ortho Disabled Students and Employed /Self Employed Persons	2+3		2+3	
13	PNRY Government contribution for Disabled	1	5000	1	5000
14	Maintenance allowance for Muscular dystrophy persons	6	36000	6	36000
15	Tamil Nadu Welfare Board for the Disabled – Social Security Schemes	25	53500	24	52500

Source: Office of the State Commissioner for the Disabled, Chennai.

Chapter 3

HEALTH

Understanding the demography of a region has its significance in different fields of development including political, economic and social. It forms the base for development planning in terms of allocation of resources, provision of basic and critical services, setting up decentralised systems and processes and framing pro-poor policies for the wellbeing of the people.

The fundamental premise of any population planning in a country is to achieve stabilisation in population which forms an essential requirement for promoting sustainable development with equitable distribution. The human development concept also reinforces this strong concern for equity and social justice to ensure a better life for all.

This chapter on demography analyses the population details of Kanyakumari district particularly in terms of the population size, age, sex, rural-urban composition, and its changes over the census decades.

3.1 Population Size

The Kanyakumari district had a total population of 16,76,034 with the male population of 8, 32,269 and female population of 8, 43, 765 as per 2001 census. It accounts for 2.7 per cent of the total population of the Tamil Nadu with 1.29 per cent of geographical area. It reveals that the density of population was much higher in the district (999) than that in the state (408).

The total population of Tamil Nadu, as per the 2001 Census, was 62,405,679. Of this, 19 percent belong to Scheduled Castes (SCs). The SCs in Kanyakumari formed 4.04 per cent of total district population, while ST population formed 0.32 per cent as shown in Annexure 3-1.

3.2 Sex Ratio

Among the 30 districts in the state, thirteen districts have the sex ratio more than 1000 and Kanyakumari district is one among the top ten and has secured eighth rank. The district shows a consistent improvement in the sex ratio over the last three decades i.e. 1971-1981 (985), 1981-1991 (991), 1991-2001 (1014).

The overall sex ratio of all the blocks and municipalities was found to be increased during 1991 and 2001 census (Annexure 3-2). However it was notified that as per the 2001 census, the sex ratio of a compact area in the district is consisting of Killiyoor and Munchirai blocks and Colochel municipality was less than 1000, though it has increased from that of 1991 census (Annexure 3-1).

Interestingly, it is to be noted that all the three area namely the colochel municipality and the blocks of killiyoor and Munchirai forms part of the south western region of the district in the Kerala-Tamil Nadu border.

Social-group wise sex ratio

The Kanyakumari district shows that the sex ratio of schedule tribe population is highest with 1032 followed by the scheduled caste population with 1029. It is as well above the sex ratio of the scheduled caste and scheduled tribes of Tamil Nadu state which is 998 and 977 respectively.

When analysed for region specifics, the blocks of Thovalai, Thiruvattar and the municipality of Colachal shows a decline in sex ratio of SC population in the last two Census years 1991 and 2001. Similarly, the sex ratio of the scheduled tribes in the blocks of Rajakkamangalam, Thuckalay and Munchirai show a declining trend. The rest of the blocks and the municipalities show the sex ratio more than 1000 (Annexure 3-2).

Sex ratio (0-14years)

While the overall sex ratio of the district shows an improvement with more than thousand female for thousand male population, the sex ratio of 0-14 years population irrespective of social group and region of rural or urban, show 974 (Table 3-1).

Table 3-1: Sex Ratio (0-14 years)

Particulars		Total	Rural	Urban
Kanyakumari	Total	974	975	974
	Scheduled Caste	986	980	990
	Scheduled Tribe	937	880	1076
Tamil Nadu	Total	947	939	959
	Scheduled Caste	962	960	968
	Scheduled Tribe	931	927	953

Source: Census 2001.

Among the scheduled tribes in rural areas, this sex ratio was the lowest (880) and it varies widely from the urban area which was 1076. Compared to the state, the sex ratio (0-14 years) of the Kanyakumari district was better.

Juvenile sex ratio (0-6 years)

Though the district shows improvement in the sex ratio over the last two census, the Juvenile sex ratio which is calculated for the 0-6 years population of the district has declined from 970 in 1991 to 968 in 2001 census. However, it is found that Kanyakumari district ranks third among the thirty two districts of the state next to Thiruvarur (974) and Nilgiris (990) and lowest being Dharmapuri (878).

Taluk wise, the juvenile sex ratio was found to be declining in all taluks except Agastheeswaram (Table 3-2). And, this decline was more prominent in Thovala taluk (1006 in 1991 to 959 in 2001). The reason for the declining trend needs to be understood and appropriate actions to be taken.

Table 3-2: Sex ratio in 1991 and 2001 Census

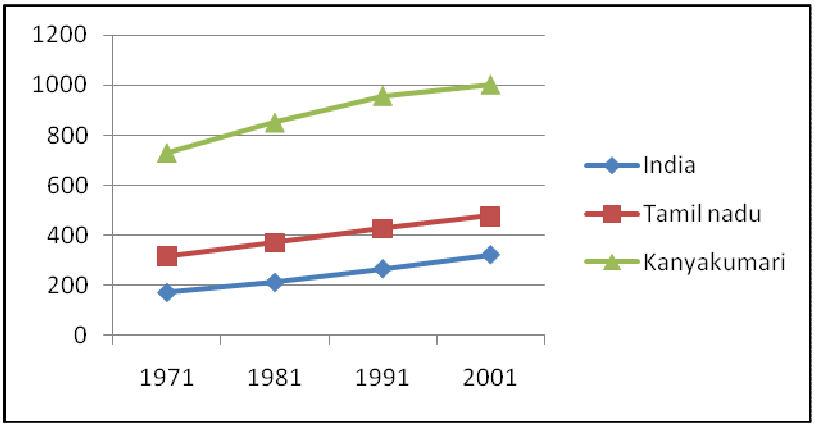
	Overall		0-6 years	
District / Taluk	1991	2001	1991	2001
Kanyakumari district	991	1014	970	968
Vilavancode	995	1003	977	971
Kalkulam	979	1018	972	967
Thovala	991	1011	1006	959
Agastheeswaram	1006	1022	954	968

Source: Census 1991 and 2001.

3.3 Population Density

The Kanyakumari district has the population density of 1002 persons per sq.km as per census 2001 which is far higher among the other districts of the Tamil Nadu state falling next to Chennai which is 24231 persons per sq.km.

Figure 3-1: Population Density



Source: Census 1971, 1981, 1991 and 2002.

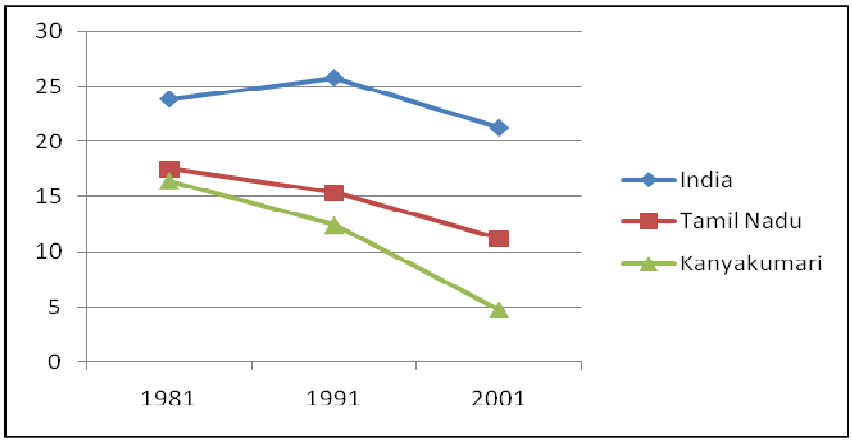
At the same time, the geographic area remaining constant, the population density of the district shows an increasing trend compared to the state as well as all India (Figure 3-1 and Annexure 3-3).

Among the nine blocks, Munchirai block has the highest population density of 2461 persons per sq.km and the lowest in Thovalai (300 persons per sq.km) and Thiruvattar (469 persons per sq.km). Among the four Municipalities, Nagercoil is densely populated with 8578 persons per sq.km (Annexure 3-2).

3.4 Population Growth Rate

The decadal population growth rate of the district is 4.73 percent (1991-2001) which is lowest than that of the state (11.19 percent) and the country (21.34 percent). The last three decades from 1981, the population growth rate of the district shows a declining trend, but the rate of decline is highest during the last decade i.e from 12.43 percent during 1981-1991 to 4.73 percent during 1991-2001 (Figure 3-2).

Figure 3-2: Overall decadal population growth rate



Source: District Statistical Handbook, Kanyakumari, different years; and Census 1981, 1991 and 2001.

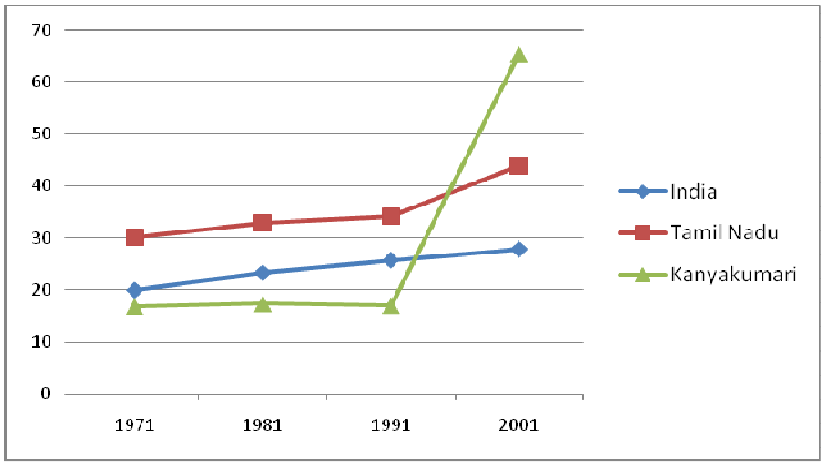
When the population growth rate of all districts is compared, Kanyakumari district stands third with lowest decadal growth rate in 2001 census next to Theni (4.33) and Sivaganga (4.32). This could be due to the better socio-economic factors and awareness among the people at large about the population control measure such as family planning etc.

When the different blocks and the municipalities of the district Kanyakumari is analysed for the population growth rate, it is identified that the block of Kuruthancode (-2.22) and the municipality of Colachel (-2.13) exhibits negative growth rate which implies that there is a definite decline in population in absolute terms (Table 3-3).

Level of Urbanisation

Increase in urban population is a recognised fact in both the nation and in state. The same trend is noticed in the Kanyakumari district too. Till 1991, there has been a lower proportion of urban population in Kanyakumari compared to India and Tamil Nadu. But, the proportion of urban population in Kanyakumari district drastically increased from just 16.88% in 1991 to 65.27% in 2001 (Figure 3-3).

Figure 3-3: Share of urban population to total population



Source: District Statistical Handbook, Kanyakumari, different years; and Census 1971, 1981, 1991 and 2001.

It could be due to the following reasons: (1) relatively more town panchayats (*56 town panchayats in the district out of 561 in Tamil Nadu as a whole, i.e. almost 10 per cent*) spread over the district with a higher percentage of population (*75 per cent of urban population in the district live in town panchayats comared to 44 per cent in the state as a whole*); (2) urban agglomeration; and (3) urban areas are seeing more inflow of population, i.e. immigration from other areas.

Population growth rate among the Schedule Castes and Schedule Tribes

While the overall district population growth rate is 4.73 percent, the population growth rate of the Schedule Tribes shows 4.21 percent which is little less than that of the district and the Schedule Castes is showing a negative growth rate of 11.90 percent. This decline in Schedule Caste population was found in almost all the blocks and municipalities except for Colachel municipality and Thovalai block.

Between 1991 and 2001, the overall district population growth rate is just 4.73 percent, while ST population growth rate is 4.21 percent. The growth of SC and ST population was not uniform across the blocks and municipalities of the district (Table 3-3).

Table 3-3: Social group wise population growth rate

Blocks/ Municipalities	All	SC	ST
Agastheswaram	12.09	-4.48	1.56
Rajakkamangalam	7.80	-14.55	-67.27
Thovalai	13.21	9.14	41.68
Kurunthancode	-2.22	-31.35	822.86
Thuckalay	3.24	-6.16	326.32
Thiruvattar	1.53	-23.53	16.09
Killiyoor	3.54	-13.14	-6.56
Munchiri	1.01	-23.99	43.36
Melpuram	3.52	-38.67	-58.98
Nagercoil Municipality	9.52	-5.33	8.19
Padmanabapuram	4.18	-5.08	-30.00
Colachel	-2.13	100.69	500.00
Kuzhithurai	6.64	-10.03	-35.71
District Total	**4.73**	**-11.90**	**4.21**

Source: Census 1991 and 2001, cited in the District Statistical Handbook, different years.

Scheduled castes (SC) and scheduled tribes, compared to other social groups, are considered to be socio-economically more backward (Jena and Pandey, 2004) and vulnerable. Demographic feature especially the decline of population (in absolute figure) is one such characteristic of vulnerability. It could be due to the lack of access to health, education and financial services or traditional belief and practices.

The population of all social groups except SC in Kanyakumari has increased during 1991 and 2001. The SC population in almost all blocks and municipalities (except Thovalai block and

Colachel municipality) has declined (Table 3.4). An independent study on different socio-economic and cultural dimensions of SC could help in understanding the root cause of absolute population decline in the district. The proposed study could also help in identifying the possible association between the decline in the SC population with the corresponding increase in the population of other social group(s) in the district. Overall, it was observed in the earlier chapter that SC households are economically backward in the district.

Table 3.4 Population – Total, SC, ST

Block/Municipality	Area [sq.km]	Population - Census 1991			Population - Census 2001		
		All	SC	ST	All	SC	ST
Agastheswaram (B)	133.12	132413	13397	513	148419	12797	521
Rajakkamangalam (B)	120.16	127325	7348	55	137254	6279	18
Thovalai (B)	369.07	97802	11344	487	110719	12381	690
Kurunthancode (B)	106.85	168810	7866	35	165070	5400	323
Thuckalay (B)	130.33	162019	5386	19	167262	5054	81
Thiruvattar (B)	344.8	159182	4510	2237	161619	3449	2597
Killiyoor (B)	82.7	151034	2777	61	156387	2412	57
Munchiri (B)	72.01	175454	6257	143	177225	4756	205
Melpuram (B)	271.89	173426	7310	1275	179535	4483	523
Nagercoil (M)	24.27	190084	7483	342	208179	7084	370
Padmanabapuram (M)	6.47	19269	2225	10	20075	2112	7
Colachel (M)	5.18	24305	580	4	23787	1164	24
Kuzhithurai (M)	5.15	19226	379	42	20503	341	27
District Total	1672.00	1600349	76862	5223	1676034	67712	5443

Note: B – Block; M – Municipality.
Source: Census of India 1991 and 2001, cited in the *District statistical Handbook 2002 and 2008*, Kanyakumari.

Population by Religion

Even though people of all religion live in Kanyakumari district, the Hindus and Christians are found in major proportion. But unlike in the state, the share of Christian population is far higher in the district (44.47%) where nearly one-fifth of the state Christian population exists in this district alone (Table 3-5 and Annexure 3-3).

Table 3-5 Distribution of population - Religionwise

S.No.	Religions	Population		Religion-wise share of district to the state
		Kanyakumari	Tamil Nadu	
1	Hindus	51.27	88.11	1.56
2	Muslims	0.44	5.56	0.21
3	Christians	44.47	6.07	19.69
4	Sikhs	0.00	0.02	0.32

S.No.	Religions	Population		Religion-wise share of district to the state
		Kanyakumari	Tamil Nadu	
5	Buddhists	0.00	0.01	0.80
6	Jains	0.00	0.13	0.09
7	Others	3.81	0.11	92.87
Total		**100.00**	**100.00**	**2.69**

Source: Census 2001, cited in District Statistical Handbook, Kanyakumari 2008.

3.5 Disability

Disability, as one of the important forms of vulnerability, is assumed to have multiple dimensions including physical, psychological, poverty, gender and contexts like rural and urban. As per 2001 Census, Kanyakumari had a total of 60639 disabled people. Around 58 per cent among them were females (Annexure 3.4).

Share of District population to state Population, and share of districts' diabled population to the disabled population of the state are worked to compare the contration of disabled population. The disabled population in the district constitute around 3.69 per cent to that of Tamil Nadu against the districts population share of 2.69 per cent to that of state. It reveals that Kanyakumari has relatively more disabled population with respect to its share of total population in the state (Table 3.6).

Table 3.6 Disabled population

Area	% of disabled population in KKM to that of Tamil Nadu			% of population in KKM to that of Tamil Nadu		
	Total	**Male**	**Female**	**Total**	**Male**	**Female**
Total	3.69	3.24	4.12	2.69	2.65	2.72
Rural	2.16	1.98	2.31	1.67	1.65	1.68
Urban	5.77	4.87	6.66	3.98	3.91	4.04

Unlike at all-India level, the extent of disability among females was more than males in Tamil Nadu as well as Kanyakumari. But this gender gap was found to be more pronounced in the district (Annexure 3.4). It might be due to exceptionally higher female disability *in seeing* in the district as compared to other types of disability (Table 3.7). Moreover, female disability in urban areas of the district was found much higher than in rural areas.

Figure3-4: Per centage Share to the State Population in the District– Rural

Figure 3.5 Per centage Share to the State Population in the District – Urban

Source: Census 2001

Among the different types of disability, *in seeing* alone constitutes about 64 per cent in the district compared to 59 per cent and 49 per cent in Tamil Nadu and India respectively (Table 3.7). Moreover among the female disabled population in the district, it's (in seeing) share alone was about three-fourth (Table 3.7). Besides, more than 21 per cent of disabled population were *in*

movement category followed by seven per cent, five per cent and three per cent of *mental*, *in speech* and *in hearing* respectively (Table 3.7).

Table 3.7 Percentage distribution of disabled population by types of disability

Area	In seeing		In speech		In hearing		In movement		Mental	
	Person	Female	Person	Female	Person	Female	Person	Female	Person	Female
India (Total)	48.55	52.71	7.49	7.51	5.76	6.32	27.87	23.68	10.33	9.77
India (Rural)	48.04	52.32	7.59	7.59	6.24	6.79	28.40	24.07	9.73	9.23
India (Urban)	50.04	53.89	7.19	7.27	4.33	4.91	26.29	22.53	12.14	11.40
Tamil Nadu (Total)	58.69	66.62	7.58	6.62	4.42	4.44	21.54	15.85	7.76	6.47
Tamil Nadu (Rural)	58.55	66.99	7.96	6.87	4.68	4.59	21.67	15.58	7.14	5.97
Tamil Nadu (Urban)	58.89	66.11	7.06	6.26	4.07	4.22	21.37	16.24	8.61	7.17
Kanniyakumari (Total)	63.52	74.86	5.47	4.30	2.72	2.33	21.42	13.54	6.88	4.97
Kanniyakumari (Rural)	62.04	73.71	5.03	4.00	2.68	2.23	23.37	15.14	6.88	4.93
Kanniyakumari (Urban)	64.26	75.42	5.70	4.45	2.74	2.38	20.43	12.75	6.87	5.00

Source: Census of India 2001.

3.6 Ageing Population, Dependency and Social Security

Considering the longevity of life, the population at the age of 60 or above is considered as ageing in India. Taking care of this ageing population is taken as moral responsibility of the respective family members and the society. But given the socio-economic limitations of the family or society, the role of the government as a welfare state to protect the ageing population is very important. The higher longevity of life does not ensure the healthy life especially of ageing population. Other things remaining the same, higher the growth of ageing population, higher would be the load on government in terms of providing social security to them. Moreover, it creates the potential economic problems such as effects on productivity (Jones, 2005), innovation, savings and health spending.

One of the important issues about the ageing population is that after a certain age (around 60 years) productivity appears to decline as people get older (Jones, 2005). In fact, the extent of this inverse relationship depends on the nature of work they do.

The share of ageing population in Kanyakumari (9.81 per cent) was comparatively higher than the state (8.83 per cent). It might be due to the presence of following aspects in the district: (i) lower fertility rate; (ii) sluggish population growth rate; (iii) better health services; and (iv) higher life expectancy at birth. On the other hand, the work participation rate (WPR) among the ageing population in Kanyakumari was much lower (28.18 per cent) than Tamil Nadu as a whole (43.08 per cent). The higher ageing population share with lower WPR reveals that there might be a need of higher social security expenditure. Moreover, the rate of social security expenditure will increase, if the above trend of ageing population and WPR continues. Unfortunately, the

following data were not available at the time of report preparation: (i) social security expenditure (*time series*); (ii) total social sector expenditure (*time series*); and (iii) age wise productivity. An independent study would help in this regard by considering the composite of factors associated with ageing population. However, based on the above facts, necessary steps have to be taken up to increase the WPR of ageing population with their confidence and comfort.

There were three old age homes with government grants operating in different parts of the district. Each home is facilitated with a capacity of 25-40 beneficiaries. Besides, a total of 13434 old people in the age group of 65 years and above including 463 SC, 70 ST and 12901 others were benefited through the Indira Gandhi National Old Age Pension (INOAP) scheme in the district.

Items	Kanyakumari	Tamil Nadu
% of ageing (60 years and above) population (2001)	9.81	8.83
% of working age (15-59 years) population (2001)	65.01	63.71
WPR among working age (15-59 years) population (2001)	45.64	62.69
WPR among ageing (60 years and above) population (2001)	28.18	43.08
Ratio of working age population and ageing population (2001)	6.62	7.22
Ratio of workers in working age population and non-workers in ageing population (2001)	4.21	7.95
Decadal population growth rate during 1991-2001 (2001)	4.73	11.20

Note: WPR – work participation rate (WPR is calculated, as per the Census of India, as the total workers divided by total population and multiplied by 100).
Source: Calculated from Census of India 2001.

3.7 HEALTH AND NUTRITION

Good health is one of the most indispensable components to achieve human development. There exists an intricate relationship between health, poverty, and human development. Poverty in its basic form refers to a state of deprivation to food and nutrition which can potentially lead to morbidity and reduced lifespan of the individuals. In children, if adequate nutrition does not prevail, their mental and physical growth will get affected. Similarly, lack of good health can also push individuals to poverty because of reduced productivity and capability and this in turn will become challenge on human development.

In general, the human development concept envisages a long and healthy life of individuals where long life is measured in terms of life expectancy at birth. The life expectancy at birth is considered as an important indicator as it has a direct bearing on the status of morbidity and longevity. And for the long life, the prerequisite is the healthy life which is measured in terms of various parameters like mortality rate / ratios of infant mortality, maternal mortality,

under-five children mortality, still birth, abortion etc. and fertility rates, prevalence rates of various diseases of both communicable and non-communicable nature.

The scenario of health sector reveals that Tamil Nadu state fares well when compared to the status of the health in the country as a whole. It is also observed that within the state, among all its districts, Kanyakumari district stands apart in many of the health attainments. Despite its good performance, there exist inter and intra-district disparities in health and nutrition parameters which are analysed in this chapter.

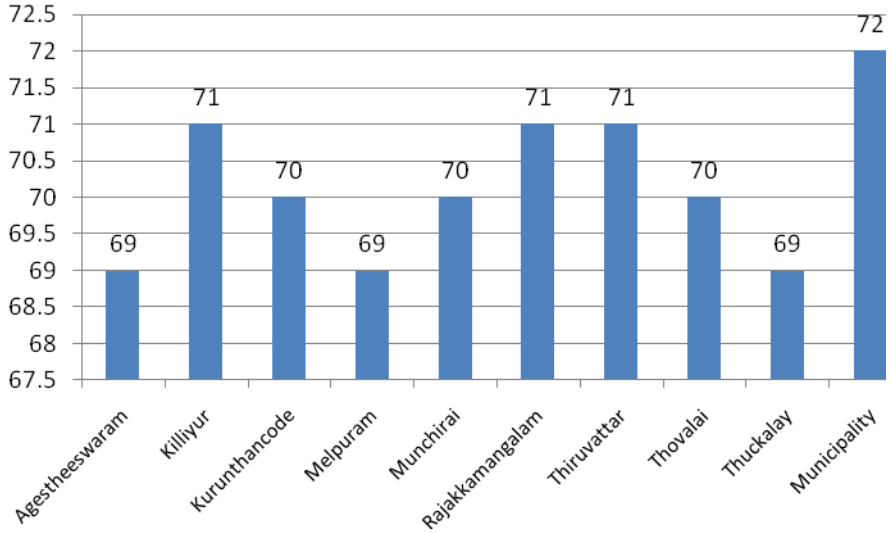
In addition, this chapter attempts to understand the performance of the district and its blocks on various health and nutrition parameters over the period.

3.7(1) Life Expectancy at Birth

Life expectancy at birth (LEB) by definition refers to the average number of years a newborn child would be expected to live if the child is subject to the age pattern of mortality prevailing at the time of its birth.

Overall, the LEB of the district is 72.65 years and it stands next to Chennai (74.21 years) as stated in Vital statistics 1998, DANIDA. This is again well above the State (66.74 years) and the country (63.4 years as on 2007 with female LEB – 64.9 years and male LEB – 62 years). The life expectancy at birth of the district is 70.36 years for male and 74.96 years for female.

Figure 3.6 Life expectancy at birth 2009



Source: Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Block wise as on 2009, it was found ranging from 69 to 71 years (Figure 3.6). The blocks of Killyur, Rajakkamangalam and Thiruvattar are with high life expectancy of 71 years. It is also found that the life expectancy at birth of the municipalities as a whole is 72 years which is almost closer to the blocks. Moreover, it is found that almost all the blocks and the municipalities as a whole maintains the same level over the last ten years and also there is not much disparity.

Top three blocks with high life expectancy at birth	**Bottom three blocks with low life expectancy at birth**
Killiyur(71)	Agastheewaram(69)
Rajakkamangalam(71)	Melpuram(69)
Thiruvattar(71)	Thuckalay(69)

3.7 (2) Birth Rate

The birth rate of all the blocks in Kanyakumari district shows a decline since 2001. The inter-block disparity in birth rate varies between 12.96 in Thiruvattar block and 16.67 in Thovalai block .

Table 3.8 : Birth Rate

Blocks/ Municipalities	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Agastheeswaram	17.26	15.69	15.66	14.98	14.82	15.33	15.49	15.38	14.79
Killiyur	19.98	17.57	17.56	17.28	17.66	17.11	16.93	16.74	16.21
Kurunthancode	16.86	14.10	14.13	14.79	14.53	14.76	14.68	14.60	14.34
Melpuram	17.27	15.99	15.54	15.59	15.72	15.67	15.46	15.35	15.22
Munchirai	18.61	18.93	18.14	17.80	18.02	17.60	17.29	17.15	16.46
Rajakkamangalam	15.29	13.42	13.78	14.01	14.25	14.59	14.25	14.22	13.83
Thiruvattar	15.75	14.12	13.44	13.44	13.42	13.38	13.21	13.12	12.96
Thovalai	17.41	17.15	17.08	17.10	17.73	17.89	17.66	17.46	16.67
Thuckalay	18.13	14.82	14.77	14.80	14.64	14.60	14.52	14.47	13.91
Municipality	11.43	13.33	13.77	13.49	14.15	13.69	13.67	13.63	13.18

Source: Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

While all the blocks in Kanyakumari district show a declining trend in birth rate, the birth rate of the municipalities as a whole has increased from 11.43 in 2001 to 13.18 in 2009.

The top three and bottom three blocks of the district in birth rate as of 2009 is given below.

Top tree blocks with low birth rate	Bottom three blocks with high birth rate
Thiruvattar (12.96) Rajakkamangalam (13.83) Thuckalay (13.91)	Thovalai (16.67) Munchirai (16.46) Killiyur (16.21)

3.7 (3)Death Rate

The Death rate of all the blocks except Thovalai shows a decline with little differences over the last nine years since 2001. The Thovalai block has shown rise in the death rate from 6.32 in 2002 to 7.30 in 2009 and it has the highest death rate among the other blocks and the municipality as a whole in the Kanyakumari district as on 2009.

Table 3.9 : Death Rate

Blocks / Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	6.53	6.44	6.20	5.90	5.84	5.63	5.61	5.56	5.48
Killiyur	6.78	6.68	6.63	6.54	6.49	6.41	6.39	6.18	6.10
Kurunthancode	5.47	5.36	5.27	5.22	4.61	4.53	4.52	4.54	4.49
Melpuram	5.01	5.02	5.12	5.03	5.00	4.99	4.97	4.89	4.83
Munchirai	6.00	5.89	5.92	5.85	5.80	5.82	5.80	5.67	5.60
Rajakkamangalam	5.17	5.18	5.23	5.13	5.07	5.13	5.12	5.12	5.05
Thiruvattar	5.49	5.47	5.49	5.52	5.48	5.41	5.40	5.32	5.26
Thovalai	6.32	6.23	6.88	7.83	7.75	7.75	7.71	7.44	7.30
Thuckalay	5.11	5.01	5.03	5.37	5.33	5.26	5.24	5.17	5.11
Municipality	4.46	4.80	5.07	5.34	5.30	5.41	5.40	5.05	5.02

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Similar to Thovalai, the death rate of the municipalities of the Kanyakumari district registered an increase from 4.46 in 2001 to 5.02 in 2009. The top three and bottom three blocks of the district in death rate as of 2009 are shown below.

Top three blocks with low death rate	Bottom three blocks with high death rate
Kuruthancode (4.49) Melpuram (4.83) Rajakkamangalam (5.05)	Thovalai (7.30) Killiyur (6.10) Munchirai (5.60)

3.7 (4) Under-five Mortality Rate

The under-five mortality rate of all the blocks and municipalities in the Kanyakumari district show a decline over the last two years since 2001. As on 2009, the under-five mortality rate of the children varies with the lowest of 0.08 in Municipality as a whole, 0.09 in Melpuram block and the highest 0.19 in Thovalai block.

The under-five mortality rate of the blocks and the municipalities is found to be insignificant in numbers which implies the good condition of the health of the children under-five years in the district.

Table 3.10 Under-five Mortality Rate

Blocks/ Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	0.32	0.16	0.16	0.15	0.14	0.12	0.13	0.15	0.17
Killiyur	0.30	0.37	0.33	0.31	0.27	0.24	0.21	0.20	0.18
Kurunthancode	0.24	0.24	0.21	0.19	0.17	0.14	0.15	0.14	0.12
Melpuram	0.18	0.14	0.16	0.15	0.13	0.10	0.09	0.09	0.09
Munchirai	0.20	0.26	0.29	0.27	0.23	0.21	0.17	0.16	0.13
Rajakkamangalam	0.24	0.15	0.16	0.16	0.16	0.15	0.16	0.15	0.14
Thiruvattar	0.30	0.16	0.17	0.18	0.14	0.13	0.12	0.11	0.10
Thovalai	0.21	0.27	0.28	0.29	0.27	0.24	0.21	0.20	0.19
Thuckalay	0.13	0.14	0.14	0.16	0.14	0.14	0.14	0.14	0.13
Municipality	0.09	0.05	0.08	0.09	0.09	0.07	0.08	0.08	0.08

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

While all the blocks show a declining trend, the Agastheeswaram block alone show an increase in trend over the last three years**.**

3.7 (5) Infant Mortality Rate

When analysed for inter-district disparities in infant mortality rate, it is found that the Kanyakumari district has the lowest infant mortality rate (IMR) of 15.6 as of 2003 which is far below the state IMR (30.1). This clearly depicts not just the state of health, nutrition and health care accessible to the infants below one year of age, but the general well-being of the society. It is also worth mentioning the initiative of the district administration on Infant Death Audit to reduce the infant death. A note on Infant Death Audit (IDA) is given in Box 3.1 .

The infant mortality rate (IMR) of the Melpuram block was the lowest with 4.96 followed by the municipalities as a whole (5.32). The Agastheeswaram block has the highest IMR of 10.39 among the other blocks. But the encouraging factor is that almost all the blocks and the municipality as a whole show a declining trend over the last nine years except for the Thuckalay block.

The IMR in Thuckalay has increased from 6.43 in 2001 to 8.86 in 2009. Moreover, it exhibits an inconsistent pattern of IMR across the different years.

Table 3.11 Infant Mortality Rate

Blocks/ Municipalities	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	17.05	8.87	9.3	9.23	7.9	7.16	7.51	8.8	10.39
Killiyur	13.21	17.40	16.52	15.89	13.87	12.16	10.56	10.14	10.33
Kurunthancode	13.98	16.22	14.53	11.91	10.53	8.42	9.21	8.42	7.32
Melpuram	7.78	8.01	8.58	8.17	7.03	5.98	4.98	4.97	4.96
Munchirai	9.65	11.78	13.66	12.8	10.85	10.72	8.7	8.33	7.46
Rajakkamangalam	15.09	10.74	9.94	9.29	9.1	8.41	9.49	8.98	9.57
Thiruvattar	15.71	11.05	11.58	11.54	10.2	8.87	8.05	7.59	7.6
Thovalai	10.29	14.94	15.5	15.41	13.14	11.89	10.35	9.77	10.04
Thuckalay	6.43	9.39	9.78	9.35	8.63	8.63	8.66	8.61	8.86
Municipalities	6.28	3.49	4.67	4.76	4.53	4.15	4.67	4.92	5.32

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

The blocks of Killiyur, Kuruthancode and Melpuram have been showing a consistent decline in IMR after 2002.Some of the blocks such as Rajakkamangalam, Thovalai and Thuckalay show a highly inconsistent declining pattern of IMR .

As of 2009, the performance of the top three and bottom three blocks in the indicator of infant mortality rate is listed as below.

Top three Blocks with low IMR	Bottom three Blocks with high IMR
Melpuram (4.96)	Agastheeswaram (10.39)
Kuruthancode (7.32)	Killiyur (10.33)
Thiruvattar (7.6)	Thovalai (10.04)

Box-3.1

Infant Death Audit (IDA)

The Infant Death Audit (IDA) has been conducted since April 2010. As per the IDA, within 24 hours the infant death is being informed to the Deputy Director of Health Services (DD-Health) over phone; also the Medical Officer of respective PHC submits the first information report to the DD-Health.

Within 7 days, the Medical Officer enquires the respective parents and submits the line listing to DD-Health. Then, within 15 days, the Medical Officer personally conducts the investigation and fill the verbal autopsy and sends it to the DD-Health.

The DD-Health and Joint Director of Health Services conducts the subcommittee audit and analyses the death, and they conclude whether the death is preventable or unpreventable.

The conclusion of subcommittees report is submitted to the District Committee which is headed by the District Collector. The District Committee of Infant Death Audit meets every month and audits the causes of infant deaths. This enabled the department to prepare interventional programme for further quality care and further reduction in Infant death.

3.7 (6) Percentage of Infant deaths to Under-five deaths

Table 3.12 depicts clearly that almost more than 85 percentage of the under-five deaths are due to infant deaths only. This is the case in all blocks and municipalities, which highlights the importance of nutrition, health care and immunisation for the infants.

Table 3.12 Share of infant deaths to under-five deaths (%)

Blocks/ Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	91.30	86.96	91.30	90.91	85.00	88.89	89.47	90.91	92.00
Killiyur	87.80	82.35	86.96	88.37	89.47	87.88	86.21	85.71	92.31
Kurunthancode	97.62	95.24	97.30	93.94	90.00	88.00	88.89	88.00	90.48
Melpuram	72.73	92.00	82.76	85.19	86.96	89.47	87.50	87.50	87.50
Munchirai	90.32	85.37	84.78	85.71	86.11	90.91	88.89	88.46	95.24
Rajakkamangalam	94.59	95.65	87.50	83.33	80.00	82.61	84.00	83.33	95.45
Thiruvattar	83.67	96.30	89.66	86.67	100.00	90.91	90.00	89.47	94.44
Thovalai	85.71	96.30	93.10	90.00	85.71	88.00	86.36	85.71	90.00
Thuckalay	86.96	96.00	100.00	88.89	91.67	88.00	88.00	88.00	91.67
Municipality	80.00	86.67	78.26	75.00	69.23	80.00	81.82	82.61	90.91

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

The percentage varies across the blocks with the highest percentage in Rajakkamangalam block with 95.45 to the lowest in Melpuram block with 87.50 (Table 3.12).

3.7 (7) Still Birth Rate

Still birth means the death of the foetus weighing at least 500 gms, before the complete expulsion or extraction from its mother. It is calculated by the number of such events occurred per 1000 live births. This indicates the status of maternal health as well as the care extended to the mother during her pregnancy.

Table 3.13 Still Birth Rate

Blocks/ Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	0.08	0.08	0.10	0.10	0.13	0.16	0.15	0.15	0.15
Killiyur	0.15	0.15	0.14	0.16	0.19	0.17	0.16	0.16	0.15
Kurunthancode	0.10	0.10	0.09	0.10	0.11	0.10	0.11	0.11	0.10
Melpuram	0.08	0.08	0.08	0.10	0.10	0.13	0.13	0.13	0.11
Munchirai	0.13	0.13	0.13	0.15	0.13	0.14	0.15	0.15	0.17
Rajakkamangalam	0.07	0.07	0.07	0.08	0.10	0.12	0.14	0.13	0.16
Thiruvattar	0.16	0.16	0.14	0.16	0.14	0.13	0.14	0.13	0.15
Thovalai	0.20	0.20	0.19	0.20	0.27	0.25	0.24	0.24	0.20
Thuckalay	0.12	0.12	0.13	0.14	0.15	0.15	0.15	0.15	0.12
Municipality	0.06	0.06	0.06	0.07	0.08	0.09	0.09	0.08	0.07

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Overall, the still birth rate of the blocks and the municipality as a whole in the Kanyakumari district in 2009 is insignificant as it ranges between 0.07 in Municipality and 0.20 in Thovalai block. Compared to all the blocks, Thovalai block which is dominated by the tribal community has the highest still birth rate of 0.20.

Moreover, except for the blocks Thiruvattar, Rajakkamangalam and Munchirai, the rest of the blocks and the municipalities show a decline in still birth rate over the period. This indicates that the status of women health and the maternal health care service is far better across all the blocks and municipalities of the district. The top three and bottom three blocks of the district in Still birth rate as of 2009 are given as below.

Top three blocks with low Still birth rate	**Bottom three blocks with high still birth rate**
Kuruthancode (0.10)	Thovalai (0.20)
Melpuram (0.11)	Munchirai (0.17)
Thuckalay (0.12)	Rajakkamangalam (0.16)

3.7 (8) Post Neo-natal Mortality

The post neo-natal mortality rate is defined as the number of resident new borns dying between 28 days and one year of age in a given geographical area divided by the number of live births for the same area for a specified time period, usually a year, and multiplied by 1000.

Table 3.14 Post neo-natal Mortality Rate

Blocks / Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	3.65	3.65	3.98	4.61	3.72	3.65	3.65	3.65	3.65
Killiyur	5.5	5.50	4.96	4.6	3.67	5.5	5.5	5.5	5.5
Kurunthancode	6.82	6.82	7.67	5.76	4.68	6.82	6.82	6.82	6.82
Melpuram	3.24	3.24	3.22	2.84	2.46	3.24	3.24	3.24	3.24
Munchirai	4.82	4.82	6.65	6.05	4.9	4.82	4.82	4.82	4.82
Rajakkamangalam	7.76	7.76	2.84	3.25	3.18	7.76	7.76	7.76	7.76
Thiruvattar	9.2	9.20	5.79	4.88	4.43	9.2	9.2	9.2	9.2
Thovalai	6.29	6.29	9.18	8.56	7.12	6.29	6.29	6.29	6.29
Thuckalay	3.22	3.22	4.3	3.89	3.14	3.22	3.22	3.22	3.22
Municipality	1.88	1.88	2.07	1.85	1.76	1.88	1.88	1.88	1.88

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

The inter-block analysis of Kanyakumari district in post neo-natal mortality rate varies widely ranging between 9.2 in Thiruvattar block and 3.22 in Thuckalay block in 2009. When the blocks were compared for their performance over the years, it clearly reveals that all the nine blocks and the municipality as a whole maintain the same post neo-natal mortality rate same from 2006 onwards

As far as the Municipality as a whole is concerned, the post neo-natal mortality rate is almost same with slight differences over the last nine years. Moreover, compared to the blocks, the municipalities of the Kanyakumari district perform better by having the lowest post neo-natal mortality rate.

The top three and bottom three blocks of the district in Late neo-natal Mortality rate as of 2009 are given below.

Top three blocks with low post neo-natal mortality rate	**Bottom three blocks with high post neo-natal mortality rate**
Thuckalay (3.22)	Thiruvattar (9.2)
Melpuram (3.24)	Rajakkamangalam (7.76)
Agastheeswaram (3.65)	Kuruthancode (6.82)

3.7 (9) Late Neo-natal Mortality Rate

Late neo-natal refers to the number of infant deaths after seven days but up to 28 days after delivery per 1000 live births.

It may be noted that all the blocks as well as the municipality as a whole in Kanyakumari district show varying trend across the blocks in the last nine years. Among all, the Agastheeswaram block (5.42) exhibit an increase in late neo-natal mortality rate in the last four years. Also, the same block is one of the three blocks with high early neo-natal mortality rate. Thovalai block shows the highest late neo-natal mortality rate of 6.14 as on 2009.

Table 3.15 Late Neo-Natal Mortality Rate

Blocks / Mortality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	9.74	3.55	3.98	4.61	3.72	3.58	3.97	5.28	5.42
Killiyur	5.87	5.39	4.96	4.6	3.67	3.78	3.38	2.96	3.01
Kurunthancode	4.77	8.19	5.2	5.76	4.68	4.59	4.22	3.45	3.47
Melpuram	3.24	2.79	3.22	2.84	2.46	2.46	1.78	2.13	2.13
Munchirai	3.1	6.06	6.65	6.05	4.9	5	4.35	3.98	4.1
Rajakkamangalam	3.88	1.46	2.84	3.25	3.18	3.1	3.62	3.14	3.19
Thiruvattar	4.22	5.10	5.79	4.88	4.43	4.43	3.58	3.13	3.13
Thovalai	1.72	8.62	9.18	8.56	7.12	7.02	6.54	5.97	6.14
Thuckalay	2.25	3.91	4.3	3.89	3.14	3.14	3.54	3.52	3.62
Municipality	2.51	1.20	2.07	1.85	1.76	1.82	2.33	2.33	2.39

Source: Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

The top three and bottom three blocks of the district in Late neo-natal Mortality rate as of 2009 are given below.

Top three Blocks with low late neo-natal mortality rate	Bottom three Blocks with high late neo-natal mortality rate
Melpuram (2.13)	Thovalai (6.14)
Killiyur (3.01)	Agastheewaram (5.42)
Thiruvattar (3.13)	Munchirai (4.1)

3.7 (10) Early Neonatal Mortality Rate

Early neonatal mortality rate is defined as the number of infant deaths up to seven days after delivery per 1000 live births. All the blocks in Kanyakumari district except its municipalities show a sudden rise in early neo natal mortality rate in the year 2002 which then was followed by a decline and later again by an increase. Except for the blocks of Kuruthancode and Melpuram which show a decline, all other blocks exhibit an increase in the early neo-natal mortality rate though at varying rates which is a matter of concern .

Table 3.16: Percentage of early neo-natal deaths to infant deaths

Blocks/ Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	21.43	40.00	33.33	30.00	35.29	31.25	35.29	30.00	39.13
Killiyur	13.89	59.52	57.50	55.26	61.76	58.62	60.00	62.50	62.50
Kurunthancode	17.07	35.00	41.67	41.94	48.15	40.91	41.67	45.45	47.37
Melpuram	16.67	30.43	33.33	30.43	35.00	35.29	50.00	35.71	35.71
Munchirai	17.86	40.00	41.03	38.89	45.16	40.00	37.50	39.13	45.00
Rajakkamangalam	22.86	63.64	57.14	55.00	55.00	47.37	52.38	55.00	57.14
Thiruvattar	14.63	42.31	38.46	42.31	47.83	45.00	44.44	35.29	35.29
Thovalai	22.22	26.92	22.22	29.63	33.33	27.27	26.32	27.78	27.78
Thuckalay	15.00	50.00	44.00	50.00	54.55	50.00	40.91	40.91	40.91
Municipality	30.00	23.08	33.33	44.44	44.44	43.75	33.33	31.58	35.00

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

The Killiyur block showed the highest neo natal mortality rate of 6.45 in 2009 followed by Rajakkamangalam (5.47) and Agastheeswaram (4.07) blocks. It has to be noted that the blocks of Rajakkamangalam and Agastheeswaram show a consistent increase in the early neo-natal mortality rate. The performance of the municipality as a whole is better than the performance of the blocks of Kanyakumari district in terms early neo-natal mortality rate.

The top three and bottom three blocks with respect to their performance on the indicator of early neo-natal mortality rate as on 2009 are listed below:

Top three Blocks with low early neo-natal mortality rate	**Bottom three Blocks with high early neo-natal mortality rate**
Melpuram (1.77)	Killiyur (6.45)
Thiruvattar (2.68)	Rajakkamangalam (5.47)
Thovalai (2.79)	Agastheeswaram (4.07)

The data on the indicator of early neo- natal mortality rate in the blocks of Kanyakumari district reveals that the district should necessarily focus on intensifying the immediate post-natal care to the newly born child.

3.7 (11) Percentage of early neo-natal deaths to total infant deaths

While the IMR of the district varies from 5.32 to 10.39 across its different blocks and the early neo-natal mortality rate varies from 1.77 to 6.45 across its various blocks, the percentage of early neo-natal deaths to total deaths was calculated to understand the extent of early neo-natal deaths to infant deaths.

The percentage reveals that in Killiyur block, 62.50 percent of the total infant deaths are of mainly early neo-natal deaths i.e. death of infants upto seven days after its birth. Followed by

Killiyur is the Rajakkamangalam which has 57.14 per ent of early neo-natal deaths to total infant deaths.

It is also found that that this percentage ranges between 27.78 in Thovalai and 62.50 in Killiyur block. It is also observed that this percentage increases over the previous years in most of the blocks as well as in municipality as a whole.

3.7 (12) Peri natal mortality rate

The Peri Natal Mortality Rate reflects the prenatal, intrapartum and neo natal care. It gives the Peri Natal deaths which comprises of still births plus early neonatal deaths (infants that die within seven days of birth). It is calculated as the number of Peri Natal deaths per 1000 live births.

In Kanyakumari district, all the blocks and municipality as a whole show a definite decline in the peri natal mortality in 2009 when compared with 2001. Although, there was a steep decline in the peri natal mortality in the year 2002, all the blocks and the municipality as a whole show a overall declining trend but with inconsistent pattern over the last seven years and it also varies across the blocks.

Table 3.17 Peri Natal Mortality

Blocks/ Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	3.65	2.22	1.33	0.92	0.93	1.34	0.88	0.88	0.9
Killiyur	5.5	1.24	1.65	2.09	1.22	1.68	1.27	1.27	0
Kurunthancode	6.82	1.62	2.02	2.31	1.56	1.15	0.77	0.77	0.77
Melpuram	3.24	1.04	1.07	1.42	0.7	0.35	0.71	1.42	1.42
Munchirai	4.82	2.69	2.45	2.84	2.1	1.43	0.73	1.09	1.12
Rajakkamangalam	7.76	2.44	0.95	1.39	0.91	0.44	1.36	1.35	0.46
Thiruvattar	9.2	0.85	1.34	0.89	0.89	1.33	1.79	1.79	1.79
Thovalai	6.29	2.30	2.87	2.28	1.64	1.62	1.09	1.09	1.12
Thuckalay	3.22	1.56	1.56	1.17	1.18	0.78	1.18	1.57	1.61
Municipality	1.88	1.07	1.3	1.59	0.5	0.52	0.78	0.78	0.8

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil

The Killiyur block has shown good performance with no single perinatal mortality in the year 2009. It is also observed that geographically, the blocks coming under the northen region such as Thiruvattar, Melpuram, Thovalai and Thuckalay show high Peri Natal Mortality compared to other blocks. The top three and bottom three blocks of the district in Peri-natal Mortality rate as of 2009 are given below.

Top three Blocks with low Per natal mortality rate	Bottom three Blocks with high Peri natal mortality rate
Killiyur (0.0)	Thiruvattar (1.79)
Rajakkamangalam (0.46)	Thuckalay (1.61)
Kuruthancode (0.77)	Melpuram (1.42)

3.7 (13) Maternal Mortality Ratio

The maternal mortality ratio (MMR) is defined as the number of women who die as a result of childbearing in a given year per 100,000 live births. Generally, it refers to the maternal deaths that are caused by complications of pregnancy and childbirth.

The Maternal Mortality Ratio of the Kanyakumari district is 0.6 in 2009. The indicator of Maternal Mortality Ratio helps to bring out the status of women health and also it throws light on the status of care that the women get during their pregnancy period.

As far as the Maternal Mortality Ratio of the Kanyakumari district is concerned, no particular pattern emerges out which is very well reflected in R^2 value of all the blocks (except Melpuram – 1.09) and the municipality as a whole being less than 0.05 which shows insignificance. The commendable initiative which the district administration has initiated to bring down the MMR is given in Box 3. 2.

It is observed that the MMR in three adjacent blocks such as Thiruvattar (0.89) and Thuckalay (0.81) blocks of Kalkulam taluk and the Killiyur (0.86) block of Vivancode taluk were higher as compared with rest of the blocks and municipalities during 2009.

Table 3.18: Maternal mortality Rate

Blocks/ Municipalities	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	0.41	1.33	0.44	0.92	0.93	0.90	1.32	0.44	0.45
Killiyur	0.37	1.24	0.83	1.25	0.82	0.84	0.42	0.00	0.86
Kurunthancode	0.00	0.41	1.61	1.15	0.78	0.77	0.38	1.53	0.77
Melpuram	0.32	0.00	0.71	0.36	0.70	0.70	1.07	0.00	0.71
Munchirai	0.69	1.01	1.40	1.78	1.40	1.43	0.36	0.36	0.37
Rajakkamangalam	1.29	1.46	0.95	1.39	0.45	0.89	1.36	0.90	0.46
Thiruvattar	1.53	0.42	0.89	1.33	0.44	0.44	0.45	0.00	0.89
Thovalai	0.57	0.57	0.00	0.57	0.55	0.54	0.54	0.54	0.00
Thuckalay	0.32	0.78	0.78	1.95	0.39	0.39	0.79	0.00	0.81
Municipality	0.63	1.07	2.07	0.79	1.01	1.04	0.52	0.26	0.80

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Some of the blocks like Munchirai, Rajakkamangalam,Thiruvattar,Thovalai exhibit an inconsistent decline over the period. Whereas the blocks of Agastheeswaram, Killiyur, Kuruthancode, Melpuram, Thuckalay and Municipality as a whole show an increasing trend, but inconsistent over the last nine years (Table 3.18).

The top three and bottom three blocks with low and high maternal mortality ratio respectively is listed as below

Top three Blocks with low MMR	**Bottom three Blocks with high MMR**
Thovalai (0.00)	Thiruvattar (0.89)
Munchirai (0.37)	Killiyur (0.86)
Agastheeswaram (0.45)	Thuckalay (0.80)

3.7 (14) Correlation among the mortality rates

The correlation matrix among the mortality rates of under 5 children, IMR, peri-natal, early neo-natal, late neo-natal, post neo-natal and MMR of different blocks and municipality (as a whole) in Kanyakumari (2009) is given in the Table 3.19.

A positive correlation was found among the IMR, the early neo-natal, late neo-natal and the post neo-natal mortality rates. The coefficient of correlation was found to be significant (r=0.670 at 0.03 level of significance) between IMR and late neo-natal mortality rates. But this coefficient was highly significant (r=0.753 at 0.01 level of significance) between IMR and early neo-natal mortality rates.

On the other hand, the positive correlation between IMR and post neo-natal mortality rates was found to be insignificant (r=0.336 at 0.343 level). From above, one can infer that the behaviour of IMR was mainly determined by the early neo natal mortality rates. This corroborates with the fact that the early neo-natal period i.e upto seven days after birth of the infant is very crucial and it warrants action to improvise the health care and service to the infants.

Table 3.19 Correlation matrix among the mortality rates of under 5 children, IMR, peri-natal, early neo-natal, late neo-natal, post neo-natal and MMR in Kanyakumari (2009)

		Under5	IMR	Per_Natal	Early_Neo_Natal	Late_Neo_Natal	Post_Neo_Natal
Under5	Pearson Correlation	1	**.918****	-.441	.640*	.757*	.193
	Sig. (2-tailed)		.000	.202	.046	.011	.593
	N	10	10	10	10	10	10
IMR	Pearson Correlation	.918**	1	-.376	**.753***	**.670***	**.336**
	Sig. (2-tailed)	.000		.284	.012	.034	.343
	N	10	10	10	10	10	10
Per_Natal	Pearson Correlation	-.441	-.376	1	-.717*	.048	-.002
	Sig. (2-tailed)	.202	.284		.020	.896	.996
	N	10	10	10	10	10	10
Early_Neo_Natal	Pearson Correlation	.640*	.753*	-.717*	1	.089	.311
	Sig. (2-tailed)	.046	.012	.020		.806	.381
	N	10	10	10	10	10	10
Late_Neo_Natal	Pearson Correlation	.757*	.670*	.048	.089	1	.125
	Sig. (2-tailed)	.011	.034	.896	.806		.731
	N	10	10	10	10	10	10
Post_Neo_Natal	Pearson Correlation	.193	.336	-.002	.311	.125	1
	Sig. (2-tailed)	.593	.343	.996	.381	.731	
	N	10	10	10	10	10	10

**. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Calculated from the data available at the Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Box 3.2 Maternal Death Audit (MDA)

Delivery is the natural phenomena. The mother should not die during delivery. In case of maternal death, the district health department, through the Maternal Death Audit (MDA), analyses the case particularly to avoid the preventive maternal deaths in future.

As per the MDA, immediately after the death of the mother, the Village Health Nurse informs to the Medical Officer of the respective PHC. The Medical Officer informs the Deputy Director of Health Services with necessary facts of the case. The Deputy Director of Health Services immediately sends the message to the Director of Public Health by Telegram and e-mail.

Within a week the Medical Officer of the respective PHC enquires with the relatives of the case and communicates to the Deputy Director of Health Services accordingly. Within a month, the said Medical Officer with the Community Health Nurse, Sector Health Center and Village Health Nurse enquires the complete history and fills the maternal death verbal autopsy and sends to the Deputy Director of Health Services.

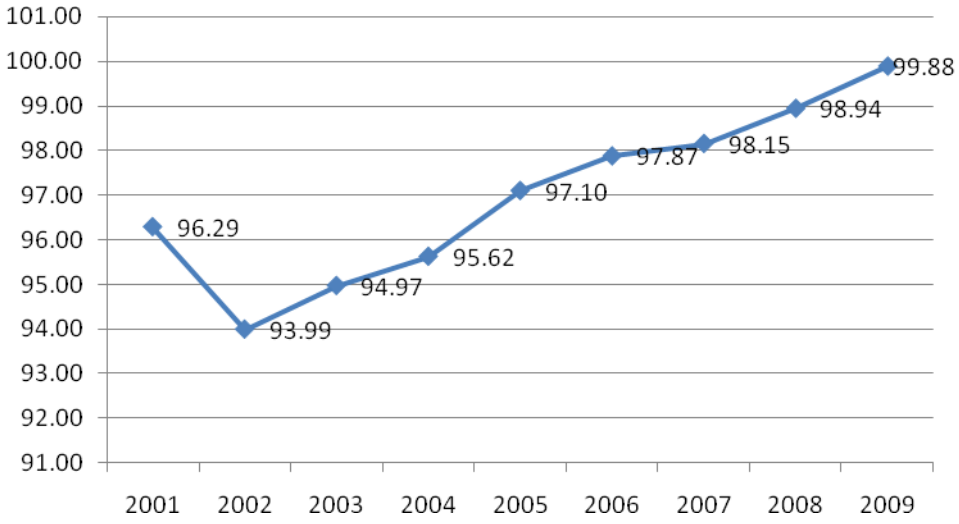
Then the Deputy Director of Health Services enquires with the Medical Officer and submits a report to the District Collector. Under the chairmanship of the District Collector, a committee conducts the audit and identifies the cause of death to avoid such preventive cases, if any. This enables the department prepare interventional programme for further quality care and reduction in maternal death.

3.7 (15) Birth Attended

For safe deliveries and also to reduce the infant mortality and maternal mortality, it is advised to encourage institutional deliveries over the domiciliary. Generally, the deliveries are attended by different people such as nurses, trained and untrained traditional birth attendants (TBAs), relatives and by doctors.

In Kanyakumari district, it is found that the percentage of births attended by the doctors has been increasing over the years and is nearing 100 percent during 2009. This is a most welcoming factor in order to avoid increasing infant and maternal mortality in the district (Figure 3.7).

Figure 3.7 Percentage of births attended



Source: Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

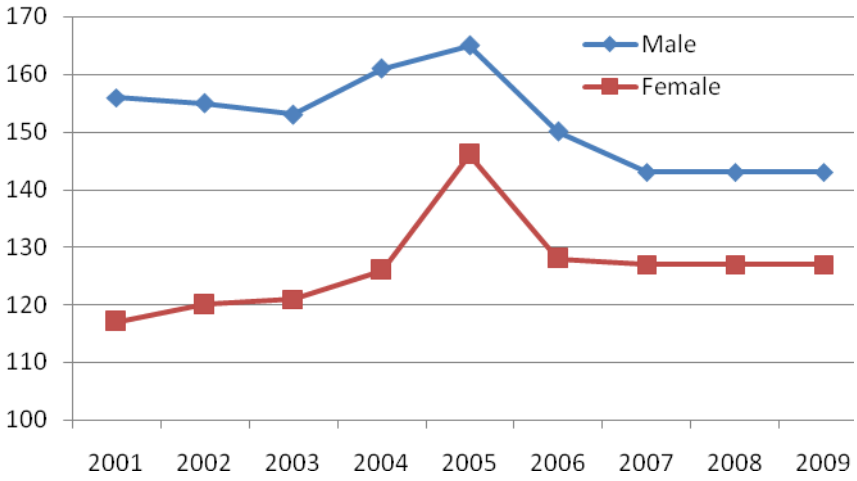
During the year 2009, the total number of births attended by the doctors was 25056; nurses 14; trained TBAs 4; and by relatives 11 (Annexure 3.5).

3.8 (1) Low Birth Weight

The low birth weight refers to the weight of the newly born infant at birth which is less than 2500 grams. In the year 2009, the total number of low birth weight cases in the district was 270 over the total birth cases of 25106. This shows that the district has only 1.07 percent of low birth weight cases, which is insignificant and also reveals the better health status of the pregnant women.

When analysed for the low birth weight cases of both male and female in the district, it is found that the number of low birth weight cases is higher in male child than the female child. However, it is found that the number of low birth weight cases of male child show a decline over the last nine years, whereas, the low birth weight cases of female child show an increase in number of cases since 2001 (Figure 3.8).

Figure 3.8 Low Birth Weight - Male and Female



Source: Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Among the blocks and the municipalities in Kanyakumari district, the blocks of Agastheeswaram, Thovalai, Killiyur and municipality as a whole show an increase in the low birth weight cases of the male since 2001. Other blocks show a decrease in the number of case. Similarly, in the case of low birth weight of the female child, except for the blocks of Thuckalay, Thiruvattar, Rajakkamangalam and Melpuram, other blocks and the municipality as a whole show an increase in the number of cases since 2001.

Table 3.20 : Low Birth Weight

Region	2001		2002		2003		2004		2005		2006		2007		2008		2009	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Agastheeswaram	10	6	9	7	11	5	12	8	13	11	14	12	14	13	14	13	14	13
Killiyur	12	9	10	8	11	10	12	11	17	15	15	13	14	11	14	11	14	11
Kurunthancode	14	11	14	12	15	13	17	12	12	13	9	13	12	13	12	13	12	13
Melpuram	22	17	21	19	20	17	21	18	23	19	21	18	17	16	17	16	17	16
Munchirai	26	10	24	11	23	12	22	13	19	14	17	12	15	13	15	13	15	13
Rajakkamangalam	15	18	19	19	17	15	18	14	16	15	14	11	13	11	13	11	13	11
Thiruvattar	19	16	20	18	19	16	18	15	17	16	16	12	15	12	15	12	15	12
Thovalai	12	8	14	6	13	9	15	10	14	12	13	14	12	14	12	14	12	14
Thuckalay	11	15	10	14	11	15	12	14	16	18	14	12	13	12	13	12	13	12
Municipality	15	7	14	6	13	9	14	11	18	13	17	11	18	12	18	12	18	12
Total	156	117	155	120	153	121	161	126	165	146	150	128	143	127	143	127	143	127

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

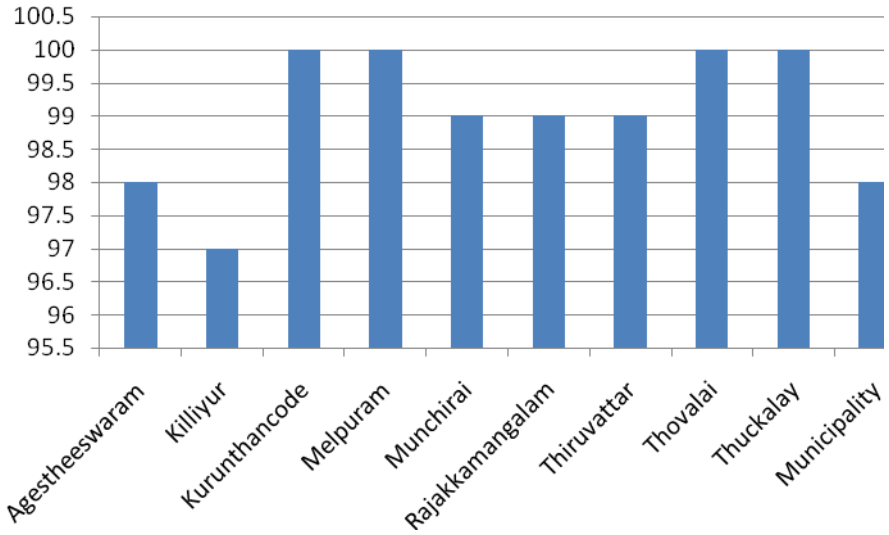
3.8 (2) Immunisation

Immunisation against the six killer diseases of childhood like tuberculosis, polio (poliomyelitis), measles, tetanus, diphtheria and pertusis (whooping cough) is advocated for every

child born in the country. All these six diseases are preventable through vaccination and these vaccines are provided to the children at different ages.

In Kanyakumari district as on 2009, out of the nine blocks and the municipality, it is found that 100 percent vaccination was achieved by only four blocks namely Kuruthancode, Melpuram, Thovalai and Thuckalay. The Killiyur block stands lowest with the achievement of 97 percent of vaccination. The percent vaccinated in the municipality is 98 (Figure 3.9).

Figure 3.9: Immunisation 2009



Source: Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

The status of immunisation in the district as on 2009 shows that the district has to move forward in achieving 100 percent immunisation of all the children in all the blocks and the municipalities in the coming years.

3.8 (3) Anaemia

Anaemia means that either the level of red blood cells or the level of haemoglobin is lower than normal. Prevalence of Anaemia affects the overall health status of the people. In general, it is found that the prevalence of anaemia is high among children and women who have the risks of causing maternal mortality which is associated with the compromised pubertal growth spurt and cognitive development especially among the girls aged 10-19 years. Anaemia can also lead to increased morbidity.

The prevalence of Anaemia in Kanyakumari district especially among the women and children in 2009 varies across the blocks and the municipalities between 8.2 percent in Kuruthancode block and the 9.6 percent in Thuckalay block (Table 3.21).

Except for Munchirai, all the other blocks and the municipality as a whole show an increase in percentage of Anaemia among the women and children since 2001, but the increase is insignificant. However, the percentage of Anaemia has not exceeded even 10 in any of the blocks and municipalities (Table 3.21).

Compared to all the districts and the state, the prevalence of anaemia in this district is of minor matre which also reveals the better status of women and children.

Table 3.21 Anaemia Prevalence (%) - Women and children (one to five years)

Blocks/ Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	7.2	7.2	7.2	8.1	8.1	8.1	8.1	8.5	8.5
Killiyur	8.2	8.2	8.2	7.9	7.9	7.9	7.9	8.9	8.9
Kurunthancode	8.1	8.1	8.1	7.5	7.5	7.5	7.5	8.2	8.2
Melpuram	7.6	7.6	7.6	9.2	9.2	9.2	9.2	9.2	9.2
Munchirai	9.1	9.1	9.1	8.5	8.5	8.5	8.5	8.5	8.5
Rajakkamangalam	7.4	7.4	7.4	7.6	7.6	7.6	7.6	8.6	8.6
Thiruvattar	7.8	7.8	7.8	9.3	9.3	9.3	9.3	9.3	9.3
Thovalai	7.3	7.3	7.3	6.9	6.9	6.9	6.9	9.2	9.2
Thuckalay	7.4	7.4	7.4	9.8	9.8	9.8	9.8	9.6	9.6
Municipality	8.1	8.1	8.1	9.4	9.4	9.4	9.4	9.4	9.4

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

3.8 (4) Provision of IFA tablets

Iron deficiency anaemia is the most prevalent form of anaemia among the women and the growing children and it leads to poor health status. In order to prevent anaemia, the Iron and Folic acid (IFA) tablets are given to the pregnant women, adolescent girls and the children of one to five years.

In Kanyakumari district, it is found that the number of adolescent girls and the children covered by the provision of IFA tablets has been increasing since 2001. This also had contributed to the better performance of the district in terms of low prevalence of anaemia among the women and children.

In 2009, the total number of children covered under provision of IFA tablets was 1,38,034) and the total number of adolescent girls was 1,89,797.

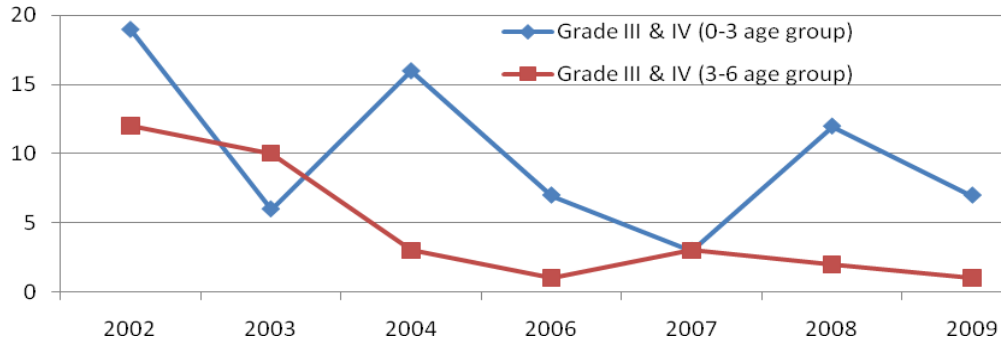
3.9 (1) Nutritional Status and Nutritional Programmes

Grade III and IV children

ICDS weighs the children and details the level of nourishment or undernourishment of children. Figure 5.27 gives us the number of children undernourished as Grade III and IV in the

0-3 age group and 3-6 age groups. This shows a visible declining trend among the 3-6 years age group children, while the trend among 0-3 age group, though declining is highly inconsistent.

Figure 3.1: Number of children under Grade III & IV among 0-3 age group and 3-6 age group children



Note: 2005 data is not available.

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

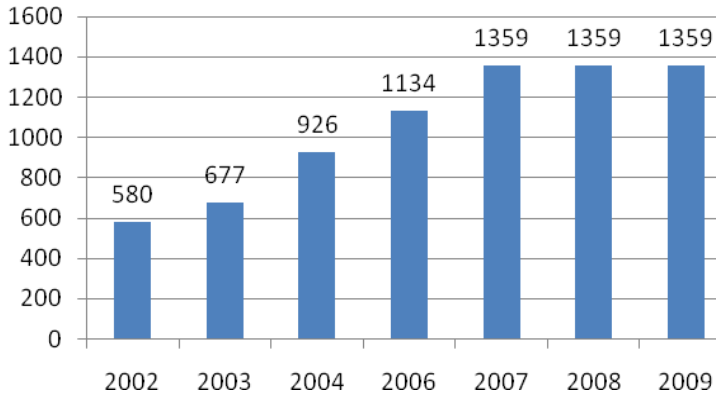
Analysis across the blocks (Annexure 3.6) shows that the blocks like Agastheeswaram, Rajakkamangalam, Thovalai and G-ICDS have repeated cases of undernourished children in Grade III and IV groups. This needs to be addressed.

3.9 (2) Integrated child development program

The World Bank-funded ICDS program runs with the main objective to supplement the nutritional needs of the population, especially the children below 6 years of age, pregnant and lactating mothers and adolescents, especially girls.

To achieve the objective, the ICDS program runs Anganwadi centres (AWCs) throughout the district. There has been increase in number of AWCs over the years, which means increase in reach and coverage (Figure 3.2).

Figure 3.2: Number of AWCs (*in cumulative number*)



Note: 2005 data is not available.

Source: Project Officer, ICDS.

3.9 (3) Supplementary nutrition programme

One of the important programmes is to provide supplementary nutrition to children, women and old age pensioners. The reach of the program over the years from 2002 to 2006 is given in the Table, which shows increasing trend in physical achievements.

Table 3.22 Physical achievement from March 2002 to March 2006

Year	Physical Achievement					
	No. of. Supplementary Nutrition Programme Beneficiaries					
	0-3 Years Children	3-6 years Children	Pregnant Women	Lactating Women	Old Age Pensioners	Total
March, 2002	3335	22623	5036	5118	586	36998
March, 2003	1638	21962	3914	5352	562	36458
March, 2004	6279	23491	4093	5891	550	40304
March, 2005	10836	24547	4517	5087	548	45535
March, 2006	8130	24727	4398	4838	429	42522

Source: Office of the Project Officer, ICDS, Kanyakumari district, Nagercoil.

The supplementary Nutrition Programme (SNP) is for the children of 6 to 36 months age group. Through this programme, the nutritional status of children is maintained and monitored periodically. The grade I, II, III and IV children are provided with weaning food of varying quantities (130 gms for grade I & II, 190 gms for grade III & IV). Also, the antenatal and post-natal mothers are being provided with the weaning food of 160 gms. Thrice in a week (Monday, Wednesday and Thursday), eggs are provided to 2-5 years children. Similarly for the children of 1-2 years age, egg is provided once in a week (Wednesday). On all Tuesdays, pulses of bengalgram / greengram are provided and on all Fridays, potato is given in their meals to maintain the balanced nutritional growth of the children.

The ICDS of the district also promotes village level monitoring committee by including village president, ward members, teachers, and community representatives. This committee conducts meeting once in a month to review the functioning of the centre and also on the support mechanisms to improve the health and hygiene of the children.

The women's working group at village level is also promoted with the mothers of 0-36 month children and mothers of 2-5 years children. This working group is promoted to work on the child health and basic needs of the village.

Similarly, 4th and 5th standard children in the village are organised into the children working group to promote health and hygiene among children. The Adolescent girls working group is formed with the 11-19 year old girls who meet regularly to discuss health, nutrition,

hygiene and stress factors. Around 30 adolescent girls from the block are given vocational training.

Box 3.3 Hand Washing Programme

The district administration has introduced Hand Washing Programme in six select ICDS centres in all the nine blocks since April 2010. All these ICDS centres were provided with liquid soap and the children were taught to hand wash in a proper way so as to maintain the personal hygiene of the children. Mostly, it is done to inculcate the habit of hand washing among the children atleast four to five times in a day essentially before eating and after the use of toilets. By this, the transmission of disease and infections are prevented. The helpers and the teachers of the ICDS centres are also insisted to do hand washing atleast six times in a day.

Ten Commandments for a healthy life

The ICDS centres orient every child to the Ten Commandments for a healthy life by displaying in charts and encouraging the individual child to practise in everyday life. The Ten Commandments are as follows:

Brush your teeth both in the morning and night
Take bath daily with soap
Wear always clean clothes
Keep your nails neat and trimmed
Wash your hands before and after eating food
Eat food which is safely covered with lids
Walk with slippers always
Use toilets for your natural calls
Wash your hands with soap after the use of toilet
Keep your surroundings neat and clean for good health.

3.9 (4) Disease Prevalence

In the past, Kanyakumari district was known for incidences of a large number malarial cases and even deaths caused by malaria. But, during the past decade 2001 to 2009, there has been no reported case of death due to malaria. Moreover, the reported cases of malarial infections have been decreasing over the years. During 2009, a total of 38 swine flu cases were reported in the district and 28 cases of Chikungunya cases were reported.

Diarrhoeal incidences

The diarrhoeal incidences in the Kanyakumari district have been increasing since 2001.The number of diarrhoeal incidence during 2009 was 18980.

Worm infestation

The number of worm infestation cases in Kanyakumari district has been declining from 18858 in 2003-04 to 8599 in 2009-10. It has been declining in both rural and urban areas, though the rural areas in the district continue to have significantly higher worm infestation.

Box 3.4 Integrated Disease Surveillance Project

Integrated Disease Surveillance (IDSP) aims at collecting, compiling, analyzing and using information on various target diseases for surveillance and rapid response to prevent or control the spread of diseases in the communities. One of the key activities under this project is capturing information on occurrence of target diseases in an active manner to achieve the required level of coverage. This requires development of a systematic approach in recording episodes of diseases at the community level and method for forwarding information to designated places for analysis, interpretation and action. As data would be computerized at appropriate levels, it is necessary to standardize formats used for recording and reporting information at various levels.

Current Status

The IDSP project is being implemented in Kanyakumari district by strengthening the L2 laboratories, providing communication tools and networking for rapid flow of information and improvement of management and technical skills for the health and lab personnel by training.

The important activities carried out through this project are: analyzing surveillance data from the peripheral level; providing support for collection and transport of specimens to laboratory networks; initiating investigation of suspected cases; providing feedback to the health facility; and responding promptly to information provided by communities. Community level activities through this project includes: notifying the nearest health facility of a disease or health condition selected for community-based surveillance; supporting health workers during case or outbreak investigations; and using feedback from health workers to take action, including health education and coordination of community participation.

Rumour reporting system

A computerized system for the registration, initiation of immediate response and analysis of rumours received from the general public, private and government reporting units has been developed under the DSU, Nagercoil. Rumours are being received round the clock by this unit and immediate information is passed on to the nearest health facility to investigate, respond and to report to the DSU. The action taken report is also maintained with relevant details of the surveillance and control activities carried out in the area concerned.

Reporting Units

All the Govt. Medical Institutions including the Govt. Medical Colleges, Government Hospitals, Primary Health Centres and Health Subcentres are acting as Reporting units. The MoU has been signed with one Government Medical College, 9 Private Hospitals and one Private Laboratory. The MoU will be extended to the remaining private health care providers since this district is dominated by the private sector in healthcare delivery. These reporting units are already identified under the Polio and Measles surveillance and KIS programmes. Sensitization workshops have been completed. The reports are received from the peripheral units, compiled and analysed at DSU and the consolidated reports are being sent to the SSU every week.

District level reviews

In Kanniyakumari District, the weekly reports received from the 36 PHCs are reviewed every month by the DSU during the Medical Officers' Review Meeting. On every Monday the IDSP Reports are being cross-checked by the Data manger & District Malaria Officer, the feed back of the reports are reviewed by the DSO and it is being communicated to PHC Medical Officers routinely.

High prevalence of Cancer

It has been observed that there is a high prevalence of cancer in the district especially in the coastal villages. One of the studies (Padmanabhan, 1990) show a clinical record of 16,000 cancer patients from hospitals in the Kanyakumari district. It is assumed, without having scientific study, that the high background radiation due to the presence of thorium and uranium in the coastal villages of the district contributes to increased incidence of cancer.

At this juncture, it is to be appreciated that the health department of the district administration has taken up a preliminary study to understand the relationship between the background radiation and the prevalence of cancer in the coastal villages of the district.

3.10 Health Infrastructure

The Kanyakumari district has 25 hospitals including 12 allopathy, 9 siddha and 2 ayurvedic. The district has four dispensaries and all follow Indian medicines (3- ayurvedic and 1-siddha). There are 53 primary health centres (PHCs) including 36 allopathy and 22 Indian medicine, and 268 health sub-centres across the district. Almost all the health sub- centres except for one, follow allopathic medicine. The district has the total bed strength of 1117 with 262 doctors and 295 nurses as of 2008-09 Table 3.23.

Table 3.23: Health Infrastructure in Kanyakumari district in 2008-09

Classification	Modern Medicine	Indian Medicine					Homeopathy	Grand Total
		AyurVedic	Siddha	Unani	Ayurvedic Siddha Unani Combined	Total		
1	2	3	4	5	6	7	8	9
1. Hospitals	12	2	9	-	-	11	2	25
2.Dispensaries	-	3	1	-	-	4	-	4
3.Primary Health Centers	36	2	19	1	-	22	-	53
4. Health Sub Centers	267	-	1	-	1	-	-	268
5.Other Medical Institutions	-	-	-	-	-	-	-	-
6.Bed Strength	1101		16	-	-	16	-	1117
7. No. Of Doctors	225	7	26	-	-	33	4	262
8. Number of Nurses	295	-	-	-	-	-	-	295

Source: District Statistical Handbook 2008-09, Kanyakumari, Nagercoil.

Except Killiyur and Thiruvattar, other blocks have government hospitals. In addition to nine government hospitals, the district is found to have 110 private hospitals and 235 private clinics. Out of the 110 private hospitals, 62 of them are located in the different municipalities of the district. It could be due to better infrastructure facilities and higher share of urban population in the district. However, it is observed that the private health service providers in addition to Government services play an important role in the district. The blockwise health infrastructure details including health institutions and functionaries are given in (Table 3.24.)

Table 3.24: Health Infrastructure - 2009

Sl. No	Blocks	Public Hospitals	Private Hospitals	Private - Clinics	Dispensaries	Avg. no. of doctors, para-medical staff per PHC/Sub-centres	No.of Health Workers	Diagnostics Centres
		2009	2009	2009	2009	2009	2009	2009
1	Thovalai	1	4	10	0	1.2	9	0
2	Agestheeswaram	1	6	12	0	2	8	0
3	Rajakkamangalam	1	5	13	0	2	9	1
4	Kurunthancode	1	6	9	0	1.3	8	0
5	Killiyur	0	6	10	0	1.3	7	0
6	Munchirai	1	7	11	0	1.1	8	0
7	Melpuram	1	4	13	0	2	9	0
8	Thiruvattar	0	4	9	0	1.9	8	0
9	Thuckalay	1	6	16	0	1.1	9	0
Total Blocks		7	48	103	0	13.9	75	1
10	Municipality	2	62	132	3	0	0	0
11	District	9	110	235	3	13.9	75	1

Source: Deputy Director, Health and Family Welfare Department, Kanyakumari, Nagercoil.

Box 3.5 E-Governance in Health Sector and Development

As part of E-governance in health sector, all Primary Health Centers (PHCs) in the district have been provided with computers along with internet connectivity to enable easy communication from Health Sub-Centers to the Director of Public Health through the respective PHCs and Office of Deputy Director of Health Services. This is funded by National Rural Health Mission (NRHM). Through this, any medical / maternal emergency is being handled successfully which resulted in the reduction of IMR, MMR, and still birth rate. Besides, software has been developed for various report preparation pertaining to this department by National Informatics Centre.

The online transmission of data helped the PHCs to use of computer system and internet effectively, and eliminate the manual compilation work. The instant transmission of data from the PHCs to Deputy Director of Health Services is possible now. Also preservation / retrieval of data are possible for any given period and for any given institution.

Conclusion

The Kanyakumari district accommodates 2.47 per cent of state population with 1.29 per cent of total geographical area. It denotes a very high density of population in the district. The overall sex ratio of Kanyakumari was found to be higher and has a lower population growth rate. However, the concern areas include declined juvenile sex ratio across the taluks except Agastheeswaram. It was prominent in Thovala taluk.

Decline in SC population across the blocks (except Thovalai) and municipalities (except Colachel) was observed. Similarly the ST population was found to be declined in the blocks of Rajakkamangalam, Melpuram and Thiruvattar, and in the municipalities of Kuzhithurai and Padmanabhapuram. On the other hand in Colachel municipality, the SC Population has doubled and the ST population has increased five times during 1991-2001. A further study may be undertaken to clarify the above demographic and migration dynamics.

The time series data analysis on different health indicators reveals the good performance of the district in providing better health services. It is found that the overall health performance particularly with respect to the indicators such as IMR, MMR, BR, DR, SBR, LBW across the blocks is satisfactory. The various innovative interventions by the district administration with the support from different stake holders have lead to achieve the above results. The role of private health service providers cannot be ignored in this regard.

However, inter-block analysis brings out the relative differences of health performance in the district. Among the blocks, it is suggested that Agastheeswaram and Thovalai need special focus with respect to bring down the abortion rate, death rate, early and late neo-natal mortality, under-five mortality rate and low birth weight. The study could not establish a definite cause for the relative low performance of the above blocks as the difference is not significant.

Annexures

Annexure 3.1: Social group wise distribution of population and density of population in different blocks and municipalities of Kanyakumari district in 1991 and 2001 Census

Blocks	Total Population		% of SC population to total population		% of ST population to total population	
	1991	2001	1991	2001	1991	2001
Agastheswaram	132413	148419	10.12%	8.62%	0.39%	0.35%
Rajakkamangalam	127325	137254	5.77%	4.57%	0.04%	0.01%
Thovalai	97802	110719	11.60%	11.18%	0.50%	0.62%
Kurunthancode	168810	165070	4.66%	3.27%	0.02%	0.20%
Thuckalay	162019	167262	3.32%	3.02%	0.01%	0.05%
Thiruvattar	159182	161619	2.83%	2.13%	1.41%	1.61%
Killiyoor	151034	156387	1.84%	1.54%	0.04%	0.04%
Munchiri	175454	177225	3.57%	2.68%	0.08%	0.12%
Melpuram	173426	179535	4.22%	2.50%	0.74%	0.29%
Nagercoil Municipality	190084	208179	3.94%	3.40%	0.18%	0.18%
Padmanabapuram	19269	20075	11.55%	10.52%	0.05%	0.03%
Colachel	24305	23787	2.39%	4.89%	0.02%	0.10%
Kuzhithurai	19226	20503	1.97%	1.66%	0.22%	0.13%
District Total	1600349	1676034	4.80%	4.04%	0.33%	0.32%

Note: Two communities of SCs, viz. Kakkalan and Padannan have not reported population in Census 2001 in Kanyakumari district.

Source: District Statistical Handbook, Kanyakumari 2001and 2008.

Annexure 3.2: Demographic profile - Kanyakumari

Blocks	Area [sq.km]	Population Density		Sex Ratio					
				Overall		SC		ST	
		1991	2001	1991	2001	1991	2001	1991	2001
Agastheswaram	133.12	995	1115	1023	1026	1037	1049	1044	1109
Rajakkamangalam	120.16	1060	1142	990	1015	998	1051	897	800
Thovalai	369.07	265	300	991	1011	1005	1001	797	917
Kurunthancode	106.85	1580	1545	975	1017	952	1016	944	946
Thuckalay	130.33	1243	1283	982	1028	979	1034	2800	1250
Thiruvattar	344.8	462	469	983	1015	1007	987	996	1037
Killiyoor	82.7	1826	1891	974	988	994	997	906	1036
Munchiri	72.01	2437	2461	981	989	1031	1062	1200	1092
Melpuram	271.89	638	660	1007	1027	1017	1088	1024	1051
Nagercoil Municipality	24.27	7832	8578	1004	1023	1012	1022	1012	1090
Padmanabapuram	6.47	2978	3103	991	1014	931	1011	1000	6000
Colachel	5.18	4692	4592	973	983	1132	960	1000	1000
Kuzhithurai	5.15	3733	3981	1031	1036	995	1118	826	1077
District Total	1672.00	**957**	**1002**	**991**	**1014**	**1005**	**1029**	**992**	**1032**

Source: Census 1991 and 2001 as cited in District Statistical Handbook, Kanyakumari, 2001 and 2008.

Annexure 3.3: Population density in Kanyakumari and Tamil Nadu since 1971 Census (population per sq.km)

Particulars	1971	1981	1991	2001
India	171	212	267	324
Tamil Nadu	317	372	429	478
Kanyakumari	731	851	957	1002

Source: Census 1071, 1981, 1991 and 2001.

Annexure 3.4 Disabled population

Sex	India			Tamil Nadu			Kanniyakumari		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Persons	2,19,06,769	1,63,88,382	55,18,387	16,42,497	9,45,019	6,97,478	60,639	20,368	40,271
Males	1,26,05,635	94,10,185	31,95,450	7,91,685	4,46,948	3,44,737	25,622	8,841	16,781
Females	93,01,134	69,78,197	23,22,937	8,50,812	4,98,071	3,52,741	35,017	11,527	23,490

Source: Census of India 2001.

.

.

Annexure 3.5: No. of adolescent girls covered by IFA in different blocks and municipality total of Kanyakumari district

Blocks/ Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	15700	15810	15865	15920	15975	16030	16085	16250	16470
Killiyur	15000	15110	15165	15220	15275	15330	15385	15550	15770
Kurunthancode	19131	19241	19296	19351	19406	19461	19516	19681	19901
Melpuram	19638	19748	19803	19858	19913	19968	20023	20188	20408
Munchirai	17158	17268	17323	17378	17433	17488	17543	17708	17928
Rajakkamangalam	16689	16799	16854	16909	16964	17019	17074	17239	17459
Thiruvattar	18223	18333	18388	18443	18498	18553	18608	18773	18993
Thovalai	11052	11162	11217	11272	11327	11382	11437	11602	11822
Thuckalay	18868	18978	19033	19088	19143	19198	19253	19418	19638
Municipality	30638	30748	30803	30858	30913	30968	31023	31188	31408
Kanyakumari	182097	183197	183747	184297	184847	185397	185947	187597	189797

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Annexure 3.6 No. of children covered by IFA in different blocks and municipality total of Kanyakumari district

Blocks/ Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agestheeswaram	11418	11498	11538	11578	11618	11658	11698	11818	11978
Killiyur	10909	10989	11029	11069	11109	11149	11189	11309	11469
Kurunthancode	13914	13994	14034	14074	14114	14154	14194	14314	14474
Melpuram	14282	14362	14402	14442	14482	14522	14562	14682	14842
Munchirai	12479	12559	12599	12639	12679	12719	12759	12879	13039
Rajakkamangalam	12137	12217	12257	12297	12337	12377	12417	12537	12697
Thiruvattar	13253	13333	13373	13413	13453	13493	13533	13653	13813
Thovalai	8038	8118	8158	8198	8238	8278	8318	8438	8598
Thuckalay	13722	13802	13842	13882	13922	13962	14002	14122	14282
Municipality	22282	22362	22402	22442	22482	22522	22562	22682	22842
Kanyakumari	132434	133234	133634	134034	134434	134834	135234	136434	138034

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Annexure 3.7: No. of births attended by different people in Kanyakumari over the years

Births attended by	2001	2002	2003	2004	2005	2006	2007	2008	2009
Doctors	26632	23468	27340	27013	25158	25254	25235	25457	25056
Nurses	749	1010	1043	939	552	420	350	157	14
trained TBAs	234	434	349	242	145	94	90	81	4
untrained TBAs	4	16	16	16	16	11	11	11	0
relatives	40	40	40	39	39	24	24	24	11
Total	27659	24968	28788	28249	25910	25803	25710	25730	25085

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Annexure 3.8 Diarrhoeal incidences in different blocks and municipality total of Kanyakumari district

Block/ Municipality	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	1570	1581	1587	1592	1598	1603	1609	1625	1647
Killiyur	1500	1511	1516	1522	1527	1533	1538	1555	1577
Kurunthancode	1913	1924	1930	1935	1941	1946	1952	1968	1990
Melpuram	1964	1975	1980	1986	1991	1997	2002	2019	2041
Munchirai	1716	1727	1732	1738	1743	1749	1754	1771	1793
Rajakkamangalam	1669	1680	1685	1691	1696	1702	1707	1724	1746
Thiruvattar	1822	1833	1839	1844	1850	1855	1861	1877	1899
Thovalai	1105	1116	1122	1127	1133	1138	1144	1160	1182
Thuckalay	1887	1898	1903	1909	1914	1920	1925	1942	1964
Municipality	3064	3075	3080	3086	3091	3097	3102	3119	3141
Kanyakumari	18210	18320	18374	18430	18484	18540	18594	18760	18980

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Annexure 3.9: Worm infestation cases in Kanyakumari district by block and rural-urban

Sl.No	PHC/Block	No. of Children						
		2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1	Thovalai block	1933	2261	2499	1328	1422	1586	787
2	Agasteeswaram block	3652	4365	4732	2687	2515	671	577
3	Rajakkamangalam block	1043	1139	1121	463	622	717	644
4	Kurunthencode block	1621	1818	1914	1440	1466	1390	734
5	Killiyoor block	1750	1913	1967	1055	1207	1524	967
6	Munchirai block	1346	1583	1636	1080	1081	866	702
7	Melpuram block	1768	2044	2067	1785	1718	1612	1153
8	Thiruvattar block	1949	2320	2385	1321	1261	1058	1071
9	Thuckalai block	1165	1399	1439	979	893	599	635
Rural Total		16227	18842	19760	12138	12185	10023	7270
Urban Total		2631	3455	2270	4277	2925	2298	1329
District total		18858	22297	22030	16415	15110	12321	8599

Source: Office of the Deputy Director, Health and Family Welfare Department, Kanyakumari district, Nagercoil.

Annexure 3.10 No. Of Children Grade III & IV among 0-3 age group and 3-6 age group children

Block	2006		2007		2008		2009	
	0-3	3 to 6	0-3	3 to 6	0-3	3 to 6	0-3	3 to 6
Agasteewaram	0	0	1	0	2	0	1	0
Killiyoor	0	0	0	0	2	0	0	0
Kurunthencode	0	0	1	0	0	0	0	0
Melpuram	1	0	0	0	0	0	0	0
Munchirai	0	0	0	0	0	0	0	0
Rajakkamangalam	3	0	0	0	4	0	4	0
Thiruvattar	0	0	0	0	0	0	0	0
Thovalai	0	0	0	2	0	0	1	0
Thuckalay	1	0	0	0	0	0	1	0
G ICDS	2	1	1	1	4	2	0	1
Total	**7**	**1**	**3**	**3**	**12**	**2**	**7**	**1**

Source: Office of the Project Officer, ICDS, Kanyakumari district, Nagercoil.

Reference

Padmanabhan, V. T. (1990). *Genetic study of high background radiation regions/India*. Retrieved on 25 June 2010 from http://www10.antenna.nl/wise/index.html?http://www10.antenna.nl/wise/331/3311.html.

Chapter 4

LITERACY AND EDUCATION

Education is one of the three core areas factored in the conceptualisation of 'Human Development'. Given the focus on 'human development', primary and upper primary education is mainly considered. Data from Census 1991 and 2001 and 'Annual work plan and budget 2009-10', a report by Education Department of Kanyakumari district, Tamil Nadu were extensively used.

4.1 Literacy Performance

One of the basic indicators in measuring literacy performance is literacy rate. Literacy rate is one of three core indicators considered in calculating the Human Development Index. The district of Kanyakumari is divided into three education districts. There are nine Block resource centres and 89 Cluster resource centres with a total of 110 resource persons (DISE, 2008-09).

The literacy across the years, female literacy rate, literacy rate in urban-rural area and literacy rate among various social groups are considered in accessing the literacy performance of the district in comparison with that of the state.

4.1.1 Literacy rate over the years

Literacy rate in Kanyakumari (87.55 per cent) is far better than that of the state (73.45 per cent) as per census 2001. Importantly, the female literacy rate in Kanyakumari at 84.79 per cent is much higher than that of the state at 64.43 per cent (Table 4.1 and Annexure 4-1, and Annexure 4.).

Considering the literacy rate over the past two census decades in 1991 and 2001, both the state and the district have made major strides in increasing their level of literacy. One can observe that the literacy rate of female population has increased considerably over the past two census decades both in the district and the state.

Table 4-1: Literacy Rate (Census 1991, 2001)

	Overall		Male		Female	
Taluk/District	1991	2001	1991	2001	1991	2001
Agastiswaram	86.52	90.86	90.04	93.39	83.04	88.39
Kalkulam	80.96	86.59	84.31	89.06	77.54	84.18
Thovala	82.15	85.90	86.74	89.76	77.52	82.10
Vilavancode	78.55	85.78	82.70	89.00	74.39	82.58
Kanniyakumari	82.06	87.55	85.70	90.37	78.39	84.79

Taluk/District	Overall		Male		Female	
	1991	2001	1991	2001	1991	2001
Tamil Nadu	62.7	73.47	73.75	82.33	51.33	64.55
India		65.38		75.85		54.16

4.1.2 Urban-Rural differentials in literacy rate

Literacy rate in urban area is higher than that of rural area in both the district and the state. But the rural-urban differential is only marginal in the Kanyakumari district and its taluks less than 3 per cent points, while it is much pronounced in the state with 14.32 per cent (Table 4.2 and Annexure 4.1).

Table 4.2: Urban-Rural literacy rate (Census 2001)

Area	Total			Male			Female		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Agastheeswaram	90.86	88.70	91.62	93.39	91.32	94.12	88.39	86.16	89.18
Kalkulam	86.59	85.68	86.99	89.06	88.00	89.53	84.18	83.42	84.51
Thovala	85.90	85.87	85.93	89.76	89.57	89.96	82.10	82.23	81.96
Vilavancode	85.78	85.17	86.25	89.00	88.14	89.67	82.58	82.22	82.85
Kanniyakumari	87.55	86.17	88.29	90.37	88.95	91.12	84.79	83.44	85.51
Tamil Nadu	73.45	66.21	82.53	82.42	77.15	88.97	64.43	55.28	75.99

Source: Census of India, 2001.

The differential between the female literacy in urban and rural areas is 2.06 per cent points in the district, while it is 20.78 per cent points in the state (Table) and it is more than ten times of the district level.

The ratio of male literacy to female literacy in the district (1.07) is far below that of the state (1.28) revealing a lesser gender inequality. It is to be noted that this ratio decreased from 1991 to 2001.

Table 4.3: Ratio of male to female literacy rates

Area	1991	2001		
		Total	Rural	Urban
Agastheeswaram	1.08	1.06	1.06	1.06
Kalkulam	1.09	1.06	1.05	1.06
Thovala	1.12	1.09	1.09	1.10
Vilavancode	1.11	1.08	1.07	1.08
Kanniyakumari Dist.	1.09	1.07	1.07	1.07
Tamil Nadu	1.44	1.28	1.40	1.17

In other words, the ratio of male literacy to female literacy in rural to the urban areas is almost same in the district. At the same time, the gender ratio in the rural areas in Tamil Nadu is 1.40, while in the urban it is 1.17. This shows that there is very less gender discrimination in the district and it is almost same across rural and urban areas.

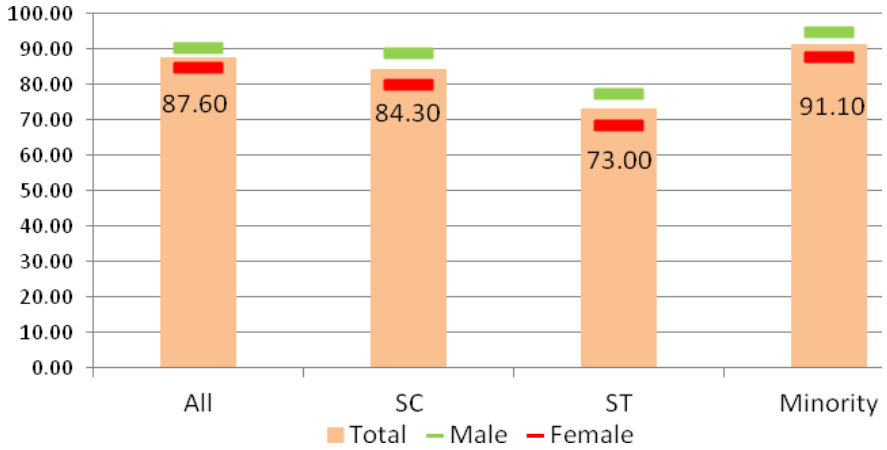
4.1.3 Social groupwise literacy rates

The findings of the State Human Development Report, 2003 states that, 'the literacy rate of the SC population is distinctly and consistently lower than that of the total population in all the districts'. The State's literacy rate for the SC population is 46.74 per cent, while the literacy

rate of SC females is 34.89 per cent. At the same time, the literacy rate of SC population in the district is 84.3 per cent, and that of the SC females is 80 percent (Figure 4.1 and Annexure 4.), and it is significantly higher than the state levels and almost double in case of SC female's literacy rate. This shows that the SC population in Kanyakumari district is far better educationally than their counterparts in other parts of the state.

ST population has the lowest literacy rate in the district at 73 per cent, while the literacy rate of ST females is 68.63 per cent. The minority group enjoys the highest literacy rate at 91 per cent.

Figure 4.1: Literacy rates – Social groupwise



Source: Census of India, 2001 as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

4.1.4 Level of education

Not only in terms of literacy rates, but also in terms of level of education, Kanyakumari district has more people with higher level of education than that of the state (Table and Annexure 4.). While around 13.7 percent of people in Tamil Nadu have completed matriculation and higher secondary education, around 18.8 per cent of people in Kanyakumari have completed the same.

Table 4.4: Population by level of education (%)

Educational level	Kanyakumari			Tamil Nadu		
	Persons	Males	Females	Persons	Males	Females
Illiterate	21.94	19.66	24.19	35.06	27.36	42.86
Literate	78.06	80.34	75.81	64.94	72.64	57.14
Literate but below matric/secondary	44.62	45.29	43.96	40.24	43.28	37.16
Matric/secondary but below graduate	18.81	19.06	18.57	13.77	16.15	11.36
Technical diploma or certificate not equal to degree	1.03	1.72	0.36	0.70	1.22	0.18
Graduate and above other than technical degree	3.15	3.36	2.94	2.78	3.45	2.09
Technical degree or diploma equal to degree or post-graduate degree	0.94	0.96	0.91	0.74	0.98	0.50
Total	100.00	100.00	100.00	100.00	100.00	100.00

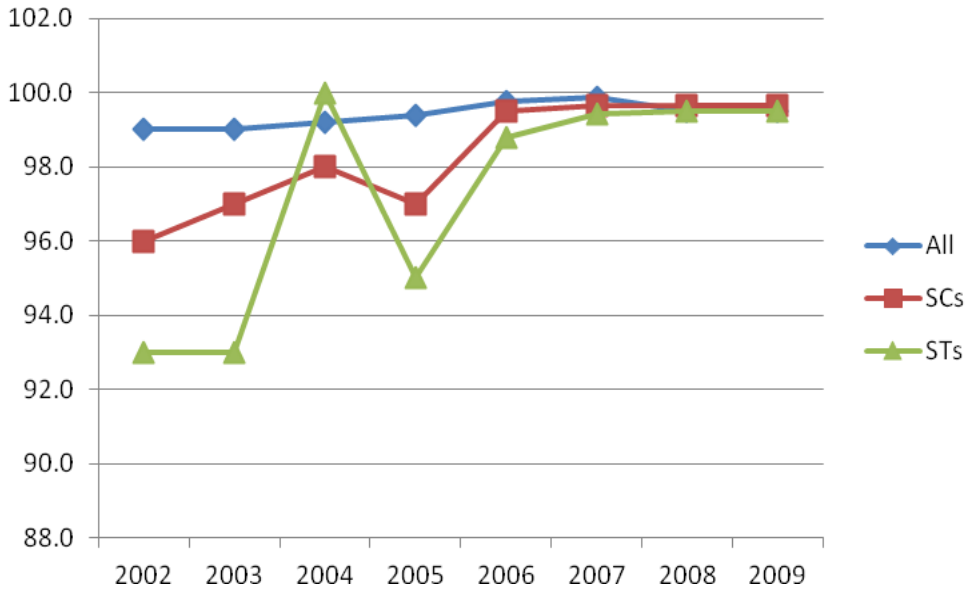
Source: Census of India, 2001.

4.2 Primary Education

4.2.1 Net enrolment rate (NER)

The overall net enrolment rate in the district reached almost 100 per cent, but has been almost the same, except a slight increase till 2007 and decreased later on till 2009 (Figure 4.2 and Annexure4.5), and the increase is more pronounced among the STs.

Figure4.2: Net Enrolment Rate (NER) Primary



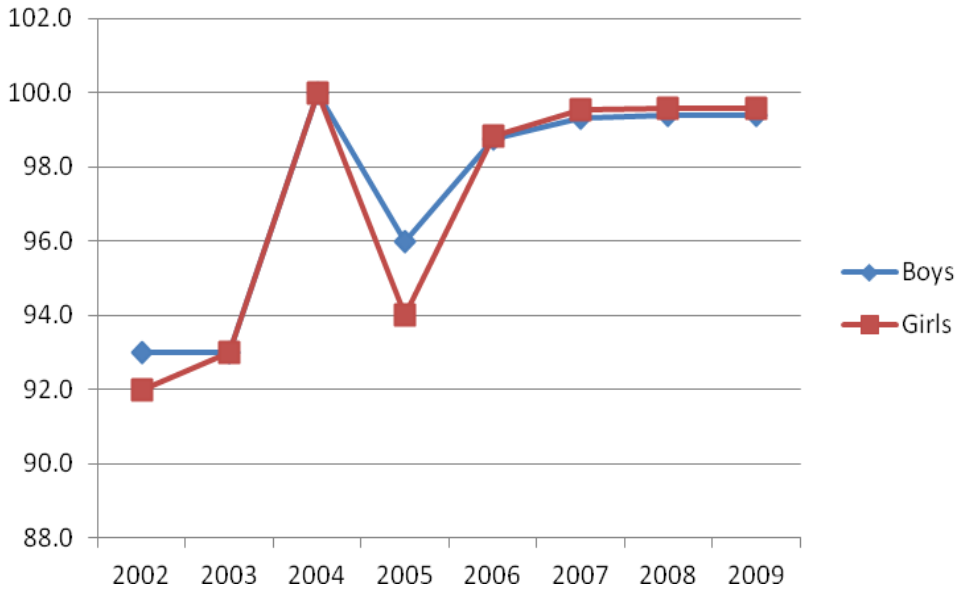
Source: DISE, various years, as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

Analysing the NER at block level actually shows a declining trend, though marginal, from the year 2007 across all blocks. This decline is more among the boys than the girls (Annexure4.).

Considering the NER in SCs again shows a declining trend among the blocks from the year 2007, both among boys and girls. Except among few blocks like Agastheeswaram, Munchirai and Thiruvattar, all other blocks show a declining NER, though marginal (Annexure4.).

Net enrolment rate among ST population show a promising increase over the years. This increase is similar among both boys and girls (Figure 4.3).

Figure 4.3: NER in ST population among boys and girls



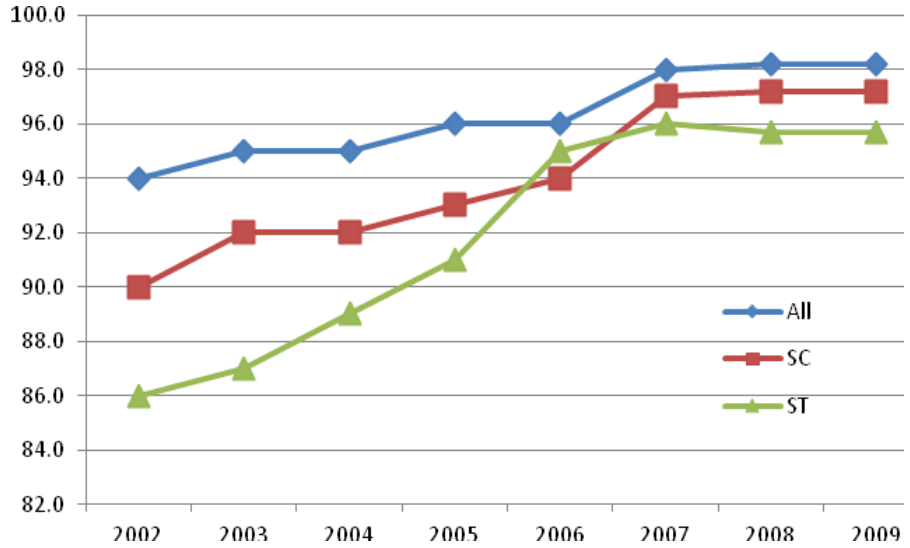
Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.2.2 Attendance Rate

'In the ABL method, daily attendance has become child-friendly. There is an Attendance Card for each child, to be filled up every day by himself/herself. Attendance rate has increased after the introduction of ABL in the Primary level..... Marking their attendance by themselves in the classroom encourages the children to attend the school regularly' the Annual Work Plan and Budget Report prepared by Sarva Siksha Abhiyan of Kanyakumari district in 2009-10.

As it could be seen from Figure 4.4 attendance rate of the students in primary schools is increasing over the years in primary and the increase is more pronounced among STs Figure 4.4 and Annexure 4.6). This increase is similar across the blocks.

Figure 4.4 Attendance Rate - Primary



4.2.3 Retention in primary schools

The retention of the students in the education system is measured in terms of three indicators, as follows.

Dropout Rate: The percentage of students who leave the system without completing the grade to the total number of students originally enrolled in the grade.

Completion Rate: The percentage of students who complete the grade to the total number of students originally enrolled in the grade.

Repetition Rate: The percentage of students who repeat in the same grade in the next year to the total number of students enrolled in the original grade in the base year.

These are measured separately for primary schools and upper primary schools. Let us now look at how these indicators perform in the primary schools. The data is from the Cohort study done in the district, as cited in the Annual Work Plan report by the District Education Department.

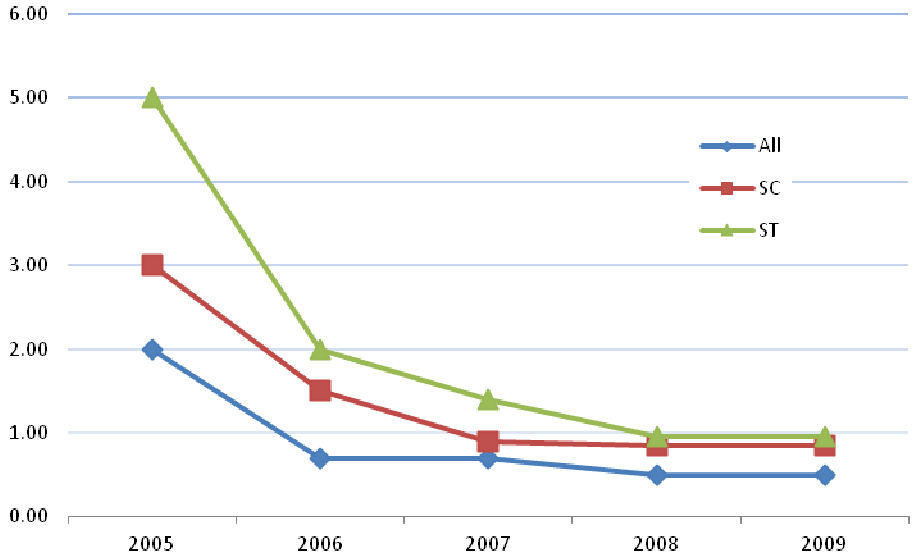
4.2.3.1 Dropout rate

Overall dropout rate in the district has been decreasing. As it could be seen from Figure 4.5, the actual decrease in dropout rate started only after the year 2005 (Figure 4.5 and Annexure 4.). But this decrease is not uniform across the blocks. With absolutely zero DR, Melpuram block suddenly shows a 0.3 per cent increase in DR. Apart from this, Killiyoor and Thuckalay show a marginal increase in the DR by 0.02 per cent each. Remaining blocks show a declining dropout rate.

Among the SC population, as seen in the Figure 4.7, there has been consistent decrease in the dropout rate. Though blocks like Rajakkamangalam and Thiruvattar show an increase in dropout rate revealing the areas of concern.

The decline in the dropout rate among ST population has been faster among all social groups. This means that there are lesser and lesser ST students dropping out of the primary education. At the same time, Thiruvattar block shows a sudden increase in dropout rate from 2008-09, from 0.60 per cent in 2008 to 15.0 per cent in 2009. Particularly, this increase is among the ST population. Given the fact that Thiruvattar block houses the largest proportion of ST population, it is necessary that due attention needs to be given to explore the issue and thereby to arrest it (Table 4.5).

Figure 4.5: Dropout Rate



Source: Office of the SSA, Kanyakumari district, Nagercoil.

Gender wise analysis across blocks show that boys dropout more than the girls overall. But in SC and STs, the dropout rate among girls is higher than that of the boys. Particularly, dropout rate among STs is only in Thiruvattar. It should be noted that Thiruvattar has the highest proportion of the ST population (Table 4.5 and Annexure 4.7).

Table 4.5: Dropout rate, 2009

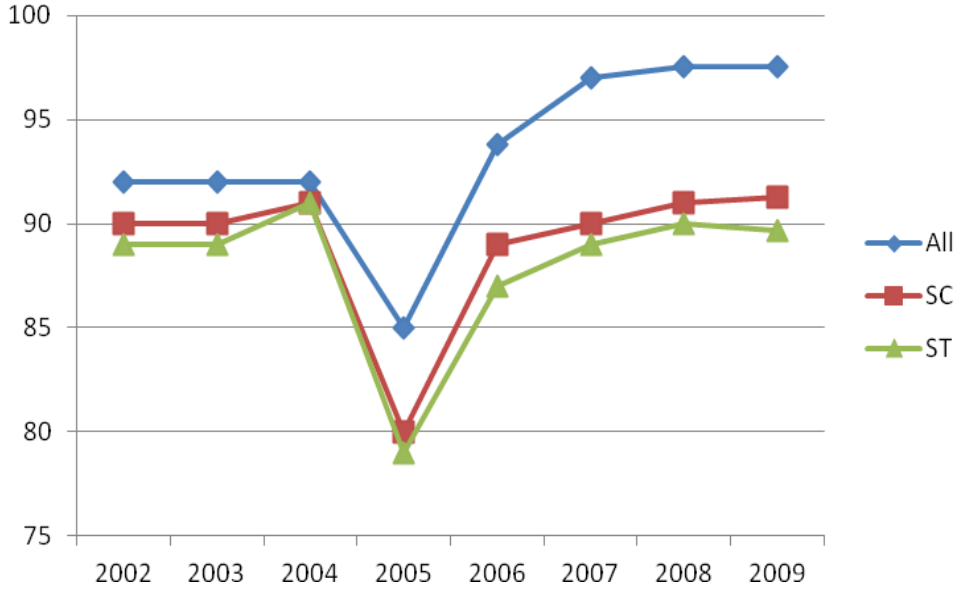
Block	ALL			SC			ST		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Agastheeswaram	0.42	0.32	0.37	0.42	0.86	0.62	0.00	0.00	0.00
Killiyoor	0.28	0.16	0.22	0.00	0.00	0.00	0.00	0.00	0.00
Kurunthancode	0.32	0.48	0.39	0.00	0.00	0.00	-	-	-
Melpuram	0.36	0.24	0.30	0.32	0.26	0.29	0.00	0.00	0.00
Munchirai	0.42	0.36	0.39	0.00	0.00	0.00	0.00	0.00	0.00
Rajakkamangalam	0.66	0.64	0.65	1.12	0.92	1.03	0.00	0.00	0.00
Thiruvattar	0.64	0.48	0.57	0.78	1.32	1.06	20.00	10.00	15.00
Thovalai	0.86	0.96	0.91	0.98	1.24	1.11	0.00	0.00	0.00
Thuckalay	0.48	0.36	0.42	0.96	0.74	0.82	-	-	-
District	**0.55**	**0.42**	**0.49**	**0.80**	**0.90**	**0.85**	**0.26**	**1.16**	**0.96**

Source: Cohort study, 2008-09, as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

4.2.3.2 Completion Rate

The overall completion rate has increased over the years in the district from 92 per cent in 2002 to 98 per cent point in 2009 (Figure 4.6 and Annexure 4.). But the completion rate among SC and ST population, except for a marginal increase, there has been no significant increase. This is an area of concern. To achieve 100 per cent completion rate, special attention needs to be given to SC and ST students.

Figure 4.6: Completion Rate - Primary



Source: Office of the SSA, Kanyakumari district, Nagercoil.

Block wise analysis shows that ST population, especially the girls in Thovalai blocks and ST students in Thiruvattar and Melpuram need to be given special attention (Table 4.6).

Table 4.6 Completion Rate, 2009

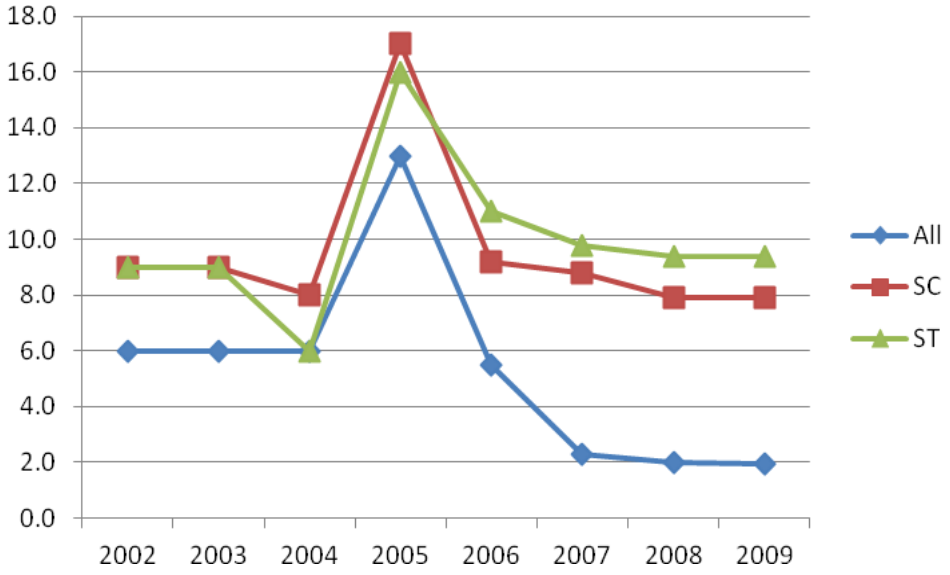
Name of the Blocks	ALL			SC			ST		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Thovalai	95	95	95	90	90	90	100	50	75
Agastheeswaram	97	98	97	92	91	91	100	100	100
Rajakkamangalam	95	97	96	91	92	91	100	100	100
Kurunthancode	98	98	98	92	92	92	-	-	-
Thuckalay	97	98	97	92	92	92	-	-	-
Thiruvattar	98	98	98	90	90	91	80	90	85
Melpuram	99	99	99	91	91	91	83	100	89
Killiyoor	98	99	98	100	100	100	100	100	100
Munchirai	98	99	98	90	92	91	100	100	100
Total	**97**	**98**	**98**	**91**	**91**	**91**	**90**	**89**	**90**

Source: Cohort study, 2008-09, as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

4.2.3.3 Repetition rate

The repetition rate in the district has been decreasing over the years. But as it is evident from the Figure 4.7 (Annexure 4.9), the decrease actually started only from the year 2006. At the same time, though the overall decrease has been significant, the decrease in repetition rate among the SC and ST has been almost same. This is an area of concern. Among STs, the repetition rates have actually increased.

Figure 4.7: Repetition Rate



Source: Office of the SSA, Kanyakumari district, Nagercoil.

Blockwise analysis shows that the Thovalai block actually showed an increase in overall RR over the past three years (Table 4.7). Among the SCs, the blocks of Thiruvattar, Thovalai and Thuckalay are showing an increasing trend in the repetition rate. Among STs, the Thovalai block, especially the ST girls show a relatively high repetition rates. So, more attention needs to be given to SC and ST students who show relatively high rates of repetition.

Table 4.7 Repetition rate- Primary, 2009

Block	ALL			SC			ST		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Agastheeswaram	2.65	2.06	2.4	7.45	8.32	8	0	0	0
Killiyoor	1.84	0.92	1.35	0	0	0	0	0	0
Kurunthancode	2.06	1.44	1.8	7.7	7.6	7.64	0	0	0
Melpuram	0.96	1.1	1.03	8.66	8.72	8.99	16.7	0	11.1
Munchirai	1.37	0.92	1.12	9.64	8.32	8.98	0	0	0
Rajakkamangalam	4.58	2.13	3.67	8.2	7.46	7.85	0	0	0
Thiruvattar	1.84	1.3	1.57	8.8	8.3	7.58	0	0	0
Thovalai	4.12	3.82	3.93	8.76	8.38	8.57	0	50	25
Thuckalay	2.61	1.72	2.16	6.73	7.4	7.45	0	0	0
Total	**2.34**	**1.57**	**1.95**	**8.08**	**7.67**	**7.88**	**9.19**	**9.54**	**9.36**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.2.4 School infrastructure

a. Availability of schools

A total of 1125 schools are present in the district. Out of this, around 46 per cent of the schools are managed by the government or local bodies; remaining schools are private schools (Table 4.8).

Over the years, there has been increase in number of schools in the district, particularly among the private schools (Table 4.8, and Annexure 4.10). Further private unaided schools are increasing over the years continuously.

Table 4.8: No. of Schools – Managementwise - 2008-09

Blocks	Govt. / Local Body	Private Aided	Private Unaided	Others/ KGBV	Total Schools
Agastheeswaram	97	48	59	1	205
Killiyoor	45	37	31	-	113
Kurunthancode	48	42	31	-	121
Melpuram	62	42	54	1	159
Munchirai	51	39	30	-	120
Rajakkamangalam	54	21	21	2	98
Thiruvattar	54	21	31	1	107
Thovalai	53	9	21	-	83
Thuckalay	55	24	40	-	119
Total	**519**	**283**	**318**	**5**	**1125**

Source: SSA, Kanyakumari district, Nagercoil.

Availability of primary school in habitations across the district

There are 2195 habitations and all habitations have primary schools within 1 km distance. All the eligible habitations have primary schools. Yet there are 6 habitations with no primary schools but they are not eligible for primary schools as per norms Table 4.9.

Table 4.9: Availability of primary school in habitations

Blocks	Total no. of habitations	Habitations covered by Primary School		Habitations without Primary schools	Habitation Not eligible for primary school as per norms
		Habitations covered by Primary School	Habitations covered by EGS		
Thovalai	229	228	0	1	1
Agastheeswaram	239	238	0	1	1
Rajakkamangalam	238	238	0	0	0
Kurunthancode	252	252	0	0	0
Thuckalay	280	279	0	1	1
Thiruvattar	250	249	0	1	1
Melpuram	237	236	0	1	1
Killiyoor	195	195	0	0	0
Munchirai	275	274	0	1	1
Total	**2195**	**2189**	**0**	**6**	**6**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

EGS centres and accessibility: As per 2007 DISE, there is no habitation without schools since it has already upgraded the four EGS in to primary even in the remote hilly areas. There are 6 habitations without school, that is because they do not fulfill the eligibility criterion as per SSA norms.

b. Availability of basic infrastructure

Beyond accessibility to schools, it is also necessary to look into the availability of minimum infrastructural facilities in the schools. As it can be seen from the Table 4.10 (Annexure 4.11), a lot of civil works need to be done to provide minimum facilities. All schools have drinking water facilities, but toilet facilities, girls toilet facilities, access ramps, boundary walls, play grounds and kitchen are to be constructed in those schools where they are not available.

Table 4.10 Minimum infrastructural facilities, 2008-09 (%)

Blocks	No. of Schools	Without own building	With drinking water facility	With Toilet facility	With Girls toilet	With access ramp	With Boundary wall	With play ground	With kitchen for mid day meal
Thovalai	**100.00**	0.00	100.00	63.33	63.33	56.67	56.67	60.00	90.00
Agastheeswaram	**100.00**	3.28	100.00	62.30	86.89	55.74	62.30	68.85	85.25
Rajakkamangalam	**100.00**	0.00	100.00	51.61	87.10	64.52	48.39	70.97	87.10
Kurunthancode	**100.00**	0.00	100.00	37.50	70.83	58.33	29.17	66.67	75.00
Thuckalay	**100.00**	6.45	100.00	67.74	70.97	48.39	38.71	61.29	87.10
Thiruvattar	**100.00**	3.85	100.00	61.54	73.08	38.46	26.92	65.38	92.31
Melpuram	**100.00**	5.26	100.00	57.89	78.95	47.37	31.58	57.89	94.74
Killiyoor	**100.00**	4.00	100.00	68.00	80.00	60.00	16.00	52.00	96.00
Munchirai	**100.00**	4.55	100.00	45.45	72.73	50.00	54.55	50.00	90.91
Total	**100.00**	3.13	100.00	58.33	77.43	53.47	43.06	62.50	88.54

Source: DISE, 2009, as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

c. Availability of teachers

As on 2008-09, there are around 3191 teachers in the district. Annexure 4. shows the total number of teachers in primary schools in different blocks of Kanyakumari district over the years from 2001-02 to 2008-09. The number of teachers in primary schools actually decreased till the year 2005-06. As the ban on recruitment was lifted in 2006, the strength of teaching staff increased with fresh recruits.

Gender composition of teachers

The trend in percentage of female teachers over the years also show an increasing trend with more number of female teachers recruited (Table 4.11).

Table 4.11 Share of Female Teachers (%) - Primary

Blocks	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Agastheeswaram	81.37	80.57	75.42	85.71	84.06	88.18	89.92	90.13
Killiyoor	74.63	71.89	69.60	80.17	83.26	89.44	90.97	91.64
Kurunthancode	78.29	76.98	78.09	86.14	85.08	91.25	91.91	92.90
Melpuram	71.70	69.80	72.20	68.28	72.13	84.75	85.50	85.75
Munchirai	77.61	75.81	80.00	76.69	80.09	86.58	88.14	88.43
Rajakkamangalam	85.02	83.90	78.64	81.57	81.86	87.20	87.70	88.42

Blocks	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Thiruvattar	60.16	56.78	56.42	55.20	68.13	88.31	90.46	89.92
Thovalai	80.87	79.05	77.93	73.17	72.39	79.37	82.05	85.32
Thuckalay	76.71	74.67	80.59	75.56	78.47	86.35	87.32	88.19
District total	76.96	75.32	74.96	77.08	79.42	87.21	88.56	89.16

Source: Office of the SSA, Kanyakumari district, Nagercoil.

The percentage of female teachers in the state is 48.9 per cent (Source: TNHDR), while in Kanyakumari district the percentage is at 89.12 much higher than that of the state. When the schools are analysed management-wise, we find that private aided and private unaided schools have the largest proportion of female teachers in both the state and the district, while the local body schools have the lowest Under SSA program from 2001-02 till 2008-09, a total of 12 primary teachers and 17 upper primary teachers were appointed.

Pupil-teacher ratio

Pupil-teacher ratio gives us a measure of how many students are taught by one teacher. As on 2009, the PTR in government/ local primary schools is 32.3 (Table 4.12Table). This ratio has been decreasing over the years in the district across all blocks. The increase in number of teachers over the years, thus, has meant a proportional decrease in the PTR, even though the enrolment rate has been increasing.

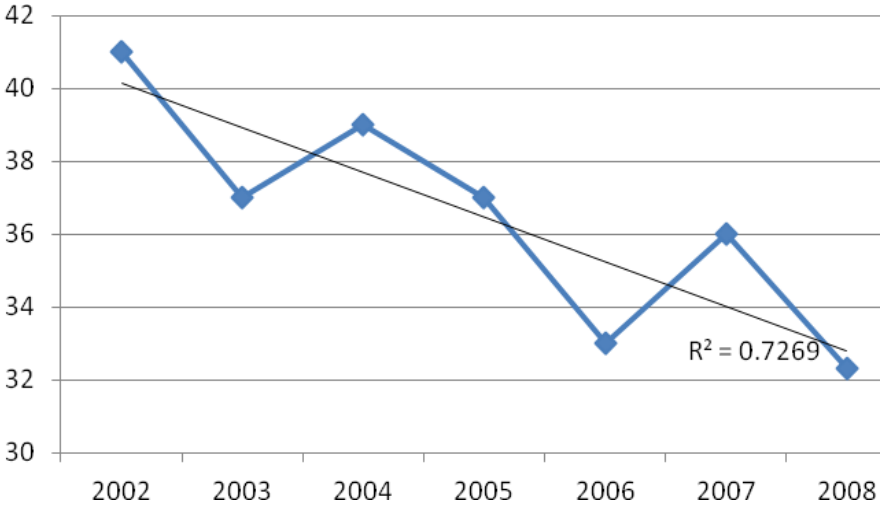
Table 4.12: Pupil-teacher ratio - Primary

Blocks	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	37	34	36	36	35	37	33.4	32.9
Killiyoor	38.6	36.4	35.6	36	33	37	33.2	31.3
Kurunthancode	45	39	41	37	31	36	31.3	33.2
Melpuram	37	33	42	41	42	35	27.1	30.5
Munchirai	39	37	37	36	36	36	34.7	32.9
Rajakkamangalam	42	38	38	39	37	38	34.7	32.1
Thiruvattar	37	38	39	39	39	38	29.9	33.2
Thovalai	39	36	35	32	30	34	41	31.5
Thuckalay	41	38	42	40	30	35	27.7	33.4
District	**41**	**37**	**39**	**37**	**33**	**36**	**32.3**	**32.3**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

The PTR has been decreasing in the district over the years, but the decrease is more pronounced and consistent among primary schools (R^2 value at 0.726) (Figure 4.8).

Figure 4.8: Trend - Pupil-Teacher Ratio -Primary



Source: SSA, Kanyakumari district, Nagercoil.

Teachers' attendance

Another indicator for performance of teachers is the teachers' attendance rate. As it could be seen from the Table 4.13, the teachers' attendance rate across the blocks is above 90 per cent.

Table 4.13 Teachers' Attendance Rate - Primary schools, 2008

Blocks	Attendance rate
Agastheeswaram	92.70
Killiyoor	92.34
Kurunthancode	90.70
Melpuram	91.38
Munchirai	91.79
Rajakkamangalam	91.90
Thiruvattar	92.99
Thovalai	92.40
Thuckalay	93.41
District	**92.20**

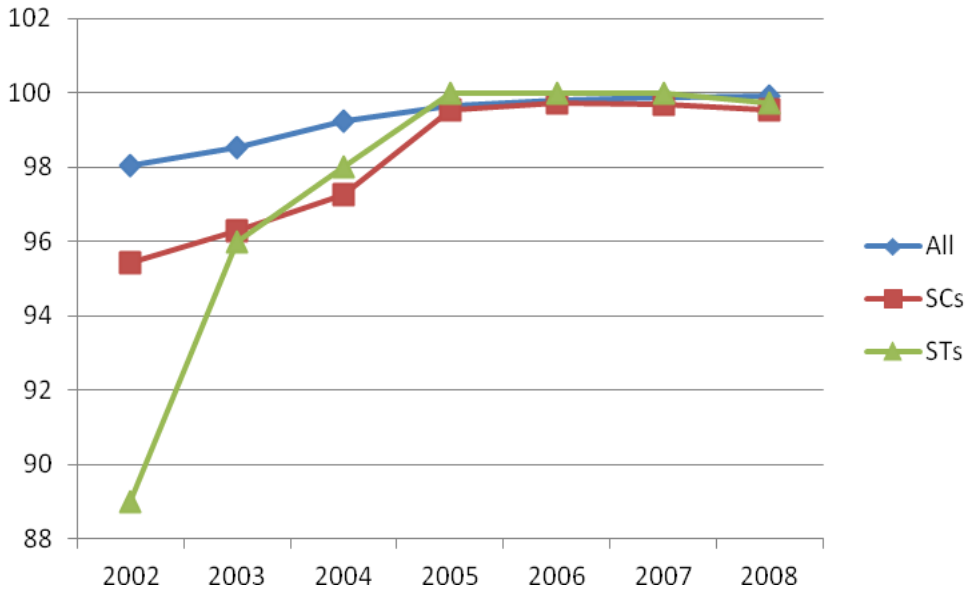
Source: SSA, Kanyakumari district, Nagercoil.

4.3 Upper Primary Education

Transition rate from primary to upper primary

The transition rate from 5th standard to 6th standard is increasing in the district over the years across all social groups. As it can be seen from the figure below, the increase is considerable among STs, followed by SCs. In 2008, the TR has reached almost 100 for all the social groups. (Figure 4.9 and Annexure 4.13).

Figure 4.9: Transition Rate



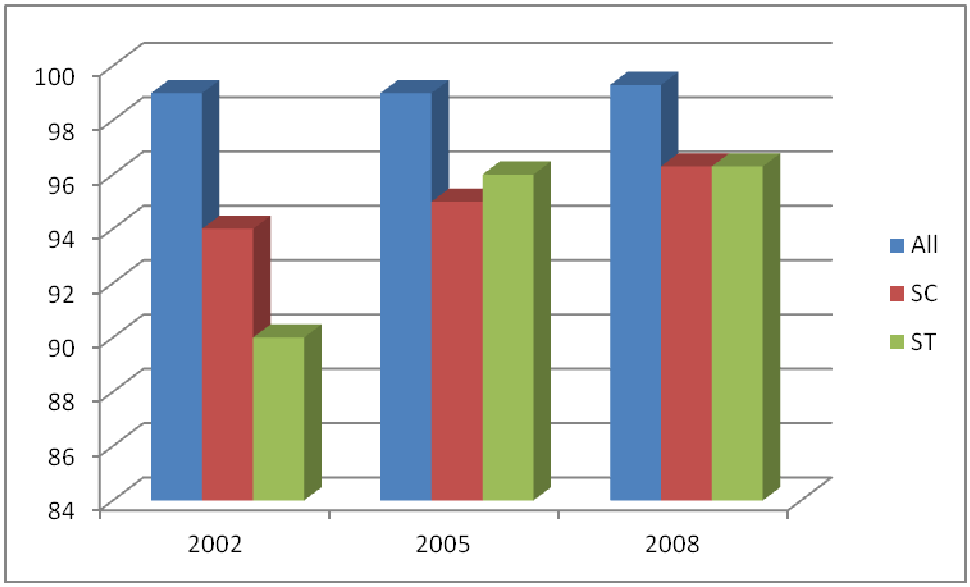
Source: SSA, Kanyakumari district, Nagercoil.

Both boys and girls show increase at a similar pace (Annexure 4.13). Across the blocks, the transition rate is similar (Annexure 4.13).

4.3.1 Net enrolment rate

The overall net enrolment rate in the upper primary schools in the district has increased slightly over the years (Figure 4.10 and Annexure 4.14). But the NER among SCs show a non-consistent trend, while the NER among ST population which has shown improvement in intermitant years 2003 and 2006 has actually decreased over the years.

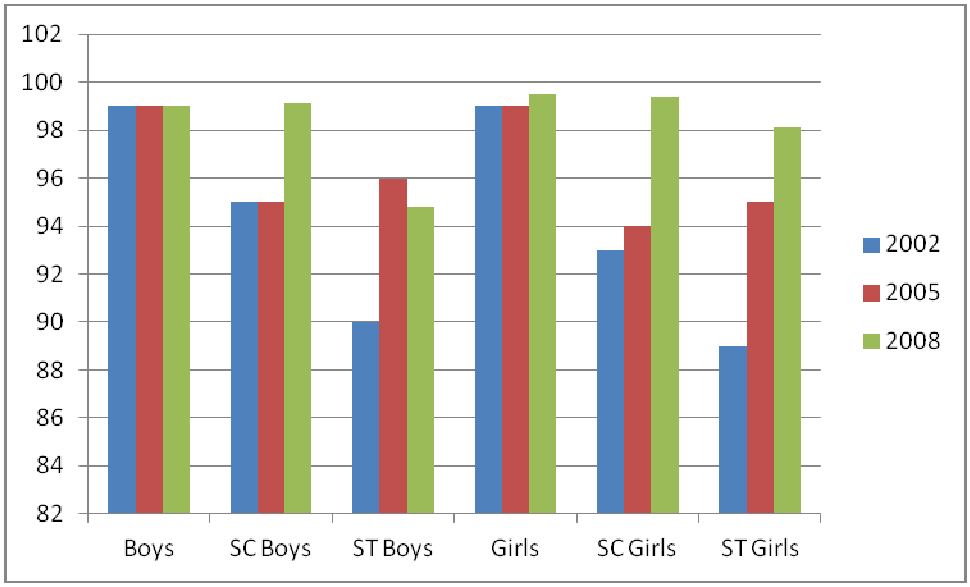
Figure 4.10 Net Enrolment Rate -Upper Primary



Source: Office of the SSA, Kanyakumari district, Nagercoil.

Analysing overall NER at block level is more revealing (Annexure 4.14). The overall NER among the boys over the years has been decreasing except for a sudden decline and increase in the years 2006 and 2007. **The NER among girls is much alarming**. Except for blocks like Melpuram and Rajakkamangalam, all the other blocks show a declining trend in NER among the girls over the years.

Figure 4.11 NER Upper Primary Boys Vs Girls



Source: Office of the SSA, Kanyakumari district, Nagercoil.

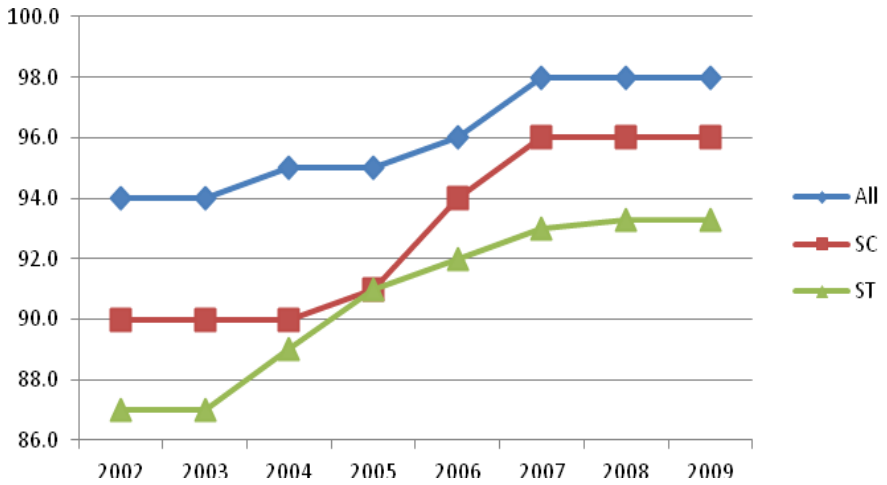
NER among SC population, except for a dip in 2005, shows a marginal increasing over the years. NER among boys shows an increasing trend across the blocks, but NER among girls is not that uniform. Except for Agastheeswaram block, all other blocks, especially during the last three years, show a decreasing NER among girls.

NER among ST population have declined from 100 per cent enrolment rate in 2003 (4.11). Though the NER among girls has recovered and increased, the NER among boys is declining.

4.3.2 Attendance Rate

Attendance rate is increasing over the years in upper primary schools, and the increase is more pronounced among SCs and STs (Figure 4.12). Block wise analysis show almost similar increasing pattern across the blocks and social groups (Source: Office of the SSA, Kanyakumari district, Nagercoil) (Annexure 4.15).

Figure 4.12 Attendance Rate - Primary and Upper Primary

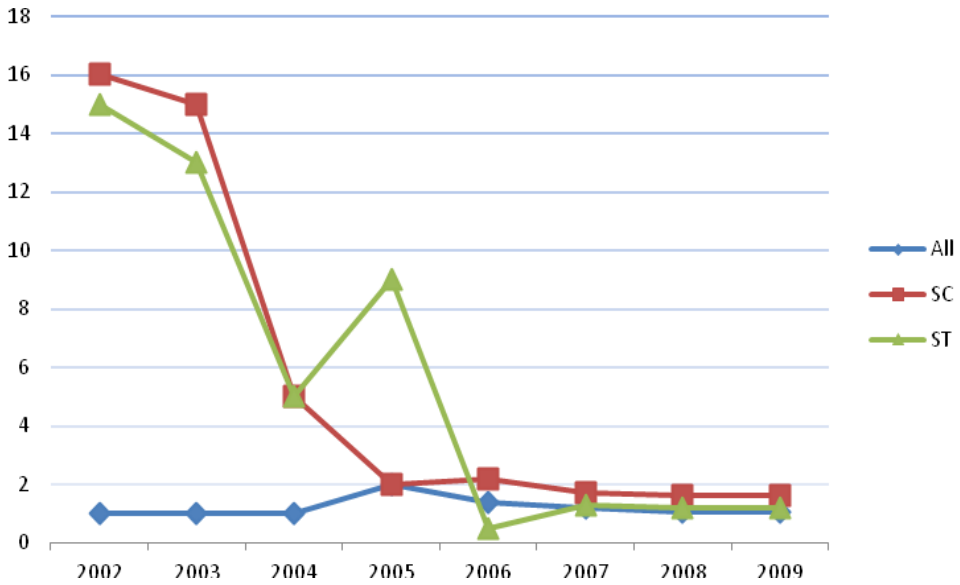


4.3.3 Retention in upper primary schools

4.3.3.1 Dropout rate

As it can be seen in the Figure4.13, the overall dropout rate in the district is almost consistent over the years. But the dropout rates among the SC and ST population have significantly declined. By 2005-2006, the dropout rates among the SC and ST have declined from around 16 per cent or 14 per cent to less than 2 per cent. This should be pointed out as one of the significant achievements of the SSA. This means that the SC and ST students joining 6th up to 8th standard and complete their studies rather than dropping out. This overall decline in dropout rate is found across all the blocks in the district (Annexure4.).

Figure 4.13 Dropout Rate - Upper Primary



Source: Office of the SSA, Kanyakumari district, Nagercoil.

In case of SC and ST population, we can observe from Table 4.14, the problem of dropout is there only in a few blocks. In case of SCs, the problem areas are the blocks of Agastheeswaram, Kurunthancode, Melpuram and Thovalai. The dropout rate is zero in rest of the blocks. In case of the STs, the problem is in Agastheeswaram (particularly the ST girls) and Thovalai blocks only.

Table 4.14: Dropout Rate 2008-09

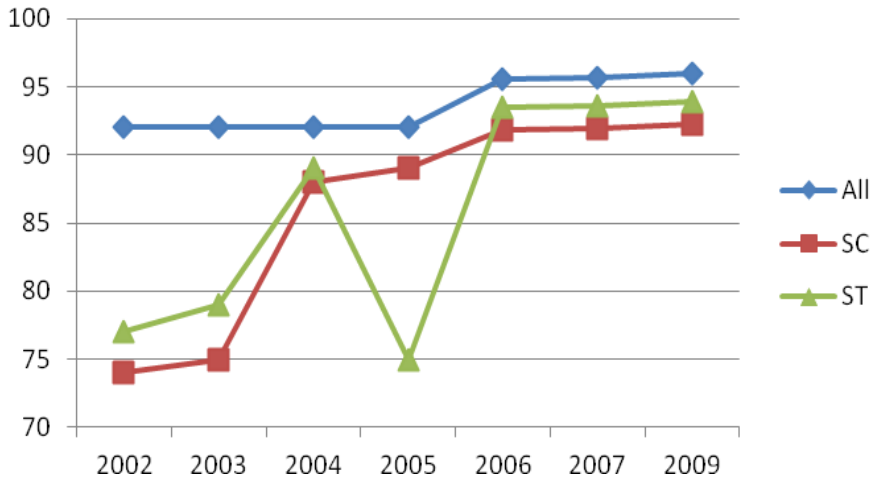
Block	ALL			SC			ST		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Agastheeswaram	1.36	1.12	1.26	1.84	2.96	2.28	0	33.3	16.1
Killiyoor	0.84	0.28	0.62	0	0	0	0	0	0
Kurunthancode	1.64	1.28	1.46	2.22	1.32	1.72	0	0	0
Melpuram	1.16	0.24	0.74	1.82	1.62	1.62	0	0	0
Munchirai	0.76	0.78	0.77	0	0	0	0	0	0
Rajakkamangalam	0.96	0.54	0.73	0	0	0	0	0	0
Thiruvattar	0.96	0.56	0.78	0	0	0	0	0	0
Thovalai	1.82	1.56	1.68	2.36	2.72	2.46	16.7	0	11.1
Thuckalay	0.82	0.52	0.69	0	0	0	0	0	0
Total	**1.26**	**0.84**	**1.05**	**1.68**	**1.61**	**1.61**	**1.27**	**0.61**	**1.19**

Source: Cohort study, 2008-09, as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

4.3.3.2 Completion rate

The overall completion rate in the district has been increasing since 2002. But a significant portion of increase was observed among SC and ST population. This is in consistence with the decreasing dropout rate observed among the SC and ST (Figure 4.14 and Annexure 4.17).

Figure 4.14 Completion Rate



Source: SSA, Kanyakumari District, Nagercoil.

Block wise analysis of the completion rate shows that completion rate among STs in Agastheeswaram (especially girls), Kurunthancode, Thiruvattar (among girls) and Thovalai needs to be improved. Among SC population, blocks like Thovalai, Agastheeswaram, Kurunthancode and Rajakkagamangalam are areas of concern (Table 4.18).

Table 4.15 Completion Rate, 2009

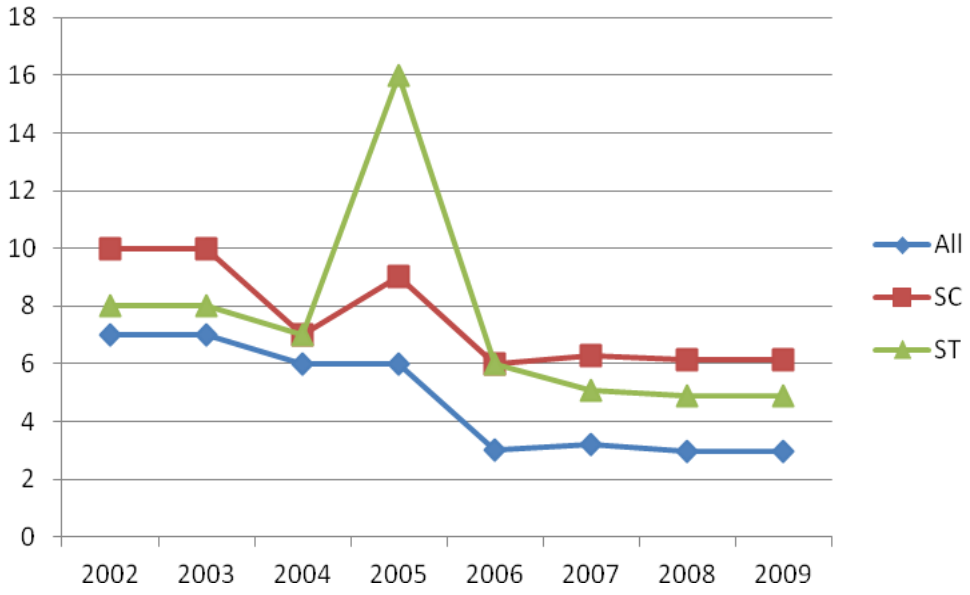
Block	ALL			SC			ST		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Agastheeswaram	93.68	97	94.1	90.2	90.1	90.2	100	66.7	83.9
Killiyoor	98.98	99.4	99.2	100	100	100	100	100	100
Kurunthancode	94.54	96.6	95.5	87.2	96.3	91.5	81.8	100	88.9
Melpuram	97.92	99.5	98.2	96	97.8	96.5	100	100	100
Munchirai	98.26	98.5	98.4	100	100	100	100	100	100
Rajakkamangalam	94.72	97.4	96.3	90.5	92.7	91.5	100	100	100
Thiruvattar	96.32	98.8	97.5	94.7	97.5	96.1	100	75	89
Thovalai	91.76	94.1	93.3	86.5	89.9	87.6	83.3	100	88.9
Thuckalay	95.86	98.4	97.3	100	100	100	100	100	100
Total	**94.31**	**97.7**	**96**	**90.1**	**94.3**	**92.3**	**93.3**	**94.5**	**93.9**

Source: Cohort study, 2008-09 as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

4.3.3.3 Repetition rate

Unlike the repetition rate for primary schools, the repetition rates in upper primary schools shows a declining trend across social groups (Figure 4.15 and Annexure 4.18).

Figure 4.15 Repetition Rate



Source: Office of the SSA, Kanyakumari district, Nagercoil.

Blockwise analysis shows that the Agastheeswaram and Kurunthancode blocks shows an actual increase in repetition rate especially during the last three years, especially among SC population. On the other hand, the Thiruvattar block shows a marked increase in repetition rate among ST population from 5 per cent in 2008 to 11 per cent in 2009. This is area to be concentrated for further action (Table 4.16).

Table 4.16 Repetition Rate- Upper Primary, 2009

Block	ALL			SC			ST		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Agastheeswaram	4.96	1.9	4.62	7.92	6.92	7.54	0	0	0
Killiyoor	0.18	0.3	0.18	0	0	0	0	0	0
Kurunthancode	3.82	2.14	3.08	10.6	2.34	6.82	18.2	0	11.1
Melpuram	0.92	0.28	1.05	2.22	0.63	1.9	0	0	0
Munchirai	0.98	0.72	0.86	0	0	0	0	0	0
Rajakkamangalam	4.32	2.03	2.99	9.48	7.32	8.46	0	0	0
Thiruvattar	2.72	0.6	1.7	5.28	2.5	3.92	0	25	11
Thovalai	6.42	4.32	5.06	11.1	7.4	9.92	0	0	0
Thuckalay	3.32	1.12	1.99	0	0	0	0	0	0
Total	**4.44**	**1.49**	**2.96**	**8.25**	**4.01**	**6.13**	**4.93**	**4.88**	**4.9**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.3.4 School infrastructure

a. Availability of schools

Out of the 2195 habitations, around 24 have no upper primary schools within 3 km area. Out of these 24 habitations, 16 are eligible for an upper primary school as per norms (Table 4.20).

Table 4.17 Habitation and access – Upper primary

Blocks	Total no. of habitations	No. of Habitations having UPS facility in 3 km area	No. of habitations without UPS facility in 3 km area	No. of eligible school less habitations for UPS as per distance and population norms
Thovalai	229	226	3	1
Agastheeswaram	239	237	2	1
Rajakkamangalam	238	235	3	3
Kurunthancode	252	249	3	2
Thuckalay	280	278	2	2
Thiruvattar	250	247	3	2
Melpuram	237	233	4	3
Killiyoor	195	192	3	2
Munchirai	275	274	1	0
Total	**2195**	**2171**	**24**	**16**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

b. Availability of teachers

As on 2008-09, there are around 5066 teachers in the district. Unlike in primary schools,

Table show that there has been constant increase in the number of teachers in upper primary schools, with a sudden increase in number of teachers in 2006-07 due to recruitment of new teachers. There was ban on the recruitment of teachers till 2005. But after that, the number of teachers seems to drop after that. This is common across all the blocks in the district.

Table 4.18: Teachers in Upper Primary

Blocks	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Agastheeswaram	363	412	367	462	482	1185	756	856
Killiyoor	196	178	209	195	263	615	521	542
Kurunthancode	258	247	230	330	357	860	663	678
Melpuram	218	209	312	312	427	816	658	676
Munchirai	251	250	309	298	306	730	542	561
Rajakkamangalam	243	158	197	197	267	639	443	450
Thiruvattar	216	200	204	227	282	576	429	484
Thovalai	122	96	93	141	179	446	306	302
Thuckalay	208	216	223	276	289	772	507	517
District total	**2075**	**1966**	**2144**	**2438**	**2852**	**6639**	**4825**	**5066**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Gender composition of teachers

The trend in percentage of female teachers over the years also shows an increasing trend with the recruitment of more number of female teachers. But the blocks of Thiruvattar, Thuckalay and Rajakkamangalam show a decrease in percentage of female teachers (Table 4.19).

Table 4.19: Share (%) of female teachers Upper Primary

Blocks	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Agastheeswaram	76.58	76.94	67.03	66.45	74.27	79.83	83.47	87.85
Killiyoor	66.84	63.48	77.03	86.15	77.57	79.84	79.46	82.47
Kurunthancode	70.54	69.64	66.09	72.12	80.67	86.74	88.84	88.79
Melpuram	66.06	61.72	77.24	77.24	76.35	80.64	82.37	82.54
Munchirai	63.75	63.20	69.90	70.81	71.57	81.10	81.00	81.28
Rajakkamangalam	75.72	62.66	73.60	73.60	77.15	85.29	79.91	81.78
Thiruvattar	61.11	58.00	60.29	62.11	77.66	84.90	83.45	81.61
Thovalai	85.25	81.25	75.27	66.67	67.60	79.60	83.33	85.10
Thuckalay	71.15	72.22	66.82	80.43	77.85	89.51	87.18	88.59
District total	**70.51**	**68.06**	**70.10**	**72.48**	**75.95**	**83.04**	**83.40**	**84.74**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

The percentage of female teachers in the state is 56.22 per cent (Source: TNHDR), while in Kanyakumari district the percentage is at 84.74 much higher than that of the state, similar to primary schools. When the schools are analysed management-wise, we find that private unaided schools have the largest proportion of female teachers for both the state and the district at 93.46 per cent, followed by private aided; while the local body schools have the lowest .

Teachers

Under SSA program from 2001-02 till 2008-09, a total of 12 primary teachers and 17 upper primary teachers were appointed.

Pupil-teacher ratio

PTR for upper primary schools is 31, slightly lower than that of the primary school. The trend over the years shows that the increase in number of teachers during the year 2006-07 has contributed to decrease in the PTR (Table 4.20). Except for the blocks of Thovalai and Melpuram, the decrease in PTR has been consistent.

Table 4.20 Pupil-teachers ratio

Blocks	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	37	38	38	39	37	39	34.28	30.9
Killiyoor	33	33.2	33.5	34	37	34	31.18	30.7
Kurunthancode	35	32	35	35	36	35	34.36	31
Melpuram	31	28	33	37	35	37	25.33	31.1
Munchirai	32	36	35	36	36	36	33.21	30.4
Rajakkamangalam	34	33	38	39	38	39	34.88	31.5
Thiruvattar	31	33	36	41	38	41	33.76	31.5
Thovalai	35	36	35	35	34	35	43.1	30.8
Thuckalay	35	31	38	33	35	33	33.21	31.5
Total	**34**	**35**	**38**	**37**	**36**	**37**	**32.7**	**31**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

The PTR has been decreasing in the district over the years in the upper primary schools but rather inconsistently.

Teachers' attendance

Another indicator for performance of teachers is the teachers' attendance rate. As it could be seen from the Table.4,21 the teachers' attendance rate across the blocks is above 90 per cent.

Table4.21 Teachers' attendance- upper primary 2008

Blocks	Attendance rate
Agastheeswaram	92.40
Killiyoor	91.06
Kurunthancode	91.08
Melpuram	91.40
Munchirai	91.00
Rajakkamangalam	90.30
Thiruvattar	92.91
Thovalai	91.80
Thuckalay	91.86
District	**91.80**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.4 Secondary Education

Transition rate from upper primary to high school

The next level of education from upper primary is the high school education, from IX standard to X standard. The transition rate will give the percentage of students who pass from VIII standard to IX standard.

Table 4.23 Transition Rate – Std. VIII to Std. IX - 2008

Block	All			SC			ST		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Thovalai	98.94	98.8	98.9	98.5	98.7	98.6	98.5	98.3	98.4
Agastheeswaram	99.94	99.9	99.9	99.5	100	99.7	99.1	98.3	98.7
Rajakkamangalam	99.67	99.4	99.5	99.1	98	98.6	100	100	100
Kurunthancode	98.72	97.5	98.1	98.7	97.8	98.2	100	100	100
Thuckalay	99.76	99.6	99.7	99.8	99.9	99.8	100	100	100
Thiruvattar	99.92	99.5	99.7	99.8	99.4	99.6	98.7	98.6	98.65
Melpuram	99.37	99.7	99.5	98.7	98.8	98.8	98.2	98.1	98.15
Killiyoor	99.36	99.2	99.3	98.7	98.9	98.8	100	100	100
Munchirai	99.43	99.3	99.4	96.9	98.4	97.7	100	100	100
Total	**99.8**	**99.9**	99.9	**98.8**	**98.9**	98.9	**99**	**98.5**	98.75

Source: Cohort & EER 2008-09 as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

Table: 4.24 No. of high schools and higher secondary schools 2008-09

Block	High School				Higher Secondary School			
	Govt.	Private Aided	Private Unaided	Total	Govt.	Private Aided	Private Unaided	Total
Agastheeswaram	19	7	7	33	9	17	21	47
Killiyoor	4	10	5	19	4	7	9	20
Kurunthancode	6	5	5	16	5	13	3	21
Melpuram	6	6	8	20	8	14	8	30
Munchirai	5	10	10	25	4	6	4	14
Rajakkamangalam	7	4	3	14	6	6	3	15
Thiruvattar	10	6	7	23	3	3	4	10
Thovalai	11	1	5	17	8	0	1	9
Thuckalay	5	3	10	18	5	7	6	18
Total	73	52	60	185	52	73	59	184

Source: DISE, 2008-09, as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

4.5 Training for Teacher

BRC and CRC centres conducted regular meetings and trainings for teachers. Achievement in the in-service training for the teachers in different blocks of kanyakumari shows an increasing trend with 100 percent achievement in 2008-09 (Annexure 4.20).

4.6 Special Schools

There were 11,291 low performing students in Standard I to VIII found in 2008-09. Among them, 3,850 students were given remedial teaching. The block wise figures are given in Table 4.25. Similarly a total of 522 government schools were involved in the intervention of learning enhancement of children in the district. The block wise figures are given in Table 4.25.

Table 4.25 : No. of Low Performing Children (Remedial Teaching) in 2008-09

Blocks	No. of Low Performing Children in Std. I-VIII	No. of children given Remedial Teaching	%
Agastheeswaram	3064	434	14.16
Killiyoor	902	427	47.34
Kurunthancode	868	427	49.19
Melpuram	1218	427	35.06
Munchirai	1218	427	35.06
Rajakkamangalam	1115	427	38.30
Thiruvattar	1017	427	41.99
Thovalai	957	427	44.62
Thuckalay	932	427	45.82
Total	**11291**	**3850**	34.10

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Table 4.26: Learning enhancement of children, 2008-09

Blocks	Total No.of Govt & Local body Schools				
	P	M	HS	HSS	Total
Agastheeswaram	62	7	19	9	97
Killiyoor	25	9	4	4	42
Kurunthancode	25	13	6	5	49
Melpuram	39	11	6	8	64
Munchirai	22	19	5	4	50
Rajakkamangalam	31	10	7	6	54
Thiruvattar	27	15	10	3	55
Thovalai	31	4	11	8	54
Thuckalay	31	16	5	5	57
Total	**293**	**104**	**73**	**52**	**522**

Note: P = Primary; M = Middle/Upper primary; HS = High School; HSS = Higher Secondary Schools

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.6.1 Out of school children

Table 4.27 Block wise out-of-school children - 2009-10

Blocks	5-10 Age Group			11-13 Age Group			5-13 Age Group		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Agastheeswaram	20	5	25	29	30	59	49	35	84
Killiyoor	16	11	27	28	20	48	44	31	75
Kurunthancode	16	7	23	34	22	56	50	29	79
Melpuram	20	14	34	27	23	50	47	37	84
Munchirai	14	10	24	26	18	44	40	28	68
Rajakkamangalam	14	11	25	28	22	50	42	33	75
Thiruvattar	18	9	27	28	26	54	46	35	81
Thovalai	8	13	21	25	23	48	33	36	69
Thuckalay	6	6	12	26	24	50	32	30	62
Total	**132**	**86**	**218**	**251**	**208**	**459**	**383**	**294**	**677**

Source: DISE, 2009, as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

These children are out of school for various reasons. Comparing similar data from Elementary education register, 2008 conducted by the Education department and Child labour survey conducted by Labour department in 2003 will help to identify the trend over the years. There were 11,291 low performing students in Standard I to VIII found in 2008-09. Among them, 3,850 students were given remedial teaching. Similarly a total of 522 government schools were involved in the intervention of learning enhancement of children in the district. The block wise figures are given in the tables below.

Table 4.28; Reasons for dropouts as per Child labour survey, 2003 and EER, 2008

Reasons	Child labour survey, 2003	EER, 2008
Lack of finance	258	336
Household work	36	112
Not interested in studies	316	169
Failed	26	26
Schools not nearby	0	0
Others	186	34
District total	822	677

Note: 'Household work' includes domestic work, taking care of younger siblings or older adults, etc
'Others' include reasons such as child labour, girl child, migration and not specified.
Sources: 1. Child Labour Survey 2003. Retrieved on 22 December 2009 from http://intra.nic.in/childlabour.
2. EER, 2008 – Elementary Education Register at the District Education Department.

Under the SSA, the district education department has taken steps to enrol the out-of-school children back into the school through AIE centres and NCLP/INDUS program (Table 4.29 and Annexure 4.21).

Table 4.29 Enrolment of out-of-school through AIE centres and NCLP/ INDUS

Blocks	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Agastheeswaram	57.34	64.29	60.7	64.16	71	100	100
Killiyoor	60.13	70.29	74.5	27.54	60	97.1	91.14
Kurunthancode	66.28	61.54	87.18	48.61	82	100	95.29
Melpuram	57.74	52.94	54.72	63.98	78	100	100
Munchirai	50.31	66.67	64.86	59.06	88	100	88.76
Rajakkamangalam	58.2	62.16	61.96	52.11	78	97.3	100
Thiruvattar	59.94	49.58	48.51	51.89	98	100	90.24
Thovalai	61.13	60.85	44.31	51.91	58	95.59	98.89
Thuckalay	52.19	55.96	66.67	22.14	58	98.81	100
Total	**58.31**	**61.32**	**60.44**	**49.59**	**74**	**99.02**	**96.1**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.6.2 Children with special needs

Children with physical disability are not in a position to have formal education. They are assisted in one way or the other. Inclusive Education is the means through which differently abled children at the age group of 0 to 18 are identified all over the district and assisted to have education.

Inclusive Education runs hand in hand with SSA and OSHI, an NGO in Kanyakumari District (Oral School for the Hearing Impaired) SSA provides aiding devices such as calipers – heel rise chappals, spectacles, wheel chairs etc. IED teachers provide physiotherapy and speech therapy to the needed students through the District Disability Rehabilitation Department when they go for home based training centres. NIne day care centres have been established exclusively for the home based children in the district. 14 children are benefited by the Day care centres; 1000 students have taken part in exposure visit and 600 students are benefited from Life Skill Training. (Education Report pg.no. 132) (

Table 4.30 No. of disabled children and out of school

Blocks	In school	Out of school	Total disabled children	% of disabled children out of school
Thovalai	141	138	279	49.5
Agastheeswaram	220	197	417	47.2
Rajakkamangalam	145	131	276	47.5
Kurunthancode	179	162	341	47.5
Thuckalay	143	149	292	51.0
Thiruvattar	180	169	349	48.4
Melpuram	200	182	382	47.6
Killiyoor	145	136	281	48.4
Munchirai	173	164	337	48.7
Total	**1526**	**1428**	**2954**	48.3

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Table 4.31: Various interventions for Children with special needs

Interventions	Aids & Appliances Supplied	No. of Surgeries Done	No of Children in Day Care Centre	No. of Children in Home-based Care
2002-03	0	0	0	0
2003-04	139	0	0	7
2004-05	146	0	0	51
2005-06	114	0	0	151
2006-07	148	24	27	189
2007-08	238	69	92	321
2008-09	224	0	63	276

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.6.3 Early child care and education centres

Totally 18090 children were enrolled in ECCE centres. The allotted amount of Rs 5.00 lakhs was utilized for the development of ECCE children by providing child friendly environment play materials. Special trainings were also given to Anganwadi teachers (Table).

Table 4.32: Number of early child care and education centres and number of children enrolled

ECCE centres and enrolment	No.of existing centres	New centres	Upgraded centres	No. of Children Enrolled
2002-03	464	0	670	23338
2003-04	464	0	670	24562
2004-05	464	0	670	23772
2005-06	464	0	670	23501
2006-07	464	0	670	17254
2007-08	1134	0	730	18090
2008-09	1134	364	1133	19644

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.6.4 Girls' education – beneficiaries

Various innovative activities are adopted in full swing to attract the attention of the girls towards education which is the prime role of SSA to root out gender disparity. Vocational skill development activities are provided considering the total elimination of dropouts among girls at the upper primary level (Table).

Table 4.33: Number of trainings given for Girls education beneficiaries

Blocks	2004-05	2005-06	2006-07	2007-08	2008-09	
	Vocational Training	Vocational Training	Vocational Training	Vocational Training	English Communication	Supply of learning materials/ work books/ Maths & Science Kit
Thovalai	1285	1293	110	440	200	15
Agastheeswaram	671	9372	120	580	300	20
Rajakkamangalam	1543	2402	110	440	200	15
Kurunthancode	1436	1629	110	440	200	15

Blocks	2004-05	2005-06	2006-07	2007-08	2008-09	
	Vocational Training	Vocational Training	Vocational Training	Vocational Training	English Communication	Supply of learning materials/ work books/ Maths & Science Kit
Thuckalay	1382	2750	110	440	200	15
Thiruvattar	989	3063	110	440	200	15
Melpuram	1456	3659	110	440	200	15
Killiyoor	1218	3316	110	440	200	15
Munchirai	600	400	110	440	200	15
Total	10580	27884	1000	4100	1900	140

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.6.5 SC/ ST children

The educational development of children belonging to the Scheduled Castes and Scheduled Tribes receives soecial attention in Sarva Shiksha Abhiyan. Every activity under the Project must identify the benefit that will accrue to children from these communities. Many of the incentive schemes will have a sharper focus on children from these communities. The participation of dalits and tribals in the affairs of the school will be specially encouraged to ensure inclusive education for all social groups, especially the most disadvantaged (Table 4.34).

Table 4.34: Training for SC/ST children

SC/ST children	Remedial coaching/ Individual attention	Supply of Learning Materials/ work books/ Maths & Science Kit	Life Skill Training	Exposure Visit	Multiple Intelligence	English communication
2003-04	3592	-	-	-	-	-
2004-05	8682	-	-	-	-	-
2005-06	11826	-	1730	1500	-	-
2006-07	4000	-	1000	2000	1000	-
2007-08	-	2000	1200	1800	-	2000
2008-09	-	145	-	-	-	1700

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.6.6 Minority children

Minority children were given special trainings and materials were supplied. The achievement in innovative intervention for minority children education is shown in the Table 4.35.

Table 4.35: Innovative Intervention for Minority Children Education - Achievement in 2008-09

Blocks	**No.of Minority Children covered**	
	English Communication skill development	**Supply of Learning materials / workbooks / Maths and Science Kit**
Thovalai	150	17
Agastheeswaram	155	17
Rajakkamangalam	155	17
Kurunthancode	155	17
Thuckalay	150	17

Blocks	No.of Minority Children covered	
	English Communication skill development	Supply of Learning materials / workbooks / Maths and Science Kit
Thiruvattar	155	17
Melpuram	155	17
Killiyoor	150	17
Munchirai	155	17
Total	**1380**	**153**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.6.7 Progress of children observed under ABL methods

Under ABL methods, children were observed and their progress checked. Table 4.36 shows the number of children observed and the percentage of progress.

Table 4.36 : Progress of children observed under ABL methods: progress and low performance

Blocks	Enrolment in Govt and aided schools		No. of children observed	No. of children progressing	% of Progress	% of low performance
	Std. I-V	Std. VI-VIII				
Agastheeswaram	7363	17498	3734	2109	94.88	5.12
Killiyoor	10307	6100	1078	809	93.20	6.80
Kurunthancode	12529	9151	2649	2172	93.97	6.03
Melpuram	10522	8404	1805	1456	93.78	6.22
Munchirai	12085	8345	2695	2276	94.18	5.82
Rajakkamangalam	8399	5221	1692	1469	93.75	6.25
Thiruvattar	8535	6063	733	635	93.76	6.24
Thovalai	7231	4463	1873	1377	91.63	8.37
Thuckalay	9912	7720	895	621	95.00	5.00
Total	**86883**	**72965**	**17154**	**12924**	**93.79**	**6.21**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.6.8 Computer aided learning

It is widely accepted that the integration of modern Information and Communication Technologies into the teaching-learning process has great potential. In fact, it could be the most important way by which states can meet their educational aspirations within reasonable time and resources. The use of computers in Elementary schools is an innovation to develop computer literacy to the children. Computer aided learning will help them to make the present teaching learning process joyful, interesting and easy to understand through audio- visual aids. The computer aided learning achievement in 2008-09 by blocks is given in. Similarly the number of schools covered, teachers trained and the number of beneficiaries under computer aided learning from 2006-07 to 2008-09 is given in Table 4.37.

Table 4.37 Computer Aided Learning (CAL) in 2008-09

Blocks	No of govt. schools with upper primary classes	*Achievement in 2008-09*			
		No. of schools with CAL centres	Provision of Hardwares /Softwares	No of Beneficiaries	No of teachers trained on CAL
Thovalai	23	3	10	750	12
Agastheeswaram	35	5	17	1375	20
Rajakkamangalam	23	3	10	770	12
Kurunthancode	26	3	10	750	12
Thuckalay	25	4	13	975	16
Thiruvattar	29	3	10	750	12
Melpuram	26	3	10	750	12
Killiyoor	16	3	10	750	12
Munchirai	28	3	10	750	12
Total	**231**	**30**	**100**	**7620**	**120**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Table 4.38: Computer Aided Learning

Year	No. of schools covered	No. of Teachers trained	No. of beneficiaries
2005-06	17	35	2585
2006-07	24	89	3576
2007-08	72	110	3661
2008-09	30	120	7620

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.6.9 Community mobilisation

The success of SSA is based on the awareness of the community. It is important to create awareness among the community members. So awareness training for the VEC members is conducted to make them understand that school is the property of the community.

4.7 Quality of Education

Of all the characteristics of education, 'quality' in education is one of the most elusive to measure. Given the superior literacy performance and educational attainments of Kanyakumari district, it is necessary now to focus on the quality of education. We have two tests to measure the quality of education in the district: first is the achievement test conducted in 2008, and second is the measure of pass percentage in V and VIII standard, 2008.

4.7.1 Achievement test

The district education department conducted an 'achievement test' to the students of II standard and IV standard in 2008 in selected 15 Schools throughout the district to test their Language skills and Arithmetic aptitude in all subjects. Similarly the numbers covered, teachers trained and the number of beneficiaries under computer aided learning from 2006-07 to 2008-09 is given Table 4.37.

As it can be seen from the table below, the pass percentage among Class II is very high, but the grading tells that only 63 percent of the students were able to read Tamil well (Table 4-4.41).

Table 4-39: Achievement test for Class II, 2008

Blocks	% of pass			Grading		
	Tamil	English	Maths	T1	T2	T3
Agastheeswaram	95.2	100	95.83	52.2	44.9	2.9
Killiyoor	100	100	85.71	44.4	33.3	22.2
Kurunthancode	100	100	100	83.3	16.7	0
Melpuram	100	100	100	66.7	27.3	6.06
Munchirai	100	100	100	83.3	16.7	0
Rajakkamangalam	95	100	94.74	56.7	40	3.33
Thiruvattar	100	100	83.33	42.1	42.1	15.8
Thovalai	100	100	100	97.8	2.22	0
Thuckalay	100	100	100	0	93.8	6.25
Total	**97.1**	**100**	**97.14**	**63.3**	**32.6**	**4.08**

Note: T1 - Tamil reading well
T2 - Tamil reading with errors
T3 - Tamil not reading

Source: Source: Office of the SSA, Kanyakumari district, Nagercoil.

The relatively lower pass percentage for Class IV than Class II shows that the students of Class IV do not perform as well as students in Class II. Also the percentage of students who read Tamil is at 72 per cent, while the percent of students who read English well is only at 21.78 per cent (Table 4.40).

Table 4.40 Achievement test results for Class IV, 2008

Block	% of pass			GRADING			GRADING		
	Tamil	English	Maths	T1	T2	T3	E1	E2	E3
Agastheeswaram	89.29	69.23	96.15	78.75	20.00	1.25	6.25	35.00	58.75
Killiyoor	90.00	100.00	88.89	62.07	37.93	0.00	20.69	37.93	41.38
Kurunthancode	100.00	100.00	100.00	96.67	3.33	0.00	56.67	43.33	0.00
Melpuram	76.47	70.59	32.43	63.64	25.45	10.91	18.18	52.73	29.09
Munchirai	100.00	100.00	100.00	100.00	0.00	0.00	44.83	51.72	3.45
Rajakkamangalam	86.96	72.73	86.36	61.19	35.82	2.99	23.88	37.31	38.81
Thiruvattar	66.47	21.43	84.62	64.29	30.95	4.76	14.29	28.57	57.14
Thovalai	87.50	80.00	80.00	71.74	26.09	2.17	23.91	50.00	26.09
Thuckalay	55.56	55.56	100.00	61.54	38.46	0.00	15.38	53.85	30.77
Total	**83.94**	**86.47**	**77.18**	**72.03**	**25.00**	**2.97**	**21.78**	**42.08**	**36.14**

Note: T1 - Tamil reading well
T2 - Tamil reading with errors
T3 - Tamil not reading

E1 – English reading well

E2 – English reading with errors
E3 – English not reading

Source: Office of the SSA, Kanyakumari district, Nagercoil.

4.7.2 Pass percentage

The pass percentage of V standard across all social groups by gender is near to 100 per cent, except for the boys of ST population with only 92 per cent of ST boys passing out (Table). Interestingly, categorising the passed percentage of students of standard V with more than 60 per cent of marks shows that ST and SC students perform better than the overall population, against the usual assumption that SCs and STs perform low (Table and Table).

The pass percentage of VIII standard across all social groups across gender is near to 100 per cent, with ST pass percentage at 100 per cent across all blocks (Table 4.41Table). Categorising the percentage of students of standard VIII pased with more than 60 per cent of marks shows that ST and SC perform relatively lower than that of overall population (Table 4.43 and Table 4.42). The girls across all social groups perform better than the boys with more percent of girls passing out with more than 60 percent marks.

Table 4.41: Pass percentage of standard V and VIII, 2008, among all social groups

Block	V Std						VIII Std					
	Passed %			Passed with More Than 60% Marks			Passed %			Passed with more than 60% Marks		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Agastheeswaram	99.8	99.9	99.9	62.6	65.6	63.5	96.2	95.4	95.8	42.6	44.8	43.5
Killiyoor	99.62	99.8	99.7	59.6	69.9	62.8	99.7	99.5	99.6	35.6	46.8	39.7
Kurunthancode	99.91	99.9	99.9	59.2	72.4	65.6	98.2	99.6	98.8	34.8	36.2	35.3
Melpuram	100	99.1	99.6	59.6	68.6	63.6	96.3	98.6	99.6	40.6	56.2	47.8
Munchirai	100	100	100	59.8	62.5	59.6	98.6	99.8	99.1	42.4	56.6	48.6
Rajakkamangalam	99.92	100	100	69.8	70.4	70.2	89	88.8	88.7	26.2	28.4	22.6
Thiruvattar	99.96	100	100	61	65.8	62.3	98.4	97.6	98.1	31.6	52.8	41.8
Thovalai	98.1	97.6	97.9	51.5	62.8	57.6	99.8	99.6	99.7	33.6	32.8	32.2
Thuckalay	99.42	99.9	99.7	55.9	66.7	62.8	97.3	98.2	97.8	28.2	29.6	28.8
Total	**99.64**	**99.6**	**99.6**	**57.2**	**67.2**	**63.1**	**97.1**	**97.5**	**97.47**	**35.1**	**42.7**	**37.8**

Source: DISE, 2008-09, as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

Table 4.42: Pass percentage of standard V and VIII, 2008, among SCs

Blocks	V Std.						VIII Std.					
	Passed %			Passed with More Than 60% Marks			Passed %			Passed with more than 60% Marks		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Agastheeswaram	98.9	99.3	99.1	71.8	74.9	73.4	99.4	99.7	99.54	32.8	44.8	38.8
Killiyoor	99.19	99	99.1	70.6	74.6	72.6	99.4	99.8	99.62	30.7	40.9	35.8
Kurunthancode	99.08	99.4	99.2	67	72.6	69.8	99.4	99.3	99.36	31.9	40.7	36.3
Melpuram	99.15	98.3	98.7	72	72.9	72.5	99.1	99.7	99.39	34.7	42.1	38.4
Munchirai	99.24	98.7	99	71	73	72	99	99.9	99.45	31	41.6	36.3
Rajakkamangalam	99	99.4	99.2	71	73	72	99.8	99.3	99.56	32.8	41.1	37
Thiruvattar	99.31	98.6	98.9	72.9	74.8	73.8	99.4	99.5	99.44	31.6	40.9	36.2
Thovalai	98.36	99.2	98.8	68	71	69.5	99.7	99	99.37	31.6	32.8	32.2
Thuckalay	98.7	99	98.9	69.9	74	72	99.4	99.7	99.57	31.7	42	36.8
Total	**98.86**	**99**	**98.9**	**70.5**	**73.5**	**72**	**99.6**	**99.6**	**99.63**	**32.5**	**40.6**	**36.5**

Source: DISE, 2008-09, as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

Table 4-43 Pass percentage of standard V and VIII, 2008, among STs

Blocks	V Std						VIII Std					
	Passed %			Passed with more than 60% marks			Passed %			Passed with more than 60% Marks		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Agastheeswaram	93.68	100	96.8	90.3	80.4	85.4	100	100	100	100	100	100
Killiyoor	100	100	100	82.4	100	91.2	100	100	100	0	25	12.5
Kurunthancode	100	100	100	85.8	74.6	80.2	100	100	100	50	50	50
Melpuram	89.68	100	94.8	80.3	65.8	73.1	100	100	100	18.2	26.8	22.5
Munchirai	100	100	100	85.6	100	92.8	100	100	100	25	25	25
Rajakkamangalam	-	100	100	-	100	100	100	100	100	100	0	50
Thiruvattar	90.5	100	95.3	96.2	70.5	83.4	100	100	100	15	40	27.5
Thovalai	92.52	100	96.3	80.5	72.6	76.6	100	100	100	50	100	75
Thuckalay	100	100	100	100	-	100	100	100	100	25	75	50
Total	**93.75**	**100**	**96.9**	**86.7**	**76.7**	**81.7**	**100**	**100**	**100**	**25.8**	**36.9**	**31.3**

Source: DISE, 2008-09, as cited in *Annual Work Plan and Budget 2009-10*, SSA, Kanyakumari District.

4.8 Innovative Initiatives

4.8.1 13 + 7 ABL grading and award system

The Kanyakumari district is well-known for its educational attainments in the state. To accelerate the rate of progress, the recent educational initiatives by the district administration is appreciable. As per the conventional ABL grading, thirteen points are considered for measuring the educational achievements. The recent initiatives of the district administration included seven more points. The details of the thirteen and seven points are given in annexure 4.22. The additional seven points include the new dimensions in the grading system such as grading of class rooms and teachers. Based on the new ABL grading, the best performing schools and the respective teachers are given awards by the district collector. This motivates the teachers to deliver quality education to the children which have resulted in schools switching over to higher grades. During 2009-10, the number of A+ school (both government and aided elementary schools) has increased from 17 to 151 (Table 4.44) One such successful case is given in Box 4.1.

Table 4.44: Distribution of schools on the basis of twenty point ABL grades as on July 2009 and March 2010

Name of the District	No. of Schools										Progress			
	Jul-09					Mar-10								
	A+	A	B	C	Total	A+	A	B	C	Total	A+	A	B	C
Kanyakumari district	17	121	420	7	565	168	173	224	0	0	151	52	-196	-7

Source: Office of the SSA, Nagercoil.

Box 4.1 A school moved to A+ grade

GMS Alankottai is Government middle school in Rajakkamangalam block. There are 3 ABL classrooms in this school. Three teachers are handling these classes. Every month SSA BRTEs assess ABL Schools and teachers with 20 points guidelines. In July 2009, one of the teachers Ms. Shanthi from GMS Alankottai got A+ grade and the other two teachers (Mrs.Mary Johncy and Mrs.Mary Ammal) got B grade. So automatically the school got B grade.

The teacher who got (A+) grade was given award by the district collector during the Independence Day celebration in 15th August 2009. This incident motivated the other two teachers to perform well in the classroom. They worked hard to change their classroom environment. Finally they did it. In september2009, the other two teachers got A+ grade and both of them were given awards by the district collector on 5th September 2009 (Teacher's Day). This school which was in B grade in July 2009, now has become as one of the model schools in Kanyakumari district.

4.8.2 Tribal children school education

Another initiative of the district administration in line with tribal children school education is that three children from the Anganwadi Centres were selected after systematic assessment to have the best quality education in the district by providing admission and sponsorship to undergo primary education in the best schools of the district. The three scheduled tribe children were selected from the Thiruvattar and Melpuram blocks. They were provided admission in the XL Central School, Thiruvattar and Carbet Christy Central School, Nagercoil. The district administration is successful in availing sponsorship for these children from Nooril Islam University, Kumaracoil. By this, a model of public- private partnership in school education of tribal children is being experimented.

4.9 Conclusion

Educational achievements in the district as a whole are commendable. It corroborates with the achievements particularly in the areas of very low gender disparity of literacy, low rural-urban disparity of literacy, close to 100 per cent net enrolment, school access, pass percentage, computer aided learning and school infrastructure. Recent educational initiatives of the district administration are expected to not only sustain the rate of present achievements but also make the district a leader in education. Two such initiatives are encouraging teachers for better performance and ensuring quality education to deprived sections of the population through public-private partnership.

Despite these achievements, there are a few inter-regional and social disparities observed in the district. One such relative disparity is found in Agastheeswaram taluk, which had comparatively higher rural-urban disparity of literacy. Second, net enrolment ratio in upper primary schools particularly among STs was found to be lower. The same is the case with

attendance rate. However, an exclusive determining factor for the above disparity was not found as the differences were not significant.

Special attention has to be given to have own buildings for schools where there are no such facilities. In fact, the percentage of schools not having own building varies from 3.28 per cent in Agastheeswaram to 6.45 per cent in Thuckalay block. Attention must be given for 100 per cent achievement with respect to toilet facilities, school boundaries, playground and kitchen for mid-day meal.

To sustain the recent dynamic education initiatives for long, focus need to be given on research and evaluation as suggested in Chapter 2.

Annexures

Annexure 4.1: Total population, literate population and literacy rate in rural and urban areas of Kanyakumari and Tamil Nadu, Census 2001

Area	T/R/U	Total Population			Population (0-6 years)			Literate			Literacy rate		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Tamil Nadu	Total	62405679	31400909	31004770	7235160	3725616	3509544	40524545	22809662	17714883	73.45	82.42	64.43
	Rural	34921681	17531494	17390187	4232644	2189995	2042649	20319498	11835689	8483809	66.21	77.15	55.28
	Urban	27483998	13869415	13614583	3002516	1535621	1466895	20205047	10973973	9231074	82.53	88.97	75.99
Kanniyakumari Dist.	Total	1676034	832269	843765	181719	92325	89394	1308322	668667	639655	87.55	90.37	84.79
	Rural	582107	289516	292591	64353	32829	31524	446153	228311	217842	86.17	88.95	83.44
	Urban	1093927	542753	551174	117366	59496	57870	862169	440356	421813	88.29	91.12	85.51
Vilavancode Taluk	Total	533650	266432	267218	61118	31012	30106	405315	209518	195797	85.78	89.00	82.58
	Rural	234008	116890	117118	26912	13650	13262	176387	90994	85393	85.17	88.14	82.22
	Urban	299642	149542	150100	34206	17362	16844	228928	118524	110404	86.25	89.67	82.85
Kalkulam Taluk	Total	537813	266494	271319	58205	29585	28620	415310	211001	204309	86.59	89.06	84.18
	Rural	162714	80828	81886	17907	9242	8665	124073	62995	61078	85.68	88.00	83.42
	Urban	375099	185666	189433	40298	20343	19955	291237	148006	143231	86.99	89.53	84.51
Thovala Taluk	Total	110719	55057	55662	11609	5926	5683	85132	44101	41031	85.90	89.76	82.10
	Rural	56014	27813	28201	5858	2983	2875	43067	22241	20826	85.87	89.57	82.23
	Urban	54705	27244	27461	5751	2943	2808	42065	21860	20205	85.93	89.96	81.96
Agastheeswaram Taluk	Total	493852	244286	249566	50787	25802	24985	402565	204047	198518	90.86	93.39	88.39
	Rural	129371	63985	65386	13676	6954	6722	102626	52081	50545	88.70	91.32	86.16
	Urban	364481	180301	184180	37111	18848	18263	299939	151966	147973	91.62	94.12	89.18

Source: Census of India, 2001.

Annexure 4.2: Total population, literate population and literacy rate in rural and urban areas of Kanyakumari and Tamil Nadu, Census 1991

Taluk	Total Population			Population [0-6 years]			Literates			Literacy rate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Vilavancode	368106	184473	183633	47852	24203	23649	251569	132549	119020	78.55	82.70	74.39
Kalkulam	684619	345975	338644	87381	44318	43063	483531	254326	229205	80.96	84.31	77.54
Thovala	97802	49117	48685	11286	5627	5659	71075	37722	33353	82.15	86.74	77.52
Agastiswaram	449822	224274	225548	53836	27550	26286	342603	177127	165476	86.52	90.04	83.04
Kanniyakumari	1600349	803839	796510	200355	101698	98657	1148778	601724	547054	82.06	85.70	78.39

Source: Census of India, 1991.

Annexure 4.3: Block wise literacy rate among various social groups in Kanyakumari district as per Census 2001

Blocks	All Communities			SC			ST			Minority		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agastheeswaram	91.7	85.2	88.4	90.8	82.47	86.6	78.9	69.27	74.1	95.6	89.7	92.7
Killiyoor	88.2	83.92	86.1	87.9	78.49	83.2	74.2	65.92	70.6	92.5	86.21	89.4
Kurunthancode	90.9	84.85	87.9	89.2	79.49	84.4	76.8	68.47	73.1	92.6	85.3	89
Melpuram	90.3	83.97	87.1	89.2	80.23	84.7	75.5	68.43	72	93.4	87.91	90.7
Munchirai	89.5	83.95	86.7	89.5	80.23	84.9	76.5	68.73	72.6	93.4	88.4	90.9
Rajakkamangalam	89.8	83.9	86.8	87.4	79.36	83.4	75.3	68.53	71.9	93.8	86.5	90.2
Thiruvattar	89.4	84.85	86.8	87.5	79.95	83.7	76.7	67.84	72.3	91.7	84.3	88
Thovalai	89.6	82.9	86.3	87.2	78.23	82.7	76.3	67.92	72.1	92.4	85.2	88.8
Thuckalay	91.2	83.95	87.9	88.7	81.42	85.1	75.9	65.92	71.4	96.2	86.82	91.5
Total	**90.4**	**84.8**	**87.6**	**88.8**	**80**	**84.3**	**77.5**	**68.63**	**73**	**94.83**	**87.59**	**91.1**

Source: Census of India, 2001 as cited in Annual Work Plan and Budget 2009-10 by District Education Department, Kanyakumari.

Annexure 4.4: Population based on level of education in Kanyakumari district and Tamil Nadu as per Census 2001

Educational level	Kanyakumari			Tamil Nadu		
	Persons	Males	Females	Persons	Males	Females
Illiterate	367712	163602	204110	21881134	8591247	13289887
Literate	1308322	668667	639655	40524545	22809662	17714883
Literate but below matric/secondary	747871	376957	370914	25112423	13591518	11520905
Matric/secondary but below graduate	315319	158633	156686	8591469	5070148	3521321
Technical diploma or certificate not equal to degree	17332	14323	3009	438918	383604	55314
Graduate and above other than technical degree	52804	27983	24821	1733959	1084493	649466
Technical degree or diploma equal to degree or post-graduate degree	15680	7996	7684	462739	307107	155632
Total	1676034	832269	843765	62405679	31400909	31004770

Source: Census of India, 2001

Annexure4.5: Net enrolment rate in primary schools among various blocks of Kanyakumari district across gender and social groups, from 2002 to 2008

All groups	Boys							Girls							Total						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Thovalai	99.2	99.9	100.0	99.9	99.6	99.8	99.2	99.7	99.9	99.9	99.9	99.8	99.8	99.5	99.5	99.9	99.9	99.9	99.8	99.8	99.8
Agastheeswaram	98.0	99.2	99.5	99.8	99.8	99.9	99.6	98.3	99.4	99.5	99.9	99.8	99.9	99.7	98.2	99.3	99.5	99.9	99.8	99.9	99.9
Rajakkamangalam	98.0	99.8	99.8	100	99.7	99.8	99.6	98.3	99.8	99.8	100	99.8	99.9	99.5	98.2	99.8	99.8	100	99.8	99.9	99.8
Kurunthancode	94.8	99.8	99.8	99.9	99.8	99.9	99.2	99.7	99.9	99.9	100	99.8	99.9	99.6	99.2	99.9	99.8	99.6	99.8	99.9	99.8
Thuckalay	99.1	99.8	99.9	99.9	99.7	99.8	99.3	99.4	99.9	99.5	99.9	99.8	99.9	99.9	99.3	99.9	99.7	99.9	99.7	99.8	99.8
Thiruvattar	99.8	99.1	99.2	99.7	99.8	99.9	99.2	99.8	99.8	99.8	100	99.8	99.9	99.7	98.6	98.6	98.4	99.6	99.8	99.9	99.8
Melpuram	97.0	99.0	99.3	99.9	99.7	99.9	99.1	97.0	98.0	98.0	99.9	99.8	99.9	99.6	96.5	97.5	98.2	99.9	99.7	99.9	99.8
Killiyoor	95.0	99.7	99.7	99.8	99.8	99.9	99.3	99.0	100	99.9	99.9	99.8	99.9	99.8	97.0	99.4	99.5	99.9	99.8	99.9	99.8
Munchirai	98.8	99.7	99.7	100	99.7	99.9	99.1	99.2	99.6	99.7	100	99.8	99.9	99.7	99.1	99.7	99.7	100	99.7	99.9	99.8
Total	**99.0**	**99.0**	**100.0**	**100**	**99.7**	**99.9**	**99.3**	**99.0**	**99.0**	**100**	**100**	**99.8**	**99.9**	**99.7**	**99.0**	**99.0**	**99.2**	**99.4**	**99.8**	**99.9**	**99.5**

SCs	Boys							Girls							Total						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Thovalai	96.0	97.0	97.2	91.2	99.5	99.6	99.5	94.0	97.0	97.2	90.4	99.4	99.7	99.6	95.0	97.0	97.2	90.7	99.5	99.7	99.6
Agastheeswaram	95.0	97.0	98.0	96.3	99.5	99.5	99.7	95.0	97.0	98.0	95.9	99.5	99.7	99.7	94.0	97.1	98.0	96.0	99.5	99.6	99.6
Rajakkamangalam	98.0	97.0	99.6	100	99.6	99.6	99.4	95.0	97.0	97.9	100	99.5	99.8	99.2	95.0	97.0	98.7	100	99.6	99.7	99.7
Kurunthancode	98.0	97.2	98.0	99.8	99.5	99.5	99.3	96.0	97.3	98.0	99.8	99.4	99.7	99.7	97.0	97.0	98.0	99.8	99.5	99.6	99.6
Thuckalay	96.2	97.1	97.3	99.0	99.5	99.6	99.5	96.3	96.9	97.1	99.0	99.5	99.7	99.3	96.3	97.0	97.2	97.3	99.5	99.6	99.6
Thiruvattar	98.0	99.0	99.3	99.0	99.6	99.6	99.7	99.0	99.0	99.3	100	99.5	99.7	99.9	99.0	99.0	99.1	99.8	99.5	99.7	99.6
Melpuram	96.0	96.0	98.0	99.8	99.5	99.6	99.3	94.0	97.0	98.3	99.0	99.5	99.7	99.4	95.0	96.5	97.8	99.6	99.5	99.7	99.6
Killiyoor	94.0	97.0	97.4	98.2	99.6	99.5	99.3	94.0	97.0	97.3	97.3	99.5	99.7	99.6	94.0	97.0	97.4	98.4	99.5	99.6	99.6
Munchirai	98.0	97.0	98.0	100	99.6	99.5	99.7	96.0	96.0	97.0	100	99.4	99.7	99.5	97.0	96.0	97.4	100	99.6	99.6	99.6
Total	**96.0**	**97.0**	**98.0**	**97.0**	**99.6**	**99.5**	**99.5**	**95.0**	**97.0**	**98.0**	**98.0**	**99.5**	**99.8**	**99.8**	**96.0**	**97.0**	**98.0**	**97.0**	**99.5**	**99.6**	**99.7**

STs	Boys							Girls							Total						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Thovalai	91.0	93.0	97.0	100	98.7	99.1	99.4	86.0	94.0	99.8	100	98.8	99.2	99.4	89.0	93.0	99.9	100	98.8	99.2	99.4
Agastheeswaram	90.0	94.1	98.0	100	98.8	99.2	99.3	90.0	94.0	98.0	100	98.9	99.4	99.4	91.0	93.0	99.0	100	98.9	99.3	99.3
Rajakkamangalam	91.0	94.0	99.0	100	48.8	99.8	99.7	92.0	92.0	98.4	100	98.9	99.9	99.7	91.0	93.0	99.3	100	98.8	99.9	99.7
Kurunthancode	95.0	95.0	99.0	100	98.8	99.2	99.6	93.0	93.0	98.0	100	98.8	99.4	99.6	94.0	93.0	99.7	100	98.8	99.3	99.6
Thuckalay	94.0	95.0	98.0	97.6	98.7	99.1	99.3	91.0	92.0	99.5	99.6	98.9	99.4	99.4	92.5	93.5	99.5	99.6	98.8	99.3	99.3
Thiruvattar	99.0	99.0	99.0	92.7	98.8	99.2	99.4	99.0	99.0	99.0	91.0	98.9	99.3	99.5	98.0	98.0	99.8	98.5	98.8	99.3	99.4

Contd...

... Contd

STs	Boys							Girls							Total						
	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Melpuram	92.0	92.0	98.9	82.1	98.8	99.4	99.7	92.9	94.0	94.0	85.0	98.8	99.6	99.4	92.0	93.0	99.4	84.0	98.8	99.6	99.5
Killiyoor	93.0	93.0	99.0	-	100	-	-	89.0	94.0	99.7	-	-	100	100	91.0	93.5	99.5	-	100	100	100
Munchirai	95.0	93.0	97.0	-	98.7	9.4	99.4	93.0	95.0	99.0	-	98.9	99.6	99.8	91.0	94.0	99.8	-	98.8	99.5	99.6
Total	**93.0**	**93.0**	**100**	**96.0**	**98.8**	**99.3**	**99.4**	**92.0**	**93.0**	**100**	**94.0**	**98.8**	**99.6**	**99.6**	**93.0**	**93.0**	**100**	**95.0**	**98.8**	**99.4**	**99.5**

Source: DISE various years, as cited in Annual work plan and budget report, 2009-10.

Annexure4.6: Trend in Attendance rate of the students in primary schools among social groups and across gender in various blocks of the district over the years from 2002 to 2009

Blocks	**All**								**SC**								**ST**							
	2002	2003	2004	2005	2006	2007	2008	2009	2002	2003	2004	2005	2006	2007	2008	2009	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	94	95	95	94	95	96	99	98	90	91	92	92	93	97	99	98	86	86	87	91	92	95	98	95
Killiyoor	92	92	95	97	97	100	99.5	98.4	94	90	92	94	95	99	99.5	96	-	-	-	-	-	-	-	97
Kurunthancode	92	91	92	96	97	95	91	97.9	85	91	92	98	99	92	90	97.9	85	88	92	94	96	94	99.7	92
Melpuram	92	96	96	97	97	100	99.5	98.5	90	91	92	93	93	99	97	97.8	78	85	90	89	99	100	93	98
Munchirai	97	97	96	98	99	100	98.4	98.9	88	91	92	94	95	100	95	95	-	-	-	-	-	-	-	95
Rajakkamangalam	97	97	97	98	98	99	97.5	98.6	90	94	95	95	95	98	97.5	97.5	86	89	90	94	96	94	100	95
Thiruvattar	96	96	96	95	96	99	100	97.2	96	95	89	92	92	100	100	97	90	90	89	90	94	95	91	96
Thovalai	95	96	97	92	93	97	99	97.8	89	91	92	89	90	95	99	96	85	85	87	88	89	98	90	93
Thuckalay	91	93	93	93	94	95	100	98	88	91	88	88	91	94	97.8	98	90	89	90	90	100	96	98.2	94.9
Total	94	**95**	**95**	**96**	**96**	**98**	**98.2**	**98.2**	**90**	**92**	**92**	**93**	**94**	**97**	**97.2**	**97.2**	**86**	**87**	**89**	**91**	**95**	**96**	**95.7**	**95.7**

Source: DISE, various years, as cited in Annual work plan and budget report, 2009-10.

Annexure 4.7: Dropout rate in primary schools across social groups in different blocks of Kanyakumari district over the years

	All							**SC**							**ST**						
Blocks	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Agastheeswaram	2.9	1.7	1.2	0.4	1.6	0.6	0.37	1	0	2.1	1.8	0.7	1.4	0	2.6	0	2	6.5	0	0	0.1
Killiyoor	2.2	1.7	1.8	2.6	0.9	0.2	0.22	0	2.1	0.1	1	4.5	0	3	-	-	-	-	-	-	-
Kurunthancode	1.6	0.7	5.8	0.1	0.7	0.6	0.39	0.1	0	0.5	1.2	0.8	0.5	1.4	1.8	0.2	8.2	8.2	-	-	0.5
Melpuram	3	1.7	2.6	0.1	0	0	0.3	1	2	0	7.5	0.7	0.4	0.3	0.1	3	1.2	0.8	3	3.2	1
Munchirai	1.5	1.7	1.4	7	0	0.4	0.39	2.8	1.9	1	5.5	7.2	0.5	0	-	-	-	-	-	-	-
Rajakkamangalam	5	1.7	1.2	1	1.6	0.9	0.65	0	1.5	0.5	1.2	0.2	0.5	1	3	0.1	0.6	8.9	-	0	0.1

Contd...

... Contd.

Blocks	All							SC							ST						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Thiruvattar	2.5	1.5	1.5	1.5	0.7	0.7	0.57	0.7	0	1.5	0.5	0.9	0.6	1.1	4.4	3.5	3.5	1.5	7	0.3	0.6
Thovalai	1	2.4	0.5	1.5	2.5	3.3	0.91	0.5	2.3	0	6.2	2.6	1.3	0	2.7	2.4	2.3	9	0	1.5	0.8
Thuckalay	0.4	2	1.9	0.2	1	0.4	0.42	2.1	0	1	2	1.2	2.9	0.8	0.8	1.5	2	0.9	0	-	-
Total	**2**	**2**	**2**	**2**	**0.7**	**0.7**	**0.49**	**1**	**1**	**1**	**3**	**1.5**	**0.9**	**0.85**	**2**	**2**	**2**	**5**	**2**	**1.4**	**0.96**

Source: Cohort study, as cited in Annual work plan and budget report, 2009-10.

Annexure 4.8: Completion rate in primary schools across social groups in different blocks of Kanyakumari district over the years

Blocks	All							SC							ST						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Agastheeswaram	91	92	93	82	92	97	97	90	91	91	82	89	86	91	84	92	92	75	82	90	95
Killiyoor	92	92	92	85	95	98	98	85	80	92	85	90	90	91	-	-	-	-	-	-	-
Kurunthancode	97	98	91	90	94	97	98	97	98	96	83	90	91	91	90	90	89	75	-	-	80
Melpuram	90	92	91	89	96	98	99	88	92	90	74	88	89	91	93	88	92	89	81	84	89
Munchirai	92	92	93	82	97	98	98	89	91	91	78	90	89	91	-	-	-	-	-	-	-
Rajakkamangalam	90	92	92	79	89	95	98	90	88	91	74	81	88	91	91	92	95	75	-	100	98
Thiruvattar	85	91	92	88	95	97	98	89	92	89	80	94	96	91	85	85	86	79	72	89	85
Thovalai	95	91	91	84	90	94	95	90	88	91	80	86	92	92	89	89	91	69	89	74	75
Thuckalay	94	93	93	90	94	97	98	92	90	91	85	91	92	92	90	90	93	90	100	-	-
Total	**92**	**92**	**92**	**85**	**94**	**97**	**98**	**90**	**90**	**91**	**80**	**89**	**90**	**91**	**89**	**89**	**91**	**79**	**87**	**89**	**90**

Source: Cohort study, as cited in Annual work plan and budget report, 2009-10.

Annexure 4.9: Repetition rate in primary schools across social groups in different blocks of Kanyakumari district over the years

Blocks	All							SC							ST						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Agastheeswaram	6.1	6.5	6.2	17.6	6.1	2.8	2.4	8.6	8.8	6.5	16.2	9.9	12.6	8.6	13	8.5	6	18.5	18.2	10	4.9
Killiyoor	6.1	6.8	6.4	12.4	4.1	1.7	1.3	15	17.9	8	14.5	5.5	10	6	-	-	-	-	-	-	-
Kurunthancode	1.2	1.3	3.2	9.9	5.1	2.1	1.8	2.6	2.1	3.4	15.8	9.7	8.5	7.6	8.2	9.8	2.8	16.8	-	-	19.5
Melpuram	7.2	6.5	6.4	10.9	4.4	1.8	1	10.8	6.2	10	18.5	11.5	10.6	9	6.9	9	6.8	10.2	16	12.8	10.1
Munchirai	6.5	6.6	5.7	10.8	2.7	1.6	1.1	8.1	7.6	8.1	16.5	2.8	10.5	9	-	-	-	-	-	-	-
Rajakkamangalam	5	6.8	6.5	20.4	9.1	3.8	2	10	10.5	8.9	25.2	18.4	11.5	7.8	6.4	7.9	4.3	16.1	-	0	1.9
Thiruvattar	12.5	7.4	6.5	10.7	4.7	2.4	1.6	10.3	8.4	9.5	19.5	5.4	3.4	7.6	10.4	11.5	11	19.2	21	10.8	14.4
Thovalai	4	6.5	8.2	14.2	7.9	2.2	4.3	9.5	9.6	9.3	13.8	11.7	6.9	8	8.8	8.3	6.4	21.8	11.1	24.5	24.2
Thuckalay	5.8	5.2	4.9	9.8	5.4	2.6	2	5.9	10	7.9	12.6	7.6	5.1	7.5	9.2	8.5	5	9.1	0	-	-
Total	**6**	**6**	**6**	**13**	**5.5**	**2.3**	**2**	**9**	**9**	**8**	**17**	**9.2**	**8.8**	**7.9**	**9**	**9**	**6**	**16**	**11**	**9.8**	**9.4**

Source: Cohort study, as cited in Annual work plan and budget report, 2009-10.

Annexure 4.10: No. of schools in various blocks of Kanyakumari district under different management

	2001-2002				2002-2003				2003-2004				2004-2005				2005-2006				2006-2007				2007-2008				2008-09			
Blocks	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
Agastheeswaram	98	25	23	146	98	48	25	171	98	48	29	175	96	48	29	173	99	48	55	202	99	48	60	207	98	48	57	203	97	48	59	205
Killiyoor	45	12	10	67	45	37	12	94	45	37	12	94	45	37	17	99	45	37	21	103	45	37	30	112	45	37	30	112	45	37	31	113
Kurunthancode	49	8	6	63	49	41	8	98	49	41	8	98	48	42	10	100	48	42	26	116	48	42	24	114	48	42	30	120	48	42	31	121
Melpuram	62	14	12	88	62	42	14	118	62	42	18	122	62	42	21	125	61	43	46	150	62	42	46	150	62	42	53	158	62	42	54	159
Munchirai	50	11	10	71	50	40	11	101	50	40	12	102	50	39	16	105	51	41	22	114	51	39	23	113	51	39	29	119	51	39	30	120
Rajakkamangalam	54	5	5	64	54	21	5	80	54	21	5	80	54	21	7	82	54	19	21	94	54	21	19	94	54	21	20	95	54	21	21	98
Thiruvattar	53	11	9	73	53	21	11	85	53	21	11	85	53	21	16	90	53	19	25	97	53	21	24	98	54	21	30	105	54	21	31	107
Thovalai	52	7	5	64	52	9	7	68	52	9	7	68	52	9	12	73	53	9	16	78	53	9	16	78	53	9	21	83	53	9	21	83
Thuckalay	56	13	10	79	56	26	13	95	56	26	16	98	56	24	20	100	56	24	37	117	56	24	39	119	56	24	39	119	55	24	40	119
Total	**519**	**106**	**90**	**715**	**519**	**285**	**106**	**910**	**519**	**285**	**118**	**922**	**516**	**283**	**148**	**947**	**520**	**282**	**269**	**1071**	**521**	**283**	**281**	**1085**	**521**	**283**	**309**	**1114**	**519**	**283**	**318**	**1125**

Note: 1 – Government/ local body schools, 2 – Private aided, 3 – Private unaided, 4 – Total number of schools (4=1+2+3).
Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure 4.11 School infrastructure in primary schools in Kanyakumari district

Blocks	No. of Schools	Without own building	With drinking water facility	With Toilet facility	With Girls toilet	With access ramp	With Boundary wall	With play ground	With kitchen for mid day meal
Thovalai	30	0	30	19	19	17	17	18	27
Agastheeswaram	61	2	61	38	53	34	38	42	52
Rajakkamangalam	31	0	31	16	27	20	15	22	27
Kurunthancode	24	0	24	9	17	14	7	16	18
Thuckalay	31	2	31	21	22	15	12	19	27
Thiruvattar	26	1	26	16	19	10	7	17	24
Melpuram	38	2	38	22	30	18	12	22	36
Killiyoor	25	1	25	17	20	15	4	13	24
Munchirai	22	1	22	10	16	11	12	11	20
Total	**288**	**9**	**288**	**168**	**223**	**154**	**124**	**180**	**255**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure 4.12 Total number of primary school teachers and percentage of female teachers in various blocks of Kanyakumari district, over the years

	2001-02		2002-03		2003- 04		2004-05		2005-06		2006-07		2007-08		2008-09	
Blocks	**Total**	**% of F**	**Total**	**% of F**	**Total**	**% of F**	**Total**	**% of F**	**Total**	**% of F**	**Total**	**% of F**	**Total**	**% of F**	**Total**	**% of F**
Agastheeswaram	585	81.4	566	80.6	533	75.4	441	85.7	433	84.1	660	88.2	665	89.9	669	90.1
Killiyoor	205	74.6	185	71.9	227	69.6	242	80.2	215	83.3	303	89.4	321	91	347	91.6
Kurunthancode	410	78.3	391	77	356	78.1	303	86.1	295	85.1	343	91.3	346	91.9	352	92.9
Melpuram	318	71.7	298	69.8	295	72.2	268	68.3	244	72.1	400	84.8	407	85.5	407	85.8
Munchirai	268	77.6	248	75.8	290	80	236	76.7	226	80.1	298	86.6	312	88.1	337	88.4
Rajakkamangalam	287	85	267	83.9	295	78.6	217	81.6	215	81.9	250	87.2	252	87.7	259	88.4
Thiruvattar	256	60.2	236	56.8	218	56.4	221	55.2	182	68.1	231	88.3	241	90.5	238	89.9
Thovalai	230	80.9	210	79.1	213	77.9	164	73.2	163	72.4	189	79.4	195	82.1	218	85.3
Thuckalay	249	76.7	229	74.7	273	80.6	225	75.6	209	78.5	337	86.4	347	87.3	364	88.2
Total	2808	77	2630	75.3	2700	75	2317	77.1	2182	79.4	3011	87.2	3086	88.6	3191	89.2

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure 4.131: Transition rate from V to VI standard across social groups among boys and girls in different blocks of Kanyakumari district

All social groups

S. No.	Blocks	Boys							Girls							Total						
		2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
1	Thovalai	99.5	99.8	99.1	99.6	100	100	100	99.4	99.83	99.8	97.6	100	100	100	99.5	99.8	99.9	99.5	99.7	100	100
2	Agastheeswaram	99	99	99.2	99.4	100	100	100	99	99	99.8	99.8	99.9	99	100	98.5	99.3	99.3	99.6	100	99.9	100
3	Rajakkamangalam	99	97.5	99	100	99.3	99.4	100	97.6	96	99.5	100	99.1	99.56	100	98.2	96.8	96.8	100	99	99.3	100
4	Kurunthancode	97	100	100	99.7	100	100	100	97	100	100	99.8	100	100	100	95.5	100	100	100	99.9	100	100
5	Thuckalay	92	100	100	100	100	100	100	98	100	100	100	100	100	100	97.5	100	100	100	100	100	100
6	Thiruvattar	92.6	94	99	99.4	99.9	100	100	98	96	98	99.8	100	100	99.2	98.5	99	99.1	99.4	100	100	99.2
7	Melpuram	96.5	97.5	99	99.6	100	100	100	94.5	98	99.2	99.7	100	100	100	96.5	97.8	99.1	99.6	100	100	100
8	Killiyoor	99	94.6	99.4	98.3	99.5	99.6	100	97.3	99.5	99	99.2	99	99.3	100	99.5	95.2	99.2	98.7	99.7	99.5	100
9	Munchirai	98.5	98.9	99.1	99.9	100	100	100	99	99.1	99.6	99.9	100	100	100	98.8	99	99.7	99.9	100	100	100
	Total	97	97.9	99.3	99.5	99.9	99.9	100	97.8	98.6	99.4	99.5	99.8	99.76	99.9	98.1	98.5	99.2	99.6	99.8	99.9	99.9

Source: Office of the SSA, Kanyakumari district, Nagercoil.

SC

S. No.	Blocks	Boys							Girls							Total						
		2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
1	Thovalai	99.9	98	98	99.5	98.9	99	100	100	99	99	100	99.9	100	100	100	99	99	100	99	99	100
2	Agastheeswaram	99	99	99	99.1	99.9	100	100	99	97	98	99	99.7	100	100	99	98	99	99	100	100	100
3	Rajakkamangalam	91.9	92	95	100	100	100	100	92	93	98	100	100	100	100	92	92	97	100	100	100	100
4	Kurunthancode	94	100	100	100	99	97	100	95	100	100	100	100	100	100	95	100	100	100	99	98	100
5	Thuckalay	98	100	100	100	99.6	100	100	99	100	100	100	99.7	100	100	99	100	100	100	100	100	100
6	Thiruvattar	90	93	90	100	99.9	100	98.8	84	94	91	100	99.5	100	99.1	87	94	90	100	100	100	99
7	Melpuram	90	96	97	99.5	99.8	99	95.5	94	97	98	98	100	100	100	92	97	97	99	100	100	97.8
8	Killiyoor	100	90	93	96.8	100	100	100	99	91	97	100	99.7	100	100	100	91	95	98	100	100	100
9	Munchirai	96.1	97	98	99.9	99.9	100	98.5	97	98	100	99.9	99.5	100	100	97	98	99	100	100	100	99.3
	Total	**95.4**	**96**	**97**	**99.4**	**99.7**	**99**	**99.2**	**95**	**97**	**98**	**99.7**	**99.8**	100	99.9	95.4	96.3	97.3	99.5	99.7	99.7	99.6

Source: Office of the SSA, Kanyakumari district, Nagercoil.

ST

S. No.	Blocks	Boys							Girls							Total						
		2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
1	Thovalai	99.4	100	100	100	100	100	100	99	100	100	100	100	100	100	99	100	100	100	100	100	100
2	Agastheeswaram	75	100	97	100	100	100	100	70	100	97	100	100	100	100	73	100	97	100	100	100	100
3	Rajakkamangalam	90.8	90	95	100	100	100	100	85	84	97	100	100	100	100	88	87	96	100	100	100	100
4	Kurunthancode	85	100	100	100	100	100	100	95	100	100	100	100	100	99	90	100	100	100	100	100	99.5
5	Thuckalay	100	100	100	95	100	100	100	92	100	100	100	100	99	99	96	100	100	98	100	100	99.5
6	Thiruvattar	84	91	95	98	100	100	99.4	95	93	98	100	100	100	100	90	92	97	99	100	100	99.7
7	Melpuram	87	90	96	100	100	100	99	86	90.2	98	100	100	100	100	87	90	97	100	100	100	99.5
8	Killiyoor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Munchirai	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**88.7**	**96**	**98**	**99**	**100**	**100**	**99.8**	**89**	**95.31**	**99**	**100**	**100**	**99.86**	**99.7**	**89**	**96**	**98**	**100**	**100**	**100**	**99.7**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure4.14: Net enrolment rate in upper primary among various social groups across gender in different blocks of the district

All groups	**Boys**							**Girls**							**Total**						
	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Thovalai	99.0	96.7	99.1	98.2	98.4	99.1	98.9	99.3	98.7	98.8	98.6	98.3	99.3	99.2	99.1	96.3	99.0	98.2	98.3	99.2	98.7
Agastheeswaram	97.4	99.5	99.6	99.6	98.5	99.3	99.2	96.8	99.3	99.4	99.6	98.7	99.4	99.2	97.4	98.4	99.5	98.5	98.9	99.4	99.1
Rajakkamangalam	97.4	99.5	99.5	98.5	98.5	99.3	99.0	96.8	99.6	99.6	98.4	98.9	99.4	99.7	97.0	99.5	99.5	98.2	98.2	99.4	98.8
Kurunthancode	99.8	99.5	99.6	99.1	98.5	99.2	98.8	98.9	99.3	99.4	99.2	99.5	99.4	99.1	99.5	99.5	99.5	98.5	99.2	99.3	99.2
Thuckalay	99.1	99.3	99.4	98.9	98.5	99.4	99.2	99.4	99.4	99.4	98.9	98.3	99.4	99.3	99.3	99.3	99.4	98.5	98.4	99.4	98.9
Thiruvattar	99.8	98.6	98.6	98.8	98.4	99.2	99.1	99.5	98.8	98.8	98.7	99.0	99.4	99.1	99.0	99.3	99.5	98.3	98.8	99.3	99.1
Melpuram	99.0	99.5	99.5	99.1	98.4	99.3	99.1	99.0	99.4	99.4	99.1	99.3	99.4	99.8	99.0	99.4	99.4	98.9	98.5	99.4	98.9
Killiyoor	97.0	99.3	99.3	98.6	98.5	99.3	98.9	99.0	99.9	99.9	99.8	99.6	99.4	99.1	98.0	98.6	99.7	98.9	98.7	99.4	99.0
Munchirai	99.8	99.5	99.5	99.6	98.4	99.3	98.9	99.7	99.7	99.7	99.2	98.4	99.4	99.1	99.8	99.6	99.6	98.9	98.6	99.4	98.5
Total	**99.0**	**99.0**	**99.0**	**99.0**	**98.4**	**99.3**	**99.0**	**99.0**	**99.0**	**99.0**	**99.0**	**98.9**	**99.4**	**99.5**	**99.0**	**99.0**	**99.0**	**99.0**	**98.6**	**99.3**	**99.3**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

SC	**Boys**							**Girls**							Total						
	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Thovalai	96.0	96.0	96.2	85.0	96.3	98.9	98.9	93.0	94.0	94.5	83.1	97.1	99.3	99.2	94.0	95.0	95.4	84.7	97.1	99.1	98.1
Agastheeswaram	95.0	6.0	96.5	90.0	98.4	99.0	99.2	91.0	95.0	95.6	90.6	96.9	99.2	99.6	93.0	95.0	96.1	90.5	96.7	99.1	97.9
Rajakkamangalam	95.0	97.0	98.0	90.0	98.3	99.1	98.9	91.0	94.0	95.2	90.6	97.0	99.4	99.1	93.0	95.0	96.6.	90.5	96.6	99.3	97.9
Kurunthancode	97.0	96.0	97.0	98.5	96.4	98.9	99.0	95.0	94.0	95.0	98.0	97.1	99.4	99.1	96.0	95.0	96.0	98.3	96.8	99.2	98.0
Thuckalay	96.2	97.1	97.2	97.3	96.4	98.9	99.2	96.3	96.9	97.0	97.3	97.1	99.3	99.0	96.3	97.0	97.1	97.3	96.6	99.2	97.9
Thiruvattar	98.0	99.1	99.1	96.4	96.3	99.0	99.1	99.1	98.0	98.0	98.4	97.0	99.3	98.8	98.0	98.0	98.8	97.6	96.6	99.1	97.9
Melpuram	97.0	96.0	96.8	99.7	96.3	99.0	99.0	93.0	93.0	94.4	99.8	99.0	99.4	97.3	95.0	94.5	95.6	99.7	96.7	99.2	97.9
Killiyoor	93.0	97.0	97.3	98.2	96.4	98.9	99.0	94.0	93.0	94.7	97.3	96.7	99.4	99.2	93.5	95.0	96.0	98.3	96.7	99.2	97.9
Munchirai	97.0	97.0	97.0	99.9	96.3	99.0	98.8	95.0	94.0	95.4	100.0	96.7	99.3	99.3	96.0	95.0	96.4	99.6	96.7	99.1	97.9
Total	**95.0**	**98.0**	**98.0**	**95.0**	**96.4**	**98.9**	**99.1**	**93.0**	**99.0**	**96.0**	**94.0**	**97.0**	**99.3**	**99.4**	**94.0**	**99.0**	**97.0**	**95.0**	**96.7**	**99.1**	**96.3**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

ST	Boys							Girls							Total						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Thovalai	90.0	90.0	99.2	99.2	98.1	93.7	94.7	89.0	90.0	99.8	99.5	96.4	96.9	98.0	90.0	90.0	99.0	99.3	97.2	95.1	96.3
Agastheeswaram	90.0	91.0	99.4	100	98.2	94.0	94.8	89.0	90.0	99.0	100	96.5	97.1	97.9	89.0	90.0	98.4	100	97.3	95.4	96.3
Rajakkamangalam	89.0	92.0	99.0	100	98.2	93.7	94.8	91.0	89.0	98.0	100	96.4	96.9	98.1	89.0	90.0	99.5	100	97.3	95.2	96.4
Kurunthancode	92.0	90.0	99.0	100	98.2	100	100	92.0	90.0	99.0	100	96.4	100	100	92.0	90.0	99.2	100	97.2	100	100
Thuckalay	94.0	95.0	99.1	100	98.2	100	100	91.0	92.0	99.4	99.3	96.5	-	-	92.5	93.5	99.5	99.6	97.3	100	100
Thiruvattar	98.0	98.5	99.6	91.2	98.1	94.0	94.7	98.8	99.0	99.0	92.0	96.4	97.0	98.0	98.9	99.0	99.0	91.5	97.3	95.4	96.3
Melpuram	92.0	91.0	99.6	95.4	98.2	94.0	94.3	88.0	90.0	99.5	94.7	96.5	97.1	97.9	90.0	90.5	99.0	95.0	97.2	95.6	96.1
Killiyoor	90.0	90.0	99.0	-	99.9	93.8	94.9	90.0	90.0	99.4	-	0.0	96.8	98.0	90.0	90.0	99.0	-	97.9	95.1	96.5
Munchirai	91.0	93.0	99.0	-	98.2	94.0	94.6	89.0	90.0	99.4	-	96.4	96.9	98.1	90.0	90.0	99.2	-	97.3	95.2	96.4
Total	**90.0**	**100**	**99.0**	**96.0**	**98.1**	**93.9**	**94.8**	**89.0**	**100.0**	**99.0**	**95.0**	**96.5**	**96.9**	**98.1**	**90.0**	**100**	**99.0**	**96.0**	**97.3**	**95.4**	**96.3**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure 4.15: Trend in attendance rate of students in upper primary schools among various social groups in different blocks of Kanyakumari

Blocks	All								SC								ST							
	2002	2003	2004	2005	2006	2007	2008	2009	2002	2003	2004	2005	2006	2007	2008	2009	2002	2003	2004	2005	2006	2007	2008	2009
Agastheeswaram	93	95	96	96	97	95	100	98	88	88	88	88	89	95	92	96	80	83	84	84	85	85	90	91
Killiyoor	95	91	94	96	97	100	96.5	96	87	90	93	90	94	100	99	92	-	-	-	-	-	-	-	90
Kurunthancode	91	90	90	94	94	93	100	98	86	89	90	95	97	93	88	95	90	86	95	99	99	98	90	95
Melpuram	92	96	96	97	98	100	97.5	95	90	89	91	93	94	100	99	96	89	89	91	93	93	94	100	98
Munchirai	98	97	97	92	93	98	93	97	90	90	92	90	98	97	97	93	-	-	-	-	-	-	-	92
Rajakkamangalam	95	97	97	98	98	98	100	96	86	90	92	94	94	100	100	93	85	86	86	92	93	95	93	93
Thiruvattar	97	95	95	96	97	100	100	96	98	96	88	92	93	100	100	98	94	95	92	90	91	85	93.1	94
Thovalai	95	96	96	94	95	98	95	97.8	89	90	91	92	93	92	100	95	84	87	88	91	92	95	95	92
Thuckalay	91	93	93	94	95	96	100	97	100	89	89	89	90	90	89	94	90	86	88	88	89	100	92	96
Total	94	94	95	95	96	98	98	**98**	90	90	90	91	94	96	96	**96**	87	87	89	91	92	93	93.3	**93.3**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure4.16: Dropout rate in upper primary schools across social groups in different blocks of Kanyakumari district over the years

Blocks	All							SC							ST						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Thovalai	3.7	1.4	1.5	1.4	1.5	2	1.68	13	15	5	2.6	5.8	3.3	3.28	11	11	4.9	30	10	1.1	0
Agastheeswaram	2.4	1.8	1.7	1.5	2.6	1.5	1.26	15	16	4.6	0.1	5.1	2.8	2.28	7.1	23	1.5	3.2	5.9	12	0.5
Rajakkamangalam	3.3	1.5	1.4	3	2.2	0.7	0.73	19	16	8.5	2	8	11	5.7	10	12	3	9.2	9.8	5.9	1.5
Kurunthancode	2.1	2.8	2.2	3.1	2.1	1.8	1.46	23	21	7	3	5.2	2.1	2.34	13	15	8.8	-15	-	-	1.6
Thuckalay	0.7	1	0.9	2	1.5	0.6	0.69	9.6	15	0	0	1.1	0	0	11	15	2	0	-	0	3
Thiruvattar	3.8	1.5	1.3	1.7	1.5	0.8	0.78	16	16	11	6.3	0.6	6.5	8.08	32	10	7	0	0	5.8	3.4
Melpuram	2.2	1.5	1.4	0.6	1	0.4	0.74	19	14	4.3	0.9	0.1	6.1	10.1	16	9	2.5	4.2	0	0	0
Killiyoor	11	1.5	1.4	3.9	0.6	0.4	0.62	15	17	2.9	0.8	0	0	0	-	-	-	-	-	-	-
Munchirai	1.1	1	1	1.3	0.7	0.9	0.77	16	17	3.4	4	0	0	0	-	-	-	-	-	-	-
Total	**1**	**1**	**1**	**2**	**1.4**	**1.2**	**1.05**	**16**	**15**	**5**	**2**	**2.2**	**1.7**	**1.61**	**15**	**13**	**5**	**9**	**0.5**	**1.3**	**1.2**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure 4.17: Completion rate in upper primary schools across social groups in different blocks of Kanyakumari district over the years

Block	All							SC							ST						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Thovalai	89.1	92	92.5	91.3	84.9	92.4	93.3	76.9	77.4	87.9	86.8	82.3	88	87.6	78.5	80.8	88.6	50	83.3	88.9	88.9
Agastheeswaram	91	91.8	91.6	91.6	92.9	95.3	94.1	90.4	91.2	91.4	92	88.9	89.9	90.2	84.4	91.5	92	93.5	88.9	83.3	83.9
Rajakkamangalam	90	92	92.5	85.6	93.3	95.8	96.3	72.4	74	90.8	79.1	90.4	91.5	91.5	80	80.5	90	100	63.2	88.9	100
Kurunthancode	92.2	94.8	94.9	94	93.7	95.5	95.5	92.3	99.1	98.1	97.5	89.6	91.4	91.5	98.1	98.3	98.3	98.2	-	100	88.9
Thuckalay	93.1	92	92.6	93.5	96	97	97.3	79.2	77.5	89.4	89.3	93.8	100	100	100	75	90	-	-	100	100
Thiruvattar	82.7	92.2	92.5	91.1	96.3	97.6	97.5	85.9	77	82.1	96.8	97.1	96.5	96.1	60.5	83	86	66.4	100	89	89
Melpuram	93.2	91.5	91.8	97.4	99.3	99.1	98.2	69.5	79.5	91.2	98.1	99.2	96.6	96.5	78	84	91.3	99.7	100	100	100
Killiyoor	82	92.5	99.8	92.4	98.8	99	99.2	73.9	78.1	92.8	93.9	100	100	100	-	-	-	100	-	100	100
Munchirai	85.2	87.4	89.8	96.6	98.4	98.3	98.4	89	90.1	90.1	95.8	100	100	100	-	-	-	-	100	100	100
Total	**92**	**92**	**92**	**92**	**95.5**	**95.6**	**96.0**	**74**	**75**	**88**	**89**	**91.8**	**92**	**92.3**	**77**	**79**	**89**	**75**	**93.5**	**93.6**	**93.9**

Annexure 4.18: Repetition rate in upper primary schools across social groups in different blocks of Kanyakumari district over the years

Blocks	All							SC							ST						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Agastheeswaram	8.1	6.3	3.4	3.1	4.2	3.3	4.62	11	12	4	7.9	6	7.3	7.54	8.5	7.5	6.5	17	5.2	5.1	4.5
Killiyoor	7.5	6.6	8	2.8	0.6	0.6	0.18	11	8.3	4.4	5.3	0	0	0	-	-	-	-	-	-	-
Kurunthancode	3.2	3.5	3.3	3.4	4.2	2.7	3.08	3.3	3.3	9	9	5.2	6.5	6.2	7	7	6.2	17	-	-	6.4
Melpuram	4.6	7	6.8	2	0.7	0.6	1.05	12	8.5	6.7	1.1	0.7	3.9	1.9	6	7	6.2	21	0	0	5
Munchirai	2.5	7	7	8.2	0.9	0.8	0.86	8.7	7.9	8.6	10	0	0	0	-	-	-	-	-	-	-
Rajakkamangalam	6.6	6.5	6.2	11	5.8	3.5	2.99	9	11	4.5	19	12	9.5	8.3	10	7.5	7	11	7.3	5.2	8
Thiruvattar	18	7.4	6.6	4.3	2.7	1.7	1.7	10	7	6.8	6.7	4.4	3.5	3.92	7.9	7	7	-	0	5.2	5.6
Thovalai	7.1	6.5	6.2	12	10	5.7	5.06	10	10	7.1	11	12	8.7	9.1	11	8.6	6.5	20	6.3	10	4.8
Thuckalay	6.2	7	6.6	4.5	3	2.3	1.99	11	9.5	11	11	5.1	0	0	8.2	10	8	-	-	0	7
Total	**7**	**7**	**6**	**6**	**3**	**3.2**	**2.96**	**10**	**10**	**7**	**9**	**6**	**6.3**	**6.13**	**8**	**8**	**7**	**16**	**6**	**5.1**	**4.9**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure4.19: Total number of teachers and percentage of female teachers in upper primary schools in different blocks of Kanyakumari over the years

Blocks	2001-02		2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09	
	Total	% of F	Total	% of F	Total	% of F	Total	% of F	Total	% of F	Total	% of F	Total	% of F	Total	% of F
Agastheeswaram	363	76.58	412	76.94	367	67.03	462	66.45	482	74.27	1185	79.83	756	83.47	856	87.85
Killiyoor	196	66.84	178	63.48	209	77.03	195	86.15	263	77.57	615	79.84	521	79.46	542	82.47
Kurunthancode	258	70.54	247	69.64	230	66.09	330	72.12	357	80.67	860	86.74	663	88.84	678	88.79
Melpuram	218	66.06	209	61.72	312	77.24	312	77.24	427	76.35	816	80.64	658	82.37	676	82.54
Munchirai	251	63.75	250	63.2	309	69.9	298	70.81	306	71.57	730	81.1	542	81	561	81.28
Rajakkamangalam	243	75.72	158	62.66	197	73.6	197	73.6	267	77.15	639	85.29	443	79.91	450	81.78
Thiruvattar	216	61.11	200	58	204	60.29	227	62.11	282	77.66	576	84.9	429	83.45	484	81.61
Thovalai	122	85.25	96	81.25	93	75.27	141	66.67	179	67.6	446	79.6	306	83.33	302	85.1
Thuckalay	208	71.15	216	72.22	223	66.82	276	80.43	289	77.85	772	89.51	507	87.18	517	88.59
Total	**2075**	**70.51**	**1966**	**68.06**	**2144**	**70.1**	**2438**	**72.48**	**2852**	**75.95**	**6639**	**83.04**	**4825**	**83.4**	**5066**	**84.74**

Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure 4.20: In-service teacher training over the years in different blocks of Kanyakumari district

Blocks	2002-2003			2003-2004			2004-2005			2005-2006			2006-2007			2007-2008			2008-2009		
	T	A	%	T	A	%	T	A	%	T	A	%	T	A	%	T	A	%	T	A	%
Thovalai	2416	678	28.1	5320	4584	86.2	6040	3965	65.6	5279	4675	88.6	6040	6040	100.0	5945	5945	100.0	6954	6954	100.0
Agastheeswaram	2724	758	27.8	17520	12512	71.4	18160	14678	80.8	14992	13194	88.0	19582	19582	100.0	18185	18185	100.0	15236	15236	100.0
Rajakkamangalam	3192	835	26.2	3315	3301	99.6	7980	5894	73.9	6596	5844	88.6	8658	8658	100.0	8354	8354	100.0	7847	7847	100.0
Kurunthancode	4696	955	20.3	10760	8472	78.7	11740	6197	52.8	9788	8686	88.7	12358	12358	100.0	11258	11258	100.0	10258	10258	100.0
Thuckalay	3928	515	13.1	8760	7230	82.5	9820	6897	70.2	8438	7659	90.8	10243	10243	100.0	10145	10145	100.0	9458	9458	100.0
Thiruvattar	3264	625	19.1	7460	6580	88.2	8160	5687	69.7	6754	5962	88.3	9684	9684	100.0	10256	10256	100.0	8564	8564	100.0
Melpuram	4688	1021	21.8	4503	4468	99.2	11720	7636	65.2	9335	8225	88.1	12548	12548	100.0	12540	12540	100.0	10006	10006	100.0
Killiyoor	3488	615	17.6	7660	6150	80.3	8720	6693	76.8	7390	6250	84.6	8925	8925	100.0	9254	9254	100.0	9256	9256	100.0
Munchirai	3145	974	31.0	7875	4719	59.9	7785	5713	73.4	8961	7920	88.4	8118	8118	100.0	8423	8423	100.0	9441	9441	100.0
Total	**31541**	**6976**	22.1	**73173**	**58016**	79.3	**90125**	**63360**	70.3	**77533**	**68415**	88.2	**96156**	**96156**	100.0	**94360**	**94360**	100.0	**87020**	**87020**	100.0

Note: T- Target, A-Achievement, % - percentage of achievement to target.
Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure 4.21: Out of school children with target and achievement

Blocks	2002-2003			2003-2004			2004-2005			2005-2006			2006-2007			2007-2008			2008-2009		
	T	A	%	T	A	%	T	A	%	T	A	%	T	A	%	T	A	%	T	A	%
Thovalai	391	239	61.1	189	115	60.9	255	113	44.3	183	95	51.9	152	83	58	68	65	95.6	90	89	98.9
Agastheeswaram	368	211	57.3	168	108	64.3	201	122	60.7	173	111	64.2	145	110	71	114	114	100	95	95	100
Rajakkamangalam	323	188	58.2	148	92	62.2	163	101	62	142	74	52.1	116	91	78	74	72	97.3	91	91	100
Kurunthancode	341	226	66.3	117	72	61.5	78	68	87.2	144	70	48.6	114	93	82	71	71	100	85	81	95.3
Thuckalay	297	155	52.2	109	61	56	75	50	66.7	140	31	22.1	137	70	58	84	83	98.8	76	76	100
Thiruvattar	362	217	59.9	119	59	49.6	134	65	48.5	185	96	51.9	127	125	98	121	121	100	82	74	90.2
Melpuram	310	179	57.7	102	54	52.9	106	58	54.7	161	103	64	111	87	78	131	131	100	83	83	100
Killiyoor	306	184	60.1	175	123	70.3	200	149	74.5	167	46	27.5	119	65	60	69	67	97.1	79	72	91.1
Munchirai	322	162	50.3	132	88	66.7	148	96	64.9	171	101	59.1	112	107	88	83	83	100	89	79	88.8
Total	**3020**	**1761**	**58.3**	**1259**	**772**	**61.3**	**1360**	**822**	**60.4**	**1466**	**727**	**49.6**	**1133**	**840**	**74**	**815**	**807**	**99**	**770**	**740**	**96.1**

Note: T- Target, A-Achievement, % - percentage of achievement to target.
Source: Office of the SSA, Kanyakumari district, Nagercoil.

Annexure 4.22: 13 + 7 criteria on the 20 point grade of ABL grading 2009-10, Kanyakumari

வ. எண்	கவனிக்கப்பட வேண்டியவை
1.	செயல்வழிக் கற்றல் வகுப்பறையில் கீழ்மட்டக் கரும்பலகை, கம்பிப் பந்தல், கற்றல் அட்டைகளை வைக்க சின்னங்கள் ஒட்டப்பட்ட தனித்தனி பெட்டிகளும், அவற்றை அடுக்கி வைக்க அலமாரியும் உள்ளது.
2.	மாணவர்கள் தாங்கள் படிக்க வேண்டிய அட்டைகளை பெட்டிகளில் இருந்து எடுத்து, அதில் உள்ள சின்னம் எந்த குழு அட்டவணையில் உள்ளதோ அந்த குழுவில் சென்று அமர்ந்து படிக்கிறார்கள்.
3.	வகுப்பில் குழு அட்டைகள் பாய்களின் மீது வைக்கப்பட்டு பலவகுப்பு மாணவர்களும் அவரவருக்குரிய கற்றல் அட்டையுடன் குழுவாக அமர்ந்து செயல்பாடுகளில் ஈடுபடுகிறார்கள்.
4.	எந்தக் குழுவிலும் ஒரே ஒரு கற்றல் அட்டையைக் கொண்டு ஆசிரியையோ அல்லது மாணவரோ உரக்க சொல்ல மற்றவர் பின்னால் சொல்வது இல்லை.
5.	மாணவர்கள் தாங்கள் கற்கும் அட்டைகளின் சின்னங்களையும் எண்களையும் சரியாக சொல்வதோடு ஏணிப்படியிலும் அச்சின்னத்தின் இடத்தை சுட்டிக் காட்டுகிறார்கள்.
6.	இதற்கு முன் கற்ற, கற்றல் அட்டையை எடுக்கவும் அதில் கேட்கப்படும் கேள்விக்கு சரியான பதில் அளிக்கவும் செய்கிறார்கள்.
7.	கற்றல் அட்டைகளின் செயல்பாடுகளை மாணவர்கள் கீழ்மட்டக் கரும்பலகையில் எழுதிப் பயின்று, பின் குறிப்பேட்டிலும், பின்னர் பயிற்சி ஏட்டிலும் எழுதுகிறார்கள்.
8.	ஒவ்வொரு படி நிலையும் முடிக்கப்படும் போது அடைவு அட்டவணையில் ஆசிரியர் அதனை பதிவு செய்கிறார். மாணவர் செய்து முடிக்கும் ஒவ்வொரு செயல்பாடுகளும் அவரவருக்கு ஒதுக்கப்பட்ட கோப்புகளில் வைக்கப்படுகின்றன.
9.	கீழ்மட்டக் கரும்பலகை மாணவர்களின் எண்ணிக்கைக்கு ஏற்ப பிரிக்கப்பட்டு பயன்பாட்டில் உள்ளது.
10.	மாணவர்களின் படைப்புகள், வரைதல், வண்ணமிடல், சேகரிப்புகள் மாணவர் பெயருடன் காட்சிக்கு தொங்கவிடப்பட்டுள்ளன.
11.	மாணவர்கள் தங்கள் வருகையை தாங்களே பதிவு செய்கிறார்கள்
12.	கால நிலை அட்டவணை மாணவர்களால் குழுவில் விவாதித்து முடிவெடுத்து பதிவு செய்யப்படுகிறது.
13.	மாணவர்களின் உடல் நலம் பேண ஆரோக்கிய சக்கரம் செயல்பாட்டில் உள்ளது.
14	அனைத்து மாணவர்களும் புத்தக பூங்கொத்துகளை பயன்படுத்து கிறார்கள்.
15	Hello English, Radio English தாக்கம் மாணவர்களிடம் காணப்படுகிறது.
16	மாணவர்களிடம் ஆங்கிலத்தில் குறைந்த பட்ச பேசும் திறன் காணப்படுகிறது.
17	தினமும் வீட்டுப்பாடம் கொடுக்கப்படுகிறது.
18	காலை மற்றும் மாலையில் பக்கவாட்டு ஏணி செயல்பாடுகள் கொடுக்கப்படுகிறது.
19	அட்டைகளிலுள்ள செயல்பாடுகளுக்கு ஏற்ற கற்றல் பொருட்களை ஆசிரியர்கள் தயார் செய்து மாணவர்கள் பயன்பாட்டில் உள்ளது.
20	கணித உபகரணப்பெட்டியை (Maths Kits) பயன்படுத்தி மாணவர்கள் கணிதம் கற்கின்றனர்.

Chapter 5

LIVELIHOOD

It is confirmed, empirically, that the economy and human development are mutually dependent on each other (Ranis and Stewart, 2005). The economy represented by the per capita income has been one of the three core areas of human development since the UNDP's first human development report (UNDP, 1990 and 2009). At the district level, however, understanding the human development perspective of the other economic indicators such as net domestic product and its composition, wage and employment, nature and extent of poverty, indebtedness, child labour, migration, and infrastructure are vital. This chapter attempts to capture the above dimensions of human development in Kanyakumari district. Intra-district (taluk and block level) comparison of different indicators has been emphasised in the chapter.

5.1 Income

It is observed that the benefit of economic growth does not percolate to the poor and marginalised sections of the population automatically (Jena, 2010). The Government of India, through the Eleventh Plan document (Planning Commission, 2008) has revealed that a special approach has to be made to include the poor in the growth process and it is called inclusive growth. The important role of economic growth, however, cannot be denied in ensuring human development.

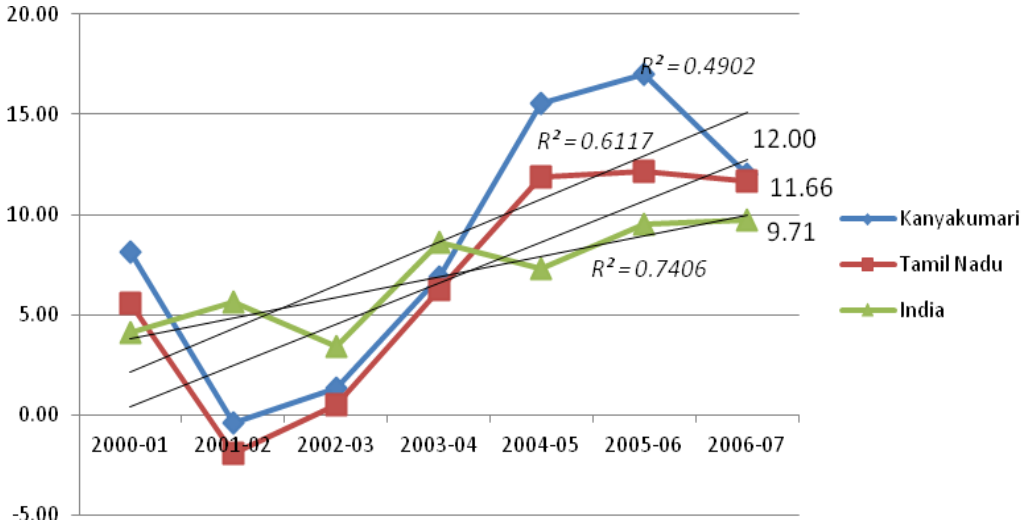
This section analyses the district income (net district domestic product and its sectoral composition, and per capita net district domestic product) from 1999-00 to 2006-07 at constant (1999-00) prices in comparison with the state (Tamil Nadu) and All-India. It is to be mentioned here that the district is the lowest unit with income data and it is disaggregated from the state income. The sub-district level income comparison, therefore, is not possible.

5.1.1 Net District Domestic Product (NDDP)

The annual growth rate of the net district domestic product (NDDP) of Kanyakumari (12 per cent) was found to be higher than that of the state (11.66 per cent) and much higher than that of India as a whole (9.71 per cent) during 2006-07. Interestingly, despite the steady fall in contribution of primary sector, particularly the agriculture and allied activities, the overall NDDP growth rate continued to be higher in the district over the state during 2000-01 and 2006-07 (Figure 5.1 and Annexure 5.1). The area of concern, however, is that the growth rate of NDDP is more inconsistent in the district (R^2=0.490) as compared to that of the state (R^2=0.611) and

India (R^2=0.740) (Figure 5-1). It might be due to the fluctuating growth of tertiary sector (R^2=0.0026) (see Figure 5.3) in the district.

Figure 5-1: Annual Growth Rrate of Income at constant (1999-00) prices

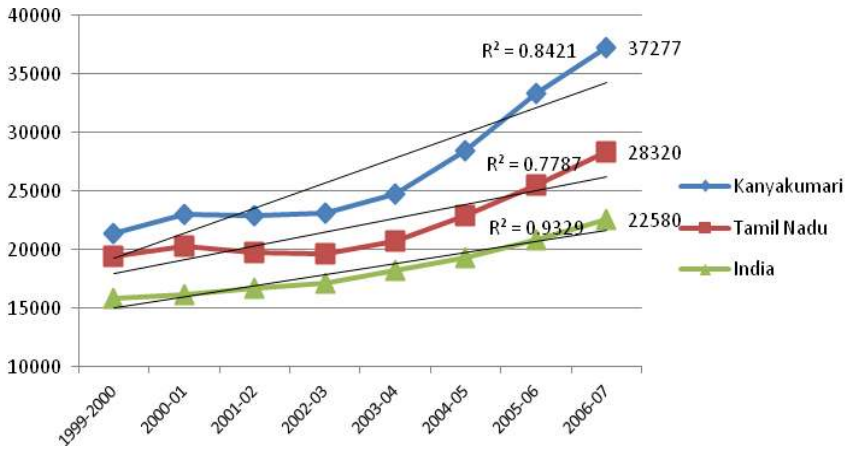


Source: Compiled from the data available at *Department of Economics and Statistics*, Government of Tamil Nadu, Chennai.

5.1.2 Per capita income

In comparison to Tamil Nadu and all-India, the fast decline in population growth rate and higher NDDP growth rate in Kanyakumari resulted in achieving the higher per capita NDDP of the district. The per capita income of Kanyakumari was Rs 37277 in 2006-07 as compared to Rs. 28320 and Rs. 22580 in Tamil Nadu and India respectively. Interestingly, over the years the per capita income of the district has been increasing at a faster rate than that of the state and India (Figure 5-2). Moreover, the increase in the per capita income is more consistent (R^2=0.8421) of the district than the state (R^2=0.7787) (Figure 5-2).

Figure 5-2: Per capita income at constant (1999-00) prices



Source: Compiled from the data available at *Department of Economics and Statistics*, Government of Tamil Nadu, Chennai.

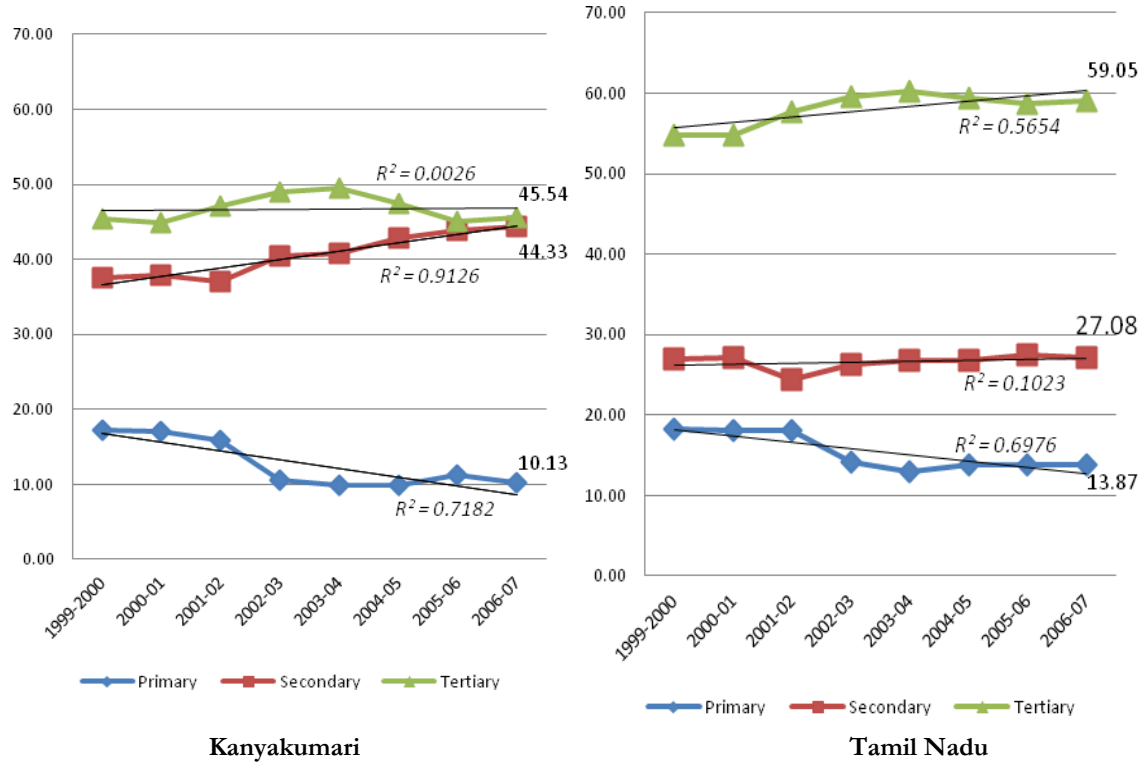
The better performance of the key economic indicators viz. NDDP and per capita income of the district are not enough to understand the status of human development in the district in detail. It is because both the indicators are silent on distributional aspects (such as sectoral and regional distributions).

5.1.3 Sectorwise contribution to NDDP

Primary sector

The primary sector (which includes agriculture and allied activities, forestry and logging, fishing, and mining and quarrying) is mostly unorganised in nature, even though it accommodates more than 60 per cent of the total workers in the country. This sector contributes a little less than one-fifth of the total NDP of the country. In the case of Tamil Nadu, this share was 14 per cent. But in Kanyakumari, this contribution is merely 10 per cent. Moreover, like Tamil Nadu and India as a whole, the share of primary sector to total NDDP has been declining in the district over the years (Figure 5-3 and Annexure 5.2).

Figure 5-3 Sectoral Contribution



Kanyakumari **Tamil Nadu**

Source: Compiled from the data available at *Department of Economics and Statistics*, Government of Tamil Nadu, Chennai.

Out of 10 per cent contribution of primary sector to NDP of the district, agriculture and allied activities alone contribute 7.48 per cent as against 12.04 per cent out of 14 per cent in the

state as a whole. As compared to the employment in terms of work participation rate (which is explained in the next section), the contribution of agriculture and allied sector is better in Kanyakumari than in Tamil Nadu as a whole. However, this contribution (of agriculture and allied activities) has been declining in both the district and the state, but it is comparatively more consistent in the district (R^2=0.8029) than in the state (R^2=0.6321) (Annexure 5.3).

Given the fact that Kanyakumari has 60 km of coastline and a large fishing population, the contribution of the fishery sector to the NDDP of the district is considerably higher (more than two per cent) than the state (around one per cent). But it is a matter of concern that the contribution of the fishery sector (in percentage) to the overall NDDP in Kanyakumari is showing a declining trend over the years, whereas at the state level it is almost stagnant. During the year 2001-02 and 2002-03, the fishery sector of the district registered a drastic decline in contribution (from 4.4 per cent to 1.71 per cent) to overall NDDP. But interestingly, during the subsequent years it has been recovering fast except the year 2004-05 due to the tsunami.

The contribution of the forestry and logging sector to NDDP and NSDP remains almost same in both the district and the state as a whole respectively, though the area under forest in the district is much higher (more than 28 per cent) than that in the state (around 16 per cent). Moreover, the contribution of the forest has been declining over the years in both the district and the state Annexure 5.4.

The contribution of mining and quarrying to the NDDP of the district during 2006-07 was only 0.02 per cent as against 0.45 per cent in the state (Annexure 5.4).

Secondary sector

The contribution of secondary sector to NDDP, which includes manufacturing, electricity, gas and water supply, and construction, is much higher in the district (44.33 per cent) than that of the state (27.08 per cent) in 2006-07. This share has been consistently (R^2=0.9126) increasing over the years at the district level, while it has become almost stagnant at the state level.

The manufacturing-registered sector's contribution to the total NDDP and NSDP in 2006-07 was almost same in both the district and state level, though a declining trend during 1999-00 and 2006-07 was observed in the district (Annexure 5-5).

The manufacturing-unregistered sector, which constitutes most of the household-based industry such as cottage and other traditional industries, has contributed a little less than five per cent to the total NDDP of the district as against around six per cent to NSDP in Tamil Nadu. Interestingly, from 1999-00 to 2006-07 the manufacturing-unregistered sector of Kanyakumari

shows an increasing and consistent trend of contribution as against the declining trend of the state (Annexure 5.5).

The contribution of the construction sector of the district in 2006-07 was significantly higher (nearly one-third of the total district income) than that of the state (less than 10 per cent). Further, this share has been consistently (R^2=0.964) increasing over the years (Annexure 5.5).

The contribution from electricity, gas and water supply is less than one per cent of NDDP and NSDP in both the district and the state, and it shows a declining trend (Anneure 5.5)

Tertiary sector

The tertiary sector, which includes banking, insurance and real estate, shows a sign of stabilisation in its contribution (at around 46 per cent) to the overall NDDP at the district (Kanyakurari) level, while the contribution to NSDP was increasing at the state level Annexure 5.2 and Annexure 5.3). Though this sector contributes the highest share to the NDDP of the district, by nature, it employs only a meagre proportion of workers. This is discussed further in the 'Employment' section.

The contribution from the banking and insurance industry shows a similar trend in both the district and state, though this share is comparatively lower in the district than at the state (Annexure 5.6). Unlike the primary and secondary sector, the performance of the tertiary sector has to be looked at from service delivery perspective. This is discussed further in the 'Banking' section.

The real estate industry has experienced a boom up to 2004-05 in both the district and the state as a whole. Since 2004-05, the share of contribution from this industry has been declining (Annexure 5.3). But interestingly, in Kanyakumari district, it started recovering within a year (Annexure 5.3). One has to critically look at its association with the land utilisation pattern in general and conversion of the agricultural land to homestead land in particular, which has been discussed in the 'Agriculture' section.

The high growth of construction and real estate sector in Kanyakumari has been reflected by the fast growing population and housing stock (i.e. number of houses) in urban areas particularly in municipal corporations and municipalities in the district as compared to those in other districts of Tamil Nadu (Annexure 5-7).

From the given information in this section, another point worth noting here is that the contribution of the secondary sector to the NDP of the state (27.08 per cent) is less than half of the tertiary sector. But it is 44.33 per cent in the district, which is very close to its tertiary sector

contribution (45.54 per cent). It reveals that unlike the state, the district economy is not absolutely dominated by the tertiary sector, which is labour saving in nature.

It is revealed from this section that the district economy isin a overall better position than that of the state. The per capita income of the district was much higher (Rs. 37277) than that of the state as a whole (Rs. 28320). However, the monthly per capita consumer expenditure data particularly in urban areas (where 65 per cent of the total population live), shows that a higher percentage of population (16.40 per cent) in the district spend below Rs. 580 per month per capita as compared to that of 16.10 per cent in the state as a whole (Govt. of Tamil Nadu, 2009). It indicates a relatively higher economic inequality in the district than that in the state as a whole.

5.2 Employment and Wages

Over the years there has been a drastic change in income and its composition in the district, but it does not give the clarity on the section of population who are being benefited or affected in the above said structural changes. This section deals with employment and its sectoral and socio-geographical composition, and actual wages vis-a-vis the minimum wages fixed by the government.

5.2.1 Employment

Along with the extent, the quality of employment matters in human development (Bhaduri, 2008). The overall work participation rate[1] (WPR) of Kanyakumari has increased from 30.50 per cent in 1991 to 32.70 per cent in 2001. A similar trend has been found across the taluks of the district as well as in Tamil Nadu (43.31 per cent and 44.67 per cent respectively) and India as a whole (37.46 per cent and 39.13 per cent respectively) (Table 5.1). One of the important observations on work participation is that during 1991 and 2001, the rate of increase in WPR is comparatively higher in the district (2.20 per cent point) than in the state (1.36 per cent point) and all-India level (1.67 per cent point).

On the other hand, the following concern areas were observed from WPR data. First, the overall WPR of the district was much lower than the state and the country (Table 5.1). Second, the female work participation rate in the district was found to be very low, i.e., 11.03 per cent in 1991 and 12.72 per cent in 2001 (Table 5.1), despite the better performance in education and health. It is to be mentioned here that women's unemployment has severe socio-economic implications (Psacharopoulos and Tzannatos, 1989). Third, the rate of increase in female WPR

[1] Work participation rate is calculated as *total workers divided by the total population and multiplied by 100.*

was found much lower (less than one per centage point) as compared to that among males (more than three per centage points).

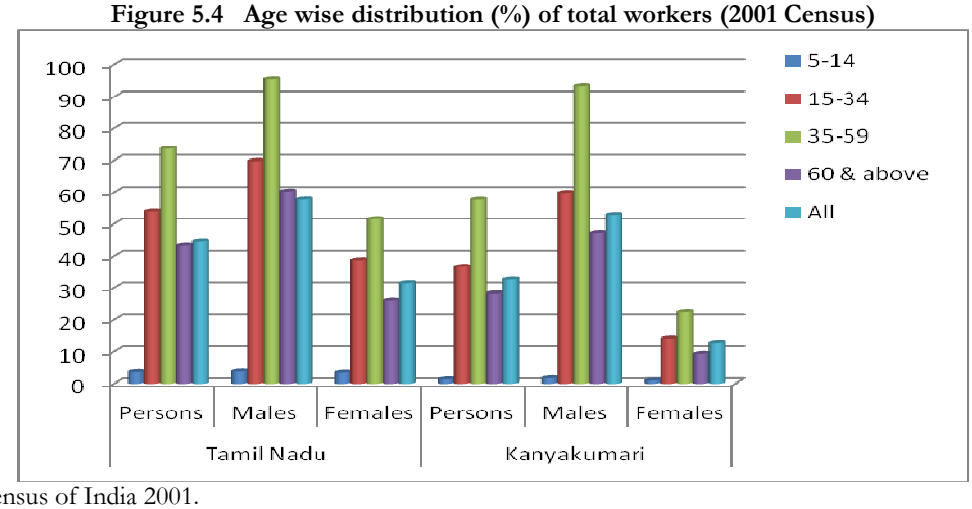
Box 5.1

In the district as a whole, 11 creches each accommodating 25 children have been opened with Government grants to facilitate working women.

Age wise WPR

Compared to the state, the WPR across the age groups especially among females was found to be much lower in Kanyakumari district. (Figure 5.4, Annexure 5.8 and Annexure 5.9) Overall, the gap of female WPR between the district and Tamil Nadu becomes wider with higher age group (Annexure 5.9). In other words, higher the female age group, relatively lower is the WPR in Kanyakumari than in the state.

Figure 5.4 Age wise distribution (%) of total workers (2001 Census)



Source: Census of India 2001.

Taluk wise, Thovala stands for highest WPR among both males and females (Table5.1). But the rate of increase in overall WPR, male WPR, and female WPR during 1991 and 2001 were found to be comparatively higher in Vilavancode taluk than the other three. The Kalkulam taluk had the lowest WPR among both males and females.

Table 5.1 Overall Work Participation Rate (WPR)

Taluk/District/Tamil Nadu/India	Total		Male		Female	
	1991	**2001**	**1991**	**2001**	**1991**	**2001**
Vilavancode Taluk	29.00	33.11	47.61	52.89	10.30	13.39
Kalkulam Taluk	30.17	32.03	49.91	52.57	10.00	11.86
Thovala Taluk	34.46	35.29	53.64	54.93	15.12	15.86
Agastheeswaram Taluk	31.38	32.40	50.59	53.00	12.28	12.23
Kanyakumari District	**30.50**	**32.70**	**49.80**	**52.95**	**11.03**	**12.72**
Tamil Nadu	**43.31**	**44.67**	**56.31**	**57.64**	**26.89**	**31.54**
India	**37.46**	**39.13**	**51.6**	**51.67**	**22.3**	**25.62**

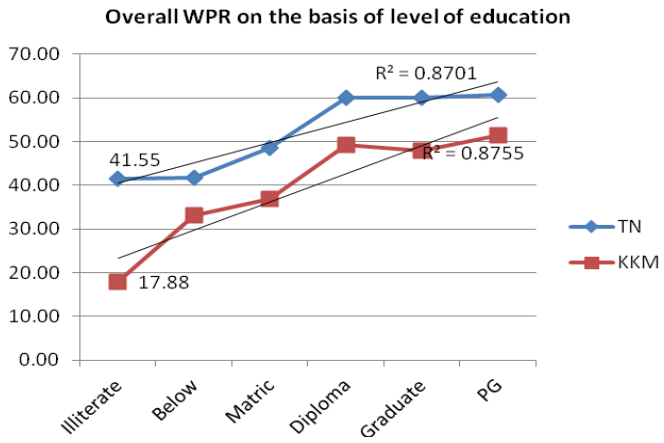
Source: Calculated from Population Census 1991 and 2001 data.

During 1991-2001, the share of main workers to total workers was found to have declined. The share of marginal workers has significantly increased across the taluks in Kanyakumari (Table 5.1). The issue here is that the rate of decline in the share of main workers in the district was much higher (12.16 per cent from 95.07 per cent in 1991 to 82.91 per cent in 2001) than the state (8.96 per cent). Among the taluks, this decline was as high as 16 per cent point in Agasteeswaram.

Level of Education and WPR

It is commonly understood that education is one of the criteria to get employment. The consistent (R^2=0.875) and positive relationship between the level of education and WPR in the district (Figure5.5, Annexure 5.10 and Annexure 5.11) corroborates the above statement. Moreover, the WPR among illiterate population was found to be much lower (17.88 per cent) in Kanyakumari as compared to Tamil Nadu (41.55 per cent).

Figure 5.5 WPR by level of education



Source: Census of India 2001.

Main and marginal workers In Kanyakumari district, the decline in the proportion of 'main workers'[2] and increase in the share of 'marginal workers'[3] during 1991-2001 was more pronounced among males (13.63 per cent point increase in marginal workers) than females (4.53 per cent point). This gender gap of WPR was found to be the highest in Vilavancode taluk (19.46 per cent point) and the lowest in Agastheeswaram taluk (6.07 per cent point) (Table 5-2).

[2] Main workers are those who had worked for six months or more of the reference year (Census of India).

[3] Marginal workers are those who had not worked for six months of the reference year (Census of India).

Table 5-2: Proportion of main and marginal workers

Taluk/District/Tamil Nadu/India	Main workers						Marginal workers					
	Total		Male		Female		Total		Male		Female	
	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
Vilavancode	96.02	76.56	98.31	78.09	85.41	70.52	3.98	23.44	1.69	21.91	14.59	29.48
Kalkulam	94.17	82.49	98.26	84.66	73.29	73.00	5.83	17.51	1.74	15.34	26.71	27.00
Thovala	93.38	84.34	99.03	87.52	73.15	73.44	6.62	15.66	0.97	12.48	26.85	26.56
Agastheeswaram	96.09	90.03	99.55	92.49	81.93	79.59	3.91	9.97	0.45	7.51	18.07	20.41
Kanyakumari Dist.	**95.07**	**82.91**	**98.69**	**85.06**	**78.62**	**74.08**	**4.93**	**17.09**	**1.31**	**14.94**	**21.38**	**25.92**
Tamil Nadu	**94.21**	**85.25**	**NC**	**90.07**	**NC**	**76.24**	**5.79**	**14.78**	**NC**	**9.93**	**NC**	**23.76**
India	**90.63**	**77.81**	**NC**	**87.32**	**NC**	**57.26**	**9.36**	**22.19**	**NC**	**12.67**	**NC**	**42.73**

Note: NC – not calculated
Source: Calculated from Population Census 1991 and 2001 data.

The above facts reveal that the overall increase in work participation rate in the district might be due to the significant increase in the proportion of marginal workers, in spite of the decline in the share of main workers. In other words, it shows that over the years, a section of the main workers especially among males were pushed into marginal workers category.

Among the main workers in the district, cultivators and agricultural labourers constitute merely 2.96 per cent and 12.50 per cent respectively. These shares have significantly declined in the district during 1991-2001, though they also declined in Tamil Nadu and India as a whole (Table 5.3). This decline is more pronounced among the male agricultural labourers (26.95 per cent point) than their female counterparts (17.83 per cent point). The significant fall in the share of main agricultural workers[4], especially the agricultural labourers might be due to the following reasons: (i) agricultural labourers lack respect in the society; (ii) lower 'agricultural wage'[5] as compared to the wage in construction work; and (iii) agriculture is being shifted from the labour-intensive crops such as paddy to relatively labour-saving horticultural crops such as banana and coconut.

Talukwise, the rate of decline in main workers especially the cultivators and agricultural labourers was found to be higher in Vilavancode taluk than in the other three taluks, though Thovala stands for the highest proportion of cultivators and agricultural labourers as main workers.

[4] Agricultural workers include cultivators and agricultural labourers.

[5] Actual agricultural wage is higher than the minimum wage fixed by the state; it is much lower than the wage in construction work. Construction sector has been growing at a faster rate in the district.

Rural-urban WPR

The overall WPR was found to be higher in rural areas (33.53 per cent) than urban areas (32.26 per cent) of the district. This difference has been observed across the taluks (Table 5.5). It was more or less the same with respect to marginal workers in the district (Table 5.4). On the other hand, the proportion of main workers was slightly higher in urban areas (83.90 per cent) than in rural areas (81.12 per cent).

Table 5.3 Rural-urban and sex wise work participation rate

	Overall			Rural			Urban		
Taluk/District	Total	Male	Female	Total	Male	Female	Total	Male	Female
Vilavancode	33.11	52.89	13.39	33.51	53.22	13.84	32.80	52.63	13.05
Kalkulam	32.03	52.57	11.86	33.48	53.36	13.85	31.41	52.22	11.00
Thovala	35.29	54.93	15.86	36.07	54.50	17.90	34.49	55.37	13.78
Agastheeswaram	32.40	53.00	12.23	32.55	53.89	11.67	32.34	52.68	12.43
Kanniyakumari	**32.70**	**52.95**	**12.72**	**33.53**	**53.53**	**13.75**	**32.26**	**52.65**	**12.18**

Source: Calculated from Population Census 2001 data.

Table 5.4 Rural-urban distribution of main and marginal workers

	Main Workers			Marginal Workers		
Taluk/District	**Overall**	**Rural**	**Urban**	**Overall**	**Rural**	**Urban**
Vilavancode	76.56	77.22	76.03	23.44	22.78	23.97
Kalkulam	82.49	80.80	83.27	17.51	19.20	16.73
Thovala	84.34	83.62	85.11	15.66	16.38	14.89
Agastheeswaram	90.03	87.59	90.90	9.97	12.41	9.10
Kanniyakumari	**82.91**	**81.12**	**83.90**	**17.09**	**18.88**	**16.10**

Source: Calculated from Population Census 2001 data.

Table 5.3 Percentage distribution of total main workers in agriculture

Taluk/District/Tamil Nadu/India	Cultivators						Agricultural labourers						Others					
	Total		Male		Female		Total		Male		Female		Total		Male		Female	
	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
Vilavancode	13.60	2.24	14.81	2.34	7.13	1.81	43.02	9.70	46.57	11.02	24.03	3.91	43.38	88.06	38.62	86.63	68.83	94.29
Kalkulam	13.21	3.44	14.47	3.37	4.58	3.81	44.27	13.27	13.27	14.69	24.22	6.07	42.52	83.29	38.33	81.94	71.20	90.12
Thovala	16.30	5.00	18.85	5.64	3.94	2.42	52.09	30.21	50.02	29.83	62.12	31.77	31.60	64.79	31.12	64.54	33.94	65.81
Agastheeswaram	12.39	2.68	13.91	2.88	4.84	1.70	22.73	10.34	22.99	10.60	21.45	9.05	64.87	86.98	63.10	86.53	73.71	89.25
Kanyakumari Dist.	**13.27**	**2.96**	**14.67**	**3.07**	**5.21**	**2.42**	**38.23**	**12.50**	**40.33**	**13.38**	**26.22**	**8.39**	**48.51**	**84.54**	**45.00**	**83.55**	**68.57**	**89.19**
Tamil Nadu	**24.94**	**18.40**	**NC**	**NC**	**NC**	**NC**	**34.16**	**31.00**	**NC**	**NC**	**NC**	**NC**	**NC**	**NC**	**NC**	**NC**	**NC**	**NC**
India	**38.75**	**31.70**	**NC**	**NC**	**NC**	**NC**	**26.15**	**26.50**	**NC**	**NC**	**NC**	**NC**	**NC**	**NC**	**NC**	**NC**	**NC**	**NC**

Note: NC – not calculated

Source: Calculated from Population Census 1991 and 2001 data.

5.2.2 Registration in Employment Exchange

There are around 35 employment exchanges/registration offices in the state of Tamil Nadu, including the one in Kanyakumari district located at Nagercoil. In 2000-01, only one person got placed for every 1000 persons registered in employment exchange in the district. However, during 2003-04 to 2008-09, on the average, every yeat about 5 persons got placement for every 1000 persons registered with employment exchange. (Table 5.6). The area of concern is that the change in employment (besides its meager share to total number of registered cases), which has been facilitated by the employment exchange, was found highly inconsistent .

Table 5.6 No. of Placements through the Employment Exchange

Year	Kanyakumari		Tamil Nadu	
	No. of placements during the year	Placements per 1000 registrations	No. of placements during the year	Placements per 1000 registrations
2000-01	243	1.01	24.0	4.01
2001-02	470	1.90	18.2	3.90
2002-03	570	2.19	15.6	3.18
2003-04	1,496	6.98	8.6	1.64
2004-05	1,202	7.91	31.6	6.34
2005-06	863	5.66	17.7	4.61
2006-07	287	1.45	16.2	4.30
2007-08	1,917	9.01	11.3	2.60
2008-09	494	2.10	37.0	7.46

Source: Office of the District Employment Exchange Officer, Nagercoil, cited in *District Statistical Handbooks* (different years), Kanyakumari.

5.2.3 Wages

The data for actual wages on different categories of workers was collected during 2009 from sample villages in each block of Kanyakumari by the Office of the Assistant Director, Statistics, Nagercoil. The blockwise name of the sample village covered is given in Annexure 5.12. Except for a few categories of workers, there were not many differences in actual wages across the sample villages.

It was observed that the actual wages were comparatively higher than the minimum wages fixed by the government (

Table 5.7). There are some activities such as preparation of seedlings, transplanting and weeding done by women only. Similarly, a few other activities are done by men alone (Table 5.7). The gender disparity of wage, however, was found to be very high in the district, though the district is known for its social advancement. Wages in agriculture seems to be higher, but agriculture, being seasonal in nature, denies the workers from getting regular income from it.

Table 5.7 Actual wages and minimum* wages

Work type	Who works? Men/ women	Actual wage (Rs.)	Minimum wages* (Rs.)
Ploughing in wet land (with plough and bullocks)	Men	372 to 384	Rs.80/ day
Pluckers & Seedlings	Women	100	Rs.85/ 5 hours
Transplanters	Women	97 to 104	Rs.85/ 5 hours
Weeders	Women	89 to 100	Rs.85/ 5 hours
Harvesting paddy	Men	289	Rs.100/ 6 hours
Harvesting other than paddy	Men	324 to 328	Rs.100/ 6 hours
Other agri operations	Men	328 to 329	Rs.100/ 6 hours
Other operations (skilled)	Men	182 to 190	Rs.100/ 6 hours
Other operations (non-skilled)	Men	197 to 209	Rs.100/ 6 hours
Carpenter	Men	247 to 260	Rs.150/ 6 hours
Blacksmith	Men	162 to 169	Rs.150/ 6 hours

Note: *The minimum wages fixed by the government, Labour and Employment (J1) Department, G.O. No. (2D) 88 dated 01.10.2009.

Source: Office of the Assistant Director of Statistics, Nagercoil.

5.3 Poverty

Poverty is multidimensional and complex (Asselin, 2009). Based on the composite method of poverty measurement with head count ratio, the last rural below poverty line (BPL) census was conducted in 2002, though sample surveys on poverty have been conducted by the National Sample Survey Organisation (NSSO) of the Government of India from time to time. As NSSO data is not representative at the sub-district level, this section is based on the rural[6] BPL Census 2002 data with block level comparison of poverty scenario. It is broadly divided into two parts such as extent of poverty and characteristics of poverty.

5.3.1 Extent of poverty

About 29 per cent of rural households were living below the poverty line. It was as high as 30.62 per cent in Munchira block and as low as 27 per cent in Agastheeswaram block. Social group wise, the percentage of BPL households among scheduled caste (SC) was highest (39.37 per cent) in the district. About 56 per cent of SC households in Rajakkamangalam block were accounted as BPL (Table 5.8). Table 5-9 depicts the top four and bottom four blocks in the district with respect to the poverty ratio. Similarly, Agastheeswaram block has 58 per cent of STs as BPL.

[6] As mentioned earlier chapter that around 35 per cent of the total population in the district live in rural areas against 56 per cent in the state as a whole (2001 Census).

Table 5.8: Extent of poverty (in terms of percentage of households)

Blocks	Total	OBC	SC	ST
Melpuram	28.58	25.89	34.52	25.97
Killiyoor	27.16	27.16	44.97	20.51
Munchira	30.62	25.23	38.13	21.45
Kurunthancode	29.42	26.36	42.35	0.00
Thackalai	28.14	23.81	42.21	22.83
Thiruvattar	29.55	29.97	38.18	29.37
Thovala	29.04	28.47	33.76	24.79
Agastheeswaram	27.00	22.56	36.15	57.83
Rajakkalmangalam	29.36	30.73	55.82	20.94
TOTAL	28.98	26.85	39.37	27.57

Source: Compiled from *Rural BPL Household Census*, 2002. Retrieved 23 December 2009 from http://bpl.nic.in, Department of Rural Development, Government of India, New Delhi.

Table 5-9 Categories of blocks with higher and lower poverty ratio

Bottom four blocks with higher poverty ratio	Top four blocks with lower poverty ratio
Munchira (30.62)	Agastheeswaram (27.00)
Thiruvattar (29.55)	Killiyoor (27.16)
Kurunthancode (29.42)	Thackalai (28.14)
Rajakkalmangalam (29.36)	Melpuram (28.58)

Source: Compiled from *Rural BPL Household Census*, 2002. Retrieved 23 December 2009 from http://bpl.nic.in, Department of Rural Development, Government of India, New Delhi.

5.3.2 Characteristics of poverty

Poverty in the district and in different blocks has been characterised on the basis of: (i) income; (ii) size of operational landholding; and (iii) indebtedness. On each indicator, the overall as well as social group wise bottom (poorest) three blocks and top (relatively better) three blocks have been identified and presented.

(i) Income

The distribution of BPL households based on the average household monthly income is one of the criteria through which the intensity of poverty could be understood. Other things remaining the same, the lower the household income the higher is the intensity of poverty. It is found that around 48 per cent of total BPL households were living with less than Rs 499 monthly income. Among the social groups, this was the highest among ST followed by SC and OBC (Annexure 5-13). Table 5.10 shows the social groupwise bottom (poorest) three blocks and top three blocks in the BPL category on the basis of percentage of households with less than Rs 499 monthly household income.

Table 5-10 Percentage of households with < Rs. 499 monthly household income

Social groups	Bottom 3 blocks (*poorest)*	Top 3 blocks (better*)*
Overall (*All social groups*)	Melpuram	Rajakkamangalam
	Munchira	Thovala
	Killiyoor	Kurunthancode
SC households	Munchira	Thovala
	Killiyoor	Rajakkamangalam
	Thiruvattur	Kurunthancode
ST households	Killiyoor	Kurunthancode
	Thackalai	Thovala
	Melpuram	Rajakkamangalam
OBC households	Thiruvattur	Rajakkamangalam
	Thackalai	Thovala
	Killiyoor	Kurunthancode
Other households	Melpuram	Thovala
	Munchira	Thackalai
	Killiyoor	Rajakkamangalam

Source: Compiled from *Rural BPL Household Census*, 2002. Retrieved 23 December 2009 from http://bpl.nic.in, Department of Rural Development, Government of India, New Delhi.

(ii) Landless BPL households

Overall, around 70 per cent of rural BPL households in the district were found landless. It was highest among 'other' castes with 74.37 per cent followed by SC (73.93 per cent), OBC and ST (Annexure 5-14). Table 5.11 shows the social groupwise bottom (poorest) and top (better) three blocks on the basis of percentage of landless BPL households.

Table 5.11 Landless BPL households (%)

Social groups	Bottom 3 blocks (*poorest)*	Top 3 blocks (better*)*
Overall (*All social groups*)	Agastheeswaram	Thiruvattur
	Killiyoor	Kurunthancode
	Munchira	Rajakkamangalam
SC households	Thackalai	Melpuram
	Agastheeswaram	Thiruvattur
	Killiyoor	Rajakkamangalam
ST households	Agastheeswaram	Kurunthancode
	Thovala	Thiruvattur
	Killiyoor	Thackalai
OBC households	Kiliyoor	Thiruvattur
	Agastheeswaram	Melpuram
	Munchira	Rajakkamangalam
Other households	Agastheeswaram	Melpuram
	Thackalai	Thiruvattur
	Killiyoor	Kurunthancode

Source: Compiled from *Rural BPL Household Census*, 2002. Retrieved 23 December 2009 from http://bpl.nic.in, Department of Rural Development, Government of India, New Delhi.

(iii) Indebtedness

Access to formal sources of credit is one of the criteria to understand the economic condition in general and poverty scenario in particular. About half of the BPL households in Kanyakumari were dependent on informal sources of credit to meet their consumption needs. This share is the highest among 'other' castes and SC households with around 57 and 56 per cent respectively. Table 5.12 shows the social groupwise bottom (poorest) three blocks and top (better) three blocks on the basis of percentage of BPL households availing credit from informal sources for consumption purposes.

Table 5.12: BPL households availing Informal credit

Social groups	**Bottom 3 blocks (*poorest)***	**Top 3 blocks (better*)***
Overall (*All social groups*)	Agastheeswaram	Rajakkamangalam
	Kurunthancode	Thovala
	Thackalai	Munchira
SC households	Thackalai	Thovala
	Killiyoor	Thiruvattur
	Agastheeswaram	Rajakkamangalam
ST households	Agastheeswaram	Kurunthancode
	Killiyoor	Rajakkamangalam
	Melpuram	Thiruvattur
OBC households	Kurunthancode	Munchira
	Killiyoor	Rajakkamangalam
	Thackalai	Thovala
Other households	Agastheeswaram	Thovala
	Munchira	Rajakkamangalam
	Melpuram	Thiruvattur

Source: Compiled from *Rural BPL Household Census*, 2002. Retrieved 23 December 2009 from http://bpl.nic.in, Department of Rural Development, Government of India, New Delhi.

5.4 Resource Endowments and the Livelihood

Based on the facts given in the second chapter, the district is endowed with almost one-third of its area under forest, five rivers, viz. Thamiraparani, Valliyur, Ponnivaikal, Pampoorivaikal and pazhayar, and 60 km of coast line with unique fish breeding ground. The district is known for its initiatives of wind energy conservation. Tourism is another potential area of development in the district. The district is also known for its high literacy rate (including female literacy rate) and skilled fishermen. Both flora and fauna are abundant in the district. Based on this, the present section covers the status and dynamics of different livelihoods of people in the district.

5.4.1 Agriculture, horticulture, and allied activities

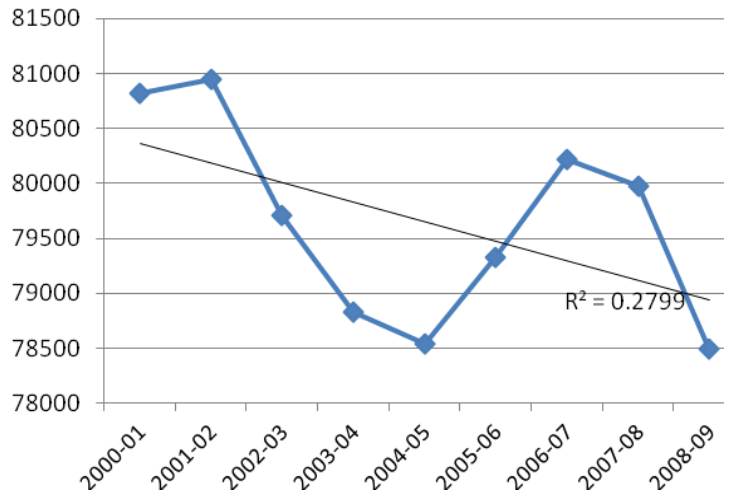
As mentioned earlier, agriculture and allied activities contribute around 7.48 per cent to the district's net domestic product at constant (1999-00) prices; this is lower than that at the state level (12.04 per cent). Further, this share of contribution in the district has been consistently (R^2=0.7182) declining from 1999-00 to 2006-07.

Land utilisation pattern

The National Forest Policy 1988 suggests that each state has to maintain the minimum of one-third of its geographical area as forest (Govt. of India, 1988). As per the Forest Department, Tamil Nadu state had merely 17 per cent of area as forest, whereas it was almost one-third in Kanyakumari district (Annexure 5.16). But as per the remote sensing (satellite) data, which is more appropriate, the district has around 28 per cent of forest cover including open degraded forest in 2007 assessment.

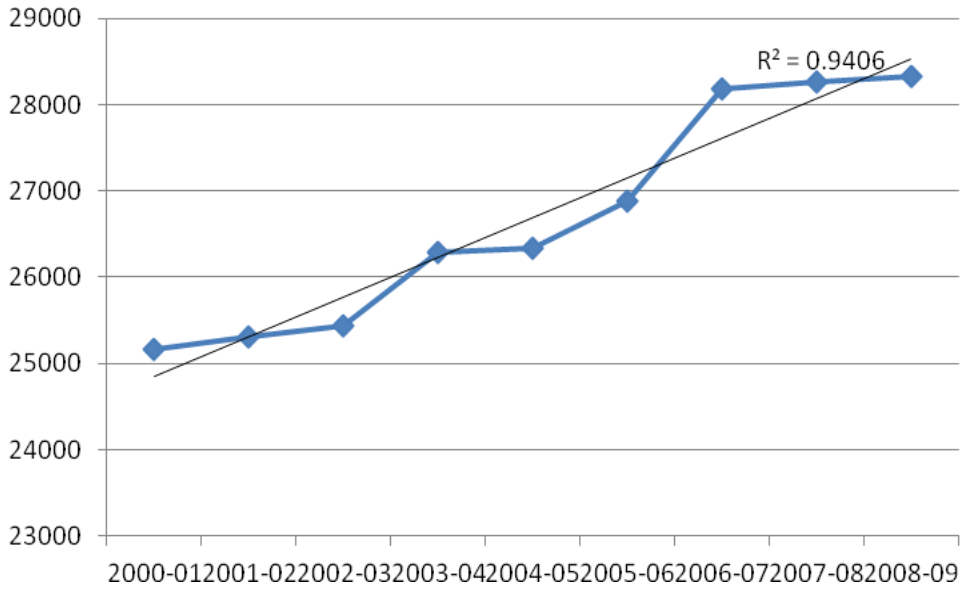
The net sown area of the district was found to be declining from 2000-01 to 2008-09 (Figure6), though not consistently (R^2=0.279). On the other hand, land put to non-agricultural use has been increasing consistently (R^2=0.940) during the same period (about 32 per cent) (Figure5-7). With this, one can infer that agricultural lands are being converted to non-agricultural uses, further validating the reason for booming real estate business in the district.

Figure 5.6 Net area sown (in ha.)



Source: *District Statistical Handbook*, Kanyakumari, different years.

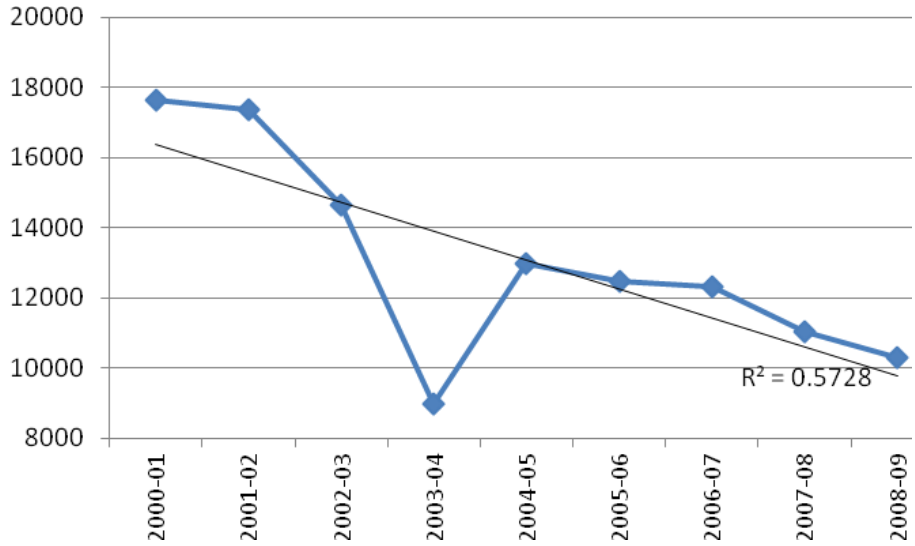
Figure 5.7 Land put to Non-agricultural use (in ha.)



Source: *District Statistical Handbook*, Kanyakumari, different years.

Unlike the other parts of Tamil Nadu, Kanyakumari district enjoys both the monsoonal showers (south-west and north-east). There is ample potential to cultivate more than one crop in the district, but there has been a decline of area sown more than once over the years from 2000-01 to 2008-09 (R^2=0.5728) (Figure 5.8). This reveals a declining trend of cropping intensity in the district.

Figure 5.8 Area sown more than once (in ha.)

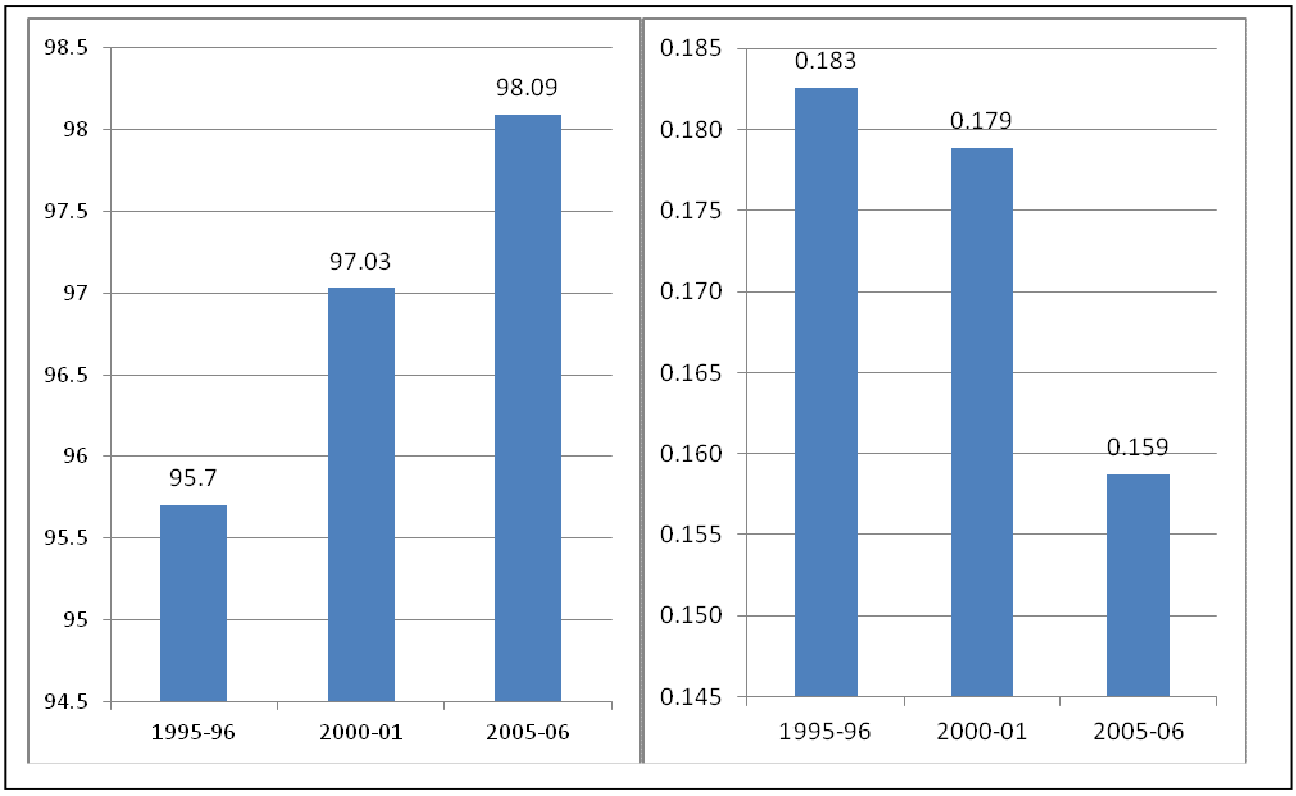


Source: *District Statistical Handbook*, Kanyakumari, different years.

(i) Operational landholdings – number and area of holding

As per the 2005-06 Agricultural Census, marginal farmers accounted for more than 98 per cent of operational landholdings in the district. Moreover, this share has been continuously increasing over the Agricultural Census from 95.7 per cent in 1995-96 to 97.03 per cent and 98.09 per cent in 2000-01 and 2005-06 respectively (Figure 5.9).

Figure 5.9 Marginal operational holdings (%) and average size (in ha.) of marginal holdings



Source: Agricultural Census, 1995-96, 2000-01, and 2005-06.

Further, the farmers have been marginalised over the census periods not only in terms of percentage of marginal landholders (Table 5.13) but also in terms of average size of landholding per marginal farmer (Figure 5.9) (Table 5.14).

Table 5.13: Distribution of Operational landholdings*

	% of holdings			% of area		
Size of holdings	1995-96	2000-01	2005-06	1995-96	2000-01	2005-06
Marginal	95.70	97.03	98.09	61.71	69.99	76.72
Small	2.78	2.01	1.31	12.99	10.84	8.84
Semi-medium	1.07	0.70	0.42	9.90	7.53	5.55
Medium	0.34	0.21	0.14	6.68	4.83	3.95
Large	0.10	0.05	0.03	8.72	6.82	4.94

Size of holdings	% of holdings			% of area		
	1995-96	2000-01	2005-06	1995-96	2000-01	2005-06
All	100.00 (288029)	100.00 (328273)	100.00 (396712)	100.00 [81545]	100.00 [81393]	100.00 [80497]

Note: *It excludes the institutional holdings. There were no joint holdings.
Figures in parentheses show the respective total number of holdings and figures in square brackets show the respective total area in hectare.
Source: Agricultural Census 1995-96, 2000-01, and 2005-06.

Table 5-14: Average size of holding (in hectare)

Size of holdings	1995-96	2000-01	2005-06
Marginal	0.183	0.179	0.159
Small	1.32	1.34	1.37
Semi-medium	2.61	2.67	2.66
Medium	5.58	5.61	5.64
Large	24.45	31.90	31.56
All	0.28	0.25	0.20

Note: It excludes the institutional holdings. There were no joint holdings.
Source: Agricultural Census 1995-96, 2000-01, and 2005-06.

Table 5.14 shows that the average size of operational landholding per marginal holder has been declining over the Agricultural Census from 0.183 hectare in 1995-96 to 0.179 hectare and 0.159 hectare in 2000-01 and 2005-06 respectively. A similar trend was found across the social groups and taluks except Kalkulam. Interestingly, the percentage of marginal farmers, particularly among SC in Kalkulam taluk has declined from 99.65 per cent in 2000-01 to 97.92 per cent in 2005-06, with an increase in average landholding size per farmer from 0.13 hectare in 2000-01 to 0.15 hectare in 2005-06.

(ii) Irrigation

Around 35 per cent (27570.65 ha) of the total net sown area was irrigated by different sources in Kanyakumari district during 2008-09. Government canals (38.75 per cent) and tanks (59.27 per cent) together account for 98 per cent of the total irrigated area, while wells (tube well and dug wells) contribute a very negligible share of irrigation (Table 5.15).

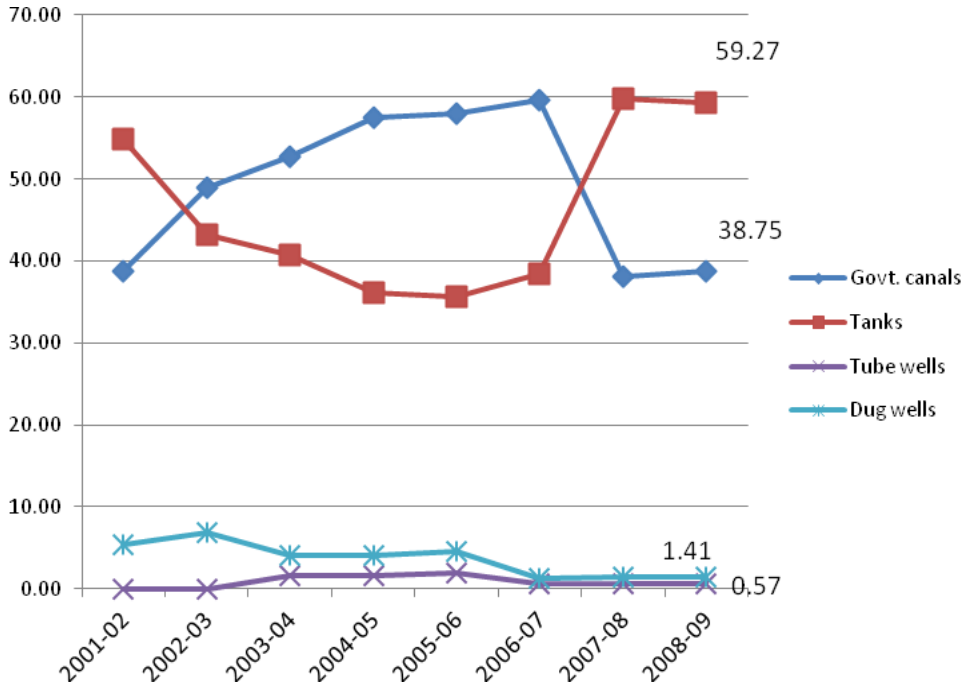
Table 5-15 Distribution of area by sources

Source of irrigation	2008-09 (%)
Govt. canals	38.75
Tanks	59.27
Flow irrigation	0.00
Tube wells	0.57
Dug wells	1.41
Total	100.00

Source: *District Statistical Handbook 2008-09*, Kanyakumari.

Unfortunately, the net area irrigated in the district has declined from 29268 hectare in 2000-01 to 27570.65 hectare in 2008-09. This decline is more pronounced in the area, which was irrigated by canals and wells (Figure 5.10 and Annexure 5.17).

Figure 5.10: Net area irrigated (%) by different sources of irrigation



Source: *District Statistical Handbook*, Kanyakumari, different years.

Irrigation intensity

Irrigation intensity[7] in Kanyakumari shows a declining trend over the two census years, 1995-96 and 2000-01 (Table 5.16). The similar trend was found across the taluks in the district. This decline of irrigation intensity was relatively more prominent among smaller farmers than large farmers (Table 5.16).

Table 5-16 Irrigation intensity

	Agasteeswaram		Kalkulam		Thovalai		Vilavancode		Total (District)	
Size of holdings	1995-96	2000-01	1995-96	2000-01	1995-96	2000-01	1995-96	2000-01	1995-96	2000-01
Marginal	169.03	148.99	129.82	133.19	149.89	131.76	104.97	135.07	145.48	139.11
Small	160.98	141.47	147.58	103.86	131.64	127.12	116.98	136.13	143.96	129.58
Semi-medium	149.06	140.65	140.75	103.62	127.68	140.00	113.43	145.10	133.11	130.67
Medium	183.78	124.19	159.84	100.00	113.22	117.04	99.73	103.75	133.33	116.69
Large	148.39	100.00	102.94	.	100.00	.	100.00	-	101.56	100.00
All classes	166.84	143.36	133.74	129.38	130.47	131.21	105.94	134.37	139.01	135.73

Source: Agricultural Census 1995-96 and 2000-01.

[7] Irrigation intensity is calculated as gross area irrigated divided by net area irrigated multiplied by 100.

Cropping pattern

A variety of crops including paddy are grown in the district. Among them, paddy, black gram, green gram, cowpea, groundnut, coconut, rubber and banana are important. But over the years, the area under important food crops like paddy (in both rabi and kharif) and black gram, green gram, cowpea and groundnut has been declining. On the other hand, the area under horticultural crops such as coconut and rubber shows an in increasing trend.

Horticulture

Kanyakumari district is known for various horticultural crops. Given the diverse agro-ecological settings, variety of fruits and vegetables, flower crops, spices and condiments, and other plantation crops are being grown in the district. Table 5.17 shows the area under different horticultural crops in Kanyakumari from 2000-01 to 2008-09. It may be noted that the year 2007-08 witnessed the implementation of National Horticultural Mission (NHM) in the district giving rise to the significant increase in the area under horticultural crops such as fruits and vegetables, cloves, and arecanut (Table 5.17). A variety of new crops were also introduced through NHM.

Table 5-17 Area under horticultural crops (in hectares)

Crop	2007-08	2008-09
Fruits and vegetables	17866	18258
Flowers	164	164
Ginger	15	72
Pepper	89	40
Cloves	474	597
Arecanut	601	532
Cardamom	60	51.430
Chillies	9.905	5.685
Nut meg	19.785	19.195
Curry leaves	2.63	6.625
Tamarind	1452.29	1299.505
Turmeric	-	3.905
Plantation Crops	**-**	**-**
Coffee	81.635	82.035
Tea	359.515	359.115
Betal wine	54.994	54.130
Cocoa	38.945	42.460

Source: *District Statistical Handbook*, Kanyakumari district, various years.

Cropping intensity

The cropping intensity[8] of the district during 1995-96 and 2000-01 Agricultural Census has decreased. Except Vilavancode taluk, which had a marginal increase, all other taluks show a decrease in cropping intensity (Table 5.18). This decline was found prominent among the marginal and small farmers, while it shows an increase among large farmers (Table 5.18).

Table 5.18 Cropping intensity by landholding size

Size of holdings	Agasteeswaram		Kalkulam		Thovalai		Vilavancode		Total	
	1995-96	2000-01	1995-96	2000-01	1995-96	2000-01	1995-96	2000-01	1995-96	2000-01
Marginal	140.20	118.12	115.09	108.38	149.37	111.57	104.17	107.39	121.29	110.60
Small	134.23	110.46	124.74	101.24	131.73	114.22	108.78	117.85	123.26	109.35
Semi-medium	124.15	110.22	118.69	101.90	127.10	120.57	114.95	105.74	119.44	107.27
Medium	139.12	116.40	129.00	100.63	113.20	106.66	99.89	104.15	117.15	105.24
Large	140.78	100.00	99.97	103.86	100.00	100.00	99.92	100.05	101.23	102.26
All	138.02	116.15	115.60	106.17	130.27	111.95	105.34	107.51	119.31	109.26

Source: Agricultural Census 1995-96 and 2000-01.

Institutional credit for agricultural purpose

One of the major grey areas in agriculture development in India is timely access to institutional credit particularly among marginal and small farmers. Overall 14.92 per cent of the total farmers in Kanyakumari took institutional credit in 2001-02, as against 7.84 per cent in 1996-97 (Agricultural Input Survey, 1996-97 and 2001-02). This shows a significant increase in access to institutional credit during a period of five years (Table 5.19). Unfortunately, it was observed that this increased access was comparatively much higher among large farmers than the small farmers (Figure 5-11).

Among the large farmers the increased access to institutional credit for agricultural purpose during 1996-97 and 2001-02 was 58 per cent point as against less than seven per cent point among marginal farmers (Table 5.19 and Figure 5.11).

[8] Cropping intensity is calculated as gross cropped area divided by net

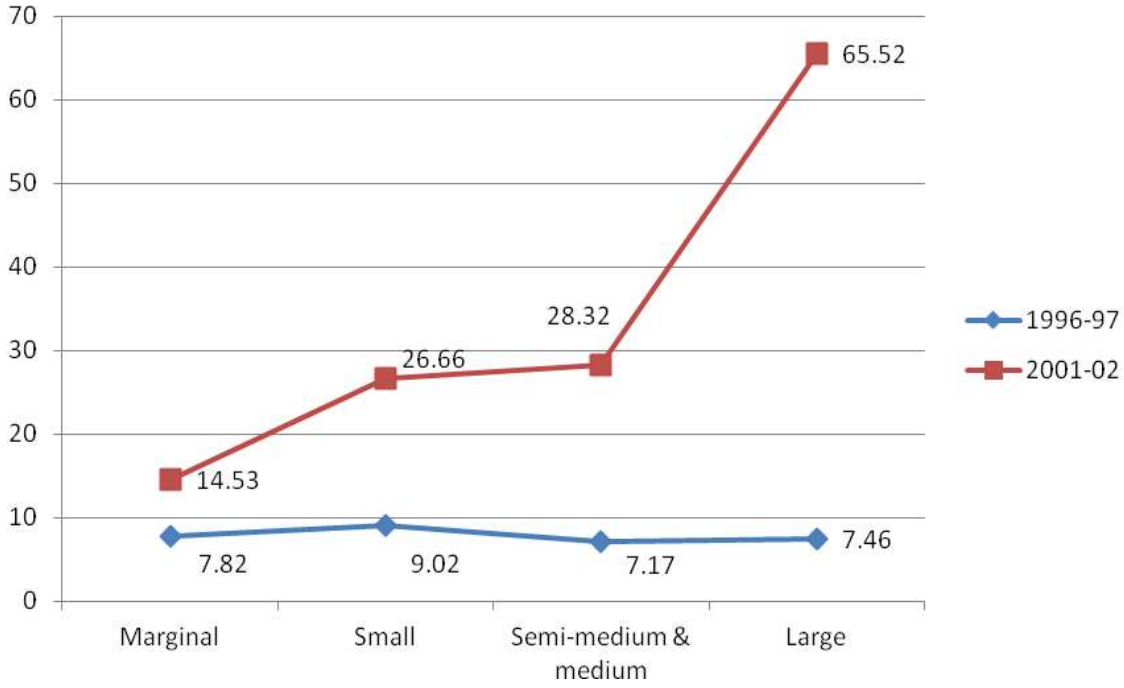
Table 5-19 Institutional credit for agricultural purposes

Size group	1996-97	2001-02
Marginal	7.82 (26172)	14.53 (46274)
Small	9.02 (730)	26.66 (1758)
Semi-medium & Medium	7.17 (262)	28.32 (847)
Large	7.46 (29)	65.52 (114)
All	7.84 (27193)	14.92 (48993)

Note: Figures in parentheses show the respective estimated no. of operational holdings that took institutional credit

Sources: Calculated from different *Input Survey Reports*, Department of Agriculture and Cooperation, Govt. of India at www.agcensus.nic.in. Retrieved on 01 January 2010.

Figure 5.11 Institutional credit for agricultural purposes



Sources: Calculated from different Input Survey Reports, Department of Agriculture and Cooperation, Govt. of India at www.agcensus.nic.in.

Credit sources

There has been considerable increase in access to Primary Agricultural Credit Society (PACS) by marginal farmers in the district, while CBB have stopped giving credit to them.

Livestock

The livestock population in the district has considerably decreased at a rate of 18.34 per cent during 16th (1998) and 17th (2003) Livestock Census (Table 5.10). Except goats and domestic dogs, almost all other animal numbers have come down during the said period. The number of pigs has significantly declined from 4668 in 2001-04 to 1266 in 2005-06 (72.88 per cent), while

cattle population marginally declined from 106424 to 101712 (4.43 per cent). The district has three veterinary hospitals and 31 veterinary dispensaries.

Table 5-10: Livestock population

Classification	16th Livestock Census (1998)	17th Livestock Census (2003)	Rate of growth/ decline
Cattle	106424	101712	-4.43
Sheep	1570	1143	-27.20
Goats	62484	100698	+61.16
Pigs	4668	1266	-72.88
Donkeys	49	13	-73.47
Domestic Dogs	63562	697175	+996.84
Rabbits	NA	2103	NC
Buffaloes	NA	6077	NC
Hairs	1027	NA	NC
Total animals	**346211**	**282731**	-18.34
Total Poultry	**675783**	NA	NC

Note: NA - not available; NC - not calculated.
Source: Livestock Census, as available in *District Statistical Handbooks*, various years.

5.4.2 Forestry

Forest cover of the district based on the remote sensing (satellite) data in 2005 was 666 sq. km. (including 78 sq. km. of very dense forest) and it constitutes 39.55 per cent of its total geographical area. But over a period of two years, in 2007, the forest area in the district declined to 479 sq km which constitutes 28.44 per cent of its total geographical area. Moreover, the very dense forest area has declined from 78 sq. km. to 43 sq. km. (nearly 50 per cent) during the same period. On the other hand, the percentage of both overall forest cover and very dense forest cover in the state has increased from 17.72 per cent and 2.03 per cent to 17.94 per cent and 2.25 per cent respectively (Table 5.21)

Table 5.21: Forest area (in sq. km)

Items	Kanyakumari		Tamil Nadu	
	2005	2007	2005	2007
Geographic area	1684	1684	130058	130058
Very dense forest	78	43	2650	2926
Moderately dense forest	382	224	9790	10216
Open forest	206	212	1604	10196
Total forest	666 (39.55)	479 (28.44)	23044 (17.72)	23338 (17.94)

Note: Figures in parentheses show the respective percentage to total geographic area.
Source: *State of Forest Report, 2005 and 2009,* Forest Survey of India, Ministry of Environment and Forests, Dehra Dun.

5.4.3 Fisheries

Tamil Nadu has a coastline of 1076 km. The coastline in Kanyakumari district is around 71.5 km, which includes the west coast touching the Arabian Sea and east coast region facing Gulf of Mannar (Government of Tamil Nadu, 2004).

There are 47 fishing hamlets in the three coastal taluks viz. Agastheeswaram, Kalkulam and Vilvancode, with 37405 families and a population of 1,48,539 (Marine Fisheries Census, 2005) in the district. About one-fifth of the total fishing families with 8.09 per cent of fishing villages of the state were in Kanyakumari alone. Taluk wise fishing villages, fisher folk population and landing centres are given in the Table 5.22. More than 99 per cent of fisher folk population in the district were found Christian as against less than 35 per cent in the state as a whole (Annexure 5.20).

Table 5.22 Marine Fisheries Census, 2005

Area	No. of landing centres	No. of fishing villages	No. of fishermen families	Fisherfolk Population
Tamil Nadu	352	581	192152	790408
Kanyakumari district	44	47 (8.09)	37405 (19.47)	148539 (18.79)
Agastheeswaram taluk	NA	18 [38.3]	10611 [28.37]	41208 [27.74]
Kalkulam taluk	NA	13 [27.66]	11086 [29.64]	44917 [30.24]
Vilvancode taluk	NA	16 [34.04]	15708 [41.99]	62414 [42.02]

Note: Figures in brackets show the percentage of Tamil Nadu total.
Figures in square brackets show the taluk wise percentage to the district's respective total.
Source: *Marine Fisheries Census*, Part-III (4), Tamil Nadu, 2005.

Given the fact that Kanyakumari has 71.5 km of coastline and a large fishing population, the contribution of the fishery sector to the NDDP of the district is relatively high (>2 per cent) as compared to one per cent at state level.

Around 40 per cent of fishing population were working, which is little higher than the overall WPR of the district. Moreover, the share of active fishermen in the district was comparatively higher (79 per cent) than in the state (66 per cent). All active fishermen were men only. Among the active fishermen in the district, nearly 93 per cent were involved in 'full time' fishing as against 89 per cent in the state (Annexure 5-22). Women are mostly involved in marketing of fish (Annexure 5.23).

Interestingly, nearly 45 per cent of the total male allied workers in Agastheeswaram taluk were involved in making nets (Annexure 5.24). On the other hand, 37 per cent of curing and

processing work in this taluk was done by women alone. In Vilavancode, making nets is more of female occupation (16 per cent).

Membership in cooperative societies assures a better access to credit and other livelihood facilities. Against this backdrop, the percentage of fisher folk population has membership in any cooperative society in the district was found comparatively lower (35.70 per cent) than that in the state (40.96 per cent) (Table 5-23). Geographically, this share was as low as 32.40 per cent in Agastheeswaram taluk and as high as 40.81 per cent in Kalkulam taluk.

Table 5-23 Membership in Co-operatives

Area	% of fisherfolk population have membership in any co-operative	% of membership in fisheries co-op to total membership in co-operative	% of membership in other co-op to total membership in co-operative
Tamil Nadu	40.96	75.14	24.86
Kanyakumari district	35.70	74.36	25.64
Agastheeswaram taluk	32.40	72.98	27.02
Kalkulam taluk	40.81	79.00	21.00
Vilvancode taluk	34.19	71.23	28.77

Source: Calculated from *Marine Fisheries Census*, Part-III (4), Tamil Nadu, 2005.

5.4.4 Industries

Village and cottage industries, handicrafts, and small-scale industries (SSI) have a large potential to generate employment. But except a marginal increase in handicrafts industries and Pradhan Mantri Rozgar Yojana (PMRY), rest of the industries including SSI and cottage industries in the district were showing a decrease in employment

Through the Prime Minister's Employment Generation Programme (PMEGP), Rs.39.02 lakhs were given in 2008-09 for 45 cases. The government has also been giving various types of subsidies for different purposes viz. capital subsidy, low tension power tariff and generator subsidy to the industries under District Industries Centre, Nagercoil. However, the subsidy has been declining and even in some cases (generator subsidy), it was withdrawn.

Khadi and village industries (KVIC)

The Khadi And Village industries corporation (KVIC), Nagercoil supports two types of industries, viz. spinning and weaving industry. There were eight spinning industries, two polyster fine industries and one polyster super fine industry promoted by KVIC in Kanyakumari district. At present, a total of five production units are functional with a total of 226 employees (Table 5.24). But during the period of 2000-01 and 2009-10 the production of different KVIC industries registered a declining trend (Annexure 5.25).

Table 5-24 KVIC industres as on January 2010

Industries	Employment	Employees
Yarn production	168	Female
Kora production	44	Female
Footwear unit	5	Male (urban)
Soap unit	4	Male (rural)
Honey processing unit	5	Male (rural)
Total	226	-

Source: Office of the Assistant Director, KVIC, Nagercoil.

5.4.5 District initiatives in employment generation for youth

Creating employment opportunities for the educated younger generation is an inevitable issue and needs consistent effort. The district administration has already realized the importance and is taking different initiatives in this regard. One such initiative is on promoting a software park in the district. As a maiden step, the district administration has already got two IT Companies opened in the district's jurisdiction thereby opening up a large scale employment opportunity to the educated youths.

The district administration has also been creating employment opportunities to youths by providing training of plumbers, carpenters, welders through Nehru Yuva Kendra. Yet another effort is to promote a consortium of colleges to work on the employability of the youth for which the initial base work is in progress.

5.5 Tourism and livelihood

Kanyakumari has got very good potential for promoting tourism for impacting the district economy and the livelihoods of the local communities. With the objective of increasing the stay days and also to attract more tourists, the district has come up with interesting ideas and initiatives. They are adventure carnival and the K2K carnival. The notes on these two are as below.

Box 5-1 Adventure carnival – 2010

The Friends for Nature Society under the presidentship of District Collector has organized a two day Adventure Carnival on 24 - 25 May 2010 at Scott Christian College premises, Nagercoil for the benefit of tourist, local public in Kanniyakumari District.

In Association with National Adventure Foundation, New Delhi many adventure activities like Parasailing, trampoline, Zorbung, Jhummer, Commando net, Burma Bridge, Trust ball, etc were provided for entertainment of people. Many enthusiastic people from all walks of life including children and youths participated in the Carnival.

Various Competitions like Quiz, elocution and drawing competition about natural resources of Kanniyakumari district were organized for school children. Apart from these programmes, an amateur painting competition, photography competition about Nature, a dog show, food fest and cultural programmes were also organized as part of this carnival. More than 30000 people visited the spots on two days. As there is ample scope for developing tourism in the sector, the district has decided to continue conducting periodical Adventure Carnival in tourism season as an annual festival ever year.

Box 5.2 Celebration of Kanyakumari to Kashmir Carnival at Kanniyakumari

Everyday more than 15000 tourists visit Kanniyakumari and during season period more than 50000 tourists from all over the world are visiting here. During the season period, there are no other cultural activities or entertainment facilities in Kanniyakumari. With the aim of tourism promotion, and providing entertainment to tourists, the district has been organizing 'Kumari carnival' every year.

From this year onwards, the District Administration and Tourism department have decided to convert it into a National level festival namely Kanniyakumari to Kashmir (K2K) festival with a theme of 'Communal Harmony' and National Integration.

It is absolutely necessary to sell the multifarious hidden treasure value of the land's end. This kind of organizing festival really attracts the tourists and also to publicize the natural and heritage tourism potential of the centers in and around the district.

5.6 Child Labour

The extent of child labour In Kanyakumari district was far lower than the state level. In Tamil Nadu, 6 in every 1000 children were found as child labour, while it was 3 in 1000 in the district. But this is not uniform across the district. Blocks like Munchirai, Killiyoor and Thovalai show above the district average of child labour prevalence (Table 5.25).

Table 5.25 Extent of child labour

Blocks/ Municipalities	Population 5-14 years *	Child labour 5-14 years#	Child labour per 1000 children
Agastheeswaram	53768	140	3
Killiyoor	22463	138	6
Kurunthancode	28140	20	1
Melpuram	31212	40	1
Munchirai	26906	212	8
Rajakkamangalam	18962	32	2
Thackalay	27512	38	1
Thiruvattar	21922	0	0
Thovalai	15575	82	5
Municipalities	41373	120	3
Kanyakumari	287833	822	3
Tamil nadu	11612412	69521	6

Note: * - Household Survey, 2005 as given in *Annual Work Plan and Budget, 2009-10*, SSA, Kanyakumari.
- Child Labour Census, March 2003 available at http://intra.nic.in/childlabour.
Source: http://intra.nic.in/childlabour. Retrieved on 22 December 2009.

More boys were found as child labourers in the district as against almost equal proportion between boys and girls in the state (Table 5.26).

Table 5.26 Sexwise distribution of child labour (%)

Municipalities/Blocks	Boys	Girls
Colachel Municipality	64	36
Kuzhithurai Municipality	50	50
Nagercoil Municipality	71	29
Padmanabhapuram Municipality	100	0
Agastheeswaram	71	29
Killiyoor	68	32
Kurunthancode	90	10
Melpuram	70	30
Munchirai	64	36
Rajakkamangalam	69	31
Thackalay	63	37
Thovalai	71	29
Thiruvattar	0	0
Kanyakumari	68	32
Tamil Nadu	54	46

Source: http://intra.nic.in/childlabour. Retrieved on 22 December 2009.

Unlike the state, the child labour in Kanyakumari district was highly concentrated in urban areas. Almost one-third of the child labourers were found in urban areas. This is common for both boys and girls (Table 5.27). The share of urban population to total population of the district was also higher (around 65 per cent).

However, during 2008-09, the Sarva Shikshya Abhiyan (SSA) had identified only six child labourers in the district. Of them, two children were mainstreamed into school and one child crossed the age of 14 years. The remaining three children were assisting their parents. During 2009-10, no such case was recorded by the SSA.

Table 5.27 Regional Distribution of child labour

Blocks/ Municipalities	Rural			Urban		
	Boys	Girls	Total	Boys	Girls	Total
Agastheeswaram	4.00	0.00	2.86	96.00	100.00	97.14
Killiyoor	76.60	54.55	69.57	23.40	45.45	30.43
Kurunthancode	66.67	0.00	60.00	33.33	100.00	40.00
Melpuram	28.57	0.00	20.00	71.43	100.00	80.00
Munchirai	33.82	52.63	40.57	66.18	47.37	59.43
Rajakkamangalam	81.82	80.00	81.25	18.18	20.00	18.75
Thackalay	16.67	0.00	10.53	83.33	100.00	89.47
Thiruvattar	0.00	0.00	0.00	0.00	0.00	0.00
Thovalai	41.38	58.33	46.34	58.62	41.67	53.66
Colachel	0.00	0.00	0.00	100.00	100.00	100.00
Kuzhithurai	0.00	0.00	0.00	100.00	100.00	100.00
Nagercoil	0.00	0.00	0.00	100.00	100.00	100.00
Padmanabhapuram	0.00	0.00	0.00	100.00	0.00	100.00
Kanyakumari	33.45	33.08	33.33	66.55	66.92	66.67
Tamil Nadu	74.69	75.94	75.26	25.31	24.06	24.74

Source: http://intra.nic.in/childlabour. Retrieved on 22 December 2009.

5.7 Banking and Insurance

5.7.1 Availing banking services

Banking services perform a key role in improving the economic condition of people.

Table shows the percentage of households that availed banking services in both rural and urban areas. The percentage of households availing banking services in Kanyakumari (23.93) was slightly higher than that of the state (22.82), though this is not uniform across the different taluks in the district. The city of Nagercoil (34.05) and Agastheeswaram taluk (30.60) has the highest percentage of households availing banking services, while Vilavancode taluk has the lowest (19.18 per cent). On the other hand, the rural-urban disparity in terms of percentage of households availing banking services is lower in the district (20.94 per cent vs. 25.57 per cent), when compared to the state (17.71 per cent vs.30.00 per cent).

Table 5-28 Households availing banking services

Area	Total	Rural	Urban
Vilavancode (Taluk)	19.18	19.14	19.21
Kalkulam (Taluk)	22.83	19.63	24.23
Thovala (Taluk)	21.98	18.53	25.83
Agastheeswaram (Taluk)	30.60	26.92	31.94
Nagercoil (Municipality)	34.05	0.00	34.05
Kanyakumari (District)	23.93	20.94	25.57
Tamil Nadu	22.82	17.71	30.00

Source: Census of India 2001.

Compared to the overall households, the percentage of SC and ST households availing banking services were much lower. But, it is evident from the Table5.27 that this inequality is lower in the district than in the state. At the same time, one could see that the rural-urban disparity in availing banking services is more pronounced among ST households in the district as well as in the state. However, banking services including financial literacy need to be ensured to people particularly SC and ST households in the district within a stipulated period; it may be five years.

Table 5.27 Regional differences in Access to Banks

	Tamil Nadu			Kanyakumari		
Social groups	Overall	Rural	Urban	Overall	Rural	Urban
All	22.82	17.71	30.00	23.93	20.94	25.57
SCs	11.76	10.06	15.75	18.29	18.33	18.26
STs	15.74	10.76	24.71	18.60	13.12	23.37

Source: Census of India 2001.

However, due to the introduction of financial inclusion programme since June 2007, there has been a significant increase in households availing banking services in both rural and urban areas of the district. As per the data from Lead Bank Office, the total number of households in the district was 4,27,791. Of this 2,68,515 households had saving bank account as on June 2007. And 1,59,390 households opened bank accounts (frills accounts) since June 2007.

5.7.2 SHGs

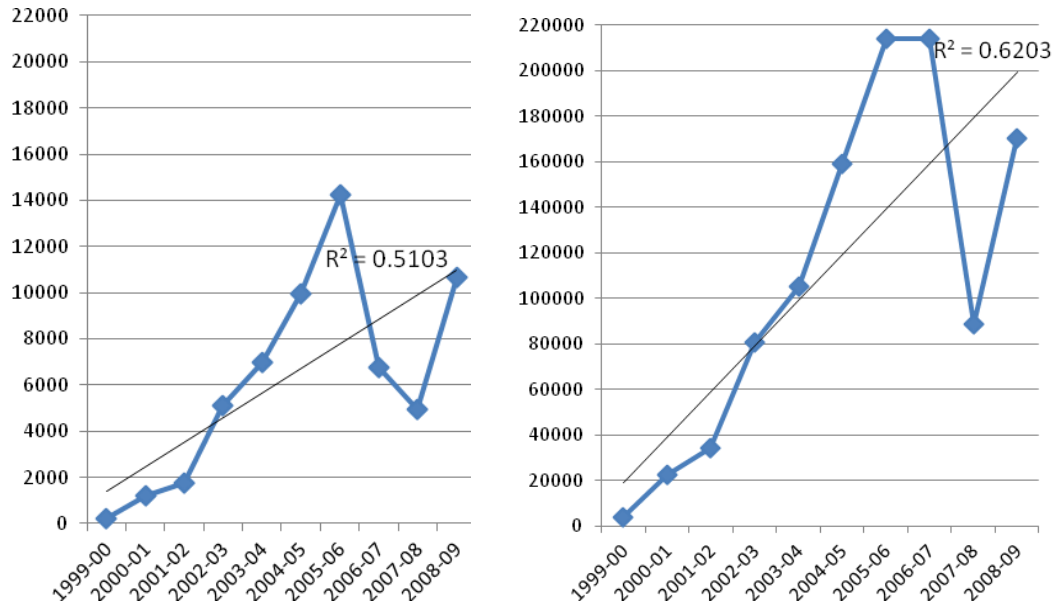
The current decade witnessed the 'self-help groups' movement sweep across Tamil Nadu. Various stakeholders like non government organisations (NGOs), bankers, the district administration, and the state government took various initiatives in promoting women's self-help

groups (SHGs) considering it as a vehicle for development by providing access to credit facilities and other banking services to the mass, particularly the women.

The growth in number of SHGs linked and number of members reached was significant in the first half of the decade till 2005-06. It was more prominent just after the tsunami. But this trend did not last long might be due to non-repayment of loans. The number of groups linked decreased, so did the number of members in the groups (Figure 5.12).

During the same period, the savings mobilised and the amount of loans received were increasing until the year 2006 (Figure 5.13). After 2006, the savings mobilised decreased, which could be explained by the fact that the number of groups decreased. However, it is interesting to note that in the year 2008-09, 10661 SHGs (4939 already existing groups and 5722 newly formed groups) received a significant amount of loan. It crossed the Rs.100 crores mark. This was possible, in spite of the declined savings mobilised by the groups, might be due to the following reasons: (1) not focusing on the savings amount[9]; and (ii) increase in the amount of revolving fund to Rs. 60,000.

Figure 5.12 No. of groups linked with banks and no. of members in the groups in Kanyakumari

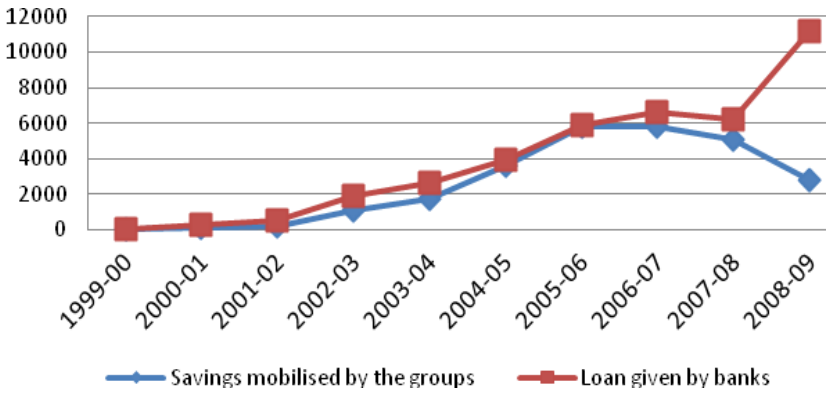


No. of groups linked **No. of group members**

Source: Office of the Lead Bank Manager, Nagercoil.

[9] Earlier, loan was provided up to four times of saving. But now it has increased up to 10 times of saving amount.

Figure: 5.13 Savings mobilised and loan received from the banks by SHGs (in Rs. lakhs)



Source: Lead Bank, Nagercoil.

5.7.3 E-Vyapar, a boon for improved product and market

Self-Help Groups (SHGs) has the potential for taking up higher level of entrepreneurship. Addressing the issue related to poverty by improving the entrepreneurship skill of the women in the self-help groups is very important. The district administration with this idea intervened by clustering the SHGs on the basis of common activity and formed panchayat level federations. This helps in exploring the markets (both the forward and backward linkages) for the SHG products and also on building skills in women.

One such initiative in this regard is the introduction of E-Vyapar- a mobile and internet technology for improved marketing on *Marthandam honey* with the technical support of SASKEM Communications, Bangalore. This initiative has led to improved packaging and pricing of *Marthandam honey* and expanded the market linkage to abroad. Similar kind of initiative was done on banana fibre products also.

5.7.4 LIC coverage

Access to insurance is also one of the risk mitigation measures to people especially to the poor. This could be measured by the insurance coverage in terms of number of policies subscribed. As per the Census 2001, 86,508 out of 3,76,499 families had subscribed life insurances under Life Insurance Corporation (Table5.28). On the assumption of one policy holder per household, the percentage of households with insurance policy in the district comes around 23 per cent. It was observed that a major share of population was not covered by banking and insurance services

Table 5.28: LIC insurance coverage as on 31st March, 2009

Category	No. of policies	Sum assured (Rs.)
Direct policies	76427	677,21,06,408
Salary savings scheme policies	10081	70,99,86,754
Total	86508	748,20,93,162

Source: Life Insurance Corporation of India, Nagercoil.

5.8 Infrastructure

Infrastructure (roads, railways, electricity, transport and communication) plays a vital role in economic development of a region.

5.8.1 Connectivity and transport: roads, railways and vehicles

Robert Chambers (1983) propounded that there are five aspects of deprivation trap, and one among them is 'isolation', defined as lack of connectivity. Isolation, in the form of "lack of education, remoteness, being out of contact, sustains poverty: services do not reach those who are remote... accentuates vulnerability... And isolation means lack of contact with political leaders or with legal advice, and not knowing what the powerful are doing".

Kanyakumari has four municipalities, out of which three municipalities (viz. Nagercoil, Padmanabhapuram and Kuzhithurai) are on national highways (NH) and the other (Colachel) is in coastal connected by the state highways. In fact, 84.37 km of NH-47 cuts across the district starting from the cape of Kanyakumari in the south-western end, running through the three municipalities to Thiruvananthapuram, Kerala's capital city. Nagercoil is the hub connecting Tirunelveli on the north to rest of the southern tip, more crucially to the city of Thiruvananthapuram.

A study conducted by the World Bank says that the average density of *paved roads* (km/million inhabitants) varies from 170 in low-income economies to 1,660 in middle-income and 10,110 in high-income economies. Accordingly, the average density of paved roads in high-income economies is 59 times of the low-income group (Queiroz and Gautam, 1992).

Block and municipalitywise road length is given in Table5.29. It also shows the road density as per the World Bank study (calculated as ratio of road length to population for every million inhabitants).

The road density figure for the Kanyakumari comes around 1221 km per million habitants, lower than the average road density of a middle-income economy, but far better than a low-income economy. This figure varies across blocks and municipalities. In fact, it is as high as 2136 in Munchirai block, and as low as in 435 in Kurunthancode block, revealing an intra-district disparity in road development. Interestingly, it is also observed that the road density in municipalities is lower than that in the block. This suggests a serious lacuna in urban road development.

Table 5.29 Road length and density

Blocks/ Muncipalities	Road length in km	Population as per Census, 2001	Density* (km/million population)
Agastheeswaram	116.65	148419	786
Killiyoor	149.7	156387	957
Kurunthancode	71.76	165070	435
Melpuram	306.2	179535	1706
Munchirai	378.62	177225	2136
Rajakkamangalam	162.32	137254	1183
Thiruvattur	237.75	161619	1471
Thovalai	189.01	110719	1707
Thuckalay	138.25	167262	827
Block sub-total	**1750.26**	**1403490**	**1247**
Colachel	25.441	23787	1070
Kuzhithurai	33.068	20503	1613
Nagercoil	197.18	208179	947
Padmanabhapuram	39.93	20075	1989
Municipality sub-total	**295.619**	**272544**	**1085**
Grand total	**2045.879**	**1676034**	**1221**

Note: Road density per million population = (Road length/Population) X 1,000,000
Source: Vision document of Kanyakumari district and Office of Divisional Engineer (H), Nagercoil, as on 13 February, 2010

Given the fact that the economy of Kanyakumari district is moving more towards secondary and tertiary sectors, which demands better infrastructure, there is a need for conscious road development projects to aid in the overall growth of the economy and human development.

Though Kanyakumari district is one of the districts of Tamil Nadu with comparatively better road connectivity, there are remote tribal pockets and villages which are still isolated with no connectivity, no road or other transport facilities, to the outside world.

5.8.2 Communication: postal and telephone

Access to communication facilities has been increasing in the district over the years. This is evident by the increase in mobile phone users of Bharat Sanchar Nigam Limited (BSNL), a government-owned telecommunication company (Table 5.30). In fact, other service providers such as Airtel, Aircel, and Tata Indicom also operate in the district. But due to lack of data, they are not covered here.

Table 5.30: No. of BSNL telephone and mobile connections

Year	No. of BSNL telephone connections	No. of BSNL mobile connections
2004-05	117657	-
2005-06	125538	79248
2006-07	128678	124894
2007-08	121327	176471
2008-09	111534	280731

Source: Office of Sub-divisional Engineer, BSNL, Nagercoil.

5.8.3 Electricity

Electricity is considered as one of the key infrastructural components that facilitates the larger process of development. Tamil Nadu Electricity Board (TNEB) in Kanyakumari has been making strides in providing all of the revenue villages and hamlets with electricity connection. Now, every revenue village has electricity connection, but there are around 22 hamlets with 752 households without electricity connection (Table 5.31).

As per the data from the Office of the Superintending Engineer, KKEDC, Nagercoil, the number of hamlets not connected with electricity and households without electricity have come down to 16 and 595 respectively during 2010-11.

Table 5.31 Electricity connections

Year	No. of hamlets not connected with electricity	No. of households not connected with electricity
2000-01	38	1015
2001-02	38	1015
2002-03	38	1015
2003-04	38	1015
2004-05	36	947
2005-06	33	901
2006-07	33	901
2007-08	33	901
2008-09	22	752
2009-10*	22	752

Note: *2009-10 – As on 20 February 2010.
Source: Office of Superintending Engineer, KKEDC, TNEB, Nagercoil.

A necessary step has to be taken by the concerned department to connect all these hamlets and households with electricity.

5.9 Governance at the Doorsteps

Pechiparai is a tribal area in Western Ghats of Kanyakumari district comprising of 42 hamlets. Of them, 22 hamlets are inhabited with tribals. It is housing numerous animals and plants amidst dense forest and declared as reserved forest. These tribals belong to the Khani tribe, who were once landlords of the forest, known as Khanikaran. After independence, the entire tribe was neglected over years and now they are given different piece of land to live, "Kani settlement" as popularly known. These tribes are known for their traditional medical knowledge. Especially they are known for the development of a drug called '*Jeevani*' based on the knowledge of the Kani tribe ('Jeevani' is a restorative, immuno-enhancing, anti-stress and anti-fatigue agent, based on the herbal medicinal plant arogyapaacha, used by the Kani tribals in their traditional medicine).

The Kanis are traditionally a nomadic community. The traditional occupation of the Kanis, which they continue to follow to some extent, includes handicrafts such as basket making, mat making and cane works. They are also engaged in seasonal collection of minor forest produce such as honey and bee wax. They cultivate edible plants such as tapioca, banana, millets and cash crops such as pepper, coconut, rubber, arecanut and cashewnut.

More than 3000 tribal people are residing in this reserved forest. The land witnessed no developmental activities for long. They were deprived of the basic amenities like drinking water, roads and electricity.

To address the vulnerable condition of the tribals, the district administration with the special intervention by the district collector has taken up a series of innovative strategies. *Varam Oru Nal* is one such initiative. As per this initiative, the district collector along with the respective department heads visit tribal villages and conducts tribal camps every Saturday.

By this initiative, the District Collector had demonstrated a model of effective administration through 'governance at the doorsteps of the vulnerable'. The issues related to the tribal entitlements such as the land patta and community certificates were taken up for immediate perusal and action. Issuing community certificates through this camp is a recent initiative. Almost all the tribal villages are now connected with roads through MNREGS. Roads facilitated better access to health, education and other livelihood activities to the tribal community.

One of the commendable achievements is the district administration's initiative on tribal electrification. Seventeen tribal hamlets in the lower kodaiyar were connected with electricity and for another ten hamlets, the work is in progress. For the seven other tribal hamlets (Purathimalai, Vellarakkal, Poraidam, Perumkuruvi,Klaparai, Kaduvavvetti and Maramalai), the district administration is planning to introduce solar lights as they are located in inaccessible area.

Moreover, to avoid the process delay and to bring consensus of all related departments, the collector constituted committees at various levels such as forest rights committee at gramasabha and Panchayat council level, sub-divisional committee and district level committees, and has created an institutional processes and mechanisms. Another reason for success is that the convergence strategy that he adopted to bring different departments to come together, discuss and find solutions to the problems of the tribal communities.

While narrating the successful tribal intervention, Mr. Rajan, the president of the Pechiparai Panchayat said, "All coastal people got the attention of government after tsunami;

plains get the attention whenever there is an election but tribal people in Pechiparai got the attention of government only after the present district collector".

5.10 Conclusion

Like education and health, the district is also economically advanced. This is revealed by very fast and consistent increase in per capita income in the district. Besides, it is also expressed through the increasing urbanization, booming construction and real estate, and increasing housing stock in the district. The actual wage rate of different categories of workers is found to be much higher than the minimum wages fixed by the government.

The fisher folk population in the district, which consists of about one fifth of the total fisherfolk population of the state, is known for their skill of fishing even in rough sea.

The district is well connected with different infrastructures such as road, transport and electricity. The different livelihood initiatives which are being facilitated by the district administration in recent past is expected to yield a better result.

A few such initiatives are, as mentioned earlier, e-vyapar, skill development of youth, and tourism development.

However, a few concerned areas with respect to income and employment which need a systematic intervention are: (i) female work participation rate was found to be much lower in the district; (ii) land put to non-agricultural use has been declining without increase in many manufacturing units; (iii) economic inequality, in terms of percentage of population spending less than Rs 580 as monthly per capita consumer expenditure, was found to be higher in the district.

Livelihood interventions at decentralised level need to be the focused. The district has to focus more on micro- enterprises to generate better livelihoods. Keeping the educated unemployment in view, more soft companies may be encouraged to operate in the district. It may generate employment to 10,000 persons.

Tourism is another sector which could be approached with livelihood promotion perspective.

With regard to the agriculture, the farmers could be clustered based on the commodities they produce to reap the benefit of collective and competitive advantage. Particularly, the banana growers can come together and form farmers' cooperatives or a producers company which can facilitate common share capital and avail the bank loan. Such initiatives can help farmers in using better technology and also in cutting down the chain of middlemen.

Given the skill and basic resources, the SHGs have the greater potential to take up the entrepreneurship. Clustering of SHGs on the basis of common activity and forming panchayat level federations would be helpful to produce the identified items with a minimum risk, and establish the market linkage (both forward and backward) for their products.

An independent study may be conducted to know the present status of poverty and its characteristics including the status of labour and children among BPL households in the district. Since data on out-migration from the district including its extent and nature was not available, a study would be helpful to understand the same. This study would also helpful to establish the relationship between National Rural Employment Guarantee Scheme (NREGS) and out-migration.

Annexures

Annexure 5-1: Net domestic product and its growth rate of Kanyakumari, Tamil Nadu and India from 1999-00 to 2006-07 at constant (1999-2000) prices

Year	Kanyakumari		Tamil Nadu		India	
	NDP (*in Rs.lakh*)	Growth rate of NDP (%)	NDP (*in Rs.lakh*)	Growth rate of NDP (%)	NDP (*in Rs.lakh*)	Growth rate of NDP (%)
1999-2000	356463	-	11970394	-	160510400	-
2000-01	385512	8.15	12634927	5.55	167046600	4.07
2001-02	383939	-0.41	12390102	-1.94	176413700	5.61
2002-03	389093	1.34	12452136	0.50	182460100	3.43
2003-04	415948	6.90	13228127	6.23	198131700	8.59
2004-05	480615	15.55	14799350	11.88	212626900	7.32
2005-06	562278	16.99	16595252	12.14	232867500	9.52
2006-07	629732	12.00	18530974	11.66	255471300	9.71

Sources: 1. Department of Economics and Statistics, Government of Tamil Nadu, Chennai.
2. *Data for Use of Deputy Chairman, Planning Commission,* Government of India, Planning Commission, Retrieved on 22 February 2010 from http://planningcommission.gov.in.

Annexure 5-2 : Sector wise contribution to overall NDP in Kanyakumari and Tamil Nadu from 1999-00 to 2006-07 at constant (1999-00) prices(in Rs. lakh)

Year	Kanyakumari				Tamil Nadu				India (in crore Rs.)			
	Primary	Secondary	Tertiary	Overall	Primary	Secondary	Tertiary	Overall	Primary	Secondary	Tertiary	Overall
1999-2000	61069	133740	161654	356463	2185056	3221654	6563683	11970394	457953	330770	816380	1605104
2000-01	65865	146330	173317	385512	2289180	3432599	6913148	12634927	456575	352625	861249	1670466
2001-02	60896	142243	180800	383939	2229756	3021360	7138986	12390102	483253	359566	921318	1764137
2002-03	41300	157510	190283	389093	1753724	3271637	7426776	12452136	451108	384652	988842	1824601
2003-04	40784	169463	205701	415948	1718782	3533653	7975692	13228127	494443	414520	1072355	1981317
2004-05	47064	205793	227758	480615	2046645	3964583	8788122	14799350	496429	459493	1170348	2126269
2005-06	62769	246323	253186	562278	2280023	4568176	9747053	16595252	524987	508204	1295483	2328675
2006-07	63789	279167	286776	629732	2570668	5018542	10941763	18530974	547608	563987	1443118	2554713

Sources: 1. Department of Economics and Statistics, Government of Tamil Nadu, Chennai.

2. *Data for Use of Deputy Chairman, Planning Commission,* Government of India, Planning Commission, Retrieved on 22 February 2010 from http://planningcommission.gov.in.

Annexure 5-3: Sector wise contribution to overall NDP in Kanyakumari and Tamil Nadu from 1999-00 to 2006-07 at constant (1999-00) prices (in%)

Year	Kanyakumari			Tamil Nadu			India		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
1999-2000	17.13	37.52	45.35	18.25	26.91	54.83	28.53	20.61	50.86
2000-01	17.09	37.96	44.96	18.12	27.17	54.71	27.33	21.11	51.56
2001-02	15.86	37.05	47.09	18.00	24.39	57.62	27.39	20.38	52.22
2002-03	10.61	40.48	48.90	14.08	26.27	59.64	24.72	21.08	54.19
2003-04	9.81	40.74	49.45	12.99	26.71	60.29	24.96	20.92	54.12
2004-05	9.79	42.82	47.39	13.83	26.79	59.38	23.35	21.61	55.04
2005-06	11.16	43.81	45.03	13.74	27.53	58.73	22.54	21.82	55.63
2006-07	10.13	44.33	45.54	13.87	27.08	59.05	21.44	22.08	56.49

Sources: 1. Department of Economics and Statistics, Government of Tamil Nadu, Chennai.

2. *Data for Use of Deputy Chairman, Planning Commission,* Government of India, Planning Commission, Retrieved on 22 February 2010 from http://planningcommission.gov.in.

Annexure 5-4: Sub-sectoral contribution of primary sector to overall NDP at constant (1999-00) prices in Kanyakumari and Tamil Nadu from 1999-00 to 2006-07

Kanyakumari (*in Rs. Lakh*)

Year	Agriculture and Allied Actitivities	Forestry and Logging	Fishing	Mining and Quarrying	Overall Primary	Total NDP
1999-2000	45112	1531	14274	152	61069	356463
2000-01	47610	1453	16747	54	65865	385512
2001-02	42580	1372	16876	69	60896	383939
2002-03	33200	1368	6635	97	41300	389093
2003-04	31670	1257	7768	90	40784	415948
2004-05	39432	1369	6172	92	47064	480615
2005-06	46792	1296	14585	96	62769	562278
2006-07	47106	1264	15312	108	63789	629732

Kanyakumari (*in %*)

Year	Agriculture and Allied Actitivities	Forestry and Logging	Fishing	Mining and Quarrying	Overall Primary	Total NDP
1999-2000	12.66	0.43	4.00	0.04	17.13	100.00
2000-01	12.35	0.38	4.34	0.01	17.09	100.00
2001-02	11.09	0.36	4.40	0.02	15.86	100.00
2002-03	8.53	0.35	1.71	0.02	10.61	100.00
2003-04	7.61	0.30	1.87	0.02	9.81	100.00
2004-05	8.20	0.28	1.28	0.02	9.79	100.00
2005-06	8.32	0.23	2.59	0.02	11.16	100.00
2006-07	7.48	0.20	2.43	0.02	10.13	100.00

Tamil Nadu (*in Rs. Lakh*)

Year	Agriculture and Allied Actitivities	Forestry and Logging	Fishing	Mining and Quarrying	Overall Primary	Total NDP
1999-2000	1906769	60170	167689	50428	2185056	11970394
2000-01	2006753	57719	172944	51763	2289180	12634927
2001-02	1942083	55092	175618	56963	2229756	12390102
2002-03	1460064	60892	169179	63589	1753724	12452136
2003-04	1421512	57930	161882	77458	1718782	13228127
2004-05	1770532	60589	135402	80122	2046645	14799350
2005-06	1946563	60220	195408	77832	2280023	16595252
2006-07	2231698	56869	199248	82852	2570668	18530974

Tamil Nadu (*in %*)

Year	Agriculture and Allied Actitivities	Forestry and Logging	Fishing	Mining and Quarrying	Overall Primary	Total NDP
1999-2000	15.93	0.50	1.40	0.42	18.25	100.00
2000-01	15.88	0.46	1.37	0.41	18.12	100.00
2001-02	15.67	0.44	1.42	0.46	18.00	100.00
2002-03	11.73	0.49	1.36	0.51	14.08	100.00
2003-04	10.75	0.44	1.22	0.59	12.99	100.00
2004-05	11.96	0.41	0.91	0.54	13.83	100.00
2005-06	11.73	0.36	1.18	0.47	13.74	100.00
2006-07	12.04	0.31	1.08	0.45	13.87	100.00

Source: Department of Economics and Statistics, Government of Tamil Nadu, Chennai.

Annexure 5-5: Sub-sectoral contribution of secondary sector to overall NDP at constant (1999-00) prices in Kanyakumari and Tamil Nadu from 1999-00 to 2006-07

Kanyakumari (*in Rs. Lakh*)

Year	Manufacturing - Registered	Manufacturing - Unregistered	Electricity, Gas, & Water Supply	Construction	**Overall Secondary**
1999-2000	45163	12821	4832	70924	133740
2000-01	48562	15069	5530	77169	146330
2001-02	42813	14786	2535	82109	142243
2002-03	41215	16555	5043	94697	157510
2003-04	40360	19067	3519	106517	169463
2004-05	42371	21229	4007	138186	205793
2005-06	52913	23405	3099	166906	246323
2006-07	58970	26978	2824	190395	279167

Kanyakumari (*in %*)

Year	Manufacturing - Registered	Manufacturing - Unregistered	Electricity, Gas, & Water Supply	Construction	**Overall Secondary**
1999-2000	12.67	3.60	1.36	19.90	37.52
2000-01	12.60	3.91	1.43	20.02	37.96
2001-02	11.15	3.85	0.66	21.39	37.05
2002-03	10.59	4.25	1.30	24.34	40.48
2003-04	9.70	4.58	0.85	25.61	40.74
2004-05	8.82	4.42	0.83	28.75	42.82
2005-06	9.41	4.16	0.55	29.68	43.81
2006-07	9.36	4.28	0.45	30.23	44.33

Tamil Nadu (*in Rs. Lakh*)

Year	Manufacturing - Registered	Manufacturing - Unregistered	Electricity, Gas, & Water Supply	Construction	**Overall Secondary**
1999-2000	1333337	763275	209470	915573	3221654
2000-01	1435570	816006	234765	946259	3432599
2001-02	1177199	781095	106107	956959	3021360
2002-03	1193517	821622	206944	1049554	3271637
2003-04	1424159	844136	141991	1123367	3533653
2004-05	1517023	901260	158738	1387562	3964583
2005-06	1894464	956419	120673	1596619	4568176
2006-07	2111334	1062769	108333	1736106	5018542

Tamil Nadu (*in %*)

Year	Manufacturing - Registered	Manufacturing - Unregistered	Electricity, Gas, & Water Supply	Construction	**Overall Secondary**
1999-2000	11.14	6.38	1.75	7.65	26.91
2000-01	11.36	6.46	1.86	7.49	27.17
2001-02	9.50	6.30	0.86	7.72	24.39
2002-03	9.58	6.60	1.66	8.43	26.27
2003-04	10.77	6.38	1.07	8.49	26.71
2004-05	10.25	6.09	1.07	9.38	26.79
2005-06	11.42	5.76	0.73	9.62	27.53
2006-07	11.39	5.74	0.58	9.37	27.08

Source: Department of Economics and Statistics, Government of Tamil Nadu, Chennai.

Annexure 5-6: Sub-sectoral contribution of tertiary sector to overall NDP at constant (1999-00) prices in Kanyakumari and Tamil Nadu from 1999-00 to 2006-07

Kanyakumari (*in Rs. Lakh*)

Year	Trade, Hotels & Restaurants	Railways	Transport by Other Means	Storage	Communication	Banking & Insurance	Real Estate, Ownership of Dwelling and Business Services	Public Administration	Other Services	**Overall Tertiary**
1999-2000	44628	1218	17930	60	3910	20998	20276	15769	36865	161654
2000-01	47697	1152	20488	64	4804	20730	23118	16221	39043	173317
2001-02	48663	1157	20118	84	6497	22383	25305	16273	40320	180800
2002-03	50148	1127	20272	69	7389	26528	27495	14865	42390	190283
2003-04	57515	1146	22591	95	9271	28294	30794	15097	40898	205701
2004-05	65364	1213	23506	49	10635	28810	35974	15653	46554	227758
2005-06	75277	1224	24837	43	12526	34135	41272	15673	48199	253186
2006-07	85507	1264	26927	47	14591	41857	46313	18126	52144	286776

Tamil Nadu (*in Rs. Lakh*)

Year	Trade, Hotels & Restaurants	Railways	Transport by Other Means	Storage	Communication	Banking & Insurance	Real Estate, Ownership of Dwelling and Business Services	Public Administration	Other Services	**Overall Tertiary**
1999-2000	2011853	117122	654050	7932	199894	934506	755108	634335	1248883	6563683
2000-01	2126651	115697	709077	8246	247996	904802	825263	655996	1319419	6913148
2001-02	2146470	121780	680026	8246	338636	958539	863733	661815	1359741	7138986
2002-03	2188757	124666	670929	7155	388960	1115026	896106	608168	1427009	7426776
2003-04	2484563	133527	732733	7235	493041	1167779	960483	621546	1374785	7975692
2004-05	2795376	149355	804657	8531	571522	1167946	1078827	648697	1563211	8788122
2005-06	3187829	159539	889339	8991	680282	1359737	1190202	653976	1617159	9747053
2006-07	3586460	175108	931904	10035	801118	1638801	1287920	761748	1748668	10941763

Source: Department of Economics and Statistics, Government of Tamil Nadu, Chennai.

Annexure 5-7: No. of houses in municipal corporations and municipalities of different districts of Tamil Nadu in 1991 and 2007

District	No. of Houses asper 1991 Census	No. of Houses upto 30.09.2007 (01.04.91 to 30.09.07)	No. of Houses for the Quarter Ended 31.12.2007 (01.10.07 to 31.12.07)	Total (Col 4 & 5)	% increase during 1991 and 2007
2	3	4	5	6	7
Chennai	794322	65843	1280	67123	8.45
Kancheepuram	429375	37756	793	38549	8.98
Tiruvallur	NA	26502	958	27460	NA
Cuddalore	153462	10759	185	10944	7.13
Villupuram	NA	2334	85	2419	NA
Vellore	166315	20029	403	20432	12.29
Tiruvannamalai	42469	7643	120	7763	18.28
Salem	257915	15418	289	15707	6.09
Namakkal	NA	4591	188	4779	NA
Dharmapuri	47390	5112	23	5135	10.84
Krishnagiri	NA	540	67	607	NA
Coimbatore	432111	34279	1589	35868	8.30
Erode	138997	12108	375	12483	8.98
Thiruchirapalli	240496	18473	427	18900	7.86
Karur	NA	3357	198	3555	NA
Perambalur	NA	1026	84	1110	NA
Thanjavur	207365	13583	107	13690	6.60
Nagapattinam	NA	6944	137	7081	NA
Thiruvarur	NA	5889	81	5970	NA
Pudukkottai	39198	4979	106	5085	12.97

District	No. of Houses asper 1991 Census	No. of Houses upto 30.09.2007 (01.04.91 to 30.09.07)	No. of Houses for the Quarter Ended 31.12.2007 (01.10.07 to 31.12.07)	Total (Col 4 & 5)	% increase during 1991 and 2007
Madurai	328999	31089	1192	32281	9.81
Dindigul	81355	3666	61	3727	4.58
Theni	NA	5743	130	5873	NA
Ramanathapuram	49382	6677	128	6805	13.78
Virudhunagar	138200	14966	319	15285	11.06
Sivagangai	62073	8385	143	8528	13.74
Tirunelveli	171369	22419	527	22946	13.39
Thoothukudi	132326	7043	192	7235	5.47
Kanniyakumari	**54064**	**10714**	**113**	**10827**	**20.03**
The Nilgiris	75670	2694	132	2826	3.73
Total	**4042853**	**410561**	**10432**	**420993**	10.41

Source: http://tnstat.gov.in/databank.html. Retrieved on 10 July 2010.

Annexure 5-8: Age and sex wise distribution of total workers - main, marginal and non-workers in Tamil Nadu and Kanyakumari (2001 Census)

Tamil Nadu/Kanyakumari	Age	Population			Total workers			Main workers			Marginal workers			Non-workers		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Tamil Nadu	All	62405679	31400909	31004770	27878282	18100397	9777885	23757783	16303310	7454473	4120499	1797087	2323412	34527397	13300512	21226885
	5-14	11612412	5962197	5650215	418801	225033	193768	304339	171881	132458	114462	53152	61310	11193611	5737164	5456447
	15-34	22392020	11085828	11306192	12118114	7740272	4377842	10162577	6864607	3297970	1955537	875665	1079872	10273906	3345556	6928350
	35-59	17366443	8773413	8593030	12804821	8374295	4430526	11153402	7708703	3444699	1651419	665592	985827	4561622	399118	4162504
	60 & above	5507400	2735800	2771600	2372449	1650060	722389	1995827	1458229	537598	376622	191831	184791	3134951	1085740	2049211
Kanniyakumari	All	1676034	832269	843765	548056	440720	107336	454378	374862	79516	93678	65858	27820	1127978	391549	736429
	5-14	287833	145793	142040	3907	2489	1418	2850	1878	972	1057	611	446	283926	143304	140622
	15-34	618464	302607	315857	225984	181148	44836	184963	152181	32782	41021	28967	12054	392480	121459	271021
	35-59	471195	233783	237412	271358	218084	53274	229662	189110	40552	41696	28974	12722	199837	15699	184138
	60 & above	164498	81737	82761	46354	38670	7684	36525	31413	5112	9829	7257	2572	118144	43067	75077

Source: Census of India 2001.

Annexure 5-9 Age and sex wise work participation rate (WPR) in Tamil Nadu and Kanyakumari (2001 Census)

	Tamil Nadu			Kanyakumari		
Age group	**Persons**	**Males**	**Females**	**Persons**	**Males**	**Females**
All	44.67	57.64	31.54	32.70	52.95	12.72
5-14	3.61	3.77	3.43	1.36	1.71	1.00
15-34	54.12	69.82	38.72	36.54	59.86	14.20
35-59	73.73	95.45	51.56	57.59	93.28	22.44
60 & above	43.08	60.31	26.06	28.18	47.31	9.28

Source: Census of India 2001.

Annexure 5-10: Sex wise distribution of workers on the basis of level of education in Tamil Nadu and Kanyakumari (2001 Census)

Area	Educational level	Population			Main workers			Marginal workers			Non-workers		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Tamil Nadu	Total	62405679	31400909	31004770	23757783	16303310	7454473	4120499	1797087	2323412	34527397	13300512	21226885
	Illiterate	21881134	8591247	13289887	7216680	3346318	3870362	1875873	514797	1361076	12788581	4730132	8058449
	Literate	40524545	22809662	17714883	16541103	12956992	3584111	2244626	1282290	962336	21738816	8570380	13168436
	Literate but below matric/secondary	25112423	13591518	11520905	8995421	6829285	2166136	1466710	792270	674440	14650292	5969963	8680329
	Matric/secondary but below graduate	8591469	5070148	3521321	3765061	3165961	599100	403145	264724	138421	4423263	1639463	2783800
	Technical diploma or certificate not equal to degree	438918	383604	55314	244198	226053	18145	19021	17681	1340	175699	139870	35829
	Graduate and above other than technical degree	1733959	1084493	649466	997038	804194	192844	45296	32200	13096	691625	248099	443526
	Technical degree or diploma equal to degree or post-graduate degree	462739	307107	155632	271811	198906	72905	8760	6251	2509	182168	101950	80218
Kanyakumari	Total	1676034	832269	843765	454378	374862	79516	93678	65858	27820	1127978	391549	736429
	Illiterate	367712	163602	204110	49791	36366	13425	15954	9695	6259	301967	117541	184426
	Literate	1308322	668667	639655	404587	338496	66091	77724	56163	21561	826011	274008	552003
	Literate but below matric/secondary	747871	376957	370914	202203	170608	31595	45773	32564	13209	499895	173785	326110
	Matric/secondary but below graduate	315319	158633	156686	99480	84787	14693	17088	12693	4395	198751	61153	137598
	Technical diploma or certificate not equal to degree	17332	14323	3009	7615	6885	730	912	841	71	8805	6597	2208
	Graduate and above other than technical degree	52804	27983	24821	23504	18510	4994	1780	1278	502	27520	8195	19325
	Technical degree or diploma equal to degree or post-graduate degree	15680	7996	7684	7646	4647	2999	428	274	154	7606	3075	4531

Source: Census of India 2001.

Annexure 5-11 Sex wise work participation rate on the basis of level of education in Tamil Nadu and Kanyakumari (2001 Census)

Educational level	Tamil Nadu			Kanyakumari		
	Persons	Males	Females	Persons	Males	Females
Total	44.67	57.64	31.54	32.70	52.95	12.72
Illiterate	41.55	44.94	39.36	17.88	28.15	9.64
Literate	46.36	62.43	25.66	36.86	59.02	13.70
Literate but below matric/secondary	41.66	56.08	24.66	33.16	53.90	12.08
Matric/secondary but below graduate	48.52	67.66	20.94	36.97	61.45	12.18
Technical diploma or certificate not equal to degree	59.97	63.54	35.23	49.20	53.94	26.62
Graduate and above other than technical degree	60.11	77.12	31.71	47.88	70.71	22.14
Technical degree or diploma equal to degree or post-graduate degree	60.63	66.80	48.46	51.49	61.54	41.03

Source: Census of India 2001.

Annexure 5-12: Worker category wise minimum wages fixed by the government and actual wages in sample villages of different blocks in Kanyakumari during 2009

S.No.	Blocks (sample villages)	Ploughing in wet land (with plough and bullocks) [men]		Pluckers & seedlings [women]		Transplanters [women]		Weeders [women]	
		-		Rs.85/5h*		Rs.85/5h*		Rs.85/5h*	
		Min. (Rs.)	Max. (Rs.)	Min. (Rs.)	Max. (Rs.)	Min. (Rs.)	Max. (Rs.)	Min. (Rs.)	Max. (Rs.)
1	Agastheswaram (Marungoor)	400	400			100	100	100	110
2	Killiyoor (Paloor)	360	400	100	100	100	110		
3	Kurunthencode (Kadiapatnam)	340	340	-	-	85	85	85	85
4	Melpuram (Vellancode)	-	-	-	-	-	-	-	-
5	Munchirai (Kollancode)	360	400	100	100	100	110	80	110
6	Rajakamangalam (Mathusoothanapuram)	420	420	-	-	110	110	95	110
7	Thiruvattar (Surulacode)	-	-	-	-	-	-	-	-

S.No.	Blocks (sample villages)	Ploughing in wet land (with plough and bullocks) [men]		Pluckers & seedlings [women]		Transplanters [women]		Weeders [women]	
8	Thovalai (E.Santhimangalam)	375	375	-	-	100	125	90	100
9	Thuckalay (Kappiyarai)	350	350	-	-	85	85	85	85

Table: contd.

S.No.	Blocks (sample villages)	Harvesting paddy [men]		Harvesting other than paddy [men]		Other agri operations [men]	
		Rs.100/6h*		Rs.100/6h*		Rs.100/6h*	
		Min. (Rs.)	Max. (Rs.)	Min. (Rs.)	Max. (Rs.)	Min. (Rs.)	Max. (Rs.)
1	Agastheswaram (Marungoor)	290	290	360	360	360	360
2	Killiyoor (Paloor)	300	300	350	350	350	350
3	Kurunthencode (Kadiapatnam)	240	240	310	310	310	310
4	Melpuram (Vellancode)	-	-	275	275	275	275
5	Munchirai (Kollancode)	300	300	340	340	340	340
6	Rajakamangalam (Mathusoothanapuram)	360	360	360	370	370	370
7	Thiruvattar (Surulacode)	-	-	275	300	300	300
8	Thovalai (E.Santhimangalam)	290	290	320	320	320	320
9	Thuckalay (Kappiyarai)	240	240	325	330	330	340

Table: contd.

S.No.	Blocks (sample villages)	Other operations (skilled) [men]		Other operations (non-skilled) [men]		Carpenter [men]		Blacksmith [men]	
		Rs.100/6h*		Rs.100/6h*		Rs.150/6h*		Rs.150/6h*	
		Min. (Rs.)	Max. (Rs.)	Min. (Rs.)	Max. (Rs.)	Min. (Rs.)	Max. (Rs.)	Min. (Rs.)	Max. (Rs.)
1	Agastheswaram (Marungoor)	-	-	190	210	-	-	-	-
2	Killiyoor (Paloor)	-	-	210	230	250	280	220	240
3	Kurunthencode (Kadiapatnam)	-	-	200	200	-	-	-	-
4	Melpuram (Vellancode)	175	200	175	200	-	-	-	-
5	Munchirai (Kollancode)	-	-	210	220	240	250	210	220
6	Rajakamangalam (Mathusoothanapuram)	-	-	210	225	-	-	-	-
7	Thiruvattar (Surulacode)	190	190	190	190	-	-	-	-
8	Thovalai (E.Santhimangalam)	-	-	200	220	250	250	200	200
9	Thuckalay (Kappiyarai)	180	180	190	190	-	-	180	180

Note: 1. '*' denotes the minimum wage fixed by the government, Labour and Employment (J1) Department, G.O. No. (2D) 88, dated 01.10.2009.

2. The Min. (minimum) and Max. (maximum) data are based on the actual wages of the respective blocks in sample villages during July to December, 2009.

Source: Office of the Assistant Director of Statistics, Nagercoil.

Annexure 5-13: Percentage distribution of rural BPL households among various social groups based on income, in the income bracket of <Rs.250 and Rs.250 to Rs.499 in various blocks of Kanyakumari district

	SC			ST			OBC			Others			ALL		
Blocks	<250	250-499	Up to 499	<250	250-499	Up to 499	<250	250-499	Up to 499	<250	250-499	Up to 499	<250	250-499	Up to 499
Melpuram	30.86	28.81	59.67	15.00	50.00	65.00	22.91	31.95	54.86	39.29	45.80	85.09	26.83	34.92	61.75
Killiyoor	41.72	29.14	70.86	62.50	25.00	87.50	18.86	40.85	59.71	23.37	44.58	67.95	20.12	40.77	60.89
Munchira	54.55	34.27	88.81	25.42	30.51	55.93	18.73	29.40	48.13	36.27	41.75	78.02	26.89	34.80	61.70
Kurunthancode	11.53	41.74	53.27	0.00	0.00	0.00	7.91	29.65	37.56	6.69	37.06	43.75	7.69	33.51	41.20
Thackalai	23.60	34.40	58.00	54.55	27.27	81.82	22.64	32.25	54.90	5.29	17.20	22.50	18.31	28.39	46.70
Thiruvattar	18.95	41.05	60.00	18.35	38.92	57.28	27.67	32.65	60.32	26.12	26.63	52.75	26.40	32.95	59.34
Thovala	1.84	16.36	18.20	0.00	16.67	16.67	6.76	15.36	22.12	5.75	15.30	21.05	5.82	15.46	21.27
Agastheeswaram	15.81	43.66	59.47	20.83	33.33	54.17	13.78	35.47	49.25	11.57	28.99	40.56	13.42	34.60	48.02
Rajakkalmangalam	7.36	25.97	33.33	5.00	20.00	25.00	2.59	14.20	16.79	5.06	18.07	23.12	3.93	16.64	20.57
TOTAL	17.01	33.53	50.54	19.34	34.62	53.96	17.16	29.42	46.58	18.76	30.95	49.71	17.66	30.23	47.89

Source: *BPL Survey 2002*, www.bpl.nic.in. Retrieved on 23 December 2009.

Annexure 5-14: Percentage distribution of rural BPL households among various social groups based on size of operational landholdings (landless and less than 1 ha. of land) in various blocks of Kanyakumari district

Block Name	SC			ST			OBC			OTHERS			Total		
	Nil	<1 ha	Total	Nil	<1 ha	Total	Nil	<1 ha	Total	Nil	<1 ha	Total	Nil	<1 ha	Total
Melpuram	46.28	32.23	100.00	55.00	35.00	100.00	49.08	32.28	100.00	38.01	56.98	100.00	46.51	37.79	100.00
Killiyoor	87.50	5.92	100.00	75.00	12.50	100.00	82.09	8.45	100.00	83.73	10.05	100.00	82.41	8.52	100.00
Munchira	62.24	27.97	100.00	62.90	24.19	100.00	80.56	13.83	100.00	82.53	13.21	100.00	81.00	13.85	100.00
Kurunthancode	77.88	12.46	100.00	0.00	0.00	0.00	79.27	4.74	100.00	66.49	22.99	100.00	74.04	12.63	100.00
Thackalai	90.87	5.95	100.00	51.72	34.48	100.00	67.14	11.74	100.00	83.79	13.86	100.00	72.97	12.11	100.00
Thiruvattar	46.72	40.94	100.00	22.47	32.59	100.00	44.03	37.70	100.00	56.61	28.64	100.00	44.32	36.69	100.00
Thovala	83.43	8.78	100.00	76.67	20.00	100.00	77.30	10.42	100.00	81.12	10.57	100.00	79.38	10.36	100.00
Agastheeswaram	90.13	8.50	100.00	97.92	2.08	100.00	81.34	15.78	100.00	88.06	10.11	100.00	86.46	11.50	100.00
Rajakkalmangalam	60.72	36.47	100.00	72.50	22.50	100.00	63.77	19.89	100.00	71.19	17.25	100.00	66.70	19.99	100.00
TOTAL	73.93	19.20	100.00	43.58	27.49	100.00	67.44	18.82	100.00	74.37	18.64	100.00	69.78	18.89	100.00

Source: *BPL Survey 2002*, www.bpl.nic.in. Retrieved on 23 December 2009.

Annexure 5-15: Percentage distribution of rural BPL households based on indebtedness (on informal sources of credit for daily consumption)

Block Name	SC	ST	OBC	Others	TOTAL
Melpuram	53.50	40.00	49.52	67.07	53.57
Killiyoor	74.34	62.50	60.89	46.41	60.01
Munchira	58.74	20.97	17.75	68.14	40.08
Kurunthancode	66.98	0.00	66.84	63.68	65.58
Thackalai	77.38	20.69	60.26	57.70	60.35
Thiruvattar	43.57	18.04	46.70	46.10	44.82
Thovala	34.33	30.00	39.55	35.57	37.44
Agastheeswaram	67.38	83.33	55.45	74.65	66.76
Rajakkalmangalam	46.89	17.50	31.34	39.95	35.98
TOTAL	56.14	26.22	44.79	56.82	49.12

Source: *BPL Survey 2002*, www.bpl.nic.in. Retrieved on 23 December 2009.

Annexure 5-16: Land utilisation pattern of Kanyakumari from 2000-01 to 2008-09 (*in ha.*)

Classification	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Forest/protected forest	54155	54155	54155	54155	54155	54155	54155	42850	4772
Reserved forest	--	--	--	--	--	--	--	--	38078
Unclassified area	--	--	--	--	--	--	--	11305	11305
Total forest area	54155	54155	54155	54155	54155	54155	54155	54155	54155
Barren and uncultivable uses	3338	3338	3335	3335	3335	3149	4006	4006	4001
Land put to Non- Agricultural uses	25163	25313	25435	26287	26337	26890	28177	28256	28331
Cultivable Waste	121	--	--	--	--	--	--	--	-
Permanent Pastures and Other Grazing Land	75	73	72	2	2	133	103	104	104
Land under Miscellaneous Tree Crops and Grass not included in Net Area Sown	459	439	611	613	550	581	541	708	703
Curret Fallow	1573	1496	2233	2707	2457	1433	--	--	1408
Other Fallow Land	1480	1427	1630	1272	1828	1536	--	--	-
Geographical Area According to Village Papers	167184	167184	167184	167200	167200	91807	92553	167200	167200
Net Area Sown	80820	80944	79713	78829	78536	79323	80218	79971	78497
Total Crop Areas	98448	98324	94374	87804	91507			90998	88788
Area sown more than once	17628	17380	14661	8975	12971	12484	12335	11027	10291

Source: *District Statistical Handbook*, Nagercoil, different years.

Annexure 5-17: Percentage distribution of net area irrigated by sources of irrigation in Kanyakumari from 2001-02 from 2008-09

Source of irrigation	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Govt. canals	38.83	48.94	52.66	57.51	57.96	59.63	38.17	38.75
Tanks	54.82	43.14	40.76	36.11	35.63	38.50	59.83	59.27
Flow irrigation	0.92	0.97	0.82	0.81	0.00	0.00	0.00	0.00
Tube wells	0.00	0.00	1.62	1.57	1.90	0.58	0.59	0.57
Dug wells	5.43	6.95	4.14	4.00	4.51	1.29	1.41	1.41
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: *District Statistical Handbook*, Kanyakumari, different years.

Annexure 5-18: Area (in ha.) under major crops grown in Kanyakumari district from 2000-01 to 2007-08

Crops	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Paddy-Kharif	14008	13944	12013	6103	10684	10669	10537	9987
Paddy-Rabi	14586	14285	11217	11217	11332	11040	10867	10076
Blackgram	3281	3599	2640	1661	2067	1637	1412	903
Greengram	23	7	55	55	0	2	2	0
Cowpea	224	328	344	261	233	209	168	186
Groundnut	47	56	42	87	42	22	22	11
Coconut	22363	22586	22667	22664	23936	24220	24444	24445
Rubber	18442	18327	18277	18296	18695	19398	19400	19480

Source: Office of the Joint Directorate of Agriculture, Nagercoil.

Annexure 5-19: Distribution of different categories of operational holdings who had taken institutional credit by credit sources in Kanyakumari

Size group	Kanyakumari								Tamil Nadu				India			
	1996-97				2001-02				2001-02				2001-02			
	PACS*	PLDB*/ SLDB	CBB*	RRBB*	PACS*	PLDB*/ SLDB	CBB*	RRBB*	PACS*	PLDB*/ SLDB	CBB*	RRBB*	PACS*	PLDB*/ SLDB	CBB*	RRBB*
Marginal	13297	0	12875	0	46274	0	0	0								
Small	730	0	0	0	741	611	203	203								
Semi-medium	0	0	181	0	384	72	72	144								
Medium	81	0	0	0	186	29	0	18								
Large	0	0	29	0	0	0	0	114								
All	14108	0	13085	0	47585	712	275	479								

Note: * PACS: Primary Agricultural Credit Society; PLDB: Primary Land Development Bank; CBB: Commercial Bank Branch; RRBB: Regional Rural Bank Branch
Sources: Calculated from different *Input Survey Reports*, Department of Agriculture and Cooperation, Govt. of India.

Annexure 5-20: Percentage distribution of fisher folk population by religion and social group

Area	Hinduism	Islam	Christianity	Total	SC/ST
Tamil Nadu	58.91	6.50	34.58	100.00	5.64
Kanyakumari district	0.40	0.12	99.48	100.00	0.30
Agastheeswaram taluk	0.10	0.05	99.85	100.00	0.74
Kalkulam taluk	0.12	0.35	99.53	100.00	0.24
Vilvancode taluk	0.80	0.01	99.20	100.00	0.04

Source: Calculated from Marine Fisheries Census, 2005.

Annexure 5-21: Percentage distribution of workers of fisher folk population engaged in fishing and allied activities in Tamil Nadu, Kanyakumari district and different taluks of the district

Area	Active fishermen	Marketing of fish	Making/ repairing net	Curing/ processing	Peeling	Labourer	Others	**Total**
Tamil Nadu	66.44	11.60	6.12	2.01	0.68	8.24	4.92	100.00
Kanyakumari district	79.78	4.33	3.26	1.17	0.27	2.87	8.31	100.00
Agastheeswaram taluk	74.02	3.20	7.67	3.52	0.22	4.47	6.90	100.00
Kalkulam taluk	85.90	4.37	0.39	0.09	0.04	1.84	7.38	100.00
Vilvancode taluk	79.91	5.14	1.94	0.17	0.46	2.39	9.98	100.00

Source: Calculated from *Marine Fisheries Census, 2005*.

Annexure 5-22: Percentage distribution of workers among active fisher folk

Area	Full time	Part time	Occasional	Total
Tamil Nadu	89.70	7.71	2.59	100.00
Kanyakumari district	93.32	3.02	3.66	100.00
Agastheeswaram taluk	95.93	2.08	1.99	100.00
Kalkulam taluk	94.89	2.33	2.78	100.00
Vilvancode taluk	90.40	4.15	5.45	100.00
Note: All active fisher folk are male.				

Source: Calculated from *Marine Fisheries Census, 2005*.

Annexure 5-23: Percentage distribution of workers by sex in allied activities of fishing

Area	Male	Female
Tamil Nadu	52.89	47.11
Kanyakumari district	53.55	46.45
Agastheeswaram taluk	65.89	34.11
Kalkulam taluk	45.77	54.23
Vilvancode taluk	45.45	54.55

Source: Calculated from *Marine Fisheries Census, 2005*.

Annexure 5-24 Percentage distribution of male and female workers by different allied activities of fishing

	Male							Female						
Area	Marketing of fish	Making/ repairing net	Curing/ processing	Peeling	Labourer	Others	Total	Marketing of fish	Making/ repairing net	Curing/ processing	Peeling	Labourer	Others	Total
Tamil Nadu	9.24	30.35	1.37	1.23	40.93	16.88	100.00	63.01	4.62	11.15	2.90	6.15	12.17	100.00
Kanyakumari district	6.11	22.56	0.97	0.12	24.11	46.13	100.00	39.08	8.69	11.39	2.76	2.78	35.31	100.00
Agastheeswaram taluk	4.68	44.30	1.34	0.07	25.13	24.47	100.00	27.07	0.98	37.10	2.38	1.89	30.58	100.00
Kalkulam taluk	12.87	4.85	0.63	0.42	20.99	60.23	100.00	46.30	0.98	0.62	0.18	6.32	45.59	100.00
Vilvancode taluk	4.88	0.90	0.60	0.05	24.18	69.38	100.00	42.86	16.93	1.09	4.19	1.63	33.31	100.00

Source: Calculated from *Marine Fisheries Census, 2005*.

Annexure 5-25: KVIC Industries in Kanyakumari: Employment and production from 2000-01 to 2009-10

Year	Yarn production		Kora production		Footwear unit		Soap unit		Honey processing unit	
	Employment	Production (nos. in lakhs)	Employment	Production (metres in lakhs)	Employment	Quantity	Employment	Quantity (metric tonnes)	Employment	Quantity (in kgs)
2000-01	148	2.23	58	0.43	5	1357	4	11.52	5	33659
2001-02	148	1.02	56	0.27	5	5841	4	12.3	5	57069
2002-03	143	0.79	58	0.22	5	3147	4	19.31	5	115390
2003-04	148	1.55	57	0.21	5	3885	4	19.63	5	42291
2004-05	148	2.83	49	0.27	5	3290	4	19.23	5	102436
2005-06	148	2.83	49	0.21	5	3131	4	5.40	5	49495
2006-07	153	2.89	27	0.36	5	1548	4	9.07	5	55117
2007-08	153	5.07	55	0.8	5	3316	4	2.59	5	80162
2008-09	158	2.13	57	0.35	5	1290	4	Nil	5	50180
2009-10	168	1.66	44	0.19	5	1734	4	Nil	5	12049

Source: Office of the Assistant Director, KVIC, Nagercoil.

Annexure 5-26: Number of workers and non-workers, both male and female in rural-urban areas in different taluks of Kanyakumari district (Census 2001)

Area	T/R/U	Total population			Total workers			Non-workers		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Kanniyakumari Dist.	Total	1676034	832269	843765	548056	440720	107336	1127978	391549	736429
	Rural	582107	289516	292591	195204	154978	40226	386903	134538	252365
	Urban	1093927	542753	551174	352852	285742	67110	741075	257011	484064
Vilavancode taluk	Total	533650	266432	267218	176697	140908	35789	356953	125524	231429
	Rural	234008	116890	117118	78411	62205	16206	155597	54685	100912
	Urban	299642	149542	150100	98286	78703	19583	201356	70839	130517
Kalkulam taluk	Total	537813	266494	271319	172281	140097	32184	365532	126397	239135
	Rural	162714	80828	81886	54473	43133	11340	108241	37695	70546
	Urban	375099	185666	189433	117808	96964	20844	257291	88702	168589
Thovala taluk	Total	110719	55057	55662	39075	30245	8830	71644	24812	46832
	Rural	56014	27813	28201	20206	15159	5047	35808	12654	23154
	Urban	54705	27244	27461	18869	15086	3783	35836	12158	23678
Agastheeswaram taluk	Total	493852	244286	249566	160003	129470	30533	333849	114816	219033
	Rural	129371	63985	65386	42114	34481	7633	87257	29504	57753
	Urban	364481	180301	184180	117889	94989	22900	246592	85312	161280

Source: Census of India 2001.

Annexure 5-27: Number of main workers classified based on industrial category both male and female in rural-urban areas in different taluks of Kanyakumari district (Census 2001)

Area	TRU	MAIN WORKERS														
		Total main Workers			Main cultivators			Main agricultural labourers			Main household industry			Main others		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Kanniyakumari Dist.	Total	454378	374862	79516	13434	11512	1922	56811	50140	6671	23922	10133	13789	360211	303077	57134
	Rural	158344	129656	28688	7707	6217	1490	23157	20031	3126	8140	3291	4849	119340	100117	19223
	Urban	296034	245206	50828	5727	5295	432	33654	30109	3545	15782	6842	8940	240871	202960	37911
Vilavancode taluk	Total	135274	110037	25237	3034	2578	456	13117	12131	986	9231	4615	4616	109892	90713	19179
	Rural	60549	49124	11425	1762	1411	351	5636	5134	502	3223	1545	1678	49928	41034	8894
	Urban	74725	60913	13812	1272	1167	105	7481	6997	484	6008	3070	2938	59964	49679	10285
Kalkulam taluk	Total	142106	118612	23494	4891	3996	895	18851	17425	1426	6916	2360	4556	111448	94831	16617
	Rural	44013	36206	7807	3100	2349	751	4961	4501	460	2526	750	1776	33426	28606	4820
	Urban	98093	82406	15687	1791	1647	144	13890	12924	966	4390	1610	2780	78022	66225	11797
Thovala taluk	Total	32955	26470	6485	1649	1492	157	9955	7895	2060	1355	587	768	19996	16496	3500
	Rural	16896	13230	3666	1142	1028	114	5841	4570	1271	824	337	487	9089	7295	1794
	Urban	16059	13240	2819	507	464	43	4114	3325	789	531	250	281	10907	9201	1706
Agastheeswaram taluk	Total	144043	119743	24300	3860	3446	414	14888	12689	2199	6420	2571	3849	118875	101037	17838
	Rural	36886	31096	5790	1703	1429	274	6719	5826	893	1567	659	908	26897	23182	3715
	Urban	107157	88647	18510	2157	2017	140	8169	6863	1306	4853	1912	2941	91978	77855	14123

Source: Census of India 2001.

Annexure 5-28: Number of marginal workers classified based on industrial category both male and female in rural-urban areas in different taluks of Kanyakumari district (Census 2001)

Area	TRU	MARGINAL WORKERS														
		Total marginal Workers			Marginal cultivators			Marginal agricultural labourers			Marginal household industry			Marginal others		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Kanniyakumari	Total	93678	65858	27820	2225	1354	871	25922	20732	5190	12143	3184	8959	53388	40588	12800
Kanniyakumari	Rural	36860	25322	11538	1488	825	663	11167	8770	2397	4540	1181	3359	19665	14546	5119
Kanniyakumari	Urban	56818	40536	16282	737	529	208	14755	11962	2793	7603	2003	5600	33723	26042	7681
Vilavancode	Total	41423	30871	10552	714	492	222	10389	9050	1339	4841	1780	3061	25479	19549	5930
Vilavancode	Rural	17862	13081	4781	451	303	148	4586	4043	543	1725	598	1127	11100	8137	2963
Vilavancode	Urban	23561	17790	5771	263	189	74	5803	5007	796	3116	1182	1934	14379	11412	2967
Kalkulam	Total	30175	21485	8690	907	498	409	7036	5967	1069	3942	740	3202	18290	14280	4010
Kalkulam	Rural	10460	6927	3533	690	334	356	2336	1875	461	1612	293	1319	5822	4425	1397
Kalkulam	Urban	19715	14558	5157	217	164	53	4700	4092	608	2330	447	1883	12468	9855	2613
Thovala	Total	6120	3775	2345	150	101	49	3442	2114	1328	644	185	459	1884	1375	509
Thovala	Rural	3310	1929	1381	107	72	35	1879	1091	788	471	140	331	853	626	227
Thovala	Urban	2810	1846	964	43	29	14	1563	1023	540	173	45	128	1031	749	282
Agastheeswaram	Total	15960	9727	6233	454	263	191	5055	3601	1454	2716	479	2237	7735	5384	2351
Agastheeswaram	Rural	5228	3385	1843	240	116	124	2366	1761	605	732	150	582	1890	1358	532
Agastheeswaram	Urban	10732	6342	4390	214	147	67	2689	1840	849	1984	329	1655	5845	4026	1819

Source: Census of India 2001.

Annexure 5-29: Number of workers and non-workers, both male and female, in different taluks of Kanyakumari district (Census 1991)

Area	Total population			Total workers			Main Workers								Marginal workers		Non-workers	
							Cultivators		Agricultural labourers		Others		Total main workers					
	Total	Male	Female	Total	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Kanniyakumari Dist.	1600349	803839	796510	488131	400303	87828	57968	3599	159305	18105	177768	47342	395041	69046	5262	18782	403536	708682
Vilavancode taluk	368106	184473	183633	106744	87823	18921	12786	1153	40206	3884	33344	11123	86336	16160	1487	2761	96650	164712
Kalkulam taluk	684619	345975	338644	206524	172673	33851	24550	1136	80081	6009	65036	17665	169667	24810	3006	9041	173302	304793
Thovala taluk	97802	49117	48685	33705	26346	7359	4919	212	13051	3344	8120	1827	26090	5383	256	1976	22771	41326
Agastheeswaram taluk	449822	224274	225548	141158	113461	27697	15713	1098	25967	4868	71268	16727	112948	22693	513	5004	110813	197851

Source: Census of India 1991.

Annexure 5-30: Overall work participation rate,

Area	Overall WPR	% of total workers in fishing and allied activities'	% of total workers in 'other than fishing activities'
Tamil Nadu	41.02	96.05	3.95
Kanyakumari district	37.84	93.51	6.49
Agastheeswaram taluk	41.33	94.46	5.54
Kalkulam taluk	33.77	96.79	3.21
Vilvancode taluk	38.46	90.76	9.24

Source: Calculated from *Marine Fisheries Census, 2005.*

References

Asselin, L. M. (2009). *Analysis of multidimensional poverty: Theory and case studies.* Ottawa, Canada: International Development Research Centre.

Bhaduri, A. (2008). *Development with dignity*. New Delhi: National Book Trust, India.

Chambers, R. (1983). *Rural development: Putting the last first.* England: Longmans.

Choudhuri, K. (1976). Bonded labour. *Economic and Political Weekly*, March 13, 415-416.

Dalwai, H. (1977). Bonded labour continues. *Economic and Political Weekly,* May 28, 868-869.

District Administration, Nagercoil. (2009). *Minimum Wages – Sample Data,* Office of the Assistant Director, Statistics, Nagercoil.

Government of India. (1988). *National Forest Policy 1988*. Resolution no. 3-1/86 FP, Ministry of Environment and Forests, Department of Environment, Forest & Wildlife, New Delhi.

Government of India. *Rural BPL Household Census, 2002,* Department of Rural Development. Retrieved 23 December 2010 from http://bpl.nic.in

Government of India. (2005). *Marine Fisheries Census 2005, Part-III (4) – Tamil Nadu*. Ministry of Agriculture, Department of Animal Husbandry, Dairying & Fisheries, Government of India, New Delhi, in association with Central Marine Fisheries Research Institute, Cochin.

Government of India. *Agricultural Census,* different years. Ministry of Agriculture, Agricultural Census Division. Retrieved 01 January 2011 from http://agcensus.nic.in

Government of India. *Agricultural Input Survey 1996-97 and 2001-02*. Ministry of Agriculture, Agricultural Census Division. Retrieved 01 January 2011 from http://agcensus.nic.in.

Government of Tamil Nadu. (2004). *Fisheries Statistics 2004*, Department of Fisheries, Government of Tamil Nadu, Chennai.

Government of Tamil Nadu. (2009). *Report on household consumer expenditure in Tamil Nadu 2005-06, NSS 62nd Round.* Chennai: Directorate of Economics and Statistics, Report No. 22/2009.

Jena, D. (2010). *Fiscal behaviour of the Indian economy: A retrospect with development perspective*. The paper presented in the Fourth 'Budget Watch and Dialogue on the Union Budget 2010-11 with Development Perspective' conducted by Tata-Dhan Academy (DHAN Foundation), Madurai on 26 February 2010.

KRRC. (2007). *Vision 2020: Kanyakumari*, A vision document on comprehensive development plan for Kanyakumari district. Nagercoil: Knyakumari Resource and Research Centre (KRRC).

Planning Commission. (2008). *Eleventh five year plan 2007-2012: Inclusive growth, Volume-I*. Planning Commission of India, Government of India. New Delhi: Oxford University Press.

Psacharopoulos, G. & Tzannatos, Z. (1989). Female labor force participation: An international perspective. *The World Bank research Observer*, Vol. 4, No. 2, 187-201.

Queiroz, C & Gautam, S. (1992). *Road infrastructure and economic development : some diagnostic indicators.* The World Bank, Policy Research Working Paper Series. 921, Washington DC: The World Bank.

Ranis, G. & Stewart, F. (2005). *Dynamic links between the economy and human development*, Department of Economic and Social Affairs (DESA) Working Paper No. 8, ST/ESA/2005/DWP/8. New York: United Nations.

Shankar, K. (1996). Bonded agricultural labour in India of 1996: Case of Hallia Block, UP. *Economic and Political Weekly,* August 17, 2215-2217.

UNDP. (1990). *Human development report 1990*. New York: United Nations Development Programme.

UNDP. (2009). *Human development report 2009*. New York: United Nations Development Programme.

Chapter 6

ENVIRONMENT

Environment is an integral part of human development and is one of the eight millennium development goals. Kanyakumari, being an urbanised district has environmental challenges with respect to soild waste disposal, water conservation, forest and biodiversity. This chapter covers the above areas. Given the limitation of secondary data, the above areas have been covered on the basis of discussion with the environmentalists, activitists, respective department heads including the head of the district.

6.1 Population, Solid Waste and the Environment

The Kanyakumari district with a population of around 18.5 lakhs (rough estimate as on 2009) confined within the small geographical area of 1684 sq.km posed a major threat to the environment by the unprecedented use and disposal of plastic carry bags. The stock assessment done by the district administration revealed 9-11 carry bags per capita per week, which is more than the world environment standard.

On exploring the reason behind this high consumption rate of plastic carry bags in Kanyakumari district, the following different responsible factors were identified. It was found that better education of the people and high incomes have accelerated the consumerism which has further led to greater use of plastic bags. Also, the prevailing high population density increases the volume of plastics use. For the social and religious reasons, the people prefer to settle in Nagercoil or atleast prefer to have plots in the district even if they stay outside.

The vacant plots with the built in fencing were used as garbage dumping areas which used to have plenty of plastic bags in the vicinity. More destructive is the habit of disposing the household waste tied in the plastic carry bags because, it hinders the decomposition of the waste disposed. For clearing the area, these plastics are burnt and it causes a threat to health of human beings because of its hazardous nature. On burning plastics bags, it emits dioxine and furon which are the two important carcinogenic agents. It is also most important to know that the district's cancer prevalence rate is very high.

The people of Kanyakumari district are in general meat and fish eaters. Usually the meats and fishes are carried in plastic bags from shops. The higher fatty oils of the flesh can dissolve

the plastic chemicals which are very hazardous to health. Also, as both the spouses in a family are employed, naturally the dependency on the parcelled foods is increasing. The hot food materials packed in plastic covers is also detrimental to health as the plastic chemicals are solvable in hot conditions.

The Kanyakumari, being the place of tourism attracts more people throughout the year and the floating population is quite high during the summer and Christmas vacation. The abundance of plastic bags which are basically non-biodegradable waste in nature not only spoils the aesthetics of the place but also causes irreparable hazards to the health and environment of the people. Most of the time, these plastic bags choke the drainage and challenges the sanitary condition of the district.

6.1.1 Plastic Free Kanyakumari

The present District Collector, immediately after taking over his office in June 2009, tried to understand the major environmental issues prevailing in the Kanyakumari district with his office team including the Assistant Executive Engineer, Tamilnadu State Pollution Control Board (TSPCB), Nagercoil. Kanyakumari district has no major industry and hence has no major issues relating to industrial pollution. But the district has plenty of hospitals to the maximum of around 220 big hospitals spread all over the district. These hospitals generate bio-medical wastes in plenty and it is managed through the facilitation by the TSPCB, Nagercoil by linking the hospitals with a Aseptic Biomedical Waste Management company in Naganeri.

Another major issue identified was the disposal of solid waste generated by the 18.5 lakh population of the district every day. Even though, there exist Municipal Solid Waste (Management and Handling) Rules 2000 and Plastics Manufacture, Sale and Usage Rule 1999 which are applicable for all the public, there exists a big void in the management of solid wastes. Hence, the district administration took the municipal solid waste management as the top priority of the district on the World Environment Day of 5th June 2009.

Accordingly, the district administration derived a long term plan on managing waste in the district. As an initial step towards better management of solid waste, it was decided to confine to plastic avoidance awareness and to achieve plastic-free Kanyakumari within a year keeping the target of 1st April 2010. As decided, the district administration did achieve its mission on avoiding use of plastic carry bags and disposable cups by bringing a social movement in the district. The result of the social movement is the successful change in the attitude and behaviour

of the total population of the district to get away with the use of plastic bags and eight wholesalers of plastic bags shifted their occupation.

The significance of the initiative is the mass campaign without much expenditure and the way, the district administration spearheaded and facilitated the campaign to make it as an intervention by and for the people. The details of the plastic free campaign including the approaches and processes are given in Annexure 6.1

Forest, Rubber Plantation and Environment

Status of forest

As per the State of Forest Report 2009 and 2005 (Forest Survey of India, 2009), Kanyakumari had 479 sq.km forest cover including 43 sq.km of very dense forest. Unfortunately, the area of very dense forest cover has come down drastically by almost fifty per cent over the period of only two years (2005 assessment and 2007 assessment).

There is also a decline in the flora and fauna in the district. The reason being the rubber plantations have taken over the place of the forest area to an extent of 5000 ha. (Table 6.1). This major shift in conversion of forest area to the rubber plantation had begun in 1965-66, when the Tamil Nadu Government decided to rehabilitate the repatriated Srilankan Tamils due to the unrest between the Singhalese and Tamils in Srilanka. Later, the construction of Kothaiyar dam has also taken away a part of the forest area.

Table 6-1 Leased out forest areas in Kanyakumari district

Sl.No	Leased areas details	Area (in ha.)
1	To Arasu Rubber Corporation Ltd for raising rubber	4785.70
2	To Arasu Rubber Corporation Ltd for raising clove	110.00
3	To I.S.R.O for research	1213.29
4	To Kodayar Hydro Electric project T.N.E.B	53.93
5	To Agricultural University	11.43

Source: *Kanyakumari Wildlife Sanctuary.* Government of Tamil Nadu, Tamil Nadu Forest Department.

Forest encroachments

Dense forest cover is found in the Kilamalai, Veerapuli, Asambu and Mahendragiri. Encroachment in forest area is a major problem in Kanyakumari district. The recorded encroachments as on 31.1.2007 were 403.66 ha. with the number of encroachers being 743 (Table 6.2). As encroachment of forest area has become a way of life and the people tend to possess more wealth, the destruction of forest areas is observed. The types of encroachments vary across

by estates, by small farmers, for place of worships, roads, graveyards, playgrounds etc. and for more financial benefits. There are 198 civil suits against these encroachments of forest areas as of 31st March 2010. The forest department has been taking efforts on encroachment evictions in these areas.

Table 6-2: Encroachment numbers and area by reserve forest

Name of Reserve Forest	Encroachment numbers	Area encroached (*in ha.*)
Veerapuli	186	112.8
Kilamalai	410	105.9
Asambu	143	131
Vellimalai	4	53
Total	**743**	**403.66**

DFO. (n.d.). *A report on Kanyakumari wildlife sanctuary*. District Forest Office, Kanyakumari at Nagercoil.

Environment

The Kanyakumari forest was once a pristine natural forest with rich biodiversity. It had a vast stretch of Mahogany, an expensive tree species with lot of undergrowths in the soil. This region enjoys two different rains of north east and south west monsoons and the rivers flow for most part of the year. The Kulasekaram region had lot of good vegetation including edible mushrooms that are naturally grown. The reduction in forest cover and the monoculture of the rubber plantations had now made the land barren affecting the undergrowths which had lot of benefits to the ecosystem such as increasing the soil fertility by adding humus content, protecting soil from erosion due to run off, increasing the ground water table by allowing percolation etc. Now-a-days, the river flows only when it rains and not throughout the year.

Today, the change had impacted the district negatively by the change in rainfall patterns with peaky rainfall during sometimes and resulting in big floods thus damaging the life and livelihoods of the people. The district had already started experiencing water scarcity problem and is moving towards water thirst district which is a big threat and the district administration should necessarily give due attention in protecting the forest and its natural resources.

Conservation of Water Bodies, Economy and the Biodiversity

The Kanyakumari district has more than 1600 ponds or small water bodies. These water bodies are more important for the prosperity of the district as it gives multiple benefits. It is found that the Kanyakumari district attracts more than 90 different types of water birds and more than 100 different forest birds' species. In addition, there are more than 110 water plants.

The droppings of the water birds fall into these ponds. When there is plenty of water, the surplus water flows into the land and enriches the land fertility.

The Kanyakumari district has two estuaries. These estuaries with both salt water and fresh water serve as nursery for lot of commercial species of fish, prawns etc, and also suitable for the water birds. The Manakudy estuary has a stretch of mud plots which are converted to salt pan and this also attracts migrated water birds such as ducks and flamingos. The salt produced in this place is of good quality. This area which is known for its good quality salt and of tourist's attraction for its birds is proposed to be taken for airport project.

The proposed airport construction project may take away a few of the water bodies, paddy cultivation area and the area under salt pan thus posing a threat to environment, biodiversity and livelihood of the people.

Also, these estuaries and the ponds that are interconnected with rivers, are needed for some of the commercially viable fish species called fresh water Eels (Vilangu in Tamil) such as Angular bicolour and Angular bengalensis.

Declining biodiversity

The district by its unique geographical position is rich in biodiversity with a tropical climate, a variety of habitats, thousands of water bodies-small and big, rivulets and springs with plenty of bio-resources almost available all through the year. The district's rich bio-diversity is under serious threat as the natural wealth is being declining due to high population pressure, encroachment of forest areas for rubber plantations, unauthorised settlements, loss of productivity and genetic diversity, environmental and forest degradation, destruction of water resources and loss of habitat.

The plant genetic resources of 350 varieties of Mangoes, 300 varieties of Jack fruits, greater than 45 varieties of Bananas, more than 60 varieties of paddy, more than 50 varieties of coconut, more than 20 varieties of tamarind, 25-30 varieties of ayins need to be conserved (Sobhanaraj, 2009).

One of the initiatives taken by the Friends for Nature Society with the support from district administration is introducing biodiversity register. The detail is given in box 6.1

Box 6.1 Introducing Biodiversity Register – Friends for Nature Society

The Friends for Nature Society, Nagercoil with the support of the district environment coordinator has introduced 'Biodiversity Register' in 300 schools Kanyakumari district. Through this initiative, the organisation is trying to sensitise and educate the school children, who are the real custodians, to understand the nature and its biodiversity through involving them in documenting the every single flora and fauna present in their own villages.

Having understood the scope and importance of these water bodies for birds and livelihoods of people, the district administration has sent a proposal to State Planning Commission to declare Birds Conservation Reserve and to protect the wetland water bodies. By this, the district administration proposes to follow an approach of providing livelihood commitment through conservation.

Yet another initiative of the district with regard to biodiversity and tourism is given in the Box No 6.2.

Box- 6.2 Bird Watching Festival – 2010

A Two day bird watching festival was organized by the Friends for Nature Society, a semi – Government Organization, headed by the District Collector on 27-28 February 2010 in Nagercoil for school and college students and other interested environmentalists from neighbouring district who had registered their names earlier.

The participants were taken to Thathayarkulam, a fresh water tank on the outskirts of the city and the puthalam salt pans near Manakkudy estuary. Both indigenous as well as migratory birds were observed and their habits explained to the visitors by experts in order to create awareness in the minds of the younger generation about the importance of the preservation of wet lands and the bio- diversity of plants, animals and birds for a sustainable and balanced ecological environment.

Variety of birds such as the common egrets or Kokku pond herons, lapwings, white breasted kingfisher, black drogue, painted and open bill storks, whistling teals, purple moorhen and migratory birds like the flamboyant flamingos, pelicans, and soon bills were spotted, observed and photographed by the participants.

At the end of the tour, a quiz on birds was conducted at the Puthalam Panchayat grounds and accordingly the prizes were awarded.

Box 6.3 The plastic avoidance campaign –approaches and processes

By keeping the target of 1st April 2010 to achieve plastics-free Kanyakumari, the district administration began its activities in June 2009. The entire period of intervention was classified into different phases with specific interventions. The first phase of three to four months went on stock assessment through survey to find out how much plastic carry bags are in use and to understand the reason behind the prevalence of high consumption rate of 9-11 carry bags per capita per week. This initial study had helped the district administration in designing the future course of action and also to strategise their interventions appropriately.

The second phase of the campaign focussed on spreading the messages gradually and also through informal education to mentally prepare the people on the much needed change. During this phase, the school children were seen as an important informal ambassadors for their parents and hence the district administrationsensitised them by conducting competitions. The district administration conducted slogan writing competition in all the schools irrespective of government, government aided and private schools. The slogan writing competition was deliberately selected to encourage all the school children to participate by involving them to write a two line slogan on the health and environmental hazards of plastics. The idea of prior announcement regarding the competition before a week time is to encourage more and more discussions, thinking and clarifications that can happen among the children and their parents, friends, teachers and relatives.

On 16th Nov 2009, slogan writing competition was held in all the schools with the pre-instructed programme schedules which gives details sharing of the one page write-up on the health and environmental hazards of plastics during the prayer, followed by the plastic avoidance oath taking. This was then followed by the slogan writing and culminated with the cleaning of the school premises for any plastic bags.

Subsequent to this, the district collector called all the elected representatives of the local bodies for a meeting, passed on the message and made the government office premises free from plastic bags. Also, the staffs were educated to carry cloth bags with them when they go for shopping in order to avoid the use of plastic carry bags. Also, the next thrust was given on co-incineration of plastic waste bags in the cement kiln for which the district administration generated 1 lakh financial support from State Pollution Control Board.

For this campaign, a district level monitoring committee was formed which had District collector as the chairman and included all key people of the district as the representatives. The committee played the advisory and also monitoring role. The committee identified the hotspots for plastic bags like vacant plots, major street corners etc. and the sanitary workers were totally employed for separating the plastic carry bags during the peak hours so that it attracts the attention of the public and the news gets spread. Several press releases were also made to make the public aware of the initiatives.

On 2nd December 2009, the Deputy Chief Minister was invited to flag off the collected plastic carry bags for incineration in cement Kilns to India cement. Around 19.04 tonnes of plastics in 10 lorry loads were flagged off by the Deputy Chief Minister. This gave a good boost in the entire campaign.

This, then was followed by organising human chain on both the sides of the road to an extent of 3.4 km with 5000 volunteers who are school children, college students, residential individuals, representatives from industry etc with a cap, T-Shirt and Placards carrying the key messages on plastic avoidance. Meantime, the people from learned groups were also consulted to get their opinion and support to this initiative. All this gave a momentum to the campaign.

As part of the last phase, the district administration decided for an intensive approach by conducting series of meetings in all the blocks and municipalities for getting the confidence of elected representatives who are the policy makers. One day, meetings were conducted in all the four municipalities, nine blocks with respective town Panchayats and Kanyakumari town Panchayats separately. Conducting 14 meetings was part of the rigorous and intensive campaign wherein the collector and his team met separately the elected representatives, vegetable vendors, resident representatives and sanitation workers etc.

In all those meetings, structured PowerPoint presentation using different clippings of the opinions of the known people, sharing own experiences etc. was done apart from making all the sessions as much as interactive and ensure active participation. In all the meetings, ecofriendly exhibition and oath taking are prime components of the campaign. Every occasionduring the meetings as grievance days, College annual day functions was taken as an opportunity to educate the masses directly by the district collector.

The health and hygiene of the sanitary workers, was also given due importance and the workers were given gloves and a separate bag for collecting the plastic bags. Four streets from different income groups were selected to promote as a model streets with different experimental model.

One in which the residents were asked to clear the segregated plastic waste daily and in other streets to dispose of the plastic bags once in a week only.

Apart from this, the district administration designed a logo for this campaign during February 2010 stating Quit Plastics, Kanyakumari and printed around 20,000 stickers with the sponsorship received from Indian Overseas Bank. This was subsequently adopted and printed by others in the district and used as an IEC material.

In the final phase, the schools and NGOs went on series of rallies, passed resolutions in all the four municipalities, all towns Panchayats, all blocks and finally in the district gazette. All these consistent efforts reinforced the commitment on plastic avoidance and people have already started changing the behaviour. During February and March, in the newspapers, a minimum of fifteen different events and messages on plastic avoidance was found thus making the campaign very rigorous. During the third week of March 2010, the All India Radio broadcast a live telephonic interview with the District Collector and the Assistant Engineer, Tamilnadu Pollution Control Board, Nagercoil. Out of the 18 questions received, almost seventeen were in support of this plastic avoidance initiative.

The BSNL landline took the campaign by sending the voice mail of the Collector himself requesting for the public support to make this campaign successful. Similarly, SMS was sent to people of different streams like vegetable vendors, chicken and fish vendors etc. Around nine different short and customised SMS were sent to different categories of people. An exclusive webpage dedicated on theis campaign was also created which had invited public opinion by voting in which around 98 percent of the votes were in favour of the campaign. The website is www. Quit plastics.com.

At the fag end of the campaign, during the 30th and 31st March 2010, ninety four monitoring squads with minimum of three persons each were identified, trained and formed as monitoring squads. Each squad has one police officials, one local body official, a sanitary inspector and the revenue officer. On 31st March 2010, 227 officers were trained on their role as monitoring squad and were assigned their jurisdiction.

On 1st April 2010, a pre-determined date to free Kanyakumari from Plastics, the monitoring squad went for rigorous inspection in shops and different places. People who were caught were imposed fine and were asked to declare voluntary giving up of plastics. The fine amount imposed

were Rs 1000 for wholesalers, Rs 5oo for shops and Rs. 100 for individuals. On the day one, it was found that only in 10 percent shops, the carry bags were in use and subsequently they too gave up the use of plastic bags.

The monitoring squads still continue with their periodical raids and during 2nd -4th June, they again went for a mass level raid. These continuous and consistent efforts by the district administration had received the full support from the public and the district witnesses a clean place devoid of plastic carry bags and the world seeded for the next move on "towards zero garbage by next year". The next target was fixed for 1st January 2011 as "responsible waste disposal" to make the goal unsegregated garbage cannot be thrown environment day of 5th June 2010 was celebrated for the success of the first campaign and has also outside a reality.

Conclusion

As discussed in the chapter, the district is challenged with solid waste disposal, loss of biodiversity, degradation of small water bodies. The initiative of district administration to make the district plastic free, conservation of water bodies leading to increase in biodiversity, promoting tourism and improving the livelihood of the people is remarkable.However, a collective (different stakeholders including the people at large) movement has to continue to sustain the present initiatives of the district.

As the pressure on the land is mounting and the wetlands are on stake mainly because the people are interested to build houses, there is an urgent need to bring a special legislation to protect the wetlands.

References

DFO. (n.d.). *A report on Kanyakumari wildlife sanctuary*. District Forest Office, Kanyakumari at Nagercoil.

Forest Survey of India (2009). *State of Forest Report 2009*. Forest Survey of India, Ministry of Environment and Forest, DehraDun.

Government of Tamil Nadu.(2007). *Declaration of Kanyakumari forest division as wildlife sanctuary*, notification under 26 A(1) (b) of the wildlife (protection) Act, 1997 issued with G.O.(Ms)no.128 dated on 20.11.2007, Environment and Forest (FR.5) department.

Sobhanaraj, A. D. (2009). *The forests of Kanyakumari sanctuary: A rapid survey report*. A report submitted to the District Forest Officer and Wildlife Warden, Kanyakumari Santuary, Kanyakumari.

Chapter 7

SUMMARY

1. The concept of Human Development has been popularised through Human Development Reports at global, regional, national and state level by United Nations Development Project (UNDP) integrating the human development measures such as Human Development Index (HDI), Gender Development Index (GDI), Gender Empowerment Index (GEI) and Human Poverty Index (HPI) since 1990. In India, the National Planning Commission facilitated bringing out of national and state level HDRs among which Tamil Nadu is one in its pioneering efforts of bringing out State Human Development Report (SHDR) since 2003. The State Planning Commission (SPC) of TamilNadu with the financial assistance of UNDP initiated District Human Development Report (DHDR) since 2005. The respective district administration provides support in data collection from its different departments through the planning cell.

2. DHAN (Development of Humane Action) Foundation is a national level professional non-governmental organisation working for the grassroots development by implementation of various development programmes with the collaboration of government, banks and other academic and research institutions including corporate organisations. It had prepared DHDR for two districts – Thiruvannamalai and Sivaganga and conducted dissemination workshops on DHDR for three districts namely Thiruvannamalai, Sivaganga and Dindigul with the support of SPC, Tamil Nadu. Based on this experience, the SPC has requested DHAN Foundation to prepare DHDR for two districts such as Kanniyakumari and The Nilgiris with the respective District Collector as nodal officer.

3. Tata-Dhan Academy, a Development Management education institute of DHAN Foundation, has undertaken the assignment of preparing DHDR for both Kanniyakumari and The Nilgiris by deputing its faculty team. The DHDR of Kanniyakumari district is the outcome of both the secondary data collected from various departments and the primary processes adopted with the officials of different departments in understanding the district with the human development perspective. It was clearly articulated that the findings in the DHDR in Human Development and Gender Development perspective would be integrated into the district development planning process to facilitate the effective implementation of various development schemes and projects.

4. The process steps followed in the preparation of DHDR were (i) inception workshop involving the heads of various departments under the facilitation of the District collector, (ii) collection of data through data format specially designed with list of key variables, (iii) consultation with respective department heads and the officials for filling the data gaps, (iv) focused group discussions and informal interactions with the key informants and individuals concerned, (v) collection and documentation of case studies, (vi) inviting comments from the Member Secretary on draft report and (vii) finalising the report integrating the comments and suggestions received from experts from within DHAN Foundation, the District Collector and SPC.

5. The administrative set up of Kanniyakumari district includes two revenue divisions, four taluks, nine blocks, 97 village panchayats, 56 town panchayats, and four municipalities with its headquarters at Nagercoil.

6. The total population in the district as per the census 2001 is 16,76,034 with the sex ratio of 1014, which shows the higher female population. It is found that the decadal population growth rate is decreasing at the increasing rate which is of 4.73 per cent (census, 2001). The scheduled caste and scheduled tribe population constitutes 4.04 per cent and 0.32 per cent, respectively, of the total population. The dependency ratio (of above 60 years and less than 15 years) found to be 20.66 per cent and the growing urbanisation is from 16.88 per cent to 65.27 per cent from 1991 to 2001. The district is dominated by Hindus followed by Christians with 51.27 per cent and 44.47 per cent respectively. About 40 per cent of the population speaks Malayalam in addition to Tamil. Settlement of occupational groups in select regions is also observed.

7. Agriculture, horticulture, animal husbandry, forestry and fishery are the major livelihood sectoral activities observed in the district. The agriculture and allied sector contributes 7.48 per cent to the total net domestic product of the district. The horticulture and food crops constitute in terms of total cultivable area almost equally. It is found that 98 per cent are marginal operational land holders. The growth of livestock population is 2.76 per cent. Though the forest cover in the district (32.39 per cent) is greater than the state (17.59 per cent), it has been exhibiting a declining trend.

8. There is 18.79 per cent of fishing population in the district. It is a significant fact because the traditional fishermen are highly exploited. In addition a few small scale industries such as bakeries, food processing units, sweet stalls, hosiery, garment units, cashew processing units and cotton mills provide employment opportunities for the people. As Kanniyakumari is an important tourist centre, it attracts a largea large number of tourists from outside.

9. The district has very good infrastructure facilities in all villages and towns. The district stands third in HDI (0.711) next to Kancheepuram and Chennai, which is higher than the GDP per capita rank. The district has high literacy rate of 88.11 per cent compared to that of the state and GDI of 0.708 which is higher than that of the state and the nation. It also performs well in relation to MMR and IMR, life expectancy of both male and female which is well above Chennai and the state. But the district falls back in per capita income rank: the income index is 0.453 and 22nd rank by real GDP per capita rank.

10. The fund flow and utilisation in ensuring human development was analysed under three broad categories such as (i) self-employment programmes; (ii) wage employment programmes and (iii) social security programmes. The fund flow and utilisation through DRDA in implementing different development programmes is Rs 4403.40 lakh and Rs 1313.50 lakh respectively and the utilisation is only 29.83 per cent during the year 2009 – 11. The analysis reveals that there is an increase in both fund 'taken up' and 'unspent' during the last three years. The areas of concerns are (i) increasing gap between fund allocation and utilisation at constant prices, (ii) financial allocation is same at constant prices leading to declining in coverage of the target beneficiaries and (iii) considerable amount of expenditure in the short span of time, in the last quarter of the years. These concerned areas need to be given due attention. (Fig 3-1, 3-2, and annexure 3-1). The situation is the same across the blocks.

12. It is found that 50 per cent of the fund allocated for "other district roads" was not spent during the year 2008 – 09, where the concern is most of the people in remote areas depend directly on "other district roads"(Table 3-1). Through PMEGP, 45 cases were supported for initiating different small scale industries during the year 2008 – 09. The subsidies are declining and withdrawn in case of generator (Fig 3-3). Overall fund allocated and utilised on education was almost 100 per cent, whereas it was less than one fourth in case of research, evaluation, monitoring and supervision during 2008 – 09. Still 100 per cent has to be reached in case of

intervention of out of school, innovative activities, intervention for disabled and in-service training for teachers. (Table 3-2).

13. There is 100 per cent expenditure regarding the financial assistance for the marriages of deprived females under five different marriage schemes during the last four years to nine years. The fund utilisation for the forest development was 100 per cent. The fund sanctioned to the forest department was increasing with the exception during 2004 – 05 and 2008 – 09. The disabled population in the district is 3.69 per cent of TamilNadu against the total population share of 2.69 per cent, which reveals that the district is with more disabled population. There is 60 per cent utilisation of funds under the scheme of Maintenance Allowance of Severely Disabled or Mentally Retarded persons. There are other schemes under which the fund utilisation is good.

14. It is recommended to focus on the timely expenditure (instead of pushing the expenditure to the last quarter/month) of sanctioned fund for development programmes, particularly those are under DRDA. Besides, keeping the inflation and the intensity of the need of development programmes in view, adequate fund has to be allocated and sanctioned on time. Periodical official review (both financial and physical achievements vis-a-vis the targets) has to be prioritised. To make the system more accountable, the social audit may be facilitated. Elementary education being one of the important areas of human development, focus has to be given to experiment innovative strategies for ensuring quality education through periodic research. In this regard, the allocated fund has to be utilised with definite deliverables. However, the recent initiatives by the district administration to improve the quality of education are appreciable.

15. According to Census 2001, the total population of the district accounts for 2.7 per cent of the total population of the state. The SCs constitute 4.04 per cent which is lower than the state which is 7.1 per cent, while STs constitutes 0.32 per cent. The sex ratio in the district is 1014 which is better than the state, 986 and nation, 933. It is in the eighth rank in the state and one of the top ten. All the blocks and municipalities except two and one respectively show the sex ratio of above 1000. Among the social groups, the sex ratio of the ST population is highest 1032, followed by the SC population with 1029, which are well above the sex ratio of ST and SC in the state. Blockwise also the performance is above 1000 except in two (SC) and three (ST) blocks. The sex ratio of 0 – 14 years population irrespective social groups is below 1000 and population of STs is lowest with 880 in rural areas and highest with 1076 in urban areas in the district. The juvenile sex ratio wasslightly declining in 2001, but it was better than the state and ranked third in

the state among the thirty districts. But overall, there is a declining trend and the reasons need to be understood. The population density is 1002 persons per sq.km which is the highest among other districts in the state. The density is increasing with declining rate compared to the state and the nation.

16. The decadal population growth rate is 4.73 per cent which is lowest when compared to the state (11.19 per cent) and the country (21.34 per cent) and the declining rate is the highest from 12.43 per cent in 1991 to 4.73 per cent in 2001. Overall the population is increasing at a declining rate and population growth rate is declining at an increasing rate. The district stands third next to Theni and Sivaganga. The reasons might be the awareness among the large population about the family control measures. In two blocks namely, Kurunthancode and Colachel, the population growth rate is negative and definite decline in population in absolute terms (Table 4-3).

17. As per the Census 2001, the urban population increased during 1991-2001 drastically from 16.88 per cent to 65.27 per cent. The reasons might me urban agglomeration or immigration of the population from the rural areas. The domination of Hindu and Christian population is almost equal. The Christian population is higher (44.47 per cent) in the district, which is one-fifth of the state Christian population (Annexure 4.3).

18. Decline in SC population across the blocks (except Thovalai) and municipalities (except Colachel) was observed. Similarly the ST population also declined in the blocks of Rajakkamangalam, Melpuram and Thiruvattar, and in the municipalities of Kuzhithurai and Padmanabhapuram. On the other hand in Colachel municipality, the SC Population has doubled and the ST population has increased five times during 1991-2001. A further study may be undertaken to clarify the above demographic and migration dynamics.

19. Health and nutrition is one of the parameters of human development. The life expectancy at birth is one of the indicators of Human Development Index. It is 72.65 years in the district, which stands second next to Chennai (74.21 years), as per DANIDA, 1998. It is well above the state (66.74 years) and the nation (63.4 years as on 2007). For male LEB is 70.36 years and for females it is 74.96 years. Block wise as on 2009 the LEB is from 69 – 71 years and municipalities it is 72 years. The level is the same in the last 10 years. The infant mortality rate (IMR) in the district is much lower: 15.6 as of 2003, than the state: 30.1. It might be due to access to health care and nutrition and also general well-being of the society. In all the blocks and municipalities,

the IMR is in a declining trend during the last nine years except Thuckalay where it increased from 6.43 in 2001 to 8.86 in 2009 (Annexure 5-2). The three blocks namely Agastheeswaram, Kiiliyur and Thovalai show high IMR ranging from 10.04 to 10.39.

20. During the year the number of abortion cases in the district had declined drastically by more than 55 per cent however, increase of abortion cases have been observed in six blocks and municipalities since 2002 and the highest in Melpuram block which registered 178 in 2009. The overall abortion rate of the district is 45 as on 2009 and an increase in the rate of abortion was noticed in all the blocks and municipalities since 2002. The high abortion rate is observed in Melpuram, Thovalai and Thiruvattur blocks. Though the reasons for the abortion are unknown still it needs to be explored and addressed to take care of the mother health status.

21. The Maternal Mortality Rate in the district is far below the status of the state and expressed in R2 value is less than 0.05 which is insignificant. The pattern shows the inconsistent decline over the period. In three blocks it is observed as high ranging from 0.80 to 0.89. Peri- natal mortality rate comprises the still births and death within seven days of birth. All the blocks and municipalities show the definite decline of in the peri-natal mortality rate in 2009 when compared with 2001, but there is a inconsistent pattern over the seven years (Fig 5-5). In three blocks – Thiruvattur, Thuckalay and Melpuram high peri-natal mortality rate ranging from 1.42 to 1.79 was observed in 2009. Early neonatal mortality rate shows sudden rise in all blocks and municipalities in 2002 followed by decline and again increase in the subsequent years. Except two blocks – Kuruthancode and Melpuram, all the blocks show the increasing rate of early neo-natal mortality rates. The highest rate 6.45 is in Killiyur followed by Rajakkamangalam (5.47) and Agastheeswaram (4.07) which show the consistent increase. It calls for district attention for post-natal care to the newly born babies.

22. The trend is varying as far as late neo-natal mortality rate is concerned in all blocks and the municipalities in the district. The highest is in Thovalai block (6.14) followed by Agastheeswaram (5.42) and Munchirai (4.1) (Annexure 5.8). The post neo-natal mortality varies ranging from 3.22 to 9.2 in all the blocks and municipalities. The same level is observe since 2006. Lowest (1.88) post neo-natal mortality is observed in the municipalities compared to the blocks.

23. The birth rate in all the blocks shows a decrease since 2001 and the disparity across blocks varies from 12.96 to 16.67, which is a declining trend (Annexure 5-10). Except Thovalai (6.32 to 7.30), other blocks show the declining death rate during 2001 – 2009. The municipalities also

show slight increase in the death rate from 4.46 to 5.02 during 2001 – 2009. The still birth rate in the district is insignificant as it ranges from 0. 07 to 0.20. The still birth rate is high among the tribals in Thovalai block which is 0.20. It shows that there is a better women health and maternal health services in the district. The per centage of early neo-natal death to total infant deaths ranges from 27.78 in Thovalai and 62.50 per cent in Killiyur and the per centage increases over the years in all the blocks and the municipalities. The under-five mortality rate ranges from the lowest of 0.08 in municipalities and 0.19 in Thovalai block which shows declining rate during 2001 – 2009. It is found to be insignificant in numbers and reveals the good condition of the health of the children under-five in the district. More than 85 per cent of the under five deaths in various blocks and municipalities in the district is due to the infant deaths. It varies across the blocks with the highest per cent of 95.45 in Rajakkamangalam and with the lowest of 87.50 in Melpuram (Annexure 5-15). The coefficient of correlation was significant (r=0.670 at 0.03 level of significance) between IMR and late neo-natal mortality rates, highly significant between IMR and early neo-natal mortality rates and insignificant between IMR and post neo-natal mortality rates. It is inferred that the behaviour of IMR was mainly determined by the early neo-natal mortality rates, which warrants action to improvise the health care services to infants upto seven days after birth.

24. The low birth weight of less than 2500 grams of the newly born infant at birth is found to be 1.07 per cent (270 cases against 25106 births) in 2009, which is insignificant and reveals the better health status of the pregnant women. Number of low birth weight cases was higher among male children than the female children, which declined over a period of nine years and increased in female children since 2001. As on 2009, the vaccination is achieved 100 per cent in four blocks only, where as in other blocks and in municipalities it is 97 – 98 per cent (Fig 5-18). The prevalence of anaemia ranges from 8.2 per cent to 9.6 per cent in 2009 among the women and children. The increase of anaemia in the district is insignificant among the women and children. The provision of IFA tablets to women and adolescent girls are increasing since 2001, which contributed for the low prevalence of anaemia in the district. The child births attended by the trained doctors is 100 per cent (Fig 5-21)

25. The prevalence of malarial disease is observed but there is no reported case of death since 2001. In 2009 there were 38 reported case of swine flu and 28 cases of Chikungunya. The diarrhoeal cases have increased since 2001 and the number of cases recorded in 2009 was 18,980 (Annexure 5-22). The worm infection has been increasing since 2001 and about 1.38 lakhs cases have been reported as worm infected in 2009 (Annexure 5-23). The number of children under-

nourished as Grade III and IV is among the 0-3 age group and 3-6 age group which shows a declining trend. There repeated cases of undernourished children found in three blocks warrant due attention. There is an increased number of Anganwadi centres over the years reveals its reach and coverage in the district over period of seven years. There is an increased reach of supplementary nutrition programme to children, pregnant and lactating women and old age pensioners. There is also an increasing trend in financial achievements from 2002 to 2006 (Table 5-2).

26. Among the blocks, it is suggested that Agastheeswaram and Thovalai need special focus to bring down the abortion rate, death rate, early and late neo-natal mortality, under-five mortality rate and low birth weight. The study could not establish a definite case for the above blocks with relative low performance as the difference is not significant.

27. Literacy is one of the core indicators considered in calculating Human Development Index. The literacy rate in the district is 87.55 per cent which is far better than the state of 73.45 per cent as per the Census 2001. The female literacy rate is 84.79 per cent which is much higher than that of the state of 64.43 per cent (Annexure 6.1 and 6.2). The literacy level increased in the last two census decades in 1991 and 2001 in the district and in the state in general and among female population in particular. The ratio of male literacy to female literacy is declining from 1991 to 2001 with 1.07 in the district and 1.28 in the state. The literacy rate in both and rural area is very high and the difference in only 3 per centage points, while it is much pronounced in the state with 14.32 per centage points (Annexure 6.1).The difference between the female literacy in urban and rural is 2.07 per cent points in the district, where as it is 20.71 per cent points in the state, which is more than ten times of the district. The ratio of male literacy to female literacy in rural to urban areas is almost the same in the district (5.51 and 5.61) (Table 6-4). The gender ratio in the rural areas in Tanil Nadu is about 1.40 and in the urban is 1.17, which shows that there is very less gender discrimination in the district. Among the social groups, the literacy rate of SC population in the district is 84.3 per cent and the SC females is 80 per cent (Annexure 6.3), which is significantly higher than the state and double female literacy rate of the state. The ST population has the lowest literacy rate of 73 per cent and the female literacy rate of 68.63 per cent in the district. The minority group has 91.1 per cent literacy rate.

28. Regarding the level of education, 13.77 per cent of people in the state has completed matriculation and higher secondary education whereas 18.81 per cent has completed in the district (Table 6.5). The net enrolment ratio at the primary education level in the district is almost

100 per cent, whereas it has witnessed a decreasing trend during 2007 to 2009 and the increase is more pronounced among ST population. At block level, the NER is declining at the marginal level and more among the boys than the girls. Among SC population, the declining trend is observed among both boys and girls from 2007 onwards, whereas it is in increasing trend among boys and girls in ST population. The attendance level has increased after the introduction of ABL at the primary level. The attendance rate is increasing over the years particularly among the ST children.

29. The retention of the students in the education system is measured by dropout rate, completion rate and repetition rate. The dropout rate is decreasing in the district after 2005, but it is not uniform in all the blocks. Melpuram block only shows the sudden increase of dropout rate with 0.3 per cent, where as in other two blocks it is only a marginal increase of 0.02 per cent. Among the SC children, there has been consistentence in dropout rate, whereas decline is faster among the ST children. In Thiruvattar block, where the ST population is high, the dropout rate increased suddenly from 0.60 per cent to 15 per cent during 2008-2009, which needs to be given due attention. Across the blocks the dropout rate is common among the boys whereas among SC and STs it is common among the girls, particularly in Thiruvattur block (Table 6.6) The overall completion rate increased from 92 per cent in 2002 to 98 per cent in 2009, whereas there is a marginal increase among SC and ST population. The repetition rate started decreasing in the district, since 2006 and the decrease is same among SC and ST, which is significant. Blockwise analysis shows that the increase in repetition rate is observed among SC and ST particularly among ST girls in Thovalai block.

30. There are 1125 schools in the district of which 46.13 per cent are government schools and the remaining are private schools. There is an increase of private particularly private aided schools in the district. All 2195 habitations have primary schools within one km distance as per norms except six which are not eligible to have schools. Though all schools have drinking water facilities, still they need to have toilet facilities, boundary walls, play grounds kitchen etc. (Table 6-12). The number of teachers actually decreased till 2005-06, but there is sudden increase from 2006-07, particularly the female teachers (Table 6-13). There is 89.12 per cent of female teachers in the district, whereas it is 48.9 per cent in the state. Private aided and unaided schools have large proportion of female teachers both in the district and the state (Table 6-14). The pupil-teacher ratio is 32.3:1 in the government and local schools (Table 6-15) and the ratio has been decreasing over the years, despite high enrolment ratio, due to increase of teachers, which is

more pronounced and consistent among primary schools. It is found that the teachers' attendance is above 90 per cent.

31. The transition rate from primary to upper primary school is increasing over the years in the district, which is considerable among STs followed by SCs, which has reached 100 per cent among both boys and girls (Annexure 6-13). Overall NER is slightly increasing; it is not consistent among SC and declining among ST population. The NER among boys is declining except for a sudden decline and increase in 2006 and 2007. It is much alarming among girls. Across the blocks, NER is increasing among the boys over the years, but showing decreasing trend among the girls during the last three years. The attendance rate among the children in upper primary school is increasing particularly among SC and ST. The dropout rate decreased significantly among SC and ST, which is consistent in the district over the years. During 2005-06, the dropout rate declined to less than 2 per cent due to SSA. The overall decline is found in all blocks in the district (Annexure 6.16). In upper primary level, among the blocks the dropout among SC population is observed in four blocks, whereas it is a major concern in Agastheeswaram block among the STs in 2008-09. The overall completion rate is increasing particularly among the SC and ST which is in consistentence with the decreasing drop out rate (Annexure 6.17). But it is a matter for concern in a few blocks among SC and ST population. The repetition rate is increasing during the last three years among SC population in two blocks, whereas in Thiruvattur block the repetition rate has increased among ST population from 5 per cent to 11 per cent during 2008 – 09.

32. Only 24 habitations out of 2195 do not have upper primary schools with in 3 km distance, of which 16 are eligible to have as per the norms. There is a constant increase of teachers upto 2006, after that, the drop out was found in all the blocks in the district. There is an increasing trend of female teachers appointment except in three blocks. The per cent of female teachers in the district is 84.74 per cent, which is much higher than the state with 56.22 per cent. It is 93.46 per cent, which is very high, in the private unaided schools. The pupil-teacher ratio is 31:1 which is due to recruitment of teachers during 2006-07. (Table 6-24). It is observed as consistent in all the blocks except two, Thovalai and Melpuram. It is found that the teachers' attendance rate is 91.80 per cent across the blocks.

33. The transition rate from the upper primary to high school is almost 100 percent especially among SC and ST in all blocks, even among boys and girls during 2008-09. The trainings for teachers conducted by BRC and CRC are 100 per cent in 2008-09 (Table 6-28). Across the blocks, the achievement of trainings is 100 per cent during the last three years. Only 34.10 per

cent of the low performing children are given remedial teaching in 2008-09 in the district. The out of school children are increasing with the increase of age group which is almost equal among the boys and girls (Table 6-32). The major reason found was 'not interested in studies', followed by "lack of financial assistance" as per the child labour survey, 2003 and Elementary education register, 2008. Over the years, the enrolment of out of school children has increased from 58.31 per cent in 2002 – 03 to 96.1 per cent in 2008 – 09. In the district, 48.3 per cent of the disabled children are out of school (Table 6-35). The NGOs and SSA undertook various interventions to support the disabled children with necessary aids and equipments. 19644 children were enrolled in early child care and education centres in the district. Vocational skill development activities were initiated by SSA to attract girl children after completion of upper primary education. AS part of education development of children, the SC and ST children were given remedial coaching through incentive schemes.

34. The minority children were given special trainings with materials aids in 2008-09. The percentage of progress of children, observed under ABL method, is 93.79 per cent. Only 6.21 per cent of the children are found to be slow performers. In the district, the teachers are given computer aided training to promote computer literacy among children. 120 teachers were trained during the period from 2005 – 06 to 2008 – 09. The quality of test is assessed through achievement test and pass percentage. It was found that the pass per cent among class II is high in Tamil, English and Maths, but the grading reveals that only 63.3 per cent was able to read Tamil well, 32.6 read Tamil with errors and 4.08 per cent are unable to read Tamil (Table 6-45) in 2008. In class IV only 72.03 per cent read Tamil well and 21.78 per cent read English well. It was found that the pass per cent of std. V across all social groups, across gender is about 100 per cent, except boys among ST population which is 92 per cent. ST and SC students perform better with more than 60 per cent marks compared to overall population. The same is the case with SC and ST of Std VIII in all blocks, but poor in scoring more than 60 per cent marks. The girls perform better than boys with more than 60 per cent marks (Table 6-49).

35. Special focus has to be given to schools to have their own building to schools where there are no such facilities. In fact, the percentage of schools not having own building varies from 3.28 per cent in Agastheeswaram to 6.45 per cent in Thuckalay block. Attention may be given for 100 per cent achievement with respect to toilet facilties, school boundaries, playground and kitchen for mid-day meal.

36. It is realised that understanding of human development perspective of various economic indicators are very important as economy and human development are mutually dependent. The annual growth rate of net domestic product of the district is (12 per cent) slightly higher than the state (11.66 per cent) but much higher than the nation (9.71 per cent) during 2006-07 with steady fall in contribution of agriculture and allied sectors. However, there was a fluctuation in tertiary sector contribution during 2001 – 2007. Over the years the per capita income in the district is increasing at a faster rate compared to the state and the nation, which is due to less population growth and higher NDDP growth rate, which is more consistent. But we do not get a clear picture about the sectoral and regional distribution.

37. The contribution of primary sector to NDDP is only 10 per cent, out of which the agriculture and allied activities contribute 7.48 per cent which is lower than the state as a whole. Regarding WPR, the district performs better than the state. Fishing is the second major activity contributing to the NDDP which is higher than the state, but with declining trend from 4.4 per cent to 1.71 per cent over the years. The contribution of forest and logging sector is also declining over the years both in the district and the state. The contribution of the secondary sector which includes manufacturing, electricity, gas and water supply, and construction to the NDP is much higher than (44.33 per cent) the state (27.08 per cent) and the nation (22.08 per cent). Among those the construction sector contributes significantly compared to the state and manufacturing – unregistered sector's - contribution is increasing and consistent where as in the state is it is in the declining trend. The tertiary sector, which includes banking, insurance and real estate, contributes steadily (45.54 per cent) whereas it is gradual increase in the state and the nation. There was a boom in the real estate industry, hence the contribution upto 2004 – 05 was high; the declining trend in the subsequent years picked up again from 2006 – 07. The concern observed was the conversion of agricultural land into homestead land. The contribution of banking and insurance industry exhibits a declining trend. An interesting observation one could make in the district is the almost equal contribution by the secondary and the tertiary sector, and it reveals that there is no domination of the tertiary sector in making contribution to the NDDP.

38. The overall work participation rate (WPR) of Kanniyakumari has increased by 2.20 per cent point which is higher than the state (1.36 per cent point) and the all-India level (1.67 per cent point) between 1991 and 2001. The concerns observed were the overall WPR of the district is much lower than the state and nation, female work participation is found to be low despite better performance in the education and health and the rate of female WPR is found to be much lower

which is less than one per cent compared to males which is more than three per cent.As far as age is concerned, the female WPR is found to be much lower in the district, particularly it is lower in the higher age groups. Taluk-wise, the WPR performance varies.

39. During 1991 – 2001, the share of main workers to total workers declined and the rate of decline wass much higher at 12.16 per cent point compared to the state level of 8.96 per cent, but the marginal workers increased across the taluks and found to be more among the males (13.63 per cent point increase) than the females (4.53 per cent point). The gender gap is found to be the highest in Vilavancode Taluk and lowest in Agastheeswaram taluk. Education plays a critical role in increasing the WPR, but the concern is that the WPR is very lower among the illiterates (17.88 per cent) compared to the state (41.55 per cent). Among the main workers, the cultivators and agricultural labourers constitute 2.96 per cent and 12.50 per cent respectively, which is in a declining trend in the district, state and the country. The decline is more pronounced among the males (26.95 per cent) compared to the females (17.83 per cent). The fall might be due to lower agricultural wages and shifting of agriculture crops to labour-saving horticulture crops. The overall increase in WPR in the district might be due to the increase of marginal workers and pushing certain male main workers into the marginal workers category. The WPR in rural areas is higher (33.53 per cent) than in the urban areas (32.26 per cent) but the main workers are higher in the urban areas (83.90 per cent).

40. In the district, the number of registered persons getting employment is not much encouraging, as it was one for every 1000 in 2001. However, during the years 2003-04 to 2008-09, on the average, every year about five persons got placement for every 1000 persons registered with employment exchange (table 7-6). Regarding wages, the data collected from the sample villages reveals that the actual wage is four times higher than the minimum wages fixed by the state which is Rs 85 – Rs 100 per day (for 5 – 6 hrs). The gender disparity is high despite the social advancement in the district, as men earn two to three times higher than the females. The income from agriculture is found to be higher.

41. Based on the rural BPL Census 2002, the poverty situation was studied in two dimensions – extent and characteristics and blockwise comparison was made. The extent of rural poverty is 28.98 per cent in the district, in which it is high (30.62 per cent) in Munchira block and low (27.00 per cent) in Agastheeswaram block. Among the SCs, 39.37 per cent households belonged to BPL category in the district. In Rajakalmangalam block 55.82 per cent of SC households

belonged to BPL, where as in Agastheeswaram, 57.83 per cent from STs belonged to BPL category.

42. There are six indicators of poverty in the district particularly in the rural areas. They are income, size of operational landholding, indebtedness, status of labour, and status of children. It is found that 47.89 per cent of the total BPL households living with the monthly income of less than Rs 499. Among the social groups, SCs constitute the highest followed by STs and OBCs. Three blocks namely Melpuram, Munchira and Killiyoor are found to be the poorest blocks. The landless among the BPL households is 69.78 per cent in the district and it is the highest among the 'others' followed by SCs, OBCs and STs (annexure 7.13). 49.12 per cent of the BPL households are dependent on informal sources of credit of which the 'other' and SC households constitute 56.82 per cent and 56.14 per cent respectively (annexure 7.14). Among the BPL households, 12.64 per cent households in the district were bonded labourers and it was found to be high among the 'others' which is 20.32 per cent followed by SC, OBC and ST (annexure 7.15). Engaging children in work without sending them to school is one of the poverty indicators found in the district among the BPL households. 51.38 per cent of the BPL households do not send their children to schools and it is highest among the 'other' castes (64.78 per cent) followed by SC, OBC and ST.

43. The district is endowed with all types of natural resources. As per the district data, one third of the land in the district is covered by forest, whereas as per satellite data, 28 per cent of the land is covered by forests, which includes, degraded forest in 2007. The net area sown in the district declined from 2000 – 01 to 2008 – 09 and land in non-agricultural use is increasing (32 Per cent), which reveals the conversion of agricultural land for non-agricultural uses and booming trade in real estate sector. Despite the fact that the district enjoys two monsoons, the area sown more than once is declining resulting in decline of cropping intensity. As per the agriculture census 2005-06, the operational land holdings by the marginal farmers increased from 95.7 per cent in 1995-96 to 98.09 in 2005-06 and the average size of landholdings has been declining from 0.183 ha to 0.159 ha (Table 7-17). About 35 per cent of the total net area sown is irrigated by the canals and tanks, and the both together constitute 98 per cent. In the year 2008 – 09, irrigation by canals and wells was declining (annexure 7-18). Similarly the irrigation intensity decreased among the small farmers. Over the years, the area under agriculture crops has declined and the area under horticulture crops has increased. The area under horticulture crops increased particularly in 2007-08 because the National Horticulture Mission contributed for the increase.

44. As far as the institutional credit is concerned, overall 14.92 per cent of the total farmers in the district have taken credit, which is a significant increase over the last five years and they are mostly the big farmers. The credit was taken mostly for agricultural purpose by the larger farmers compared to the marginal farmers and the increase was 58 per cent. Primary agricultural cooperative society is the major source of credit for the marginal farmers in the district (Table 7-22). The livestock population in the district considerably decreased at the rate of 18.34 per cent during 16th and 17th livestock census (Table 7-23). The population of pigs decreased significantly during 2001-04 to 2005-06.The veterinary health care facilities are made available for more than 4 lakh animal population every year.

45. The forest cover which constituted 39.55 per cent in 2005 of the total geographical area got reduced to 28.44 per cent in the year 2007. The dense forest cover also declined from 78 sq.km to 43 sq.km during 2005-07. But in the state it has an increasing trend. In the district, there is one tiger habitat sanctuary and it covers an area of 457.78 sq.km and one biosphere reserve is under consideration for selecting as a world heritage site by UNESCO.

46. There are 47 fishing hamlets in three coastal taluks with one-fifth of the total fishing families of the state. More than 99 per cent of the fisherfolk are Christians which is higher compared to the state percentage of 34.58 per cent. The share of active fishermen in the district is 79.78 per cent which is higher compare to the state of 66.44 per cent. Among them 93.32 per cent are involved in full time fishing as against 89.70 per cent in the state. (Table 7-22). Women are mostly involved in fish marketing. In Agastheeswaram taluk, 44.30 per cent of the males are involved in making net, whereas 37.10 per cent are in curing and processing business. The membership of fishermen in any of the cooperative society was found to be lower (35.70 per cent) compared to the state (40.96 per cent).

47. There is a decrease in employment in small scale industries and cottage industries except in handicrafts and Pradhan Mantri Rozgar Yojana. The subsidies provided through various schemes by the government are decreasing and are withdrawn in a few cases. Regarding KVIC, five production units are functional with declining trend in the production. Children are employed as labour at the rate of three for every 1000 children, mostly boys concentrated in urban areas.

48. The banking services availed of by 23.93 per cent of the households in the district are slightly higher than the state (22.82 per cent). 34.05 per cent of the households in Nagercoil city availed of the banking services followed by 30.60 per cent in Agastheeshwaram. It is very low in (19.18 per cent) in Vilavancode. The rural-urban disparity is also observed in the district. Among the social groups, the banking services availed of by the SC and STs are lower and rural-urban disparity is much pronounced among ST households in the district as well as in the state (Table 7-33). In the district SHGs are seen as vehicles for availing the credit facilities and banking services by the women. The number of groups and members increased over the last decade but the linkage with the banks has decreased till 2006. During the period, the savings mobilised and amount of loans received had increased. During 2008–09, 5722 new SHGs were promoted and accounted to a total of 10661 SHGs, which received a loan amount of more than Rs 100 crores. As per the Census 2001, 86,508 out of 3,76,499 families subscribed to life insurances under LIC to the sum assurance of Rs 748 crores. It is seen as one of the risk mitigation measures.

49. It is found that the infrastructure plays a vital role in economic development. In the district three municipalities are on the national highways and one coastal municipality is on state highways. 84.37 km of NH 47 cuts across the district connecting main cities. The road density of the district is 1221 km which is lower than the middle-income economy, but better than the low-income economy. It also reveals that the road density is higher in rural areas compared to the municipalities, which is a serious concern for the urban development (Table 7-37). In the district the growth of the secondary and tertiary sectors demands better road development to improve overall growth of the economy and human development. Though the district has better road connectivity, still the tribal villages are isolated from transport facilities. As far as the number vehicles are concerned, the private transport such as motor cycle and scooters have increased compared to the public transport. The funds allocated for road construction was not utilised fully. The communication facilities have been increasing in the district over the years, particularly the BSNL mobile connections. The TamilNadu Electricity Board in the district has provided electricity connections to all revenue villages, but there are 22 hamlets with 752 households without electricity connections.

50. Livelihood interventions at decentralised level need to be the focussed. The district has to focus more on micro-enterprises to generate better livelihoods. Keeping the educated unemployment in view, more software companies may be encouraged to operate in the district. It may generate up to 10,000 jobs. Tourism is another sector which could be approached with

livelihood promotion perspective. With regard to the agriculture, the farmers could be clustered based on the commodities they produce to reap the benefit of collective and competitive advantage. Particularly, the banana growers can come together and form farmers' cooperatives or a producers company which can facilitate common share capital and availing of bank loans. Such initiatives can help farmers in using the better technology and also in cutting down the chain of middlemen. Given the skill and basic resources, the SHGs have a great potential to utilise the entrepreneurship. Clustering of SHGS on the basis of common activity and forming panchayat level federations would be helpful to produce the identified items with a minimum risk, and establish the market linkage (both forward and backward) for their products.

51. Among the socially vulnerable groups, SCs and STs are highly vulnerable groups in terms of socioeconomic and cultural dimensions. The disability among the females was more than the males in Tamil Nadu and Kanniyakumari as well as both in rural and urban. Among different types of disabilities, "in seeing" alone it is 63.52 per cent, which is greater than that of the state and the nation. Among the gender the females constitute 74.86 per cent. The disability of movement category, it accounts for 21.42 per cent. There are more than 24 schemes and special schools of different types to support the differently challenged population (Table 8-2 and 8-3).

52. Regarding child labour, it was found that there are three in every 1000 children compared to six in every 1000 children in the state. It varies in the blocks and municipality (Table 7.29). Among the child labour, the boys are more than the girls and they are found more in urban areas as the urban population constitutes 65 per cent to the total population of the district. About 63 per cent of the child labour are from backward caste followed by 25 per cent from most backward communities and 10 per cent from the SCs. About 63 per cent of the child labourers are educated upto 5th standard except in Kuzhithurai and Padmanabhapuram municipalities, who are found to be school dropouts due to various reasons such as lack of interest, lack of financial support and responsibility to take care of siblings. Eight per cent of the girl children dropped out from the school compared to one per cent of the boys for taking care of their siblings which is a gender issue in the district.

53. As per the census 2001, the share of the aging population in the district is 9.81 per cent which is higher than the state average of 8.83 per cent. The possible reasons could be lower fertility rate, sluggish population growth rate, better health services or higher life expectancy at birth. An interesting finding is that the work participation rate (WPR) among the aging population is 28.18 per cent which is lower than that of the state (43.08 per cent). It reveals that

there is need for higher social security expenditure and it will further increase the financial burden to the district if the trend continues. As there was a limitation in accessing data on social security expenditures, the district can take necessary steps to increase the WPR among the aging population to reduce the financial burden on provision of social security for them.

54. There are 296 homeless households live (as per census 2001) with more than 200 in urban areas. About 38 per cent of the households have the family size of more than five. Though the number of households is small, but still it is important to provide basic shelter to them. As far as gender issues are concerned, the female work participation rate is 12.72 per cent in the district which is lower than the male work participation rate of 42.95 per cent. Education plays an important role in increasing the WPR among females in the district, where WPR among the illiterate females is only 10 per cent, which is the reverse in the state where the WPR is high among the illiterate females. The reasons need to be further explored, as education is one of the indices of human development.

55. Murder, robbery and theft are extreme obstacles to human development. The murder for various reasons is in a declining trend; whereas the robbery and property loss due to various crimes have increased over three years. It was found that the recovery of property is lower than the lost. Though the district is advanced in education, the number of registered suicides are found to be increasing particularly among the males which is 63.41 per cent to 69.33 per cent. As far as the domestic violence is concerned the number of cases disposed of has been declining and the pending cases are increasing during the year 2007-09. The registered cases of violence against women regarding dowry death, molestation are declining, but still rape, cruelty by husband and relatives, immoral trafficking etc. need greater attention from the administration to address the gender development issues.

56. To address the problem of ageing population, it is suggested to increase the work participation rate of elder people with their confidence and for their comforts. A further study could be taken up to understand the dynamics of low female work participation rate in the district.

57. The district faces the challenges of solid waste disposal, loss of biodiversity, degradation of small water bodies. The initiative of district administration to make the district plastic free, conservation of water bodies leading to increase in biodiversity, promoting tourism and

improving the livelihood of the people is remarkable. However, a collective (different stakeholders including the people at large) movement has to continue to sustain the present initiatives of the district.

58. As the pressure on the land is mounting and the wetlands are on stake mainly because the people are interested in building houses on them, there is an urgent need to bring a special legislation to protect the wetlands.

Abbreviations

ABL	Activity Based Learning
AWC	Anganwadi Centre
BPL	Below Poverty Line
DHDR	District Human Development Report
DIC	District Industries Centre
DISE	District Information System for Education
DRDA	District Rural Development Agency
EER	Elementary Education Register
EGS	Education Guaranty Scheme
ICDS	Integrated Child Development Services
IDA	Infant Death Audit
IDSP	Integrated Disease Surveillance Project
IFA	Iron Folic Acid
IGNOAP	Indira Gandhi National Old Age Pension
IMR	Infant Mortality Rate
KKM	Kanyakumari
KVIC	Khadi and Village Industries Corporation
LBW	Low Birth Weight
LEB	Life Expectancy at Birth
LIC	Life Insurance Corporation
MDA	Maternal Death Audit
MMR	Maternal Mortality Rate
NDP	Net Domestic Product
NREGS	National Rural Employment Guarantee Scheme
NRHM	National Rural Health Mission
NSSO	National Sample Survey Organistion
OBC	Other Backward Caste
PG	Post Graduation
PMEGP	Prime Minister's Employment Generation Programme
PMRY	Pradhan Mantri Rojgar Yojana
SB	Still Birth
SC	Scheduled Caste
SHG	Self-Help Group
SNP	Supplementary Nutrition Programme
SPC	State Planning Commission
SSA	Sarva Sikshya Abhiyan
SSI	Small Scale Industries
SSS	Social Security Scheme
ST	Scheduled Tribe
TBA	Traditional Birth Attendant
UNDP	United Nations Development Programme
WPR	Work Participation Rate