District Human Development Report - 2017

Kanniyakumari District

State Planning Commission
Tamil Nadu

KANNIYAKUMARI

DISTRICT HUMAN DEVELOPMENT REPORT 2017

District Administration, Kanniyakumari and
State Planning Commission, Tamil Nadu
in association with
S.T. Hindu College, Nagercoil

Contents

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MESSAGE

Tamil Nadu is a pioneer in implementing welfare programmes. The State's Twelfth Five Year Plan insists upon the betterment of Human Development status. Tamil Nadu is on the path of development for achieving accelerated, innovative and inclusive growth.

The State Planning Commission had earlier published Human Development Reports for the State and 8 districts. The analysis on the inter district and intra district disparities has led to policy recommendations and formulation of specific schemes like State Balanced Growth Fund to address backwardness. As a sequel, State Planning Commission has taken up the preparation of Human Development Reports for all districts.

This report is prepared with an objective to address Human Development concerns at the block level. An in-depth analysis on the Human Development status through Health, Education, Standard of living, Gender, Demography, Social Security sectors has been made to study the performance of blocks at the sub-district level. This could play as an effective tool for grassroots level planning.

I take this opportunity to place on record my sincere appreciation to the District Collector and Line Department Officials for sharing data on various parameters for the preparation of District Human Development Report. I thank all the stakeholders for their contributions to this report.

ANIL MESHRAM
MEMBER SECRETARY
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PREFACE

I am very happy to acknowledge the maiden effort taken to bring out the Human Development Report of Kanniyakumari District. The State Planning Commission always considers the concept of Human Development Index as an indispensable part of its development and growth. Previously, the State Planning Commission has published Human Development Report for 8 districts in the past during the period 2003-2008, which was very unique of its kind. The report provided a comprehensive view of the development status of the district in terms of Health, Education, Income, Employment etc. The report would be a useful tool for adopting appropriate development strategies and to address the gaps to bring equitable development by removing the disparities.

After the successful completion of the same, now the State Planning Commission has again initiated the process of preparation of Human Development Report based on the current status. The initiative of State Planning Commission is applaudable as this approach has enhanced the understanding of Human Development in a better spectrum.

Kanniyakumari District has the potential for faster growth and development in the recent years. Its abundant natural and human resources is effectively utilized and the steps are identified for further development.

As far as Kanniyakumari District is concerned, the S.T.Hindu College has prepared the DHDR under the assistance of UNDP & SPC. This report has been prepared with a lot of statistical data, information from line departments especially Education, Health, Rural Development and Economics & Statistical Departments. It provides sub district level disaggregated status on various parameters. It also provides lead for core development department for their action in specific areas.

"Execution without planning is like a building without foundation" says an old Adage. "Well Planned work is half done". Perfect planning leads to successful completion of the project. In this context, the SPC has thus provided an opportunity for such a planning in Kanniyakumari district to highlight several challenges, the district faces in improving HDI and to accelerate the process of development.

I also thank the UNDP, UPC, and State Planning Commission for their support to bring out this qualitative report. I am thankful to the entire official in various departments, and our former District Collector Thiru. S.Nagarajan, I.A.S., for his initiative in the development of this report.

I hope this Human Development Report will facilitate the Socio-economic perspectives of the Block Development such as HDI, CDI, MP, and GH. I am sure that the index values of the report will help in triggering the development of the blocks in a balanced manner.

24.8.2015

SAJJANSINGH R CHAVAN

ACKNOWLEDGEMENT

The Planning Commission, Govt. of India and the United Nation Development Programme, Joint stake holders along with the Govt. of Tamil Nadu are in this endeavour and their participation has been whole hearted right from inception. The Preparation of the Kanniyakumari District Human Development Report (DHDR) has originated primarily from the initiative of the State Planning Commission, Government of Tamil Nadu, Chennai.

The task of preparing DHDR has been assigned to S.T. Hindu College, Nagercoil, by the State Planning Commission, Tamil Nadu in collaboration with the Kanniyakumari District Administration. The District level core committee has been constituted with the **District Collector as the Chairman** and myself **Dr. S. Surendran,** Head & Associate Professor, Department of Sociology, S.T. Hindu College, Nagercoil as the coordinator. Many individuals and organizations have dedicated their valuable time and their intellectual input benefitted tremendously and I take this opportunity to thank them for their invaluable contribution to their Report.

I am most immensely grateful to **Tmt. Santha Sheela Nair, I.A.S. (Retd.)** ,Former Vice Chairman, State Planning Commission. Govt. of Tamil Nadu for her extensive exchanges of views, candid evaluation, unsparing the incisive comments and an unstinting devotion with a perfectionist's eye for bringing this Report. I also thank her for constant and continuous words of encouragement.

I Expect my sincere thanks to **Thiru Balaji, I.A.S.,** Former Member Secretary and **Dr. Sugato Dutt, I.F.S.,** Former Member Secretary i/c, State Planning Commision For his Valuable help in the preparation **of DHDR** I Express my thanks **Mr. Anil Meshram,** I.A.S., Member Secretary, For His valuable and lovable Guidance, encoutagement and interest shown in completing my DHDR Work.

My heartfelt thanks to **Er. P. Arumugam Pillai,** Chairman- Secretary and the Board of Directors, S.T. Hindu College for their unstinting support in completing this project. I convey my special thanks to **Dr. S. Perumal**, Former Principal, S.T. Hindu College who has appointed me as a Co-ordinator for Kanniyakumari District Human Development Report, and also I express my sincere thanks to **Dr. T. Chithambarathanu**, Principal, S.T. Hindu College for his extensive support and help in my pursuit.

I owe my special gratitude to **Mr. P. Selvarajan**, Head of Division, Rural Development and District Planning Commission and I am especially indebted to **Selvi. S. Namagiri**, Senior District Planning Officer, State Planning Commission, Chennai for her motivation and strenuous screening of the chapters and the data that are reflected in this report. I would like to convey my special thanks to **Dr. G.N. Krupa Subramanian**, Planning Officer, State Planning Commission for her clarification about the reports.

It is my duty to record my thankfulness to **Shri. SajjanSingh R Chavan, I.A.S.,** District Collector of Kanniyakumari and **Thiru. S. Nagarajan, I.A.S.**, former District Collector, Kanniyakumari for providing this opportunity and their concern through conducting several review meetings and discussion with various Department Officials in preparation of this report.

I acknowledge with thanks the timely guidance which I have received from **Mr. P. Rajasekar**, District Planning Officer, **Mrs. H. Tamil Selvi**, Assistant and **Mr. Sayed Sulaimon**, Former APO, District Rural Development Agency and their timely co-operation and support throughout preparation of the report. I thank each and every one wholeheartedly. I would like to offer my special thanks to the team of the Report Preparation **Mrs. Mary Merlin, Mr. P. Prabhin** and **Miss. Roopa** who have

contributed their time and efforts throughout the report including data collection from all various Departments in State and Central Government, data entry, documentation, indicator and index preparation. I would like to mention **Mrs. Deepa** for her timely support and efforts in editing this report.

I would also like to express my sincere thanks to all the State and Central Government Department Officers for their warm welcome and openness in responding to the DHDR Preparation. I would like to convey my special thanks to all the staff members of the State Planning Commission, Chennai, District Administration, Kanniyakumari District and Department of Sociology, S.T.Hindu College, Nagercoil for their co-operation and their contribution in the report preparation. My special thanks to **Thiru. R. Manivannan**, for systemizing this report and for dedicating his precious time to complete the report within the stipulated time.

The long stretch of this report required strenuous efforts. In this herculean task my parents, family and friends were behind me as the pillars of my strength and encouragement.

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Thiru Balaji,IASDr

I express my sincere thanks to **Dr. Sugato Dutt, I.F.S.,** Former Member Secretary i/c, State Planning Commission for his valuable help in the preparation of DHDR. I express my thanks **Mr. Anil Meshram, I.A.S.,**Member Secretary, for his valuable and lovable guidance, encouragement and interest shown in completing my DHDR Work.

List of Boxes

List of Figures

List of Tables

CHAPTER 1
KANNIYAKUMARI DISTRICT - A PROFILE

Chapter

1

Kanniyakumari District A Profile

Topography

Kanniyakumari district is the smallest district in Tamil Nadu. It is referred to as "Land's End". It has a total area of 1,684 sq. km which is 1.29 percent of the total area of the state. It lies between 77^0 15' and 77^0 36' of the Eastern longitude and 8^0 03' and 8^0 35' of the Northern latitude. Kanniyakumari district is situated in the southernmost part of the Indian peninsula surrounded by Kerala state in the West and North-West, Tirunelveli 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.

The district is divided into the following three natural divisions:

- A mountainous terrain which is the north-eastern portion of the district. It includes the northern parts of Vilavancode and Kalkulam taluks. This terrain has a number of admirable hilltops and a continuation of a lofty and broader mountain range in the North.

- The natural division, which is the fertile seacoast on the South –eastern, southern and south-western parts of the district. Fringed with coconut trees, sandy lowlands, there are a few slightly elevated patches of red cliffs.

- This division consists of the undulating valleys, the plains between the mountainous terrain and the seacoast and also there are a few streams in this region.

In general, the Kanniyakumari district slopes gently towards the West Hills Mountains System to which they belong, main peaks, height situation, vegetation, etc: The differences in altitude and climate of the hilly tract of the Kanniyakumari district have made the vegetation of this area greatly varied with characteristic representation of different types of land. The highest hill in the Kanniyakumari district is Mahendragiri (1654.m.) situated in Thovalai taluk on the border of Kanniyakumari and Tirunelveli districts. The tradition holds that Hanuman took off Lanka through sky through jumping from this peak. Aralvoimozhi is the most important place, as a pass through which the trunk road from Tirunelveli to Nagercoil enters into Kanniyakumari district from the east. Kanniyakumari district has a favourable warm and humid agro-climatic condition with the maximum day temperature ranging between 29^0 c and

33^0 c throughout the year and with an average annual rainfall of 145 cm which is suitable for growing number of crops. The topography and other climatic factors favour the growth of various crops. Paddy varieties in the second crop season are grown in Thovalai and Agasteeswaram taluks and the first crop season in Kalkulam and Vilavancode taluks. This shows that a distinct variation prevails in the climatic conditions within the Kanniyakumari district. Unlike other districts in Tamil Nadu, it has rainfall during the South West and the North East monsoons. The South West monsoon period starts from the month of June and ends in September, While the North-East monsoon period starts from October and ends in the middle of December. There are five rivers namely Thamiraparani, Valliyu, Ponnivaikal, Pampoorivaikal and Pazhayar which flow in the Kanniyakumari district and they fulfil the requirements of the district.

History

In 1752 A.D., while the Travancore ruler, Maharaja Marthanda Varma was busy with his campaigns in the north to put down the popular uprising, Moodemiah was also persuaded to give back the conquered territories in return for a large sum of money. But after the suppression of the Northern rebellion, Marthanda Varma turned his attention to the Eastern frontier. The Kalakkad Fort was recaptured.

Maharaja MarthandaVarma was succeeded by Karthikai Thirunal (1788-1798 A.D), Bala Rama Varma (1798-1810 A.D) and others. Rani Gowri Lakshmi Bai became Regent in the year 1810 A.D. During the Regency of Rani Gowri Lakshmi Bai (1810-1814 A.D), the British Resident Coimunro adorned the Diwanship of Travancore too. His first act was the assumption of control of leading temples of Travancore in 1811 A.D. Besides, he also appointed a committee in the same year to fix Pativu or scale of expenditure for the assumed temples. At the hands of the successive rulers, the temples in Travancore in general made steady progress. But the period of Sri Mulam Thirunal Maharaja deserves special mention. The reign of Sri Mulam Thirumal (1885-1924 A.D) is important in the history of temples at Travancore. In 1922 A.D a separate Department known as Devaswom Department was created by a proclamation to administer the temples. Rani Sethu Lekshmi Bai was the Regent from 1924 to 1931 A.D. In 1931 Sri Chithirai Thirumal Bala Rama Varma became the ruler of Travancore. In 1936 A.D., the temples of Travancore were open to all castes of Hindus. This was an epoch making event in the history of the temples of Travancore. In 1956 A.D. the temples of Kanniyakumari district came under the control of the Hindu Religious and Charitable Endowment Department (H.R. & C.E.), Madras.

The area comprising the present Kanniyakumari district was a part of Travancore state. In 1835, when the state was divided into Northern and Southern divisions, this area became a part of Southern division and was placed in the charge of Dewan Peishkar, Kottayam. In July 1949, when the United States of Travancore and Cochin was inaugurated, the present Kanniyakumari area continued to be a part of Trivandrum district of Kerala State. The people of Agastheeswaram, Thovalai, Kalkulam and Vilavancode Taluks, which formed the Southern divisions of the former Trivandrum District, were predominantly Tamil speaking. They agitated for the merger of this area. The States Re-organisation Commission also recommended this. Accordingly, the States Re-organisation Act, in 1956 was passed and the Kanniyakumari district was formed on 1st November 1956, with Nagercoil as the district headquarters with the four Taluks, Viz., Agasteeswarem, Thovalai, Kalkulam and Vilavancode and merged with Tamil Nadu.

The name Nagercoil is derived from the five-headed serpent deity of the 'Nagaraja' temple which is situated in the heart of the town. The temple of Nagaraja is surrounded by paddy fields, flower gardens, and coconut groves. The garden is famous for its 'Naga' flower (couroupita guianensis), a symbolic representation of 'Nagaraja'. The temple and its garden is believed to be guarded by cobras and under that traditional belief, no one traditional plucks the flowers or coconuts there from. This peculiar feature has been collaborated by the Encyclopedia of Religion and Ethics (vol. XI) complied by Hastings. Snake bite is not fatal within a mile of the temple". The former name of Nagercoil was "Kottaru" alais "Mummudi Cholapuram". Of the nine inscriptions found in the Nagaraja temple, eight inscriptions mention the name of the place as Kottaru and not the present name, Nagercoil. But from the seventeenth century onwards, the town was called 'Nagercoil'.

Language, Art and Architecture

Linguistically, nearly 40 percent of the population knows Tamil and Malayalam. Around 1.5 lakh people speak Malayalam. A sizable section of the people of Kanniyakumari district though they speak Tamil, they understand and speak Malayalam, particularly in border areas. Some of the art forms associated with the temple rituals are Villupattu, Thiruvathirai Kali, Kaliyal, Ottam Thullal, Karakattam and Kalari.

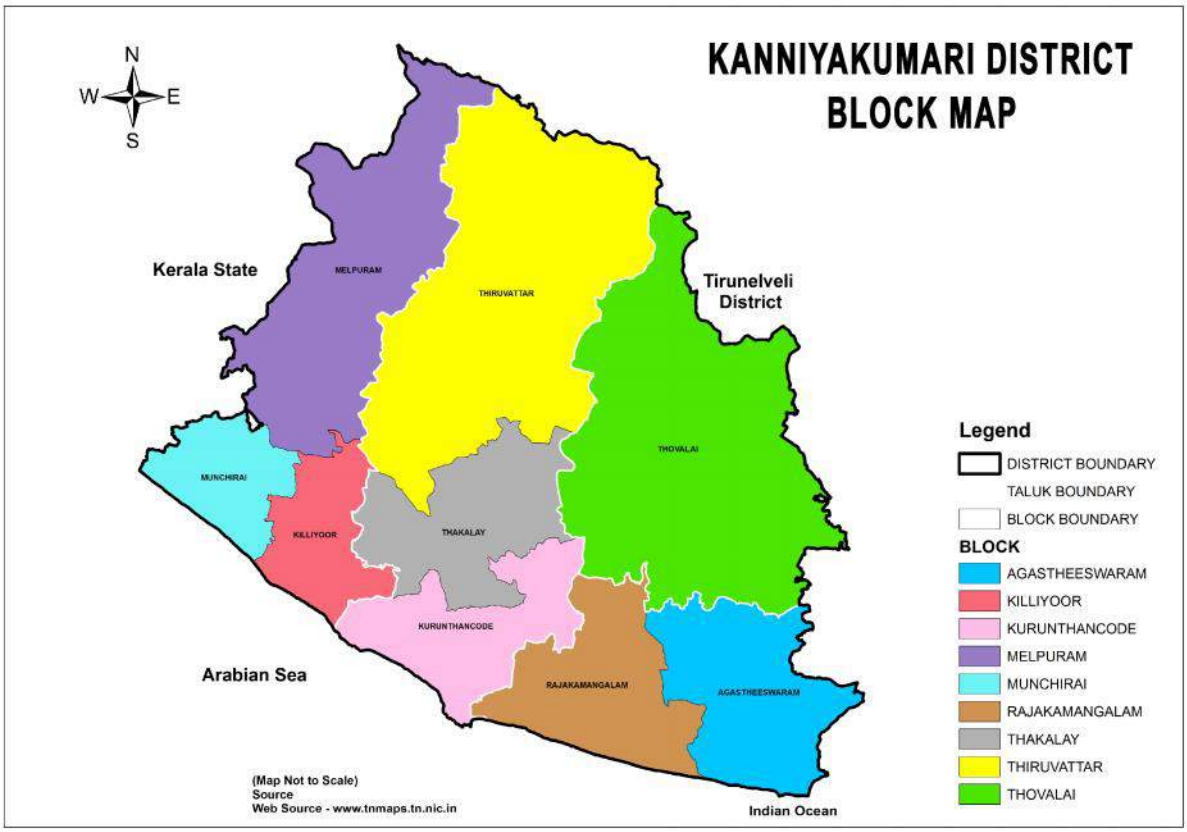
The social composition: In terms of various caste groups Kanniyakumari district has a sizable number of people belonging to Nadar community. It could also be observed that certain caste groups are dominant in certain areas. The people are the human resources of the district.

Their culture, religion, attitudes, habits, beliefs, talents etc. have a bearing on how the district presents itself to others. Tamil and Malayalam are the main languages of Kanniyakumari district. Hindus and Christians form a sizeable percentage of the population of the district and there are a number of Muslim in certain pockets of the district. The caste system in the society has weakened to a great extent especially after independence because of the growth of education and improvements in transport and communication.

Tourism

Tourism is one of the main activities of the Kanniyakumari attracting both national and international tourists to the Vivekananda Rock memorial, Gandhi Mandapam, the 133 feet granite statue of the famous Tamil poet Thiruvalluvar and the Kanniyakumari temple. Many of the tourists like to witness the sun rise in the early morning and sunset in the evening in the beach of Kanniyakumari. Other important tourist places in the Kanniyakumari district are Suchindrum temple, St.Xavier's Church, Peer Mohammed Mosque, Padmanabhapuram palace, waterfalls such as Thirupparrappu and Ulakkaruvi, Guganathaswamy temple, Udayagiri Fort, Vattakottai Fort and Mathoor Hanging Trough well as the longest one in Asia, Chitharal rock cut temple, Maruthuval Malai, Mukkadal natural dam and the beaches of Muttom, Chothavilai and Kanniyakumari. Many locals are employed in shell-craft and other tourism-related businesses. The Kanniyakumari district has a 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.

District Map



Demography

In 2001, the Kanniyakumari district had a total population of 16, 76,034 (Census 2001) with male population of 8,32,269 and female population of 8,43,765. It has increased in 2011 to 18,70,374 among which the rural population is 3,30,572 and urban is 15,39,802.The male population was 9,26,345 and female population was 9,44,029. The rural male population is 1,64,938 and urban population 7,61,407. The female rural population is 1, 65,634 and urban population 7,78,395. The decadal growth rate of population in the district shows an increasing trend. In 2001, the sex ratio was 1014. The population density was 995 per sq.km. The 2011 data shows the sex ratio to 1019 and population density to be 1119 per sq.km. The decadal population growth rate is 11.60%. The rate of SC population during 2001 was 67,712 and in 2011 it was 74,249 and SC population growth was 3.96%. SC Population sex ratio is 1016. This shows awarenss among women in health, education and better standard of living. In 2011, the ST population was 7,282 and male population 3,554. The female population was

3,728. In 2001 the ST population was 5443. The sex ratio is 1048. The present Scheduled Tribe population growth is 0.39%.

Table 1.1: District Basic Demographic Indicator

Sl. No	*Indicators*	*2001*	*2011*
1	Population	16,76,034	18,70,374
2	Decennial Growth (%)	6.64%	11.60%
3	Density of population per sq,km	1002	1119
4	Urban population	65%	82%
5	Sex ratio	1000:1014	1000:1019
6	Percentage of 0-6 year old	10.84%	9.75%

Source- – Department of Statistics, Kanniyakumari district., Census 2001 and 2011

Economy

Agriculture plays a vital role in Kanniyakumari district. Large scale cultivation of agricultural lands gave the name 'Nanjilnadu' to the district and it has also increased the rate of economic growth. Fishing also plays an important role and provides employement to a large number of people and it is a way of life.

Agriculture

Agriculture and irrigation systems in Kanniyakumari depend on the geo-morphology and rainfall availability. Based on the agro-climatic and topographic conditions the district can be classified into three regions:

- The Uplands comprising of hills and hill bases suitable for growing crops like rubber, cloves, nutmeg, pepper, pineapple etc
- The Middle comprising of plains and valleys fit for growing crops like paddy, tapioca, banana and coconut.
- The Lowlands comprising the coastal belt ideal for growing coconut, cashew etc.

A distinct type of xerophytic flora is seen on the sides of hill ranges of the Kanniyakumari district. It is dominated by large grasses towards the top and by shrubby forms at the base. The prominent grasses are species of Andropogan, panicum, lemon grass and fodder grass. Large clumps of bamboo and dense growths of Ochlandra and cane are the plants belonging

to the bamboo family and they are found abundantly. Growing sheltered by the grasses are a number of subordinate anual herbs, which have an ephemeral existence and herbaceous parennials which are partly bulbous and partly rhizomatous and which put forth their shoot only during the short favourable seasons. Other flowers are very rare. The shrubby forms are constituted by species of phoenix, cycas, intai etc., in the lower elevation while at high elevations are seen Angiopteris. Typical forest swamps monsoon forests are found in Muthukuzhivayal with typical vegetation of the swamps of the forests. Several specimens of grasses, cyperus and eriocaulon form the prominent feature of these swamps. Another important grass found here is the lemon grass.

In the lowlands and in the valley shelter, and at the hill ridges, paddy the main food crops is grown extensively. Tapioca is the second important food crop and cultivated mostly in Kalkulam and Vilavancode taluks. Palmyrah is grown extensively in the plains of Kalkulam and Vilavancode taluks, and on a lesser scale in Agastheeswaram and Thovalai taluks. Beautiful coconut trees are found in the narrow stretches of the sandy sea-board and along the banks of rivers, tanks, the Manakudy Lake and along the estuary at Thengapattinam in the Vilavancode taluks. Large varieties of medicinal plants are grown here, of which some 60 species can be grown in the kitchen garden. The suggestive name Maruthuvalmalai given to one of the hillocks indicates this fact. Kolunthu is cultivated at Thovalai for its springs which are aromatic.Besides the above, different varieties of vegetables, pulses and beans are also grown here. Groundnut is also grown in a few acres. Among the spices, cardamom, black pepper, ginger, turmeric, chillies, tamarind, onion, garlic, coriander, cumin, clove, nutmeg, chinnamon, mustard and bay-leaf or Kariveppalai are the most important crops grown in this area. Rice, coconut, rubber, tapioca, banana, pulses, cashew, mango, palmyra, tamarind, areca nut, jackfruit and cloves are the main crops.

Agriculture is still a gambling in the hands of monsoon. So, there are alternative industrial activities and the primary sector is influenced by natural factors. The natural factor is South-West monsoon – June 25 to Sep 20 (89 days). During the period, fishermen generally do not go for fishing and the shortage in the availability of fish results in increase in the price of fish. Agricultural operation is not properly carried out due to less rain if when it rains heavy, there are no proper storage facilities in tanks and so, it directly flows into the sea. There is shortage in the availability of agricultural labourers. Moreover, in Agastheeswaram and Thovalai blocks, due to conversion of agricultural lands for real estate, there is unemployment which has resulted in migration to other districts and states. It results in poor agricultural progress.

Animal Husbandry: Cattle such as buffalo, sheep, goats and pigs are the main animals reared here. But now cattle, buffalo and sheep have less growth and goat, pigs and poultry have increased. Goat rearing is successful due to the implementation of government schemes. Fallows, pastured land and grazing land are less, so milk animals cannot find grazing lands.

Rubber

In Tamil Nadu, Kanniyakumari is the only district with suitable soil, rainfall and topography for the growth of natural rubber trees. As, there are many private processors of natural rubber, Arasu Rubber Corporation, Nagercoil, came into existence with effect from 1-10-84 and that is the major processor in this field. The corporation has 4279.78 hectares of rubber plantations. There are 3 rubber factories at Keeripparai, Perunchani and Mylar. There are 6, 89,054 rubber trees under the corporation.

Honey

The Y.M.C.A rural re-construction centre at Marthandam is one of the oldest institutions in India which is a boon for those engaged in bee-keeping and its products are much in demand throughout the nation. There are 23 rural industries and 10 Khadi sub-centres in the district.

Cashew

The Cashew industry has a distinct place in the industrial sector of Kanniyakumari district. There are 183 cashew factories that provide employment for about 2,800 women. The District Industries Centre, Nagercoil is identifying prospective industries and issuing certificate for provisional small scale industries registration. They are given financial assistance and technical guidance to start small scale industries. There are 9,959 permanent small scale industrial units and 20,136 provisional small scale industrial units.

The government encourages unemployed graduates and technically qualified persons to start industries with financial assistance as well as technical guidance. Indian Overseas Bank is the lead bank in Kanniyakumari district. There is coordination between the bank and the government agencies for the preparation of credit plan for the district monitoring the smooth implementation of all government sponsored programs like JVVT, IRDP, self employment scheme etc.

Handloom

The main production of handloom fabrics includes dhotis, ordinary towels, and turkey towels. Vadasery in Agastheeswaram taluk is prominent for dhotis and turkey towels. In Kalkulam and Vilavancode taluks 'Kerala setmundu' is being produced and it has a good market in Kerala state. Vadasery, Colachel, Eraniel, Nattalam, Palliyadi, Arumanai are the areas where a cluster of weavers are engaged in cotton handloom weaving. Average annual production of handloom varieties is Rs.1800 lakhs and annual average sales value is Rs.2100 lakhs.

Other Small Scale Industries

The other small scale industries include Handicrafts, fibrecrafts, stone carving, wood carving, bell metal industry, lace and embroidery works, costume jewellers, Korai grass mat, sea shell craft, musical instruments, cut glass work, khadi and village industries.

Forests and Wildlife

Forests are the heritage of the nation. These are assets and natural resources of the nation on which all forms of life depend and thrive. The forest in Kanniyakumari district is verdant and virgin and said to be 75 million years old. Of the total district area of 1, 67,267 hectares, forests occupy an area of 54453 hectares which comes to about 30.2% of the total district geographic area. The Kanniyakumari district is having 52 % of its forests as dense forests.

Kanniyakumari Wildlife sanctuary with adjacent areas of Kalakkadu Mundanthurai Tiger Reserve and Neyyar Wildlife Sanctuary of Kerala State constitutes the southernmost tip of Western Ghats. The natural vegetation of this region represents biomes, ranging from southern thorn forests, dry deciduous, moist deciduous, semi- evergreen forests to evergreen hill with grassy downs. The tract is exceedingly rich in wildlife harbouring variety of animals. The avifauna, the reptilian and amphibian fauna of this region are also rich and diverse. At least 30 types of mammals, about 100 species of birds including 14 species of migratory birds and many species of fishes, reptiles and amphibians are living here. The presence of tigers and leopards leads credence to the richness of biodiversity of the tract.

In due recognition of the tremendous biological potential, Kanniyakumari forest division was declared as Kanniyakumari Wildlife Sanctuary in 2002 with an extent of 45777.57 ha. Later, in 2007, Kani tribal settlements, approach road to settlements and area leased out to Arasu

Rubber Corporation are excluded from the sanctuary. Now, Kanniyakumari Wildlife Sanctuary has an area of 40239.55 hectares.

Sectoral Distribution of Gross District Domestic Product

The Sectoral Distribution of Gross District Domestic Product (GDDP) is a summary measure of aggregate value of goods and services produced within geographical boundaries of the district in a particular year. GDDP is an indicator or the performance of the district economy.

The economy is classified into three sectors. The primary sector constitutes the income from agriculture, animal husbandry and fishing. The secondary sector constitutes the registered, unregistered manufacturing units, constructions and electrical units. The tertiary sector constitutes the service sector such as commerce, transport, public administration, health, education, communication, finance, insurance, banking and real estate sectors.

Table 1.2: Sectoral Distribution of Gross District Domestic Product

Year	GDDP – At Constant (2004-05 Price) (In Lakhs)							
	Kanniyakumari							
	Primary		Secondary		Tertiary		Total	
	GDDP	%	GDDP	%	GDDP	%	GDDP	%
2008-09	87434	7.51	531089	45.59	546354	46.90	1164877	100
2009-10	94404	7.30	606655	46.94	591434	45.76	1292493	100
2010-11	93358	6.21	736568	49.02	672726	44.77	1502652	100
2011-12	74882	4.61	806147	49.64	743019	45.75	1623988	100

Source: Department of Economic and Statistics, Tamil Nadu, 2014

Table 1.2 highlights the sectoral distribution of Gross district domestic product in Kanniyakumari district during 2008-2012. During 2008-2009, the district GDDP is Rs. 11, 64,877 lakhs at constant price of 2004-2005. It has grown continuously since 2008-2009 out of Rs.12, 92,493 lakh of GDDP is 2009-10, the contribution of secondary sector is very high (49.64) followed by tertiary (45.75) and primary (4.61). The secondary and tertiary sectors jointly contribute more than 90 percent of the GDDP. It reveals that the contribution of the primary sector decreased from 7.51 % in the district. In 2011-12, primary GDDP 4.61% in 2008-09 7.51% of primary GDDP. This is due to the growth of secondarty and tertiary sector. In 2011-12 Tamil Nadu GDDP at constant price, primary sector's contribution was Rs.38, 72,767 lakhs; secondary sector's contribution was Rs.1, 30, 39,248 lakhs; and tertiary sector's contribution was Rs. 2,64,11,788 lakhs.

Income

The per capita income of the district is only an approximate indicator of the living standard of the people. It is a function of gross district domestic product divided by population. The per capita income of the state was Rs. 33,998 during 2004-2005 and it increased to Rs. 63,996 during 2011-2012. Table 1.3 reveals that the per capita income of the district is higher than that of the state through out the period from 2004-05 to 2011-12.

Table 1.3: Per Capita Income

At Constant Price (2004-2005)		In Rupees
Year	Kanniyakumari	Tamil Nadu
2004-05	42832	33998
2005-06	51022	38435
2006-07	57274	43941
2007-08	64271	46293
2008-09	68874	48473
2009-10	76413	53359
2010-11	88855	59967
2011-12	96070	63996

Source: Department of Economic and Statistics, Tamil Nadu, 2014

It is understood that the Kanniyakumari district economic growth and development is analogous to a ladder with high rank which represents that it is the stepping up path of economic well-being with respect to income, health, education and standard of living of an individual.

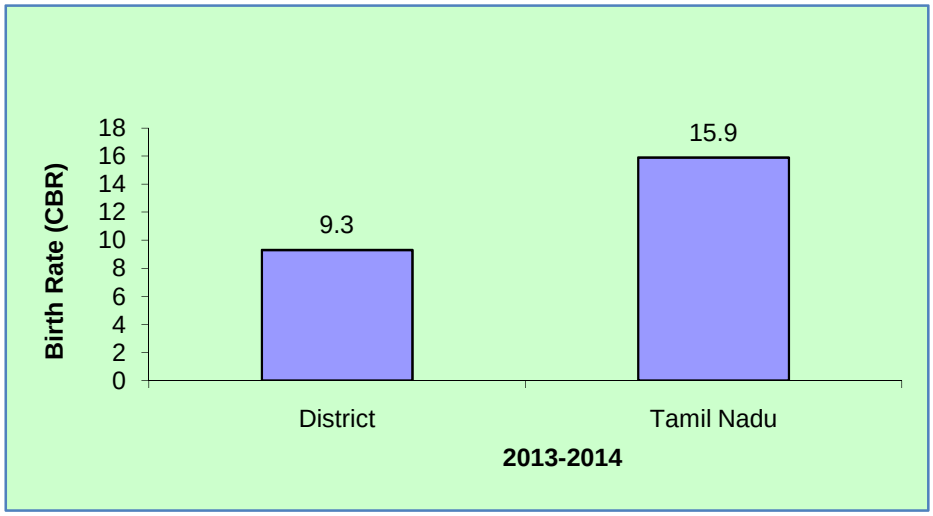
Social Sector

Health

In Kanniyakumari district, health awareness and medical facilities are in good condition and it has a good healthcare system. So it controls the diseases and the death rates. The healthcare delivery system is provided by 9 block primary health centres, 27 additional primary health centres, 6 urban primary health centres and 267 Health sub-centres, 1 government medical college with 1384 beds. Apart from this, several other private hospitals are functioning in Kanniyakumari district. Fig.1.1 gives details of the Crude Birth Rate of the district and the state. There are significant differences in the Crude Birth Rate of the district and the state.

The Crude Birth Rate of Kanniyakumari district is 9.30 and that of the state is 15.9. It shows that the Crude Birth Rate of the district is much lower than that of the state in 2013-14.

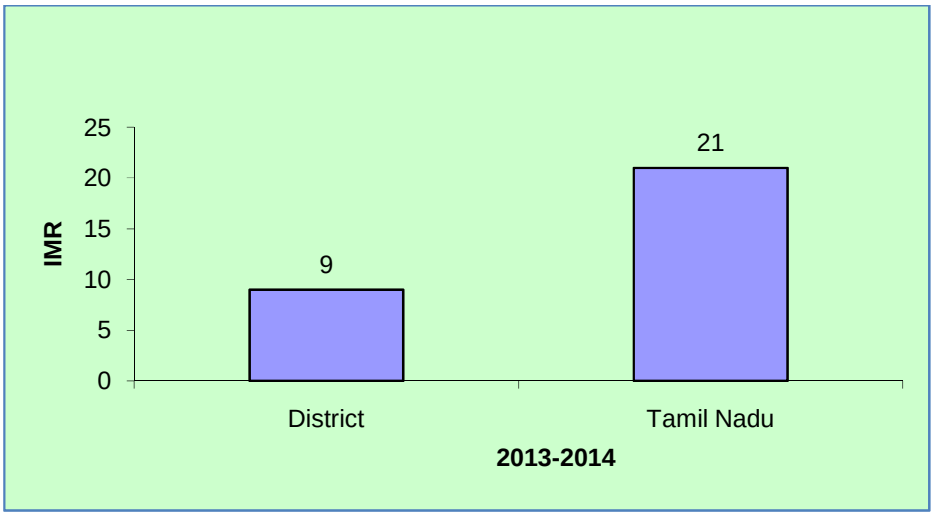
Figure 1.1: Crude Birth Rate



Source: Deputy Director of Health Service, K.K.District, 2014.

The Infant Mortality Rate was 10.89 in 2011-12, 10.59 in 2012-13 and 9 in 2013-14. When compared with the IMR of the state which is 21 in 2013-14, it shows that the government policy, schemes and awareness programmes are the initiatives which helped in the decrease of the IMR in the district.

Figure 1.2: Infant Mortality Rate



Source: Deputy Director of Health Service, K.K.District & SPC, Chennai, 2014

Literacy and Education

The literacy rate of the district, which was 87.55 in 2001 reached 91.75 in 2011. Out of the total population, the literate population constitutes 1548738 in which 93.97 are males and 89.99 are females. The total number of habitations in the Kanniyakumari district is 3646. The enrollment rate in 2013-14 in the district is 99.57 in primary and 99.37 in upper primary. In the secondary schools, the enrollment rate is 95.26.

Conclusion

The present chapter has explained the demographic features of the district keeping in view the historical perspective and the various habitants occupying the district, to make it one of the important tourist spots and pilgrim centers. It shows light on the occupations, involvement of the people and the availability of the natural resources that contribute to the source of income, development and education. Thus, we can say that Kanniyakumari district has got good human development.

This chapter also shows the improvement and development during the past ten years in terms of standard of living, education, empowerment and health. It describes the growth in agriculture and the various industries both in small and large scale that have helped the economic growth of the district. The Kanniyakumari district is well known for its natural forest reserve with Kanniyakumari wild life sanctuary to its credit. The sectoral composition of the Gross District Domestic Product shows that, secondary and tertiary sectors helped in a big way to increase the per capita income of the district from Rs. 88855 in 2010-11 to Rs. 96070 in 2011-12. The crude birth rate was 10.32 in 2012, it has come down to 9.30 in 2013-14 and also the rate of infant mortality rate was 10.59. In 2012-2013 it was 9.00 which are comparatively showing a positive result than the previous periods. This is because of the initiatives and efforts taken by the health department of the district to strive hard towards the growth in health. The literacy rate was 91.75 in 2011 which emphasize the importance of education. The Kanniyakumari district is known for its educational platform providing various choices for the students to make appropriate careers and contribute to the growth of the district.

CHAPTER 2

STATUS OF HUMAN DEVELOPMENT

Chapter
2
Status of Human Development in Kanniyakumari District

Introduction

*"People are the real wealth of a nation," Haq wrote in the opening lines of the first Human Development Report in 1990. "The basi*c objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives. This may appear to be a simple truth. But it is often forgotten in the immediate concern with the accumulation of commodities and financial wealth." The Nobel Laureate from India, Amartya Sen is certainly very close and better than anyone else in embodying the human development position. He had the greatest intellectual influence on its arguments, while the longevity of his career and the magnitude of his contributions across a wide spectrum of issues – covering choice theory in economics to philosophical interventions on the idea of justice itself – have taken such arguments, well beyond questions of economic development.

The United Nations General Assembly has formally recognized the Report as "an independent intellectual exercise" and "an important tool for raising awareness about human development around the world." The Human Development Report is an independent report, commissioned by the United Nations Development Programme (UNDP), and is the product of a selected team of leading scholars, development practitioners and members of the Human Development Report Office of UNDP. It is a report independent of the Administrator of the UNDP, as suggested by Ul Haq. It is translated into numerous languages and launched in more than 100 countries annually. In 1996, Human Development Report (HDR) published by the UNDP states "Human Development is the end, economic growth a means". The HDR's of 1996 and earlier years have consistently defined the basic objectives of development as enlarging the choices of people primarily with education, health and employment opportunities.

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 and sense of participation in community activities. The characteristics of human development

concept reveals that it is dynamic and it keeps evolving. It is multidimensional, inter-disciplinary and pragmatic in nature. Overall, the concept of human development emphasizes on the three aspects: building of human capabilities; enhancement of freedom; process of achieving outcomes.

The District Human Development Index of Kanniyakumari is arrived at on the basis of the Human Development Index, Gender Inequality Index, Child Development Index, and Multidimensional Poverty Index .The current chapter deals with the Human Development, Gender Inequality, Child Development and Multidimensional Poverty at block level, computed based on proxy indicators proposed by State Planning Commission (SPC).

Human Development Index

HDI is a composite index, and human development is a multidimensional feature. HDI is a composite index measuring average achievement in three basic dimensions and 11 indicators of human development. The dimensions are Standard of Living, Health and Education. These three dimensions are crucial in computing the Human Development Index of the block and the district. Details of the indicators are given below.

Dimensions	Indicators
Standard of living	Access to cooking fuel
	Access to toilet facilities
	Access to drinking water
	Access to electricity
	Access to Pucca houses
Health	Infant Mortality Rate
	Maternal Mortality Rate
	Under 5 Mortality Rate
Education	Literacy rate
	Gross enrollment in Primary
	Gross enrollment in secondary

Human Development Index in Kanniyakumari – Inter-Block Variations.

Index value falls to 0 to 1. The Human Development Index is a positive index. If it is closer 1, the higher will be the index value and it shows higher human development and if value is closer to 0, that is lower the index value, lower the human development. In Kanniyakumari district, Thuckalay (0.89), Thiruvattar (0.83) and Agastheeswaram (0.81) blocks occupy the first three ranks. Melpuram(0.58), Killioor(0.55) and Thovalai(0.51) are the bottom three ranks,(Table 2.1) The range between the higher value and lower value is Thuckalay(0.89) and

Thovalai(0.51). It shows that there are considerable interblocks variations among the blocks and in human development within the Kanniyakumari district.

Table 2.1 : Top and Bottom three blocks in Human Development Index, 2014

Top 3		*Bottom 3*	
Thuckalay	(0.893)	Melpuram	(0.588)
Thiruvattar	(0.830)	Killioor	(0.558)
Agatheeswaram	(0.814)	Thovalai	(0.511)
Source : Computed.			

The blocks Thuckalay, Thiruvattar and Agastheeswaram are showing better performance in terms of human development indicators and dimensions. Similarly, in Thovalai IMR is (15.45), U5MR is (14.23) and in education GER is (94.66) in secondary and toilet facility is (90.54), drinking water (92.15) and pucca houses (66.56). In Killiyoor which is one of the bottom blocks MMR(78),U5MR(11.67)cooking fuel(37.99), drinking water(91.67).In Melpuram, another bottom block, drinking water(90.66), electricity(95.06), cooking fuel(32.76) health IMR(7.93) and MMR(46). These blocks are backward in the indicators of three computed dimensions.i.e standard of living, education and health.The details of HDI computation are furnished in Appendix-1-1. In the standard of living indicator, the lower range of accessibility of cooking fuel in Melpuram block index value is (0.40). Muncharai is in the higher range with regards to accessibility to latrine (1.00). But in Rajakkamangalam, toilet facility is low in this index (0.45). Drinking water facilities are good in Muncharai (1.00) in Thiruvattar it is (0.88) and in Thuckalay it is (0.79). Pucca houses are low in Thovalai (0.21) and Melpuram (0.31) blocks.

The Health dimension is measured by the indicators is Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR) and under 5MR. Urban sector population covered blocks have more health issues than the rural sector population covered blocks. Thovalai (0.15) and Agatheeswaram (0.60) index value recorded as higher range of IMR than the other blocks. MMR is higher in its index value in Munchirai (0.58), Rajakkamangalam (0.43) and Melpuram (0.46) blocks. Thovalai (0.15)and Rajakkamangalam (0.34) blocks recorded higher U5MR index value than other blocks. The reasons are lack of health awareness among mothers and poor sanitation and hygiene, lack of drinking water, toilet facilities and pucca houses. Poor awareness and ignorance of the PHC's resulted in IMR and U5MR.

The education dimension the indicators used for literacy rate are GER primary and GER secondary. Literacy index value rate is irrelatively low in Muncharai (0.60), Thovalai (0.66) and Melpuram (0.68). Rajakkamangalam (1.00), Agateeswaram (0.83) and Thuckalay (0.79) blocks reported higher literacy rate than the other blocks as per the census 2011. In education dimension, the gross enrollment ratio of primary and secondary school education play a vital role. In Melpuram (0.96), GER primary is lesser and Thuckalay (0.96), Rajakamangalam (0.97), index value. In GER secondary, the index value in Agasteeswaram is (0.88), in Thovalai (0.89) and in Melpuram (0.9). Accessibility and affordability of education and health service for the people is crucial for the blocks to improve their level of human development.

Gender Inequality Index: Inter- Block Variations

The gender disparity is another dimension of human development. Along with HDI, UNDP constructed the gender–related development index (GDI) to analyze the gender disparities across the member countries. The Gender Inequality Index (GII) is a new index for evaluation of gender disparity that was introduced in the 2010 Human Development Report of the UNDP. There are three important dimensions used to measure gender inequality. They are Health, Empowerment and Labour Market. These three dimensions have fifteen indicators to compute the GII. The indicators are given below.

Dimensions	Indicators
Health	MMR
	Institutional delivery
	Antenatal coverage
Empowerment	Female literacy rate
	Male literacy rate
	Share of female children 0 – 6 years
	Share of male children 0 – 6 years
	Share of male elected representatives in RLBs and ULBs
	Share of female elected representatives in RLBs and ULBs
Labour market	Female work participation rate
	Male work participation rate
	Female work participation rate in non-Agri. Sector
	Male work participation rate in non-Agri. sector
	Female Agri. wage rate
	Male Agri. wage rate

The gender inequality index is a negative index. Here, the value closer to 0 shows lower gender inequality and value closer to 1, shows higher gender inequality. The result of this

computation exhibits the GII of Kanniyakumari district shows lower gender inequality in nine blocks. Status of GII indicators are given in Table 2.2.

TABLE 2.2 – Top and Bottom three blocks in Gender inequality index, 2014

Top 3	***Bottom 3***
Agateeswaram(0.015)	Killiyoor(0.064)
Thovalai (0.022)	Kurunthencode(0.048)
Thuckalay (0.022)	Munchirai(0.043)
Source : Computed.	

Table 2.2 highlights the top and bottom three blocks of Gender Inequality Index in Kannyakumari district. In the Appendix table A1-2, Agastheeswaram (0.015), Thovalai (0.022) and Thuckalay (0.022) rank first 3 places in Gender Inequality Index. Killiyoor (0.064), kurunthencode (0.048) and Muncharai (0.043) blocks occupy the last three places in GII. Range of variations within the blocks and between the blocks should be overcome through implementing human and gender development measures. While comparing three dimensions health, empowerment and labour, Agateeswaram GII index is 0.015. Therefore, special focus is required in programmes of Ante Natal coverage, improving female representatives in election, female workers participation in Non Argicultural sectors.

If the GII rank is less than the HDI in the blocks, it shows that women in the blocks suffer lower achievement than men. If the HDI and GII ranks are the same in the blocks, it is indicative of gender equality in human development. This is the appreciable stage and the disparity within the blocks and between the blocks should overcome through implementing human and gender development measures. While comparing three dimensions, the health indicators are comprised of MMR rate which is high in Killiyoor (78), Rajakkamangalam (49) and Melpuram (46). All the nine blocks achieved hundred percent institutional deliveries in Kanniyakumari District. The literacy rate in Kannyakumari district has reached 91.75% in 2011. The female literacy rate is 89.90% and male rate is 93.65%. In this index, female literacy is lesser in Muncharai, Thovalai, and Melpuram. The share of female elected representatives in the Kanniyakumari district ranges above 36.21%, Kurunthcode has the highest rate of 39.33 (0.39). The female work participation rate is privileged in the agriculture belt Thovalai and Melpuram blocks. The female work participation rate in the non-agricultural sector has been high in urban locations including Killiyoor, Rajakkamangalam and Muncharai.

Child Development Index: Inter Block Variations

The Child Development Index (CDI) is an index merging performance measures, particularly children's Education, Health and Nutrition. The CDI Index value falls between 0 to 1. The higher the index value, i.e. closer to 1 would be the best in human development. The lower the index value, i.e. closer to zero, the worse the child development. The child development index Appendix A1-3 for Kanniyakumari district has been computed based on eight indicators. Indicators and values used for CDI computation are given in the Annexure. Indicators used for CDI computation are furnished below:

Dimensions	Indicators
Health	U5MR Child sex ratio Percentage of malnourished children
Education	Gross enrollment ratio in primary Gross enrollment ratio in secondary Children never enrolled in schools Transition rate from primary to upper primary Transition rate from upper primary to secondary

Table 2.3 highlights the Performance of Child Development Index. It identified the top three and the bottom three blocks. The differences between minimum and maximum values are:

Table: 2.3 Top and Bottom three blocks in Child development index, 2013.

Top 3		***Bottom 3***	
Thuckalay	(0.249)	Rajakkamangalam	(0.146)
Thiruvattar	(0.239)	Killiyoor	(0.135)
Agatheeswaram	(0.209)	Thovalai	(0.050)
Source : Computed.			

In Thuckalay block, Child development index is of 0.249. The range starts from Thovalai block at 0.050 to Thuckalay block at 0.249.Under the health dimension, U5MR, child sex ratio and percentage of malnourished children are taken in account. Thovalai (14.23), Rajakkamangalam (12.45) and killioor (11.67) recorded higher range of U5MR than other blocks. Thovalai (20.31), killioor (14.71) and Muncharai (11.35) blocks have a severe problem of malnourishment also. So, Kanniyakumari district requires attention to reduce anaemia, child mortality through treating malnourished children, on time vaccination, spreading awareness regarding hygiene, sanitation and safe drinking water. The juvenile sex ratio index shows that the child sex ratio is less than 950 in the Killioor blocks (948), and that illustrates

the situation of the girl child. The Kanniyakumari district administration needs to concentrate on scan centres to avoid sex selection abortion and to create awareness on gender equality.

While assessing the child development in terms of education, children never enrolled in a school in all the blocks is nil. The enrollment rate in primary is less in Melpuram, because of agriculture, private estate and forest locations .Enrollement rate in secondary schools is low in Agastheeswaram, Thovalai and Melpuram. This is due to the seasonal job offers from fishing and building contractors. The transition rate from primary to upper primary shows the lowest in Kurunthancode and Melpuram blocks. Transition rate from upper primary to secondary shows less in Thovalai and Melpuram blocks. So SSA, RMSA and school teaching teams need to analyze the low rate of transition and concentrate more on the transition rate.

Multi-Dimensional poverty Index: Inter Block Variations

The Multi Dimensional Poverty index is determined on the basis of health, education and standard of living dimensions. The health index is comprised of IMR, higher order birth rate and malnourished children. The education index constitutes dropout in primary and secondary. The standard of living index constitutes access to cooking fuel, access to toilet facilities, access to drinking water, access to electricity and access to pucca houses.

Multi-Dimensional poverty Index

Dimensions	Indicators
Health	IMR
	Higher order birth rate
	Malnourished children
Education	Drop out of the primary
	Drop out in secondary
Standard of living	Access to cooking fuel
	Access to toilet facilities
	Access to drinking water
	Access to Pucca houses
	Access to electricity

Table 2.4 shows the end result of MPI in Kanniyakumari district, Thuckalay (0.148), Thiruvattor (0.183) and Killiyoor (0.288) blocks are the top three blocks where multidimensional poverty is less. The bottom three blocks are Thovlai (0.552), Agastheeswaram (0.392) and Melpuram(0.362). There, the MPI is relatively higher.The range starts from Thuckalay (0.148) to Thovalai (0.552).

Table 2.4 Top and Bottom three blocks in Multidimensional Poverty index, 2014.

Top 3		Bottom 3	
Thuckalay	(0.148)	Thovalai	(0.552)
Thiruvattar	(0.183)	Agastheeswaram	(0.392)
Killiyoor	(0.288)	Melpuram	(0.362)
Source : Computed.			

Health dimension has correlation with poverty. Due to poverty, the health condition is results in malnourishment, anaemic condition and aggravation of diseases and improper treatment. On the other hand, inspite of the mounting trend of health expenditure, environmental degradation and the outbreak of new diseases cause poverty. High range of infant mortality is found in Thovalai 15.45 and malnourished children account for 20.31. Inadequate breast feeding and lack of awareness among mothers about knowledge in child healthcare have been noted as casual factors in this issue. Muncharai (6.93) Agatheeswaram (6.12) and Rajakkamangalam (5.23) have higher order birth rate and also linked with malnourishment.

A family under poverty means they could not afford and offer proper education to their child. In order to avoid this issue, Government started universal education scheme, i.e Sarva Shiksha Abhiyan. Through this scheme, most of the blocks reached hundred percent enrollments in primary and upper primary level. Similarly, the enrolled children could not continue their children due to poverty and low accessibility. Standard of living gives dignity to the community, Thuckalay block registered high level in some indicators like toilet facilities, drinking water, electricity and pucca houses. Thovalai need more attention in drinking water and better toilet facilities in their standard of living indicators.

Table 2.5 : Consolidations of HDI, GII, CDI and MPI Indices, 2014

S. No.	*Block*	*HDI*		*GII*		*CDI*		*MPI*	
		Index Value	*Rank*	*Index Value*	*Rank*	*Index Value*	*Rank*	*Index Value*	*Rank*
1	Thuckalay	0.893	1	0.022	3	0.249	1	0.148	1
2	ttarThiruva	0.830	2	0.035	6	0.239	2	0.183	2
3	Agasteeswaram	0.814	3	0.015	1	0.209	3	0.392	8
4	Kurthencode	0.781	4	0.048	8	0.203	4	0.292	5
5	Rajakkamangalam	0.739	5	0.029	4	0.146	7	0.289	4
6	Killioor	0.558	8	0.064	9	0.135	8	0.288	3
7	Muncharai	0.711	6	0.043	7	0.173	6	0.308	6
8	Melpuram	0.588	7	0.031	5	0.176	5	0.362	7
9	Thovalai	0.511	9	0.022	2	0.050	9	0.552	9

Source : Computed.

Conclusion

The Table 2.5 restates the earlier observations. The blocks that have decent progress on various Human Development Indicators across indexes have consistent top rankings in their respective indexes and thus attain top rankings in the overall HDI index Rankings. The blocks need to address the areas of deficient indicators separately and need to take corrective measures to have better implementation of the government's development initiatives to the issues concerned with health, education, standard of living, employment and equity. Focused and sustained effort will narrow down the inequality prevailing among the blocks. Table 2.5 consolidate index shows that the standard of living health and education are high in Thuckalay, Thiruvattar and Agatheeswaram are performing well in human development. In this index, the backward block Thovalai needs more attention in HDI, CDI and MPI index. Thovalai block is covered with agriculture based society. Most of the people have sold their lands and migrated. The reason behind the migration are, Lack of large scale industries, interest in white color job, unwilling to stay in hill based housing locality and lack of interest among youth in agricultutre based occupation. Additional attention is needed for toilet facilities, drinking water, electricity and pucca houses, and control infant mortality rate , under five child mortality rate and lower literacy rate.

Killiyoor block needs more attention in the index HDI, CDI and GII. It is backward in all the indices and that as resulted in low standard of living and health condition (MMR high, antenatal coverage less). Female worker participation rate is also low. Melpuram block shows that there is a need to be focused on MPI and HDI. Rajakamangalam block needs to be focused on U5MR.

CHAPTER 3

EMPLOYMENT, INCOME AND POVERTY

Chapter
3
Employment, Income and Poverty

Introduction

In today's life, socio-economic status, cultural context, and ethnicity play an important role in human development. The quality of employment and its returns received are accountable to determine the human development. Lack of adequate opportunities results in lower economic status which in turn reflects in poverty level. Since independence, the crucial criterion in the development policy of India is to reduce poverty. It has to be achieved through growth and to raise the purchasing power through the endowment of land and other assets and to generate employment opportunities through public interventions on large scale for food security and for work programmes.

The Government of India has implemented a great number of poverty alleviation schemes and has committed about Rs.11,000 crore per annum to centrally sponsored schemes and to the Public Distribution system together accounting for 2% of the GDP. India has the history of reducing poverty significantly. The important role of growth however cannot be denied in ensuring human development. There is need to focus on providing necessary skills which enable people to take full advantage of any expansion in employment potential. 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 are vital. This chapter attempts to capture the above dimensions of human development in Kanniyakumari district.

Employment

The total number of workers in Kanniyakumari district in 2011 was 6,79,620. The table 3.1 worker participation categorizes the Main Workers, Marginal Workers and Non-Workers in the total population. The comparison of total workers from the census data 2001 and 2011 brings out the data to be 4, 63,460 (27.65%) and 6, 79,620 (36.34%) in this male 77.19% and female 22.81% in the Kanniyakumari district. This shows the increase in the number of total workers. The total main workers come up to 4, 60,734 (27.48%) and have increased to 5,52,658 (29.55%), male with 80.86% and female with 19.14%. in 2011. Marginal workers

have also raised considerably due to underemployment and in 2001, it is 87,844 (5.24%) and in 2011, it is 1, 26,962 (6.79%). Non-workers in 2001 is 9, 40,294 (56.10%) in 2011, it is 11, 90,754 (63.66%), male 33.74% and female 66.26%. There are reasonable number of non-workers which is showing the flow of income from outside. The Rajakkamangalam has doubled in the rate of workers when compared to 2001 and 2011. Melpuram has the second largest number of 81,427. The number of marginal workers has shown its growth from 87,844 (5.24%) in 2001 to 1,26,962 (6.79%) in 2011. The number of marginal workers is high in Melpuram 21,770 (17.14%). The number of non-workers has increased from 9, 40,294 (56.10%) in 2001 to 90,754 (63.66%) in 2011. Owing to change in work culture and modern education system people are giving less importance to agriculture. Rajakkamangalam block which includes Nagercoil town has the highest number of nonworkers 2,52,787 and Thovalai has the lowest number of nonworkers 7,35,93.

Table 3.1: Total Workers and Non-Workers during 2001 and 2011 in Kanniyakumari district

Sl. No	Block wise/District/ State	Total workers		Main workers		Marginal workers		Non-workers		Total population	
		2001	2011	2001	2011	2001	2011	2001	2011	2001	2011
1	Agatheeswaram	50809	59531	50785	49811	8006	9720	97720	104311	148419	163842
2	Thovalai	39005	47333	39027	40065	6120	7268	71642	73593	110719	120926
3	Rajakkamangalam	44353	135546	41566	118881	4879	16665	92901	252787	345433	388333
4	Kurunthancode	53611	80675	53748	64468	9277	16207	111569	140143	188857	220818
5	Thuckalay	51579	75260	51505	61840	7688	13420	115799	133947	187337	209207
6	Thiruvattar	53697	65958	53697	53959	11484	11999	107922	110723	161619	176681
7	Killiyoor	51755	61248	51755	48318	9326	12930	104632	110479	156387	171727
8	Munchirai	58600	72642	58600	55659	14712	16983	118625	127325	177225	199967
9	Melpuram	60051	81427	60051	59657	16352	21770	119484	137446	200038	218873
District		**463460**	**679620**	**460734**	**552658**	**87844**	**126962**	**940294**	**1190754**	**1676034**	**1870374**

Source: Department of Statistics, K.K. Dist. (Census 2001 & 2011)

The number of farmers has decreased and farm labourers are on the rise. The reason is identified as migration of farmers from agriculture sector. Agriculture labour in the Kanniyakumari district has increased and the number of cultivators has decreased. Either the farmers leave their lands or being forced to work as labourers in other farms. People are trying to work in MGNREGA. There is a shift in the non- agricultural sector. In the year 2001, less number of agrobased machines were used. Mechanization has improved, with the introduction of transplanting machine, combined harvesting machine, coconut climber, grass cutter machine, weeding, mechanized plant protection instrument, straw bundler, power tiller etc. The scope for agricultural land utlitization has decreased and lands are utilized for non-agricultural purposes. This has resulted in decrease in agricultural population, with a rise in

agroindustries such as cashew, rice machines and fishnet industries. Value added products like pickle, jam and jelly resulted in agrobased growth.

Box 3.1 :MGNREGA –Employment and Income

Under MGNREGA scheme 1,10,137 housdeholds are provided jobs. Thovalai has 42.12% whereas Agasteeswaram 17.14 % of households under this scheme. Thovalai stands first for its increasing BPL households and prevalence of unorganized workers and labourers in the block. Agasteeswaram has lesser number due to large scale urbanization and increase in the rate of income and well being.

The second block that has provided jobs for 17,768 households (38.88 percent) out of 45,697 households is Thiruvattar. The third block is Munchirai (32.62 percent) where 1,5938 households are provided jobs out of 48861 households.

The lowest number of houses are found in Rajakamangalam (14.87 percent) where 15364 households are provided jobs out of 1,03,321 households. The second least number of households is found in Killiyoor (17.02 percent) that is 7,434 households out of 43,682 households.

There has been a total allocation of Rs.3,570 lakhs in the year 2011-12, 5000 lakhs in 2012-13 and 5,624 in 2013-14. The expenditure incurred as on Rs.2310.39 lakhs in 2011-12; Rs.2770.67 lakhs in 2012-13 and Rs. 2417.2 lakhs in 2013-14. The wages distribution has been Rs. 2277540 in 2011-12, Rs. 2499360 in 2012-13 and Rs. 2161980 in 2013-14 respectively.

Worker Participation Rate

Table 3.2: Given worker participation rate. According to the census of 2011, the data regarding the total workers in Kanniyakumari district, has been spotted as 6, 79,620 (36.34%). During 2001, the proportion of rural and urban workers of Kanniyakumari district tracked as 37.10% and 22.61%. It has been changed in 2011 as 37.94% (rural) and 35.99%(urban). The percentage of total workers increased from 27.64% in 2001 to 36.34% in 2011-12. The total female workers increased from11.01% to 16.42% in 2011-12.

Table 3.2 :Worker Participation Rate during 2001 and 2011 in Kanniyakumari district

Rural/Urban	Workers	2001	2011
Rural	Male	59.34	57.54
	Female	15.10	18.42
	Persons	37.10	37.94
Urban	Male	36.59	69.57
	Female	8.84	15.99
	Persons	22.61	35.99
Total	Male	44.50	56.63
	Female	11.01	16.42
	Persons	27.64	36.34

Source: Department of Statistics, K.K. Dist. (Census 2001 & 2011)

In urban areas, both the male and female workers increased more than in rural areas. It shows that the rural workers moving to the urban areas for better and more days of work wages.The prime reason is seasonal unemployment in agricultural sector. So the workers have changed their job from agriculture to cashew nut and fishing net factories.

Box No. 3.2: Child labour decline in Kanniyakumari district

According to the 2009-10 data, 8 cases are reported in the Kanniyakumari district from the 263 inspections made. Now the district has 'no child labour' by means of compulsory education and strict monitoring by the District Administration.

Sectoral Composition of Workers

Table 3.3. gives the details of the sectoral composition of workers. The composition of total workers of the Kanniyakumari district has been classified into four categories. They are cultivators, agricultural labourers, household industry workers and other workers. The number of total workers in 2001 was recorded as 4, 63,460 (27.65%) of the population of the district. In 2011, the figure was 6, 79,620 (36.34%). The percentage of cultivators in 2001 and 2011 worked out as 2.93% to 0.84% of the district population. Agricultural labourers in 2001and 2011 in the Kanniyakumari district figured as 10.36% and 3.90% respectively. Household industry workers constituted 24635 (4.37%) and for 2011the figure was 21078 (1.91%). The other workers constituted 65.72% in 2001 and 68.86% in 2011.

Table 3.3: Compositions of Workers in Major Sectors

Sl. No	Block wise/ District/State	Total workers		Cultivators		Agricultural Labourers		Household Industry		Other workers	
		2001	2011	2001	2011	2001	2011	2001	2011	2001	2011
1	Agastheeswaram	50780	59531	2389	2001	8555	7177	2595	2842	29221	40908
2	Thovalai	39075	47333	1649	1338	9955	8787	1355	1840	19996	28100
3	Rajakkamangalam	44353	135546	1271	1331	5623	5528	1960	4230	30620	104675
4	Kurunthancode	53558	80675	1500	1571	5386	4082	5106	2569	32339	56246
s5	Thuckalay	51526	75260	1254	918	8363	5875	3063	1653	31207	53394
6	Thiruvattar	53697	65958	2553	1973	7118	6501	1503	1590	31039	43895
7	Killioor	51755	61248	807	961	4576	3237	2749	1958	34297	47973
8	Munchirai	58600	72642	1044	732	3452	3486	1893	2805	37499	48636
9	Melpuram	60051	81427	1126	1404	4848	6677	4411	1591	33314	44174
	District Total (including ULB)	**463460**	**679620**	**13593**	**12229**	**57876**	**51350**	**24635**	**21078**	**279532**	**468001**

Source: Department of Statistics, Kanniyakumari district

The land under cultivation declined due to unstable monsoon and the conversion of agricultural lands into residential plots and commercial plots. Consequently, the agriculture workers became engaged in household industry works such as, net factory, beedi factory, fishing units, shell works, tailoring, poultry and construction workers. The non-farmer jobs enable them to earn more income and the poverty level gets lesser in Kanniyakumari district. Household industry activity has been encouraged by way of providing financial and physical support to the eligible households by the state government. Among the nine blocks, household industry workers are largely in four blocks and they are Agasteeswaram, Thovalai, Rajakkamangalam and Muncharai. Household industy is promoted by the various departments and SHG activities.

Registrations and placement

Table 3.4: gives details of registration and placement provides by Employment Office in kanniyakumari district. One employment exchange has been functioning at Kanniyakumari district located in Nagercoil. For the past five years, the employment rate in this district shows a deviation with ups and downs in each year. Though the number of registration shows steady increase for placements, yet there has been a limited placement which depicts the status of unemployment.

Table 3.4: Registration and Placement provided by Employment office in Kanniyakumari district

(in Units)

Sl. No.	Year	Registration	Placement
1	2007	15950	1477
2	2008	16025	1014
3	2009	18821	88
4	2010	16721	1720
5	2011	22818	232
6	2012	26035	696
7	2013	26846	427
8	2014	15950	1124

Source: District Employment Office, Kanniyakumari.District. 2014

In the year 2007, 15,950 have registered and in the year 2014. The registrations increased to 26846 in 2013 but declined to15950 in 2014. We find that only 1,124 candidates (0.03%) got placement in public sector 2014. There may be many reasons causing this situation in Kanniyakumari. Migration toward cities and towns, where there are more better job opportunities in information technology and other service sectors, seeking jobs abroad and

non-farming jobs in fishing, construction, nursing, teaching, etc. are some of the reasons for this status.

Income

Sectoral Distribution of Gross District Domestic Product.

The sectoral distribution of Gross District Domestic Products (GDDP) is a summary measure of aggregate value of goods and services produced within geographical boundaries of the district in a particular year. GDDP is an indicator or the performance of the district economy.

The primary sector contribution constitutes the income from agriculture, animal husbandry and fishing. The secondary sectors constitutes contribution includes income from registered, unregistered manufacturing units, constructions and electrical units. The tertiary sectors constitutes contribution income from the service sector such as commerce, transport, public administration, health, education, communication, finance, insurance, banking and real estate sector.

Table 3.5 : Sectoral Distribution of Gross District Domestic Product.

Year	GDDP – At Constant (2004-05) Prices (In Lakhs)							
	Primary		Secondary		Tertiary		Total	
	KK	TN	KK	TN	KK	TN	KK	TN
2009-10	94404 (7.30)	3279727 (9.20)	606655 (46.94)	10857492 (30.44)	591434 (45.76)	21525966 (60.36)	1292493 (100)	35663185 (100)
2010-11	93358 (6.21)	3516987 (8.72)	736568 (49.02)	12542302 (31.09)	672726 (44.77)	24282284 (60.19)	1502652 (100)	40341573 (100)
2011-12	74882 (4.61)	3872767 (8.94)	806147 (49.64)	13039248 (30.10)	743019 (45.75)	26411788 (60.96)	1623988 (100)	43323803 (100)

Source: Department of Economic and Statistics, Tamil Nadu, 2014.

Table 3.5 highlights the sectoral distribution of gross district domestic product in Kanniyakumari district during 2009-10 to 2011-12. During 2009-2010, the Kanniyakumari district GDDP was Rs.12,92,493 lakhs at constant 2004-2005 prices. In that the contribution of secondary sector is very high 46.94% followed by tertiary sector 45.76% and primary sector 7.30%. We find that there is a steady decline in the contribution of primary sector during the period (2009-10 to 2011-12). It reveals that the contribution of primary sector to GDDP decreased from 7.30% in 2009-10 to 4.61% in the 2011-12. This is due to lack of rain during

the agricultural season, the agriculture food crops are convereted into commercial money crops like rubber, tapioca, cocunut and banana. We find that nearly half of the GDDP comes from the secondary sector due to the presence of industrial and commercial services like cashew industries, small scale industries, food processing industries, kadhi works, blacksmith works, bricks and tiles works, polymer, textile industries, fish knitting, and mat weaving. The service sector contributes more or less the other half to growth. It includes the growth of commerce and industry, transport, health, education, banking, public administration, personal services, etc.

Per Capita Income

Table 3.6 furnishes the details of per capita for the period from 2004-05 to 2011-12. Per Capita Income is only an approximate indicator of the people's standard of living. It is a function of Gross District Domestic Product divided by population. The per capita income of the state was Rs. 33,998 during 2004-2005 and it increased to Rs. 63,996 during 2011-2012. In 2004-2005 was Rs. 43,832 and it increased to Rs. 96,070 during 2011-2012. The table reveals that the per capita income of the district witnessed a sustained and faster growth. The per capita income of the district more than doubled during the period.

Table 3.6 : Per Capita Income

At Constant Prices (2004-2005) In Rupees		
Year	**Kanniyakumari**	**Tamilnadu**
2004-05	42832	33998
2005-06	51022	38435
2006-07	57274	43941
2007-08	64271	46293
2008-09	68874	48473
2009-10	76413	53359
2010-11	88855	59967
2011-12	96070	63996

Source: Department of Economic and Statistics, Tamil Nadu, 2014.

It is understood that the Kanniyakumari district economic growth and development is analogous to a ladder with high rank which represents that it is the stepping up in the path of economic wellbeing with respect to income through the job abroads, higher wage rates,

awareness of the benefits of good health, education and standard of living of an individual which promotes the human development.

Poverty and Inequality

Table 3.7 furnishes details of households below poverty line in kanniyakumari district. Poverty is multidimensional and complex. In Kanniyakumari district according to the year 2011 census, there are 4, 83,539 households, out of this, 73,474 are BPL families (15.20 %). Block-wise, higher numbers of families under BPL are found in Rajakamangalam, Munchirai, Thovalai and Thiruvattar blocks. Blocks such as Kurunthancode and Agasteeswaram have comparatively lesser number of BPL families.

Table 3.7: Households Below Poverty Line during 2013-14 in Kanniyakumari district

Sl. No	Name of the Block	Total No. of Households	No. of Families below BPL (Upto 17 cut off marks)	% of BPL Families to Households
1	Agasteeswaram	43621	3302	7.57
2	Thovalai	33151	4651	14.03
3	Rajakkamangalam	103321	27883	26.99
4	Kurunthencode	55281	5676	10.27
5	Thuckalay	53722	5556	10.34
6	Thiruvattar	45697	5649	12.36
7	Killiyoor	43682	4531	10.37
8	Munchirai	48861	9175	18.78
9	Melpuram	56203	7051	12.55
	District	483539	73474	15.20

Source: P.D. District Rural Development Agency (DRDA) Kanniyakumari.District (2014)

From table 3.7, we find that Rajakkamangalam has the highest number of families below poverty line estimated at 26.99%. Out of 1, 03,321 household in Rajakkamangalam, 27,883 come under BPL. The second block is Munchirai 18.78 %. The number for BPL household is 9,175 out of 48,861 families. The lowest number of BPL families is found in Agasteeswaram block the number is 3,302 out of 43,621 families (7.57%).

Public Distribution System

Table 3.8: Family Card Holders

Sl.No.	Blockwise/District	Households provided No. of with Family cards
1	Agastheeswaram	43621
2	Thovalai	33151
3	Rajakkamangalam	103321
4	Kurunthancode	55281
5	Thuckalay	53722
6	Thiruvattar	45697
7	Killioor	43682
8	Munchirai	48861
9	Melpuram	56203
	District Total	483539

Source: District Supply Office, K.K.District (2014)

Table 3.8: gives the details of family card holders, blockwise in kanniyakumari district. The Public Distribution system shows the percentage of households provided with family cards in various blocks of the district. 4, 83,539 households have been supplied with family cards in the Kanniyakumari district shows 100 % distribution. Family cards are provided to the families in the nine blocks. At the block level analysis, it has been seen that the maximum number of households with family cards are found in Rajakkamangalam (1,03,321) and the lowest number of household with family card are Thovalai (33,151). The second highest is Melpuram 56,203 households and Agasteeswaram has (43,621) households. TNCSC, Cooperative Society, Mahalir-Society, Fisheries- Society, Khadi-Society etc are the institutions which involved in providing ration. 41.19 percent of households had access to cooking fuel in 2012-13, and it increased to 56.44 percent in 2013-14. LPG single cylinder has been provided to 1,79,040 households and double LPG cylinders have been provided to 93,886 households. In total 2,72,926 LPG have been provided. Melpuram block has 32776 households with access of cooking fuel, since it is a forest area. The screening of cards has to be executed to avoid excess registration and double entry of cards. The birth and death of the persons should be registered immediately in separate sheets and the same have to be included in the cards with Aadhar number with smartcards to avoid misuse of ration items.

Conclusion

The present chapter was focussed on employment and analysed the trends and incidence of poverty. The analysis is done across households belonging to various occupational categories, social groups and communities. Kanniyakumari district has also economically advanced and has revealed very fast and consistent increase in the per capita income of the district. It is also witnessed the increase of urbanization, construction and real estate. The size of workforce has been discussed and that shows a decrease in workforce involvement among the workers than the non-workers. Moreover, there has been a decrease in the unorganized sector which means more number of people are moving out for white collar jobs and thus ignoring the agriculture sector.

The Kanniyakumari district has a large area of coastal line it would provide a lot of job opportunities in the ships and container yards for the local people. In Kanniyakumari, the MGNREGA has implemented various schemes for livelihood and poverty allevation programmes to promote the lives of the human community.

The 100 % distribution of family cards and availability of the basic needs show contribution of the welfare schemes satisfying the needs of the people in Kanniyakumari district.

CHAPTER 4

DEMOGRAPHY, HEALTH AND NUTRITION

Chapter

4

Demography, Health and Nutrition

Introduction

Demographic characteristics of a country provide an overview of its population size, composition, territorial distribution, changes therein and the components of changes such as nativity, mortality, and social mobility. This section on demographic indicators has been subdivided into two parts- population Statistics and Vital Statistics. Life expectancy at birth is one of the most preferred indicators in demographic and health analysis. Life expectancy at birth reflects the average number of years that a new born baby is expected to survive under the current schedule of mortality. It is a proxy measure of several dimensions like adequate nutrition, good health, education and other valued achievements. Besides, life expectancy at birth is used in the construction of a dimensional index of health in Human Development Index (HDI) and Gender Development Index (GDI). Hence, in formulating the National/Sub National Human development reports, the estimates of life expectancy at birth are largely required. The health status of the people has been predicted not only with the outcome of government policies and programmes but also through the curative and preventive measures taken by the individuals.

This chapter measures the demographic change, vital events such as Life Expectation Birth, Crude Birth Rate, Crude Death Rate, Maternal Mortality Rate, Infant Mortality Rate, under five-year mortality rate and nutritional status of 0-5 year's children. It explores the effectiveness of government policies and programmes and also assesses the impact of such programmes.

Demography

Understanding the demography of a region has its own 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 decentralized systems and processes and framing pro-poor policies for the wellbeing of the people.The fundamental property of any population planning in a country has to achieve stability in population that 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 evaluates the population details of Kanniyakumari district especially in terms of the population size, age, sex, rural-urban composition, and its changes over the census in decades.

Population and Demographic Transition

The study of demography encompasses the limited spheres and it observes only the decisive factors of population growth. It deals with the operation of the processes of fertility, mortality, marriage, migration and social mobility.

Table 4.1: Demographic Profile during 2001 and 2011 in Kanniyakumari district

Sl. No	Block wise / District / State	Population		Density		Scheduled Caste				Scheduled Tribe			
		2001	2011	2001	2011	2001	%	2011	%	2001	%	2011	%
1	Agastheeswaram	148419	163842	1115	1169	12797	8.62	12246	7.47	521	0.35	463	0.28
2	Thovalai	110719	120926	300	327	12381	11.18	13413	11.09	690	0.62	389	0.32
3	Rajakkamankalam	345433	388333	1142	1698	13363	3.87	18266	4.70	388	0.11	503	0.13
4	Kurunthancode	188857	220818	1545	1684	6564	3.48	7624	3.45	347	0.18	107	0.05
5	Thuckalay	187337	209207	1283	1340	7166	3.83	7616	3.64	88	0.05	52	0.02
6	Thiruvattar	161619	176681	469	897	3449	2.13	3126	1.77	2597	1.61	2798	1.58
7	Killioor	156387	171727	1891	2076	2412	1.54	2076	1.21	57	0.04	136	0.08
8	Munchirai	177225	199967	2461	3022	4756	2.68	5248	2.62	205	0.12	142	0.07
9	Melpuram	200038	218873	660	1226	4824	2.41	4634	2.12	550	0.27	2692	1.23
	District	**1676034**	**1870374**	**995**	**1119**	**67712**	**4.04**	**74249**	**3.97**	**5443**	**0.32**	**7282**	**0.39**

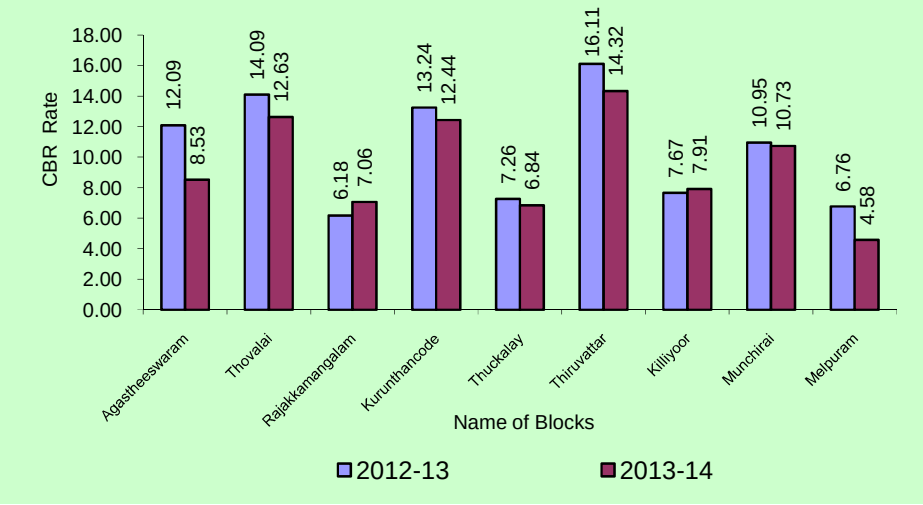
Source: Dept. of Statistics, K.K. Dist., Census 2001 & 2011.

Table 4.1 gives the demographic profile of the Kanniyakumari district. The population of the district increased by 1, 94,340 between the year 2001 and 2011. Rajakamangalam , Kurunthancode, Thuckalay and Melpuram blocks have larger population than other blocks. Those blocks include Nagercoil, Padmanabhapuram, Colachal and Kuzhithurai municipality. The remaining blocks also show higher rates due to in and out migration, education, employment, health and standard of living. The density of the population is calculated as a ratio of the number of persons per sq. km. The population density of the Kanniyakumari district has been identified as 1119 persons per sq.km in 2011. When compared during the year 2001,with the density of the population (995). We find that the density population has increased in all the blocks of the district. The high dense population blocks are Rajakkamangalam (1698), Munchurai (3022), Killiyoor (2076), Kurunthencode (1684). The density is very low in Thovalai (327) and Melpuram(1226). Low density in these blocks is due to the large number of agricultural lands, crop cultivation and lack of small and large scale industries.

The proportion of the scheduled caste population has marginally decreased in the Kanniyakumari district from 4.04% to 3.97%. The blockwise SC population growth in Rajakkamangalam is (5.41%), Kurunthencode (3.63%). In the Nagercoil Municipality, the SC population constitutes 4.19% and in Padmanabhapuram, it is 10.61%. It shows that the large number of SC population has migrated to urban areas looking for better opportunities, education and standard of living. The total ST population in Kanniyakumari district is 5443 in the year 2001 and 7282 in the year 2011. It shows that the percentage of scheduled tribe population has increased from 0.32% of the population in the year 2001 to 0.39% in the year 2011. Higher number of ST population is found in Thiruvattar (1.58%) and Melpuram (1.36%). These two blocks remain with higher number of rubber plantations and crop cultivation. It shows that the opportunity for education and employment are available for the STs.

Crude Birth Rate and Crude Death Rate

Figure 4.1: Trends in Crude Birth Rate

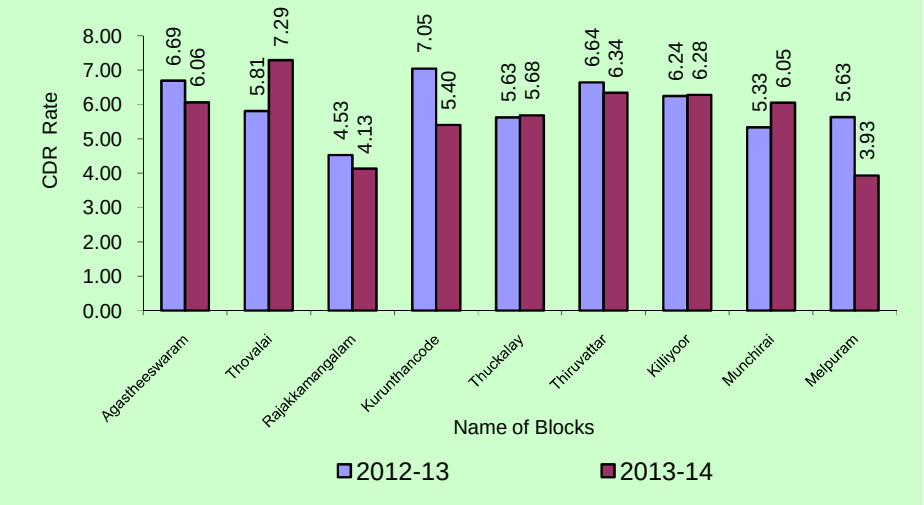


Source: Deputy Director of Health Service, K.K.District.

Figure 4.1, gives details of Crude Birth Rate in kanniyakumari district. In the year 2011-12, the CBR in the Kanniyakumari district was 11.90 in 2012-13 it was 10.32 and in 2013-14, the CBR was 9.30. Among the nine blocks, Thovalai block has the high CBR (12.63). The CBR for some blocks are Kurunthencode (12.44), Thiruvattar (14.32) and Munchirai (10.73). Family planning and the health care service progarmme have been promoted to control the CBR.

Figure 4.2, shows trends in Crude Death Rate. The CDR was 6.51 in the year 2011-12 , 5.96 in 2012-13 and 5.61 in 2013-14. Fig.4.2 shows the blockwise CDR in Thovalai as 7.29, Thiruvattar as 6.34 and in Killiyoor as 6.28. In general, except in few blocks, there has been decrease in CDR as a result of the health care schemes implemented by the government.

Figure 4.2. Trends in Crude Death Rate



Source: Deputy Director of Health Service, K.K.District.

There is an increase CDR in Thovalai, Thuckalay, Killioor and Munchirai blocks and rest of the blocks show decrease in CDR (Appendix A II.I). There is needed to be focus on the above mentioned four blocks through the Public Health Department.

Sex Ratio

Table 4.2: gives details of block-wise sex ratio in Kanniyakumari district. Sex ratio is a powerful indicator of social health of any society. According to the data of the year 2011, the sex ratio in the Kanniyakumari district is 1,019. Here, Melpuram block has the highest ratio of 1,034 followed by Killioor 1,025. The relatively lower sex ratio is found in Kurunthancode (1,003). In 2001, the three blocks have showed better sex ratios whereas Kurunthancode, Agasteeswaram and Thuckalay has a less sex ratio. Among the SC population, the sex ratio in the year 2011, is 1016 and for ST it is 1048. It shows the improvement in the sex ratio is due to literacy, standard of living and health awareness.

Table 4.2: Sex Ratio during 2001 and 2011 in Kanniyakumari district

Sl. No	Block wise/ District / State	General		Sex Ratio 2011	SC		Sex Ratio 2011	ST		Sex Ratio 2011
		2001	2011		2001	2011		2001	2011	
1	Agatheeswaram	148419	163842	1015	12797	12246	1012	521	463	996
2	Thovalai	110719	120926	1013	12381	13413	1005	690	389	965
3	Rajakkamankalam	345433	388333	1014	13363	18266	1022	388	503	768
4	Kurunthancode	188857	220818	1003	6564	7624	989	347	107	911
5	Thuckalay	187337	209207	1016	7166	7616	1010	88	52	1684
6	Thiruvattar	161619	176681	1007	3449	3126	969	2597	2798	1056
7	Killioor	156387	171727	1025	2412	2076	1045	57	136	1030
8	Munchirai	177225	199967	1013	4756	5248	1052	205	142	893
9	Melpuram	200038	218873	1034	4824	4634	1022	550	2692	1052
District Total (Including ULB)		**1676034**	**1870374**	**1019**	**67712**	**74249**	**1016**	**5443**	**7282**	**1048**

Source: Dept. of Statistics, K.K. Dist., Census 2001 & 2011.

Child Sex Ratio

Table 4.3: Child Sex Ratio

Sl.No	Block wise/District	Population in the age group of 0-6 (2011)			2011
		Male	Female	Total	Sex ratio%
1	Agastheeswaram	8350	8079	16429	968
2	Thovalai	5825	5555	11380	954
3	Rajakkamankalam	18307	17994	36301	983
4	Kurunthancode	11421	11098	22519	972
5	Thuckalay	10352	9845	20197	951
6	Thiruvattar	8391	7991	16382	952
7	Killioor	9010	8537	17547	948
8	Munchirai	10648	10201	20849	958
9	Melpuram	10531	10215	20746	970
	District	**92835**	**89515**	**182350**	**964**

Source: A.D Statistics, *Dept. of Statistics, K.K. Dist.*

Table 4.3: gives details of child sex ratio. In the age group of 0-6 in the Kanniyakumari district, we have 92,835 male children and 89,515 female children. The sex ratio was 964 in 2011. In the year 2001, the male children numbered 92325 and female children numbered 89394 and the ratio was 968. However, in all the blocks the rate of female is lower than the male and thus it gives a poor picture in the child sex ratio. The reasons behind the status of child sex ratio are due to the awareness of family on one child or two child norms, and the importance given to the Family Planning programmes.

Life Expectancy at Birth

Table 4.4: Life Expectancy at Birth

District	2001		2011		2013-14	
	Male	Female	Male	Female	Male	Female
Kanniyakumari	67	70	68	72	70.7	77.7

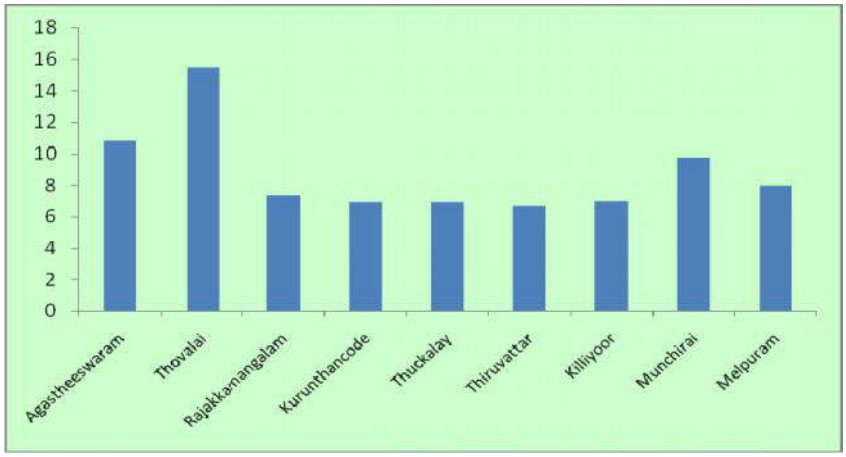
Source: Deputy Director of Health Service, K.K.Distirct.

Table 4.4. gives details of Life Expectancy at Birth in Kanniyakumari district. According to 2001 census, life expectancy at birth for males was 67 and females it was 70. In 2011, it has been identified as 68 for males and 72 for females. In 2013-14 the life expectancy at birth for males was 70.7 and females it was 77.7, the combined LEB is 73.8. At the state level, the life expectancy at birth of the male was 71.8 and female was 75.2 in the year 2013-14. It is found that life expectancy of women is higher in the Kanniyakumari district. These changes have significant effect on the size of the population. Other likely reasons for their greater longevity are as hygiene and higher medical facilities, women's awareness on health, government supporting programmes such as NRHM programme, socio-economic development, children's education and employment opportunities. In future, special attention and care is essential for the geriatric care and their welfare (needs material comfort for living) programme.

Human Development is good in Kanniyakumari district due to growing awareness and facilities for sanitation and cleanliness, environmental factors, low incidence of mortality, better maternity and post-natal care, improvement in literacy rate and education , affordable medical facilities and awareness on health care among the gender.

Infant Mortality Rate

Figure 4.3: Infant Mortality Rate- 2013-14



Source: Deputy Director, Health Service,K.K.District.

Figure 4.3 shows IMR in 2013-14 in Kanniyakumari District. IMR is the rate of death below 1 year per thousand live births. Table (AII:2) shows that in Kanniyakumari district in the year 2013-14 the Infant Mortality rate was 9. The major causes of death are Asphyxia, CA, Sepsateis, Septicemia, HIE, Pneumonia, ARDS, LBW, Preterm, Aspiration. During the year 2011-2012, among the causes of death CA accounted for 35.4 which have decreased to 28 in the year 2012-13.

While compared with 2012-13 IMR, the rate is less. In 2014, the highest IMR is found in Thovalai (15.45), followed by Agasteeswaram (10.79) and Muncharai(9.72) in the rest of the blocks, the IMR is below in the district average. IMR is caused due to the lack of socio-economic development, illiteracy, gender inequality, lack of institutional care and standard of family systems, undernutrition of both mother and fetus, lack of breast feeding, poor access to antenatal care, unsafe delivery, low birth weight, inadequate reach of the services provided by healthcare centers and unawareness of women regarding health care.

In order to bring down the infant mortality rate, the following activities are being carried out

- Strengthening of the interfacility transfer,
- A Neonate Ambulance service is launched exclusively for transfer of sick neonates to NICU,
- All infant deaths are audited by Subcommittee which comprises of Medical Officers; Pediatricians from CEMONC centre, O&G specialists, DD (HS), JD (MEDICAL)

and again the selected cases in subcommittee will be taken for audit in the Kanniyakumari district level committee headed by District Collector. In these committees, causes of infant death are analyzed and prevention of further infant deaths due to same cause has been avoided.

- Higher order birth has been tracked and motivated for family welfare adoption for reducing the preterm death.
- Early referral of neonates and infants to NICU and PICU.
- Tracking of High risk Ante Natal mother and early referral to CeMONC centres for safe delivery.

Maternal Mortality Rate

Maternal Mortality Rate, the number of maternal deaths in a year/ total number of live births per lakh is the indicator. Women's health plays an important role in determining the health of the future population. Maternal mortality and morbidity represent an important threat to women's health. Maternal mortality is a crucial indicator of both women's health and of gender justice.

Table 4.5: Maternal Mortality Rate

S. No.	Blockwise / District	MMR
		2013-14
1	Agastheeswaram	00
2	Thovalai	00
3	Rajakkamangalam	49
4	Kurunthancode	00
5	Thuckalay	00
6	Thiruvattar	44
7	Killiyoor	78
8	Munchirai	41
9	Melpuram	46
	District	30

Source: Deputy Director, Health Service, K.K.District.

Table 4.5: gives blockwise details of Maternal Mortality Rate(MMR) in kanniyakumari district. In Kanniyakumari district MMR rate has decreased from 37 in 2012-13 to 30 in 2013-14. Among the nine blocks, the higher MMR has been reported in Killiyoor (78) in Rajakkamnagalam, (49), Melpuram (46), Thiruvattar (44) and in Munchirai (41). In other blocks the MMR rate is zero. The causes for maternal death are socio- economic factors, patriarchal attitudes, poor nutrition, lack of transport and communication, inadequate health

facilities and care by poor health team service.Other reasons include hypertension and eclampsia, rupturing of the uterus on account of obstructed labour, puerperal sepsis and septicemia; indirect obstetric causes include anaemia, health diseases, jaundice and malaria.

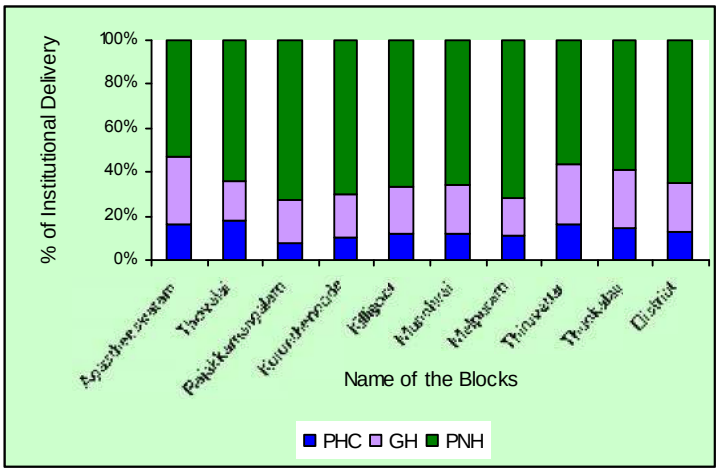
To reduce the MMR, the following activities have been carried out:

1) Special Audit team has been constituted including one obstetrician and one Anesthetist-both of them are independent specialists. They audit all maternal deaths and each maternal death will be audited through the district level audit committee under the chairmanship of District Collector. In this committee, preventable cause of maternal death has been analyzed in the sense that there should not be any maternal death in future due to the same cause; 2) Strengthening CeMONC centres with 24 hrs O&G, Anaesthesia and Pediatric specialists; 3) Early registration of all AN mothers and Tracking of all high risk mothers; 4) Early referral of all high risk mothers to CeMONC centres for safe confinement; 5) Special programmes for early detection of anaemia, GDM etc. ; 6) Establishment of blood storage centres in all UG PHC's ;7) Special provision for hiring specialists like Anaesthetics, O&G, and Pediatricians.

Place of Delivery

The improvement in infrastructure, conversion of 24 hours delivery care in PHC, CeMONC centre concept, tracking of HR mothers, early and timely referral, establishment of blood storage facilities in UG PHC's, have improved institutional deliveries. 65.24% of deliveries are done in the Private Nursing Centre.

Figure. 4.4: Percentage Of Institutional Delivery 2014



Source: Deputy Director of Health Services, K.K.District.

Figure 4.4. Presents a picture of the percentage of institutional deliveries in kanniyakumari district. The total numbers of institution deliveries during 2011-12 are 99.99%. It has risen to 100 percent in the year 2013-14 in all the nine blocks (Appendix Table No 9.7). It denotes the successful achievement of deliveries have taken place in Government Hospitals and in Private Nursing Care.

In the Kanniyakumari district, the three tier system of healthcare delivery is executed with the assistance of 42 PHCs (36 rural and 6 urban) - primary care, 9 government hospitals-secondary care and one Government Medical college Hospital-tertiary care. The health care services have been provided to the community through 267 HSCs and 42(36+6)PHCs. Maternal and child health, ANC registration, High risk tracking and early referral, Maternal anaemia and adolescent anaemia control programme, prevention programme, Gestational diabetes mellitus programme, USG routine and early detection of congenital anomalies, 24x7 Delivery care services, Janani Suraksha Yojana, Janani Sisu Suraksha Kayakram, Dr.Muthu Laxmi Reddy Maternity Benefit Scheme, Blood donation camps and establishment of blood storage units, Family welfare services, Immunisation services, Hospital on wheels programme, Modified school health programme, Dental programme, RTI/STI programme, Tribal MMU, NVBDC, IDSP, Speciality medical camp, Epidemic control programme, Birth and death registration and COTPA.

Box 4.1: Janani Suraksha Yojana (JSY)

Janani Suraksha Yojana scheme was launched on 12.04.2005 under National Rural Health Mission (NRHM), Government of India's flagship health programme. The scheme is a safe motherhood intervention and seeks to reduce maternal and neo-natal mortality by promoting institutional delivery. The cash assistance is given for her care during delivery or to meet the incidental expenses for delivery. The success of this scheme is assessed through the increase in institutional deliveries among low-income families as well as the overall number of institutional deliveries in this state.

In the Kanniyakumari district, the number of institutional deliveries in the rural area in 7,534 and urban is 411 arrives to 7,945. In this SC make 1,144 in rural area and 66 in urban area whereas 71 in the ST category in rural area and 8 in urban area. The others are 6,319 and 337 in the urban area. There are no home deliveries at all in the district in JSY scheme. In 2013-14, 100% of institutional deliveries have been achieved in all blocks of Kanniyakumari district. It shows the development in the safety measures and medical multispecialty development and the interaction of the doctor and paramedical staff.

The main focus and objectives of DLHS-3 is to provide RCH indicators covering the following Aspects:

Coverage of Antenatal check up and Immunization services, Institutional / safe deliveries, JSY beneficiaries, Contraceptive prevalence rates, ASHA's involvement

Case Study 4.1: Increasing caesarean section delivery - a threat to women's health

Introduction

Caesarean section (CS or C-section) is carried over when vaginal delivery is not possible. Proportion of CS to the total births is considered as one of the important indicators of emergency obstetric care (World Health Organization, 2009). A figure below 5 per cent implies that a substantial proportion of women do not have access to surgical obstetric care; on the other hand a rate higher than 15 per cent indicates over utilization of the procedure for other than life saving reasons.

Reasons for the high Cesarean section rate in Kanniyakumari district: They are:

Low priority of enhancing women's own abilities to give birth, Side effects of common labour, Refusal of vaginal birth, Casual attitudes about surgery and variation in professional practice style, Fear of pain in labour, Fear of fetal distress in labour, Religious factors, Dependency and trust on doctor, High education background of women, more presence of private hospitals, sometimes interplay between doctor's motivation and financial incentives of the hospitals behind such trend. In 2013-2014, the Government Hospital, Asaripallam, there are 2285 deliveries and they have risen to 2420 this year. In Kulithurai GH, in 2012 Jan to Dec out of 838 deliveries, 665 are Cesareans. In 2013 January to October, 925 deliveries, 699 are Cesareans. In 2012, GH Boothapandi, out 299 deliveries 143 are Cesareans. In 2013,January to October, out of 284 deliveries 198 are Cesareans.

Factors contributing to the rise in c-section rates in Urban areas:

The institutional factors are growing medical intervention during pregnancy and delivery, reliance on technological intervention during childbirth among medical professionals. The increasing medical intervention in urban areas and private hospitals and the advances in anaesthetic services and improved surgical techniques, the morbidity and mortality of this medical intervention have come down considerably. The medicalisation of childbirth in India is much more prevalent in the urban areas, where institutional births have become the norm.

Suggestions:

1) Awareness on the realities of natural birth and hazards of cesareans is the need of the hour.
2) Better facilities in the PHCs and GHs could improve the situation.
3) Special centres only for Mother and Child Health with all facilities and equipments required in the blocks.

Still Birth Rate

Table 4.6: Still Birth Rate

S. No.	Blockwise / District	2007-08	2008-09	2009-10	2010-11	2011-12	2013-14
		SBR	SBR	SBR	SBR	SBR	SBR
1	Agastheeswaram	2.44	3.28	3.01	4.42	7.10	4.91
2	Thovalai	5.98	3.31	6.81	10.06	11.25	7.67
3	Rajakkamangalam	3.99	8.09	3.67	9.07	7.64	4.38
4	Kurunthancode	4.79	6.55	6.16	7.09	4.71	4.64
5	Thuckalay	7.11	8.54	7.02	3.15	6.07	4.82
6	Thiruvattar	9.74	6.90	5.03	8.02	5.09	6.14
7	Killiyoor	6.79	4.33	3.75	4.78	6.30	2.32
8	Munchirai	4.04	4.74	4.65	6.13	7.01	5.77
9	Melpuram	2.96	5.12	3.58	5.41	9.63	6.45
	District	5.21	5.55	4.91	5.99	6.85	5.02

Source: Deputy Director, Health Service, K.K.Distirct.

Table 4.6, gives the details of Still Birth Rate in kanniyakumari district. The trend in still birth rate of the Kanniyakumari district has increased from the year 2007 to 2011. In the table, we find that there is an increase in still birth rate from 5.21 in 2007-08, to 5.55 in 2008-09, but declined to 4.91 in 2009-10. The still birth rate was 5.99 in 2010-11 and it further increased to 6.85 in 2010-11 but decreased to 5.02 in 2013-14. Thovalai had the highest still birth rate (7.67) in the district and Killioor had the lowest still birth rate of 2.32 in 2013-14. Ignorance of the people and lack of immediate care, health and nutrition are the causes for this. The reasons for the increase are lack of premarriage counseling, no breast feeding, malnutrition and anaemia among mothers, status of women's health and poor maternal health care.

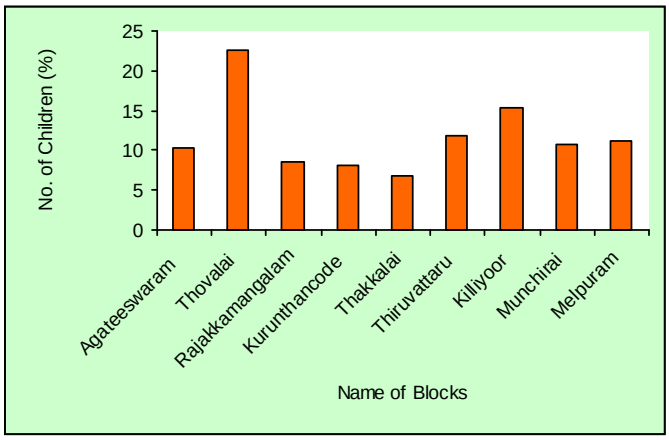
Immunisation

According to the information from the Deputy Director of Health services, the immunization of children below five years is to save them from IMR and U5MR, preventable diseases such as Tuberculosis, Diphtheria, Tetanus, Measles, Pertussis and Polio Myelitis etc. According to the immunization status in the Kanniyakumari district in the year 2013-14, the total number of children below five years was 21,130. In this, 20572 children had immunized. The percentage of the immunized children was 97.3. At the block level, the percentage of immunized coverage is less in Killiyoor (93.08%), Munchirai (95.09%), and Thovalai (94.16%). In Rajakkamnagalam and Thiruvattar 100.00% of the children had been immunized.

Nutritional Status: Nutrition level and Trend

A major goal of the nutrition programme is to reduce the prevalence of underweight among children due to nutritional deficiencies. Tamil Nadu Government aims to eradicate severe malnutrition and also to reduce the incidence of micro nutrient deficiencies among the children.

Figure 4.5: Nutritional Status



Source: DPO, ICDS, Kanniyakumari.

Figure 4.5, portrays the block-wise nutritional status of kanniyakumari district. In 2013-14, ICDS in the district provide 100% nutrition to all the children. It provides integrated package of health, supplementary nutrition, together with cognitive and psycho-social services for children below 6 years of age. It helps to reduce the prevalence of underweight children deficiencies. There are 1,401 centres out of which 1,368 are the main centres and 33 mini centres to implement this scheme in the Kanniyakumari district. The aim of the state is to eradicate the severe malnutrition and also to reduce the incidence of micro nutrient deficiencies, which has been already achieved in Kanniyakumari district.

Provision of IFA Tablets

Weekly Iron and Folic acid Supplementation (WIFS) programme is being implemented all over the country to reduce the prevalence of nutritional anaemia among adolescent population. The main component of this programme is the distribution and consumption of IFA tablets to all the adolescent girls in schools and Anganwadi centers on Thursdays and also distribution and consumption of Albendazole tablets bi-annually.

Beneficiaries under this programme

1. Adolescent girls and boys studying 6th to 12th standard in all Government and Government Aided schools.

2. Adolescent girls (10-19 years) who are out of school.

In Kanniyakumari district, it is distributed on all Thursdays after lunch to the students going to school and the rest of them are provided in the ICDS centres.

Table 4.7: Provision of IFA Tablets

(in Units)

S.No	Block wise / District / State	% of women who took IFA Tablets		% of children who took IFA Tablets		% of adolescent girls who took IFA Tablets	
		2011-12	2013-14	2011-12	2013-14	2011-12	2013-14
1	Agastheeswaram	96	98	86	80	98	98
2	Thovalai	95	96	75	75	99	97
3	Rajakkamangalam	97	97	78	79	98.5	96
4	Kurunthancode	99	98	80	82	97.5	99
5	Thuckalay	99	98	85	73	99	98
6	Thiruvattar	96	97	86	81	98	98
7	Killiyoor	96	98	76	80	98	97
8	Munchirai	90	99	80	88	99	98
9	Melpuram	99	98	86	76	97.5	98
District Total		**96**	**98**	**81**	**79**	**98**	**98**

Source: Deputy Director of Health, K.K.District.

Table 4.7, provides details regarding provision of IFA tablets in kanniyakumari district. In 2011-12, the provision of IFA tablets in the district, for women stood at 96 %, children 81% and adolescents 98%. In 2013-14, it was 98% for women, 79% for children and 98% for adolescents. It shows that awareness of health and tablets for eradication of anaemia are provided by health department and ICDS. In 2013-14, less number of women 96% in Thovalai block took IFA tablets in comparison with other blocks. The number of adolescent girls who took IFA tablets in Rajakkamangalam and Thovalai blocks are found to be less in number. It shows that the proper giving of IFA tablets to women and adolescents via the health department staff shall be ensured.

Box: 4.2 :Government Nutrition Programmes

The Puratchi Thalaivar MGR Nutritious Meal Programme has been implemented in the Kanniyakumari district. The total schools in panchayat union are 656. Beneficiaries in the age group 5-9 in the year 2013-14 are 38249. 10-14 age group number is 45988.

The main objectives of the scheme are: to provide nutritious meal for pre-school children in the age group of 2 to 5 years in Child Centres and school children in the age group of 5 to 15 years studying in Government / Government aided/ Local Body, schools from Std I to X. Besides, five boiled eggs per week are provided to children / students on Monday, Wednesday and Thursdays, to improve their overall health and nutritional status of children. Children in the age group of 1 to 2 years in the Child Centres are provided one boiled egg per week. Bananas are provided to the children in the age group of 2 - 15 years for those who are not taking eggs. Nutrients are provided in the form of Rice, Dhal, Oil, Bengal Gram, Green Gram 20 gms each on alternative Tuesdays. Potato – 20 gms each is provided on Fridays. Total beneficiaries in the 656 unions centres are 84237 children.

ICDS Centres: There are 1368 Main centres and 33 mini centres. No of AWCs are 1401 in Kanniyakumari district. ICDS centres provide 3 eggs to children in the age group between 2 and 5, one egg for age group 1 to 2 and supplementary nutrition to antenatal and post natal mothers and adolescent girls in the age group of 14 to 18. Body Mass Index tests are also conducted for adolescent girls. In the year 2014, children from 6 months to 36 months are 27709 male and 26315 female; in the age group of 37 months to 60 months are 22278 male and 21142 female. In total there are 49987 male and 47457 female making 100% achievement.

Nutrition Services: The children of 0-36 months are weighed every month and the children of 36-60 months are weighed every 3 months regularly for monitoring their growth. Supplementary food for children and supplementary feeding to Pregnant and Lactating mothers are given from the 6th month of pregnancy and up to 6 months after delivery. The children of 2 to 5 years and old age pensioners are provided with noon meal in the Children Centres.

Health Services:

- Nutrition and Health services are rendered jointly with Nutrition and Health Field functionaries at Children Centre level to maximise the benefits to target groups. Early registration of pregnant mothers Antenatal and Postnatal care - Pregnancy weight gain monitoring, Nutrition supplementation, Anaemia control and periodical medical examination. Referral of High risk mothers for higher medical facility. Immunization is provided to children and pregnant mothers. Administration of Vitamin A solution to children and Management of Diarrhoeal disorder is rendered to children. Supply of Iron and Folic Acid tablets to mothers is distributed through Health Department as Joint Service, Management of Acute Respiratory infection among children. De-worming and IFA supplementation is provided to adolescent girls, through Health Department as Joint Services. For the beneficiaries of the children centres, medicine kits at the cost of Rs.600/- per kit are provided to children centres. Arrangements have been made to provide children and mother's health and immunization message cards to all children centres.

Case Study 4.2: Health Care and Counselling Programmes in Tribal settlements in Kanniyakumari district

Introduction

The tribal groups of Kanniyakumari district are mainly the "Kanis" occupying the settlements in Thachamalai, Pechiparai, Mothiramalai, Arukani, Sirukadathukani, Kuttiar, Vilamalai, Mudavanpottai, Manikadu Koduthurai, Kelaviyaru, Valiamalai, respectively.

Programmes related to Health Care:

The Mobile outreach programme funded by the Tamilnadu Health System project makes weekly visits to the villages checking their health and giving medicines. The team consists of a Doctor, a trained nurse and a lab-technician employed by our organization. The team commutes to the tribal area in a fully equipped vehicle with lab and ambulance facilities, six days a week, covering 62 tribal hamlets.

Present Activities are Mobile Outreach Health Services in tribal areas: Immunization service, laboratory service, admits patients to Kanniyakumari Government Medical College Hospital for further medical and surgical treatments, refers patients to the nearest hospital, supplementary nutritious food to undernourished patients, provides utensils and mats, health education for school going children and IEC activities among village groups.School Health programmes nearly 43 events out of which 1,140 are benefitted. Medical camps conducted in Sirukadthukani, Puravilai, Mudavan Potrai, Koduthurai, Vellampi & Koovaikadu. IEC programmes for parents in every month regularly based learning through play book developed by UNICEF/BMRF are conducted. Baseline information is also filed on family book for every child inclusive of their weight, height, growth activities etc. It will help to supervise the children growth.

Steps needed for improvement:

- Allotment for Long term Special Camps and Special Programs with the support of multi specialized doctors.
- Medical examination should be in a closed room.

Social Awareness: Early marriages and early pregnancies at the age of 13-16 years, Lack of general awareness, initiative for self improvement, Chronic Illnesses and deprived of basic amenities.

Lacking Facilities: The most repeated grouses the tribal people are faced with are lack of job opportunities, lack of income sources, commuting problems, bad roads, no electricity and wild animals [boars] ransacking their cultivated fields.

Vehicle Problems: The vehicle journeys to these hamlets are uncomfortable due to unsafe roads.

Tribal Counselling Centre: Suraksha runs a Tribal Counseling cell at Kulasekaram Government Hospital funded by TNHSP. Its main aim is to guide and help the tribal people who visit the hospital through a qualified counsellor to facilitate better communication and empathy with them

Main Activities of Tribal Counsellor: Guidance on available services, Explanation of Doctor's notes, Explanation of drug consumption, Counselling to AN /PN Mother's care, Counselling on family welfare, Counselling to in-patients.The discussion with the Arukani, Chinabevan, ward member says that nearly 3000 people here lack transportation in Arukani – Anaimugam area that ends at the Tamilnadu border. They need more streetlights, electric fencing and pits with depth due to fear of wild pigs and elephants and they need more toilet facilities in the hamlets. . There is a need for community hall for conducting ceremonies and functions for the people. The landholdings are split among the family members and no use for any cultivation and they become daily wage labourers in other's field.

Conclusion

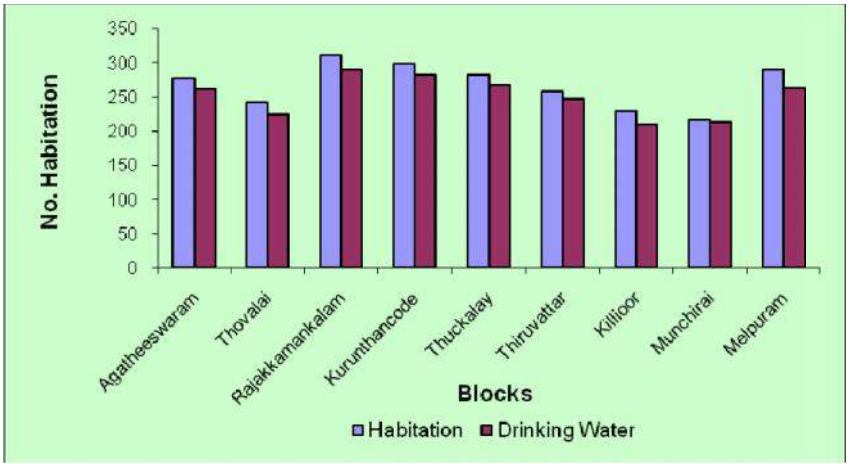
These community people maintain a unique culture and lifestyle which is to be cherished and maintained to tell tales of their history. They are vulnerable group who need assistance and support in terms of medical, educational and social support.

Non –nutritional Factors and their Impact on Nutrition:

Water Supply

Figure 4.6 shows house wise access in percentage to drinking water for households, in the year 2013-14, in the Kanniyakumari district, out of 2,399 houldholds 2,250 are provided safe drinking water making it 93.79%, and so there is yet a need for efforts to make it 100%. Munchirai has the highest percentage of 98.15 in which out of 216 habitations 212 are provided safe drinking water.In Thiruvattar 96.09% of households have access to safe drinking water.

Figure 4.6: Access to Drinking Water



Source: NRDWS/Census 2011/TWAD.2015

Out of 258 households,246 are provided safe drinking water. In Thuckalay 282(94.68%) out of habitations 267 are provided safe drinking water. In Thovalai block 92.15% in which out of 242 habitations 223(92.15%) are provided with safe drinking water facilities. In the block Killioor out of 228 habitations 209(91.67%) are provided with safe drinking water.In Melpuram block out of 289 habitations 262(90.66%) are provided habitations with safe drinking water. Melpuram and Thovalai are in hilly tracks. So,there is need for measures to provide safe drinking water 100% in the future.

Sanitation

Table 4.8 shows the percentage of population with access to toilet facilities. The entire Kanniyakumari district shows an appreciable rate of 92.11% toilet facilities in 2012-13 out of 4, 83,539 households, 4,45,411 are having toilets. In 2013-14, the Kanniyakumari district has provided 93.36% toilet facilities.

Table 4.8: Provision of Toilet Facilities during 2013-2014 in Kanniyakumari district

S. No	Block wise/District	Number of HHs Provided with Toilet Facilities	% of Toilet facilities
		2013-2014	2013-2014
1	Agatheeswaram	40923	93.81
2	Thovalai	30016	90.54
3	Rajakkamankalam	89849	86.96
4	Kurunthancode	52987	95.85
5	Thuckalay	51148	95.21
6	Thiruvattar	42899	93.88
7	Killioor	41784	95.65
8	Munchirai	47869	97.67
9	Melpuram	53948	95.98
District		451423	93.36

Source: NBA/TNRD Web Site.2015

However, this shows the improvement in the Kanniyakumari district on sanitation & hygiene and the importance of toilet in each household has brought out to the rate of toilet facilities to 93.36%. The remaining 6.64% will be provided with toilet facilities soon to achieve 100%. Moreover, Rajakkamangalam, Agasteeswaram and Thovalai blocks faces a situation that the people who stay in the coconut farms and other farms do not have toilets and no patta for their own lands. They stay in the land of the owners of these farms and cannot approach the government to avail of such schemes. In another case there are no toilets in encroached lands and some people have put up huts near the banks of channels and ponds and roadsides. So this situation has to be focused to provide them with toilets.

Box: 4.3: Utilization of Public Health Services

There are 12 hospitals (including T.B.Hospital), 3 dispensaries, 31 primary health centres, 125 nursing homes, 42 allopathy hospitals, 130 ayurvedic hospitals, 187 homeopathic hospitals. In the government hospitals there are 64 sanctioned doctors with 393 beddings in the Kanniyakumari district. At Kanniyakumari district, health delivery system for the rural areas has provided 9 Block Primary Health, 27 additional Primary Health, 6 Urban Primary Health and 267 Health Sub Centres. Through these health centres curative and preventive services are being extended to the rural community.

Services through Primary Health Centres are: Maternal and Child Health, Ultra Sonogram, Gestational Diabetic Programme, Iron Sucrose for Anemia control in pregnant mother,. Dr Muthulakshmi Reddy Maternity Benefit Scheme, Jananni Suraksha Yojana Maternity Benefit Scheme, Jananni Shishu suraksha karyakiram, Basic emergency Obstetric care, Blood donation Camp, Blood Storage Unit, Delivery Services, Family Welfare Services, Immunisation Services.

HOSPITAL ON WHEELS PROGRAMME

Vitamin A administered, Dental Programme, School Dental Programme, Adolescent Anaemia, Napkin Programme, Modified School Health Programme, RTI/,STI Programme, Tribal Welfare Scheme, Birth and Death Registration, Palli sirrar nala thittam, Specialty Medical Camp, Malaria Control Programme, National Vector Borne Disease control Programme, Integrated Disease Surveillance Programme, Epidemic Control Programme, Iodine Deficiency Disorder Programme, Fillaria Control Programme.

Various Programmes Implemented:Gestational Diabetes Mellitus Programme, Tribal MMU, NVBDC, IDSP, Epidemic Control Programme, COTPA

Tamil Nadu Health Systems Project (TNHSP): Tamil Nadu Health Systems Project (TNHSP) is being implemented by Government of Tamil Nadu from January 2005 with the assistance of the World Bank to improve the effectiveness of Health Systems through improving health outcomes, access and quality of service delivery through strengthened oversight of the public health facilities and greater engagement of the non-government sector. Increased access to health care and utilization of maternal and neo-natal care services has been particularly focused on the poor, disadvantaged and tribal groups. Effective implementation of Non-Communicable Disease interventions throughout Tamil Nadu. There should be an increase in the effectiveness of service delivery in public sector hospitals at district and sub-district level.

Some of the important focus areas of the project are: Development and strengthening of infrastructure, provision of Key manpower and equipment in Government health facilities. 24 hours Comprehensive Emergency obstetric and New Born Care (CEmONC) services, 108 Emergency Ambulance services, Establishment of Web Based Health Management Information System (HMIS) and Hospital Management System (HMS), Tribal Health Development activities, Patient counseling Services in Government Hospitals., Accreditation of Government hospitals by National Accreditation Board for Hospitals (NABH), Activities related to Quality of care, Poison Treatment centres, Bio - Medical Waste Management (BMWM) & Infection Control System, Establishment of State Health Data Resources centre (SHDRC) and Mortuary Van services.

Case Study 4.3: Awareness of Community Health Medicine by Kanniyakumari Medical College Hospital.

Introduction:

Community medicine is a recent introduction. It conducts health surveys for evaluating the health status of a population that is community diagnosis of problems of health and disease. They also help in investigation of factors affecting health and disease e.g. environment, occupation, income, circumstances associated with the onset of illness etc. The important community medicine was shared and supported by Dr.K.U. Suresh Balan, Head, Department of Community Medicine, Kanniyakumari Government Medical College Hospital, Asaripallam. The data were provided by Mr.Aravind Social Worker.KMCH.kanniyakumari district.

Objectives of community health medicine:

To provide information about changing and new trends in the health status of a population, e.g. morbidity, mortality, nutritional status or other indicators and environmental hazards, health practices and other factors that may affect health. Timely warning of public health disasters and Immunization is the primary level of prevention against vaccine preventable diseases. The vaccines for 6 major communicable diseases are distributed to various PHCs and in turn to immunization spots. Identification of some common diseases in the community is an appropriate indicator of health status of the community.

Activities conducted: MBBS students and CRRI students participated in Dengue Awareness Rally on 29-10-2012 from KGMCH to District Collector office, coordinated by staff of community medicine department. Dengue awareness meeting at Belfield Matric school, Asaripallam on 30-10-2012 conducted by staff of community medicine department and CRRI students. House to house survey has been executed through CRRI students and department of community medicine staff at Gandhi Colony (250 houses), Asaripallam on 31-10-2012. Source reduction done and health education was given to public at the Community Hall. Sanitary inspection has been executed at gents and ladies hostel on 15-05-2013. Preventive measures against vector borne diseases/water borne diseases were suggested to the hostel staff and students of both hostels. House to house survey on vector borne disease awareness and preventive measures among the public was done from 08-07-2013 to 12-07-2013 at Peruvilai, Mela Peruvilai, Asaripallam, Gandhi Colony by second year MBBS students and staff of community medicine department. 1700 Breeding sources were identified and reduced. Health education on preventive measures has been given to the public.

Health education meeting was held in the boys and ladies hostel of KGMC on 20-08-2013. All the students were advised to drink boiled water and were given health education on use of personal protective measures for preventing mosquito bites. Health education to the school of nursing students about vector borne diseases and their prevention was done on 22-08-2013. They were asked to keep their premises in a clean manner to prevent the breeding of mosquitoes. Dengue Awareness programme in Allankottai Govt. Middle School. World Health Day – Theme: Control your Blood Pressure, cut your risk of heart attack and stroke. World Environment Day Theme: Think, Eat, Save, World Blood Donation Day Theme: Give the Gift of Life Donate Blood and Breast feeding week.

Awareness on Cancer among the people of district from 2010 onwards

- Cancer survey training for nursing school staff on 24.7.2010 at KGMC, IDSP Hall conducted by Department of Community Medicine and DDHS, Nagercoil. Cancer survey training for nursing students on 22.8.2010 at Jeyasekaran Hospital, Nagercoil training given by Department of Community Medicine , Kanniyakumari Govt. Medical college, Asaripallam

- Cancer awareness programme organized by Centre for Coastal Development and Peace was conducted at Melamidalam on 12.3.2011, Dr.K.U.Suresh Balan, Associate Professor, Community Medicine (KMCH, Ngl.), spoke about the various risk factors symptoms, diagnosis and treatment of the various types of cancer to the people, this was followed by discussion and clarifying the doubts of the locals.

- Non-Communicable diseases` including cancer awareness programme under the guidance of TNHSP was conducted for the public staff and students of KGMC on 18.4.13

- Staff and CRRI's of Department of Community Medicine took part in the cancer awareness program at Sr.Ayappa College on 7.2.2013 and gave talks on cancer, risk factors, and prevention of such cancers to a group of 150 students. The theme was: Debunk the myths of cancer.

- Screening the public by VIA/VILI for cervix cancer was undertaken and health education regarding the various cancers was given by the doctors and paramedical personnel at the health camp organized by the KGMC on 28.2.14 at Rajakkamangalam.

Conclusion: Community Health is an essential segment in the field of medicine through which the community is made aware of the hazards they face each day and how they can be prevented. Hence the department of community medicine should be focused in each medical college to bring out new initiatives where people take care of their health themselves.

Special Programmes

AIDS Control

Table 4.9 gives details of HIV Positive cases in Kanniyakumari district in 2014. In the year 2011, the total number tested for HIV is 64,729, and in the year 2012 the total number was 43,896 and in the year 2013 the number was 65,319. In this HIV positive cases registered were 210 in the year 2011, 174 in 2012, 156 in 2013. Anti-Retro Viral Treatment registration in 2011 was 210, 155 in the year 2012, 167 in the year 2013. HIV/TB infected (Preart & On ART) cases were 58 in the year 2011. In the year 2012, there 35 cases reported and 50 were reported in the year 2013.

Table 4.9 : HIV Positive Cases during 2014 in Kanniyakumari district

(in Units)

S.No.	Age groupwise	Positive cases in 2007		Positive cases in 2014	
		Male	Female	Male	Female
1	0-14	14	13	0	2
2	15-19	4	5	1	2
3	20-24	3	12	4	3
4	25-29	16	29	2	3
5	30-39	84	56	33	23
6	40-49	59	21	35	20
7	50 & above	39	14	30	05
	District	**219**	**150**	**105**	**58**

Source: Project Director TANSACS, K.K.District.

The Acquired Immune Deficiency Syndrome is caused by HIV virus which weakens the body's immune system and leads to death through secondary infection. According to 2007 data, the age and sex wise HIV positive cases are 219 male and 150 female. In 2014 there was remarkable decline with male at 105 and female at 58. In 2014, the age group of the most affected was 30 to 49.

TANSACS is implementing this program in partnership with NGOs and CBOs. This programme is to scale up prevention and care intervention among women of child-bearing age and their families through a package of primary prevention, family planning, voluntary counselling and confidential testing, anti-retroviral prophylaxis and counselling on infant feeding practices.

Tuberculosis and Leprosy cases:

Table 4.10 shows the Positive TB cases and Leprosy depicting the percentage in 2011 and 2013. Cases in TB are high in 2011 when compared to the year 2013. In Leprosy cases, there is slight decrease in 2013 when compared to 2007. It has increased in Agatheeswaram as 16. In total, there are 59 cases of Leprosy recorded in the Kanniyakumari district in the year 2007 (0.39%), in the year 2013 there are 57 cases.

Table 4.10 TB / Leprosy Cases

(In units)

Sl.No	Block wise/District/State	Positive TB cases		Leprosy cases	
		2011-12	2013-14	2011-12	2013-14
1	Agatheeswaram	155	165	5	16
2	Thovalai	77	107	7	04
3	Rajakkamangalam	63	49	4	02
4	Kurunthancode	98	71	7	04
5	Thuckalay	57	52	6	05
6	Thiruvattar	68	87	4	07
7	Killiyoor	35	37	6	07
8	Munchirai	98	71	5	07
9	Melpuram	104	113	4	05
	DISTRICT	**755**	**752**	**59**	**57**

Source: Deputy Director TB/Leprosy, K.K.District.

In the block-wise analysis of TB cases, Agasteeswaram shows the maximum number of TB in the Kanniyakumari district. The lowest rates of TB cases are found in Thuckalay (52) and Rajakkamangalam (49). Hence necessary steps should be taken to reverse the situation. People with a weak immune system, chronic diseases such as diabetes are at the higher risk of progressing from latent to active TB. Anaemia, HIV infection, malnourishment, tobacco intake are also the other reasons. Pollution due to cashew nut industries and fishing net factories, urbanization, migration and poverty seem to be another reason for this. Sputum tests at the early stages are advisory. Proper follow- up of the schedule, intake of tablets and guidance provided by the counsellors should be followed.

Conclusion

This chapter brings to light the success stories of the, health and nutrition in the district. It analyses the two decades of population, density, SC & ST, CBR & CDR, sex ratio, institutional delivery and the provision of toilet and drinking water. Tamil Nadu government

has implemented various programmes towards the development of the 9 blocks of the Kanniyakumari district in all aspects of sanitation and hygiene, safe drinking water and toilet facilities which form the basis for the promotion of health other than healthcare centres and healthcare delivery systems. The population density according to the data of 2011 shows 1,019 per sq.km in Kanniyakumari district. The provision of nutrition and maternal healthcare is up to the mark in the district; it has been achieved due to hygiene and higher medical facilities, women awareness on health, government supporting programms such as NRHM support life expectancy. Socio-economic reasons, children's education, employment are said to be the reasons. The data pertaining to CBR, CDR, IMR and MMR show the efforts made from 2001 to 2013 towards developing the status of health in the Kanniyakumari district 100 % institutional deliveries is one of the examples to ensure 100% health and the following measures involved in mother and childcare facilities have benefitted the people in all aspects.

The efforts to eradicate AIDS need more focus especially among the specific age groups through awareness programmes even though the data shows that AIDS cases have registered. The increase in certain blocks in TB needs more focus on health awareness programmes and also the migration of the TB patients should be tracked and registered periodically. Compulsory blood group identification has to be implemented in the health department of the Kanniyakumari district for the needs to be satisfied in all aspects and also to be added in the health and welfare chart.

CHAPTER 5

LITERACY AND EDUCATION

Chapter
5
Literacy and Education

Every child should have the opportunity to receive a quality education **- Bill Fist**
Good Quality education is a foundation for dynamic and equitable societies. **- Desmond Tutu.**

Introduction

Our national perception is education is essential for all. Education has an acculturating role. It refines sensitivity and perception that contribute to national cohesion. It has the role to enhance scientific temper, and independence of mind and spirit. Access and enrollment at the primary stage of education has reached near 100%. The number of non-school going children has decreased significantly. The gender gap in elementary education has narrowed and the percentage of children belonging to scheduled castes and scheduled tribes are proportionate to their population. Yet the goal of the universal elementary education continues to elude us. The quality of learning and achievement is not entirely satisfactory even in the case of children who complete elementary education. Basic education policies and programmes in recent years have gone beyond and more emphasis has to be given on quality concerns on the education of girls and disadvantaged sections of the society. It is needed for the people's involvement in basic education programmes and decentralization of educational management.

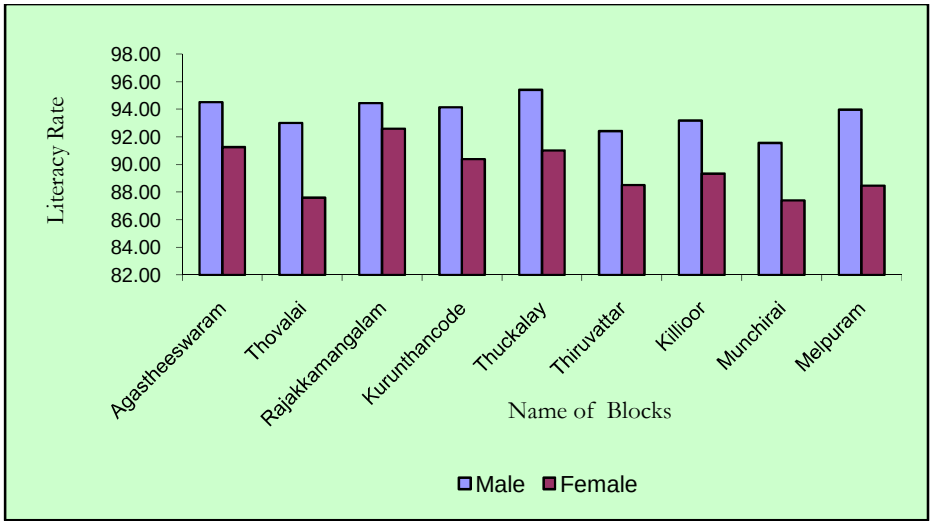
Education

Education is an instrument as well as a catalyst of social transformation. Quality education has the power to transform societies in a single generation. Education substantiates the children with the protection and from the hazards of poverty, labor exploitation and disease, knowledge, skills and confidence to reach their full potential. The focus is on learning which strengthens the capacities of children to act progressively on their own behalf through the acquisition of relevant knowledge, useful skills and appropriate attitudes - helps them mould themselves and mingle with others, places of safety, security and healthy interaction. Thus, education has been recognized as a major instrument which societies can adopt in the process of change and development while achieving their desired goals.

Literacy performance of District

Figure 5.1. shows the housewise literacy performance of the state. Literacy level and educational attainment are vital indicators of development in a society. Fig 5.1: The literacy rate from 87.55 in 2001 reached 91.75 in 2011. In 2001, the literacy rate of male population was 90.37 and female literacy rate was 84.79. In 2011, out of the total population ,the literate population constituted 15, 48,738 in which 93.65 are males and 89.99 are females. The total number of habitations in the Kanniyakumari district is 3,646. On comparsion among the blocks, Male literacy rate is low in Munchirai (91.57) and Thiruvattar (92.40). Highest literacy rate is found in Rajakkamangalam (94.44) on comparsion among the blocks. Female literacy rate is low in Munchirai (87.39) and Thovalai (87.59). Block wise data level, Agastheeswaram was high literacy rate (92.87), Thuckalay (92.23) and Rajakkamangalam (95.35). The reasons for these minor gaps in the literacy rate of the blocks, are poverty and family situation. In the comparison of male and female literacy rate, female rate is lower. There has to be efforts to concentrate on both the male and female literacy in making it 100 percent.

Figure 5.1 : Literacy Rate



Source: Census of India, 2011.

Elementary Education

Primary Education

Table 5.1: Genderwise Enrollment in Primary Education in Kanniyakumari district

S. No.	Block	Enraollment Rate Primary					
		Boys		Girls		Total	
		2011-12	2013-14	2011-12	2013-14	2011-12	2013-14
1	Agastheeswaram	93.58	99.62	99.85	99.56	96.71	99.63
2	Thovalai	95.06	99.80	83.83	99.69	89.44	99.49
3	Rajakkamangalam	89.05	99.69	85.73	99.08	87.39	99.45
4	Kurunthancode	93.96	99.71	97.41	99.89	95.68	99.58
5	Thuckalay	99.15	99.81	97.62	99.67	98.38	99.34
6	Thiruvattar	98.78	99.98	85.89	99.63	93.33	99.64
7	Killiyoor	88.67	99.69	96.31	99.79	92.49	99.57
8	Munchirai	96.66	99.49	97.60	99.77	97.13	99.74
9	Melpuram	98.28	99.81	87.89	99.99	93.08	99.31
	District	**99.16**	**99.73**	**99.26**	**99.75**	**99.21**	**99.57**

Source: CEO, SSA,K.K.District, 2014.

Table 5.1 gives details of genderwise enrollement in kanniyakumari district. The gross enrollment in primary was 99.21% in the year 2011-12, 99.81% in 2012-13 and 99.57% in 2013-14. The gross enrollment rate in the Kanniyakumari district when compared between 2011 and 2013 has increased from 99.21 to 99.57.The GER of Thovalai block has increased from 89.44 to 99.49 and Rajakkamangalam also has increased from 87.39 to 99.45. It shows the strenuous efforts of the Kanniyakumari district administration and educational department in bringing the children back to school to achieve 100 % GER. From 2013-14 data we find Melpuram, Thuckalay, Thovalai, Rajakamangalam and Agastheeswaram blocks need more concentration for enrollment of children in schools to reach 100% and to avoid dropouts.From the table we find that there is only marginal difference in the enrollement rate of boys and girls.

Completion Rate and Dropout Rate in Primary Education

Table 5.2 gives particularly of completion rate and dropout rate. In the Kanniyakumari district as a whole the completion rate of boys during 2013-14 was 97.42% and for girls it was 98.74 % and for boys and girls put together, the rate was 98.08 in 2013-14. At the block level the completion rate of the boys is lower in Rajakkamangalam (94.77) and Thovalai (96.99). Among the girls, the rate is (98.41) in Thiruvattar and (98.45) in Killiyoor, . The overall comparison of the completion rate at blocklevel for the year 2013-14 shows that it is

lower in Rajakkamangalam (97.64) and Thiruvattar (98.01). The overall completion rate has come down. The Educational Department has taken initiatives to enroll more students. The students who are left out from the schools are given special focus by BRTS – Block Resource Teacher Educators forming a team who make home visit to identify the children who are dropout, bring them back to school, give special training through bridge course via NRTC – Non residential training centers for a period of three months in the evening.

Table 5.2 Completion and Dropout Rate in Primary Education

Sl. No	Block wise / District / State	Completion rate						Dropout rate					
		Boys		Girls		Total		Boys		Girls		Total	
		2011-12	2013-14	2011-12	2013-14	2011-12	2013-14	2011-12	2013-14	2011-12	2013-14	2011-12	2013-14
1	Agastheeswaram	98.93	98.93	98.81	98.81	98.87	98.75	0.25	0.25	0.58	0.58	0.41	0.92
2	Thovalai	96.69	96.69	99.01	99.01	97.85	98.35	1.21	1.21	0.31	0.31	0.76	0.47
3	Rajakkamankalam	94.77	94.77	98.81	98.81	96.79	97.64	3.25	3.25	0.58	0.58	1.92	0.59
4	Kurunthancode	97.42	97.42	98.85	98.85	98.14	98.53	0.44	0.44	0.37	0.37	0.41	0.40
5	Thuckalay	97.59	97.59	98.51	98.51	98.05	98.27	0.30	0.30	0.66	0.66	0.48	0.20
6	Thiruvattar	97.91	97.91	98.41	98.41	98.16	98.01	0.20	0.20	0.93	0.93	0.57	0.42
7	Killioor	97.84	97.84	98.45	98.45	98.15	98.61	0.25	0.25	0.29	0.29	0.27	0.39
8	Munchirai	97.80	97.80	98.86	98.86	98.33	98.67	0.28	0.28	0.23	0.23	0.26	0.22
9	Melpuram	97.79	97.79	98.93	98.93	98.15	98.67	0.07	0.07	0.29	0.29	0.18	0.41
	District	97.42	97.42	98.74	98.74	98.08	98.08	0.46	0.48	0.36	0.40	0.41	0.44

Source: CEO, SSA, K.K.District.

From table 5.2, we find that in Kanniyakumari district, during 2011- 2012, District Primary Dropout Rate was 0.41. It has increased in the year 2013-14 as 0.44. In 2011-12 Primary Dropout Rate for girls was 0.36. During 2013-14, girls dropout rate was 0.40. At the block level in the year 2013-14, high dropout rate was found in Agasteeswaram 0.92, Rajakkamangalam 0.59, Melpuram 0.41 and Thovalai 0.47. In 2011-12, the Dropout Rate in Melpuram and Agasteeswaram and Killiyoor was high. The Dropout Rate, in Thovalai and Rajakkamangalam are comparatively less. Broken families, seeking seasonal jobs and to fulfill their necessity are the reasons for the dropouts. There is need for special attention not only on more enrollments of girls and boys but also on completion rate and reduction of dropouts by initiating programmes through the government schemes.

Upper Primary/Middle School Education

Table 5.3 Gender wise Enrollments in Upper Primary /Middle School Education

S. No.	Block	Enrollment in Upper Primary					
		Boys		Girls		Total	
		2011-12	2013-14	2011-12	2013-14	2011-12	2013-14
1	Agastheeswaram	99.62	99.22	99.68	99.61	99.65	99.42
2	Thovalai	99.39	99.31	99.67	99.62	99.53	99.47
3	Rajakkamangalam	99.39	99.11	99.78	99.52	99.58	99.32
4	Kurunthancode	99.23	99.23	99.57	99.57	99.40	99.40
5	Thuckalay	99.13	99.13	99.85	99.25	99.49	99.19
6	Thiruvattar	99.68	99.68	99.79	99.79	99.73	99.74
7	Killiyoor	99.19	99.11	99.53	99.53	99.36	99.32
8	Munchirai	99.11	99.11	99.59	99.59	99.35	99.35
9	Melpuram	99.12	99.12	99.83	99.23	99.47	99.18
	District	99.32	99.22	99.07	99.52	99.19	99.37

Source: CEO, SSA, K.K.District, 2014.

Table 5.3 gives in detail enrollment in upper primary education in the district .In the gender wise enrollment in upper primary education, the enrollment of the boys recorded 99.32 in 2011-12 and 99.22 in the year 2013-14. . The enrollment of upper primary girls in the year 2011-12 was 99.07 and 99.52 in 2013-14. The Kanniyakumari district total enrollment rate.in 2011 -12 was 99.19 and it increased to 99.37 in 2013-14. It shows that all the blocks have reached more than 99% of enrollment rate. Consequently, the Education Department and District Administration have to take steps to reach the 100% of enrollment in the Upper Primary Education.

Box 5.1: QUALITY EDUCATION: CCE TRIMESTER

CCE – Continuous and Comprehensive Evaluation :It is a school-based evaluation system. Children in classroom with amicable environment and the activities are based on holistic development. It reveals the strengths and weaknesses of learners periodically and to improve their learning

CCE- comprises formative and summative assessments.

Formative assessment (FA) - 40 marks

FA (a) – 20 marks - assessed for scholastic and co-scholastic

FA (b) -20 marks - assessed the students based on the content of the lesson, (subject) oriented

Summative assessment (SA) - 60 marks - formal type assessment

Method of Awarding Marking in CCE

FA (a) –for each child 2 best activities among 4 for each term should be assessed for 20 marks. 10 marks for

FA (b) – for each child 2 best slip tests /Classroom Activity Tests (CAT) among 4 for each term should be assessed for 20 marks

FA (a) and FA (b) altogether constitute 40 marks teacher should record these marks in the Teacher Assessment Record , Marks are to be converted to corresponding grade and entered in the Teachers Mark and Grade Register

Box 5.1. Cont….

The corresponding grades will be carried over in the Student Cumulative Record

Trimester:

Based on the announcement made by the Honourable Chief Minister, a G.O No. 143 has been issued to implement the Trimester Pattern and CCE.

This policy decision has been taken to reduce the academic burden and the physical and mental strain of students

Text Books would be developed separately for each term

The academic year will be divided into three terms as follows:

I Term - June, July, August & September

II Term - October, November & December

III Term - January, February, March & April

Studies conducted nationally and internationally have recommended that the load of school bags should not be more than 10% to 15% of the body weight of the child. Keeping this is in mind the syllabus of the academic year 2012-13 has been divided into three parts and textbooks have been reduced in size to accommodate the portions only for the relevant term. In the first term of the academic year 2012-13 for classes I to V one unit book consolidating all subjects and for classes VI to VIII two unit books consolidating subjects language and English in book 1 and Maths, Science and Social Studies in book 2 are being introduced.

2012-13 – Trimester, Continuous & Comprehensive Evaluation for I to VIII

Completion Rate and Dropout Rate in Upper Primary/Middle School Education.

Table 5.4 represents Completion Rate and dropout rate in upper primary level. In Kanniyakumari district, the completion rate of boys in the upper primary education in the year 2011-12 was 94.87. It increased to 95.31 in the year 2013-14. Similarly for girls the completion rate increased to 98.43 in the year 2013-14. In total it shows that it increased from 96.61 in the year 2011-12 to 97.13 in 2013-14. Blockwise the completion rate for Thovalai was 96.50 and for Killiyoor it was 96.90. It is due to the economic crisis in the family that has strived the parents to send their children to job for livelihood.

Dropout Rate in Middle School/ Upper Primary Education

The dropout rate of boys in the Middle school education in the year 2013-14 is 1.15. Among the girls in the year 2011-12, it is 0.71% and it increased to 0.75 in the year 2013-14. The overall total in the Kanniyakumari district is 0.95 in the year 2013-14. On blockwise comparison, reveals that the dropout rate for boys is high especially in the blocks of Thovalai, Munchirai and Rajakkamangalam. The girls dropout has increased in the block Melpuram. The overall analysis reveals that we come across high rate of dropouts in Agasteeswaram, Kurunthencode, Melpuram and Thovalai.

While analysing the cause of dropouts, it has been tracked that the children have been sent for seasonal work to brick chambers, tiles factory, ice company, flower plucking (Thovalai block).During the festival season in Agastheeswaram (November 15 to January 16) especially in the Sabarimalai season, a large number of Iyappan devotees visit Kanniyakumari. In kurunthencode block, during Mandikadu festival season, children are engaged in collecting the fish by the side of seashore for selling it. Moreover, the brick workers come from other districts and get enrolled in the schools. When their contract gets over it results in their dropout from the school. This has also been noticed in Kanniyakumari district.

Table 5.4: Completion Right and Dropout Rate in Upper primary /Middle School Education.

Sl. No	Block wise / District / State	Completion rate						Dropout rate					
		Boys		Girls		Total		Boys		Girls		Total	
		2011-12	2013-14	2011-12	2013-14	2011-12	2013-14	2011-12	2013-14	2011-12	2013-14	2011-12	2013-14
1	Agastheeswaram	95.93	95.99	98.19	98.34	96.00	97.34	0.75	1.23	1.28	1.01	0.94	1.12
2	Thovalai	93.77	93.81	98.22	98.42	97.06	96.50	2.75	1.55	0.33	0.44	1.54	1.00
3	Rajakkamankalam	94.23	95.21	98.68	98.73	96.46	97.33	0.60	1.26	0.24	0.51	0.58	0.89
4	Kurunthancode	94.84	94.97	98.34	98.41	96.59	97.12	0.92	1.48	1.27	0.76	1.48	1.12
5	Thuckalay	94.92	95.72	98.38	98.47	96.65	97.16	1.68	0.98	0.21	1.06	0.16	1.02
6	Thiruvattar	95.99	95.99	98.37	98.37	97.18	97.18	0.10	0.56	1.18	0.76	0.60	0.66
7	Killioor	94.38	94.61	97.92	97.97	96.15	96.90	0.71	0.87	1.08	0.56	0.90	0.72
8	Munchirai	94.85	94.91	98.50	98.62	96.68	97.36	1.44	1.55	0.40	0.45	0.92	1.00
9	Melpuram	94.91	94.97	98.52	98.50	96.72	97.26	1.92	0.87	0.43	1.2	1.18	1.04
	District	94.87	95.31	98.35	98.43	96.61	97.13	1.13	1.15	0.71	0.75	0.92	0.95

Source: CEO, SSA, K.K.District, 2014.

Box - 5.2: READING AND WRITING SKILLS AMONG PRIMARY AND UPPER PRIMARY STUDENTS

Assessment is a continuous process carried on effectively in Kanniyakumari district. To ensure the quality and achievement level of the students from I to V STD, the achievement test is conducted in all Government and Aided Primary schools in Kanniyakumari district. It is decided to check the language and basic arithmetic skills of the students. So the test is conducted in 13 Schools and for 1356 students. Reading, writing and basic arithmetic skills are also assessed. There is gradual improvement in the language skill of the students from September 2013 to November 2014. Compared to the performance of the students in Tamil, their performance in English is average. The reading skill of the students in Tamil is good. Their ability in writing English is rather poor. But there is gradual improvement found from September 2013 to November 2014.

Transition Rate from primary to upper primary and Upper primary to Secondary

Table 5.5: Transition Rate

Sl. No.	Name of the Block	Primary to Upper Primary			Upper Primary to Secondary		
		2013-14			2013-14		
		Boys	Girls	Total	Boys	Girls	Total
1	Agastheeswaram	99.84	99.84	99.84	99.83	99.73	99.78
2	Thovalai	99.89	99.78	99.84	99.89	99.87	99.88
3	Rajakkamankalam	99.81	99.78	99.08	99.85	99.75	99.80
4	Kurunthancode	99.75	99.65	99.70	99.85	99.79	99.82
5	Thuckalay	99.85	99.79	99.82	99.86	99.76	99.81
6	Thiruvattar	99.86	99.78	99.82	99.83	99.76	99.80
7	Killioor	99.98	99.77	99.83	99.86	99.78	99.82
8	Munchirai	99.89	99.80	99.89	99.82	99.81	99.81
9	Melpuram	99.82	99.79	99.81	99.88	99.77	99.83
	District	99.85	99.75	99.80	99.85	99.78	99.87

Source: CEO, SSA, K.K.District, 2014.

Table 5.5 gives details of the transition rate from primary to upper primary and from upper primary to secondary level. The transition rate of primary to upper primary, in the year 2013-14 was 99.80 % in the district. For boys, it was 99.85% and for girls it was 99.75%. There is no great variation among the blocks and also all the blocks have a rate above 99 % showing a satisfactory transition rate. Similarly in 2013-14 the transition rate of upper primary to secondary of the district is 99.85 for boys, 99.78 for girls and the total is 99.87. There is slight decrease in the blocks of Thiruvattar, Killiyoor and Munchirai. Similarly, there is slight variation in the blocks of Agastheeswaram, Rajakkamangalam and Thuckalay in the transition rate of girls in the upper primary to secondary. At the state level, transition rate from primary to upper primary is recorded as 99.81 and upper primary to secondary is 93.56. As per the Government policy, schemes and programmes help to promote all the students. Tamil Nadu Government follows a policy of compulsorily pass result up to IX standard. Considerable steps have taken through education department, school head masters and panchayat leaders to attain 100% of enrollments in schools.

Access to Schools

Table 5.6: Availability of Schools

Block	Number of habitations	Number of primary Schools	Number of upper primary /Middle schools
Agastheeswaram	448	121	17
Thovalai	341	46	11
Rajakkamankalam	266	48	25
Kurunthancode	475	58	24
Thuckalay	439	60	26
Thiruvattar	502	49	19
Killioor	338	50	16
Munchirai	355	53	33
Melpuram	482	84	20
District	3646	568	149

Source: CEO, SSA/RMSA, K.K.District, 2014.

Table 5.6 furnishes particular regarding availability of schools in the district. The availability of schools in the Kanniyakumari district is higher when compared to the other districts and is satisfactory when analyzing the number of habitations in the district. For 3,646 habitations, there are 568 primary schools and 149 middle schools. In the year 2014, the number of primary schools is 749 and upper primary and middle schools are 226.

Pupil-Teacher Ratio in Primary and Upper Primary

Table 5.7 gives blockwise details of pupil –teacher ratio at primary and upper primary level in the kanniyakumari district. As per the Government norms, the pupil-teacher ratio is the number of students who attend the school divided with the number of teachers in the institution.The student-teacher ratio of 1:30 for primary level indicates that there are 30 students for every teacher. A student-teacher ratio of 1:35 for upper primary indicates that there are 35 students for every teacher. Pupil – teacher ratio gives a glimpse that how many students are taught by one teacher. As per the government of Tamil Nadu guidelines, the government gives priority to fill up the post of the teachers according to the norms. TRB test should be encouraged, implemented, and teachers should be selected and appointed according to the norms. The pupil-teacher ratio in primary was 25 in the year 2012-13and 23 in the year 2013-14. Similarly in upper primary, it decreased from 27 to 20, during the same period.

Table 5.7: Pupil Teacher Ratio

Sl. No.	Block wise/District	Pupil Teacher Ratio			
		Primary School		Upper Primary School	
		2012-13	2013-14	2012-13	2013-14
1	Agastheeswaram	28	25	32	21
2	Thovalai	29	24	30	23
3	Rajakkamankalam	26	27	25	18
4	Kurunthancode	24	23	27	21
5	Thuckalay	24	26	26	17
6	Thiruvattar	23	18	20	13
7	Killioor	23	19	25	20
8	Munchirai	27	22	28	23
9	Melpuram	22	20	23	17
	District	25	23	27	20

Source: CEO, SSA/RMSA, K.K.District, 2014.

Box 5.3 : TECHNOLOGY INITIATIVES IN EDUCATION

In Kanniyakumari district SSA took initiative in teaching special children with TV and DVD. All the special children try to turn their head towards the visual input. The special children with more than 80 % disability also turn their head towards these video inputs. Head Moment of CP children got improved. Over the past two years, teachers have noticed that Special children have progressed in key cognitive and behaviourl areas, while also showing enhanced physical coordination. Kinesthetic approach helps the children to improve physical coordination. So, it is necessary to establish kinect system to every Day care Centre.

CAL – Computer Aided Learning

There is a growing awareness building among policy makers globally to enhance ICT at schools.. SSA also took some steps to enhance ICT in schools. Computer Aided Learning provides immense interest to learn better. CAL is the basement of the ICT programme to be constructed in 2012-13 Kanniyakumari district has 216 CAL centers. Each student learns to operate the system to enhance his full concentration in the subject. Both Desk top and Lap top are utilized among the students.

Project-Based Learning (PBL)

Project-Based Learning (PBL) is an innovative approach that involves students through doing projects. This programme help the teachers to think and act beyond the class room walls and also help the teachers to use the computer application which stlimulates student's higher order thinking like imagination, creativity, problem solving ability, collaborative work among other students, etc.

Secondary Education

Secondary School Enrollment

In Kanniyakumari district, according to RMSA there are 202 High Schools and 226 Higher Secondary Schools in the year 2013-14. In these, Government HS and HSS are 133 in number, Private Aided Schools are 132, Private unaided Schools are 18,Matriculation Schools are 134, ICSE Schools 5, CBSE Schools 5 and a Central Government HS school. Totally there are 428 schools in Kanniyakumari district. The boys and girls blockwise enrollment in the Secondary schools are given in table 5.8.

Table 5.8: Enrollments Rate in Secondary Education

S.No.	Block /District	Enrollment rate in Secondary Education					
		Boys	Girls	Total	Boys	Girls	Total
		2012-13	2012-13	2012-13	2013-14	2013-14	2013-14
1	Agastheeswaram	94.87	94.83	94.85	94.88	94.96	94.64
2	Thovalai	93.76	94.13	93.93	94.00	94.14	94.66
3	Rajakkamangalam	94.25	94.28	94.26	95.45	95.51	95.89
4	Kurunthancode	94.5	94.98	94.74	94.59	94.92	95.61
5	Thuckalay	94.8	94.44	94.62	94.84	95.02	95.85
6	Thiruvattar	94.43	94.51	94.46	94.91	95.00	95.84
7	Killiyoor	94.26	94.35	94.31	94.34	94.43	94.99
8	Munchirai	94.52	93.99	94.27	94.54	94.92	94.99
9	Melpuram	94.66	94.94	94.80	94.47	94.55	94.88
	District	94.45	94.49	94.59	95.11	95.13	95.26

Source: CEO, SSA/RMSA, K.K.District, 2014.

In Kanniyakumari district, total enrollement rate in secondary education, in the year 2013-14 was 95.26. The enrollement percentage for boys is 95.11 and for girls it is 95.13. While comparing the year 2013-14, the enrollment in the secondary education gets higher. At the block level in 2013-14, in Agastheeswaram and Thovalai the enrollment rate has lower than in the other blocks. The enrollement rate of boys is slightly lower than girls in Thovalai, Killiyoor and Rajakkamangalam blocks. In the case of girls, Thovalai, Killiyoor and Munchirai have lower enrollement rate than that of the girls in other blocks.

Table 5.9: Dropouts Rate in Secondary Education

S. No.	Block /District	Dropouts rate in Secondary Education					
		Boys	Girls	Total	Boys	Girls	Total
		2012-13	2012-13	2012-13	2013-14	2013-14	2013-14
1	Agastheeswaram	0.04	0.04	0.04	0.01	0.00	0.63
2	Thovalai	0.00	0.00	0.00	0.02	0.02	2.27
3	Rajakkamangalam	0.04	0.02	0.03	0.04	0.02	1.36
4	Kurunthancode	0.01	0.00	0.01	0.01	0.00	1.01
5	Thuckalay	0.02	0.00	0.01	0.00	0.00	0.69
6	Thiruvattar	0.01	0.00	0.01	0.00	0.00	0.62
7	Killiyoor	0.00	0.00	0.00	0.00	0.00	0.21
8	Munchirai	0.02	0.00	0.01	0.02	0.00	0.79
9	Melpuram	0.01	0.01	0.01	0.01	0.01	0.14
	District	0.15	0.76	0.12	0.11	0.07	0.08

Source: CEO, SSA/RMSA, K.K.District, 2014.

Table 5.9 provides blockwise details of dropouts in kanniyakumari district. The dropout rate of secondary education in the district in the year 2013-14 was 0.082. In this the boys dropout rate is 0.11 and girls are 0.07. In Agasteeswaram, Rajakkamangalam, Thovalai and Munchirai blocks, boys have higher dropout rate. This is due to the fishing population in the blocks of Agastheeswaram and Rajakkamangalam where the dropouts are engaged in fishing operations in the seasons.

Among the villages, Thazhakudy, Thadikarankonam, Aralvoimozhi, Kanyakumari, Suchindram, Nagercoil, Muttom, Enayam, Munchirai, Mulagumoodu are the areas where the children get dropout. In Thovalai block, children are working in seasonal jobs in brick industry, cashew nut factory, flower stringing and construction labour in Kanniyakumari and some of them migrated to Kerala state. In Rajakamangalam and kurunthancode, the dropouts took place because of family circumstances and involvement in fishing occupation in Kerala state. Educational department needs to spread awareness among the parents about the dropout's consequence of in their future life and also need to advise them not to send them to work during the year they have to be studying in the school.

Basic School Infrastructure

Table 5.10 gives blockwise details about basic school infrastructure in kanniyakumari district. There are 133 schools. 68 schools have 3 classrooms, 67 schools have more than 3 classrooms, 23 schools have common toilets, 425 schools have separate toilets for girls, 133 schools have electricity and also drinking water supply and 854 schools have desk and

Table 5.10 : Infrastructure

Sl. No.	Blocks	Total No. of schools	With 3 Class Rooms	More than 3 class rooms	With Toilet	With girls toilet	With electricity	With drinking water	With desk and chair
1	Agastheeswaram	28	15	13	9	82	28	28	159
2	Thovalai	19	8	11	7	73	19	19	111
3	Rajakkamangalam	14	6	8	0	33	14	14	100
4	Kurunthancode	11	6	5	1	37	11	11	60
5	Thuckalay	11	4	7	2	27	11	11	56
6	Thiruvattar	17	12	5	2	39	17	17	159
7	Killiyoor	9	7	2	0	30	9	9	61
8	Munchirai	9	5	6	0	43	9	9	47
9	Melpuram	15	5	10	2	61	15	15	101
	District	133	68	67	23	425	133	133	854

Source: CEO, RMSA. K.K.District.

chair facilities. It shows that adequate drinking water supply and electricity are provided. There is deficit only in the provision of toilets, desks and chairs and this problem must be addressed on a priority basis.

Box 5.4: Elite Classes in Kanniyakumari district

This is the first programme for the students of HSC with 44 students from different schools that commenced on June 10th 2013. 60 students are admitted from 11th Std from various schools. This is a successful two batch groups that is 102 – Maths and Computer, 103 – Maths and Biology. The timing is 8.20 a.m. to 5.30 p.m including Saturdays. Main focus of teaching is coverage of all subjects and mathematical sums. Periodical tests are conducted every day. After 5.15pm, there is doubt clarifying session. Educational counselling, Study materials and Stress release yoga help the students to equip themselves. There is 100 % attendance in the year 2014 in all the 4 batches comprising 118 students. The selection criteria is the top scorers of government and aided schools and cut off mark is 467 for Tamil medium and 477 for English medium. Laptops and cycles are provided for these students also. 22 attached desk and benches are provided. There is a separate building with five rooms and girl's toilet. Now construction of study hall is going on in the upstairs. The fee is Rs.200 for Tamil medium and Rs.700 for English medium.In Thuckalay government higher secondary school there are 60 students in 11th std and 30 students in 12th std in two batches. Similarly in Munchirai 39 students of XI std of Maths allied with Biology and Computer Science.

Last year, one student has got a medical seat, 16 students were admitted in Government Engineering colleges, 3 in PSG, Coimbatore. The first mark is 1164 and Maths centum scorers are 7. No. of students scored centum in Physics. A separate building in all the government schools and special focus of teachers and infrastructure will help the students to develop confidence and knowledge. The impression on importance of tuition centers and competitions to score high marks has come down among the parents and students due to this concept. Poor students are also able to get quality education and the fees collected from the private schools can be curbed with this effort.

All students are equal in education and their level of intelligence is to be sharpened through training irrespective of the socio economic, background. Every student has to be given the opportunity to shine and come up in life and thus contribute towards the society. So teachers should play an important role to shape the lives of children during the school periods especially the peak stages of career determination that is the higher secondary level. Elite classes prove as an ideal platform to mend the lives of such students.

Hostel Facilities

Table 5.11: Hostels

Sl. No.	Block wise/District	No. schools	Total Number of students	No. of students in hostels
1	District	1054	330025	1291

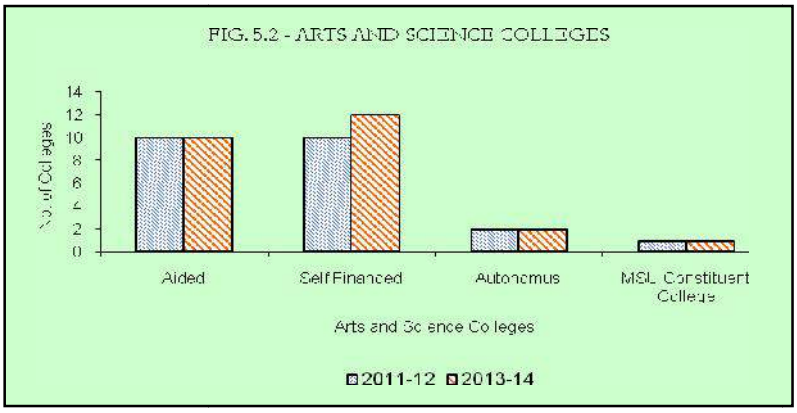
Source: DBCW and MWO, DADWO, KK District, 2014.

Table 5.11 furnishes details of hostel facilities in Kanniyakumari district in the year 2014-2015. It shows that the numbers of students in BC / MBC hostels are 698 where there are 1,054 schools. There are 14 Adi-Dravidar welfare hostels. In these hostels, 593 students are accommodated. In sum, 1,291students are accommodated.

Higher Education

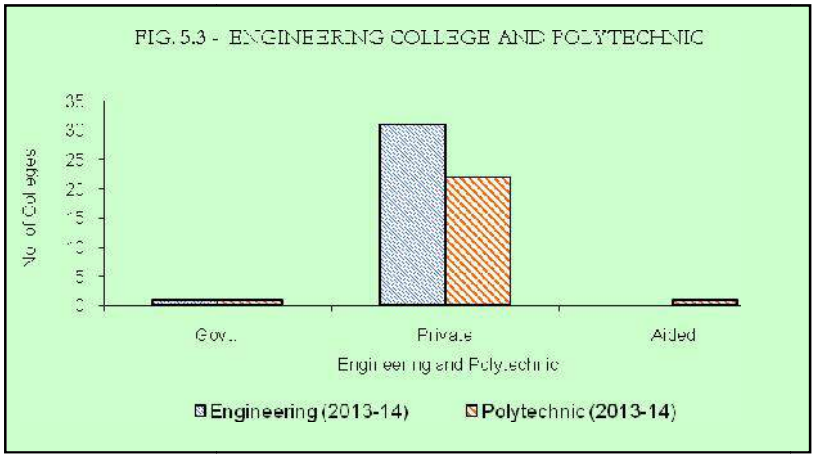
Arts and Science Colleges

In the Kanniyakumari district, there are 24 arts and science colleges with student strength of 6,702 boys 23,375 girls in total 30,077 students, 31 engineering colleges with 31,634 students. There are 5,687 students in 22 polytechnic colleges and 76 other institutions with 10,150 students making total number of 77,548. This shows the educational status of the Kanniyakumari district proving that the district provides a good opportunity for every student to realize his/her dreams.



Source: Manonmaniam Sundararnar University, Tirunleveli, 2014.

Technical Education



Source: Department of Statistic, K.K. District, 2014.

Conclusion

This chapter has summarized and tabulated the various efforts, schemes and measures taken for the growth of education in the Kanniyakumari district especially to bring down the dropout rate and achieve 100% enrollment of both boys and girls without fail. The effort to bring excellence in the higher secondary education is proved through the Elite classes which have become a model for the other areas as well as to be implemented in other schools which remain the first one in the state. Special efforts and classes are conducted to improve the reading and writing skills of the students. Technology initiatives have been a new step towards improving the perspective of education through project based learning and computer aided learning.

In general, there is a need to improve the quality of education with applied skills. It is essential that school leavers acquire a higher level of knowledge and other skills. It is also necessary that besides general education up to secondary level, opportunities for improvement of vocational knowledge and skill should be provided at the higher secondary level to enable students to be employable.

CHAPTER 6

GENDER

Chapter
6
Gender

Introduction

The 21st century has embarked transformation where women play vital role in every facet of modern society. Gender issues have emerged as a central stage in development process in most of the countries including India. The question of empowering women to reduce gender inequalities clouding the society is a major concern of policy makers and planners all over the world. Women are considered as a focal point and the unifying force in all walks of life. This sensitivity is manifesting vigorously from the inner most depth to the surface of the society. The transition of women has undergone a radical change particularly over the past three decades in India.

Gender refers to the roles and responsibilities of men and women that are created in families, societies and cultures. The term gender does not replace the term sex, which refers exclusively to biological differences between men and women. The concept of gender includes the expectations held on the characteristics, attitudes and activities of both men and women. Systems of social differentiation such as political status, class, ethnicity, physical and mental disability and age modify gender roles. The concept of gender again is vital because, it reveals how women's subordination is socially manoeuvered. It is not biologically predetermined nor is it fixed forever. 'Gender relations do not operate in a social vacuum but are products of the ways in which institutions are organized and reconstituted'.

The concern with gender relations in development has strengthened the affirmation that equality in the status of men and women is fundamental to every society. Gender equality is considered good not only as a matter of social justice but also to promote economic development. Gender equality is necessarily a precondition for combating the challenge of reducing poverty, promoting sustainable development and ensuring good governance. Today ,the information and communication technology has transformed the country's economy and paving way for women's potential. Government policy is essentially a conceptual framework indicating the functional intent of the state and its underlying rationale on a particular issue. Recognizing the need for involving women in various development activities, the

Government of India has initiated several affirmative measures by way of programmes and schemes to bring them into the mainstream of development. Government has declared 2001 as the year of Women's Empowerment and adopting a National Policy to offer "Swasakthi" to women, where "Swa" means "self" and "Sakthi" means "Power". These affirmative actions have brought appreciable changes in the socio-economic conditions of women. With the objective of achieving impressive economic growth within the framework of social justice, Tamil Nadu has been surging ahead mightily to become one of the most socially and economically progressive states in the country

This chapter discusses about the outcome of the gender inequality index in the Kanniyakumari district, access and control over resources, status of women in employment, education and society and trend in political participation.

Status of Women Population

Table 6.1: Comparative Status Of Women during 2011 in Kanniyakumari district

Sl. No.	Status	Kanniyakumari District	Tamil Nadu State
1	Total number of women	944029	35980087
2	Percentage in total population	50.47	49.90
3	Sex-ratio	1019	995
4	Female literacy rate	89.99	73.86
5	% of women worker in agriculture sector	16.42	41.61
6	% of women in non-agriculture sector	83.58	45.15
7	MMR(2013-14)	30	68

Source: census 2011

While analyzing the comparative status of women in kanniyakumari district in 2011,we fin that out of the total population of 18,70,374, the total number of women comprised of 9,44,029 making a percentage of 50.47 with a sex ratio of 1019 (Table 6.1) The literacy rate among female in the Kanniyakumari district is 89.99. The school enrolment rate is 99.75. The percentage of women workers in agriculture is 16.42% and the percentage of women in non-agriculture sector is 83.58% .Maternal Mortality Rate has come down to 30. It shows that girls and women of all age groups have developed their education and empowerment in Kanniyakumari district. Special measures have to be initiated at all levels to reach 100%.

Box 6.1: Status of Gender Inequality Index in the Kanniyakumari district

The gender inequality index constitutes the major indicators to be empowerment, health and labour. The rate of empowerment, health and labour determines the development in gender equality as important factors without which the ranking of the blocks and hence the Kanniyakumari district will come down in the wider scenario.

Health

The health indicators are comprised of MMR, share of institutional deliveries and share of antenatal coverage. Maternal mortality rate in killiyoor block rate is 78 (0.13)next Melpuram is 46 (0.22) and Rajakkamangalam 49 (0.20) which means the poor quality of medical facilities and the approach of the people towards utilization of health care.There is 100 percent rate of institutional deliveries in all the blocks and hence there is awareness.

Empowerment

The empowerment rate, female and male literacy, share of female and male children and share of female and male elected representatives are the major constituents that affect the index of empowerment.The lowest block is Munchirai 91.25(0.91) then is Kurunthancode 91.87(0.92), Thiruvattar 92.40 (0.92) Ihe Kanniyakumari district average is 93.65. However 80% is the male and female literacy rate.The share of female children of 0 – 6 years ranges in all the blocks are above 48%. Killiyoor has the least rate 48.65(0.49) followed by Thiruvattar at a better rate of 48.78 (0.49). The lowest share of male children is found in Rajakkamangalam 50.43(0.50) next least block is Kurunthancode 50.72(0.51), Melpuram 50.76 (0.51). The female elected representative in the Kanniyakumari district ranges above 36%. Kurunthancode has the highest rate of 39.33(0.39) then Thuckalay 38.82 (0.39), Melpuram 37.65(0.38). The least share of the female elected representative is in Rajakkamangalam 33.86(0.34) and the next Munchirai 34.63 (0.35), Agastheeswaram 34.86(0.35), Rajakkamangalam 33.86 (0.34) The share of the male elected representative in the Kanniyakumari district ranges above 63.79. The least share is found in Kurunthancode 60.67(0.61) and the next least block Thuckalay 61.18 (0.61), Melpuram 62.35 (0.62).

Labour

The labour indicators constitute female and male worker, participation rate, female and male participation rate in non-agri sector and female and male agri wage rate. In the female worker participation rate, Thovalai 20.55 (0.21) and Melpuram 18.31 (0.18), whereas Rajakkamangalam has 14.80 (0.15) In the district average 16.42. In the male participation rate, Rajakkamangalam has 67.22 (0.67) and Thiruvattar 58.11(0.58), Thovalai 57.99(0.58). The least is Thuckalay 51.63(0.52). Average 56.63The female worker participation rate in non-agri sector, Killiyoor has 95.62 (0.96) and Rajakkamangalam of 94.98 (0.95), Munchirai 94.88 (0.95). The least is Thovalai 72.97 (0.73) and Agasteeswaram 84.39 (0.84) and Thiruvattar 89.99 (0.90). The Average is 90.95.The male worker participation rate in non-agri sector Rajakkamangalam has 92.64 (0.93) then Munchirai 89.53(0.89) ,Kurunthancode 88.55 (0.90) and the least is Thovalai 71.85 (0.72) and Agasteeswaram 79.60 (0.80) and Thiruvattar 81.00 (0.81). The district average is 85.81.In female agriculture wages, Thiruvattar and Melpuram have a common value of 250 (1.00). The lowest rate is in Kurunthancode 150 (0.15) and Thovalai 175(0.35). In male agriculture wage rate, the highest rate is 400 (1.00) in Thuckalay, Thiruvattar, Kiliyoor, Melpuram and Munchirai and 350 (0.62) in Agasteeswaram, Kurunthancode and Thovalai and 300 (0.23) in Rajakkamangalam. The status of female health, Killiyoor - 0.50, Melpuram-0.49 and Kurunthancode- 0.44. Thovalai, Thuckalay and Thiruvattar 1.00. In the male health indices all the blocks have an equal ranking of 1. Female empowerment indices show the highest in Kurunthancode and Thuckalay 0.56, Melpuram 0.55 and lowest in Thovalai and Munchirai 0.53. The male health indices are highest in Rajakkamangalam 0.69 and Agasteeswaram, Thovalai, Killiyoor 0.68 and lowest in Kurunthancode and Thuckalay 0.66.In female LF, the highest is in Melpuram 0.55 followed by Thiruvattar 0.53, Munchirai 0.45 and lowest in Kurunthancode 0.27 and Thovalai 0.37, Agastheeswaram, Rajakkamangalam, Thuckalay 0.43.In male LF, the highest is in Munchirai and Killiyoor 0.79, Thiruvattar 0.78 and lowest in Rajakkamangalam 0.52 and Thovalai 0.64 and Agasteeswaram 0.65.

In 2013-14, for ordinary work, female agriculture wage rate is 300 and minimum 275. For male it is 400 and minimum is 300. The district average for MMR is 30.Iinstitutional delivery is 100%. Female literacy is 89.90. Male literacy is 93.65. Female children school enrollment it is 49.08 and male children is 50.91. Female elected representatives in RLBs and ULBs, 36.21and male elected representatives is 63.79. Female agriculture workers participation rate, it is 4.48% and for male 77.19%.remaining 22.81% are female workers.

Employment: Female Work Participation:

A woman in the Kanniyakumari district has less poverty and has developed skills to improve her livelihood. On the other hand, it has generated the productivity of secondary sector that boosts the economic growth substantially. It needs to overcome inequality through improving the lives of the poorest and marginalized community women.

Education is the key to economic empowerment and is indispensible to strengthen the bonds that hold women in communities and societies. It has empowered women to overcome discrimination. Education has helped the women to understand democracy, promotes tolerance and trust, and motivates women to participate in politics and claim for leadership positions.

Table 6.2 gives details of Female worke participation in Kanniyakumari district is 16.42% in agriculture sector. At the block level, there is minimum level of women participation in agriculture the Rajakkamangalam (14.61%) and maximum participation could be seen in Thovalai (20.55%).It shows that female work participation is less. Education on the other hand has made an absolute shift in worker from agriculture to service and secondary sector. Within agricultural sector also, they cultivators became agricultural labourers.

Table 6.2 : Female workers Participation in Agriculture Sector and Non-Agriculture Sector in Kanniyakumari district

S. No.	Block / District	Female Workers in Agricultural Sector and Non-Agriculture Sector		
		Total Female	Main, Marginal (HH+OT) in Female Workers	% of Female Workers in Agri. Sector
1	Agasteeswaram	88406	14965	16.93
2	Thovalai	60870	12509	20.55
3	Rajackamangalam	191376	27958	14.61
4	Kurunthencode	110395	17281	15.65
5	Thuckalay	105484	16283	15.44
6	Thiruvattar	88644	14802	16.70
7	Killiyoor	100460	18420	18.34
8	Munchirai	100723	16898	16.78
9	Melpuram	97671	15875	16.25
	District	944029	154991	16.42

Source : Census of India, 2011.

The typical work for female in agriculture is limited to less skilled jobs such as sowing, transplanting, weeding and harvesting. The wages are very less and they earn only 70% of men's wages. Although women are the backbone of agricultural production, they are not

formally recognized as full-fledged farmers but considered as 'farm labourers' and 'unskilled labour'. Subsequently this has made them go in search of other types of work neighbouring towns in cities and in industrial sector.

The government programmes and policies should be reinforced to meet the needs of women especially who are in the restricted area. women has varied benefits towards their empowerment ranging from health, self -defence, political participation, leadership, entrepreneurship, to democracy and governance and employment opportunities. Education is vital to eliminate malnutrition in the long run. Educating mothers ensure that their children receive best nutrients to prevent them from illness and to know more about health and hygiene.

Box 6.2 : Self Help Group and its Achievement

A Self Help Group is a group of **12-20** women or men who work for the capacity building of themselves with a age limit from 18-60Yrs. The preference to the poorest women amongst the target group , with focus on widows, divorcees, deserted, handicapped women and women belonging to SC/ST and other socially backward communities. The goal of Self help groups (SHG) is to become effective agents of change. They serve as a platform to establish the banking with the poor which is reliable, accountable and a profitable business**.** SHG also enables livelihood opportunities for village women through micro–credit with the existing banks in the area.

Mahalir Thittam has created awareness among women of their own strengths, resources and ability to face risks. The project implementation unit and the NGOs serve as mere facilitators and advisers in this process, leaving the decisions to be taken entirely for those who are participating.The self help group was formed in 2007 within the village panchayat, town panchayat, youth groups. Revolving fund is the main theme of the programme. The number of Self help groups in 2007-08 are 441 comprise 8820 members. Total amount of Rs. 127.500 is provided as bank loan in the village panchayat and Rs.470.000 is provided in the town panchayat. 24.50 lakhs is provided as revolving fund. The total number of groups has increased to 1450 in the year 2011-12 comprising 29000 members. 80.56 lakhs is the revolving fund available for self help groups. Training and Capacity building on entrepreneur development training is provided with an amount of 4.90 lakhs, youth skill training program was provided for 285 members in the year 2012-13 and bulk loan of Rs. 306.00 lakhs is provided. Exhibitions and stall are conducted at colleges for selling those products produced by the SHGs Rs.2.75 lakhs is the income generated in the year 2012-13.

The various schemes in Kanniyakumari district are Revolving Fund, Credit linkage, Entrepreneur Development Training, Youth skill training, Bulk loans. About 2478 beneficiaries have been trained through entrepreneurship and 1314 from youth skill training in the district. A total saving of 124.74 crores shows greater achievement.

Access over Resource and Credit

Tamil Nadu Women's Development Project, funded from International Fund for Agricultural Development (IFAD), is popularly known as "Mahalir Thittam". This project is intended to promote economic development and social empowerment of poor women through a network of Self-Help Groups formed with the active support of NGOs. In Kanniyakumari district, the

government has motivated and initiated women in providing various programmes such as Revolving Fund, Credit linkage, Entrepreneur Development Training and Programme for the uplift of the women status through the economic development programmes and community based livelihood programmes, through various loans and subsidy schemes.

Female Agricultural Wage Rate

Discriminatory practices in the labour market are reflected in the wages of women workers. Female agricultural wage rate is one of the indicators that promote the idea on gender discrimination. Agricultural daily wages are generally low, though they vary from type to type of agricultural operations (sowing, weeding, harvesting etc.).

Table 6:3: Female Agricultural Wage Rate in Kanniyakumari district

Sl. No.	Block	Female Agricultural Wage rate in Rupees
1	Agatheeswaram	200
2	Thovalai	175
3	Rajakkamangalam	200
4	Kurthencode	150
5	Thuckalay	200
6	Thiruvattar	250
7	Killiyoor	200
8	Muncharai	200
9	Melpuram	250
	District	202.78

Source: Department of Statistics, 2014

Table 6.3 gives details of Female Agricultural Wage Rate in Kanniyakumari district.The average wage rate in the district is Rs.202.78. At block level, wages of women are high in Thiruvattar and Melpuram(Rs.250) and lowest wage is reported in Kurthencode with Rs.150 per day. It shows that wages varies in paddy cultivation, rubber plantation, banana cultivation works. This discrimination exists not only in terms of wages but also in terms of access to employment.

Trends in Political Participation

Table 6.4: Memberships in Assembly and Local Bodies in Kanniyakumari district

Sl. No	Name	Male	Female	Total	% of Female Participation	% of Male Participation
1	Agasteeswaram	185	99	284	34.86	65.14
2	Thovalai	150	82	232	35.34	64.66
3	Rajackamangalam	168	86	254	33.86	66.14
4	Kurunthencode	162	105	267	39.33	60.67
5	Thuckalay	145	92	237	38.82	61.18
6	Thiruvattar	152	84	236	35.59	64.41
7	Killiyoor	142	78	220	35.45	64.55
8	Munchirai	151	80	231	34.63	65.37
9	Melpuram	154	93	247	37.65	62.35
	District	**1413**	**802**	**2215**	36.21	**63.79**

Source: 2011 Gazette notification dated 8.9.2011 &12.9.2011 for RLB and notification for town panchayat

Table 6.4 data depicts the membership of women in State Assembly and local bodies and the participation of women in them. In this district, the membership of male is 1,413 and female is 802. Therefore, the female participation is 36.21. Kurunthancode has the highest participation of 39.33 followed by 38.82 in Thuckalay and 37.65 in Melpuram and not less than 33.86 in other blocks. Women empowerment, education, and the influence of SHG are the main reasons. Voluntary participation of women and a mindset to involve in the society and encouragement by the society are the other reasons.

Conclusion

This chapter explores the development of women in the Kanniyakumari district to prove the gender quality and women's empowerment. It also explains the women's participation through self-help groups and their role in rural and urban areas. Women's general education and literacy rate are important. They have to reach their full potential and become empowered. The literacy and education contribute to empowerment and complement the financial independence of women. The success stories of Self help groups are appreciable due to the sincere efforts made by the government. The education system has promoted the literacy rate of women boosting their confidence. In addition to education, there is a need for family counselling, pre-marital counselling, women's rights, community problems, political and common family problems can foster a sense of solidarity and empower women both as individuals and as a group to address their problems. A separate syllabus pertaining to Women Studies, Family Structure and Counselling can be incorporated at school and college level education.

CHAPTER 7

SOCIAL SECURITY

Chapter

7

Social Security

Introduction

Ageing of Population has received an increasing attention in recent years, particularly in the developing countries. This is a phenomenon characterized through declination in fertility levels and continued increase in the levels of the expectancy. These two variables are producing fundamental changes in the age structure of the population of many societies in most parts of the world and that is the mark of the demographic transition. This transition outlines shift from high levels of mortality and fertility to low levels, and is characterized through a rapid drop in mortality and slower decline in fertility. After reaching low levels of both mortality and fertility, population ageing or rectangularisation of population age structure typically occurs.

However, according to United Nations (1988), the most dominant trend from the mid 1980s to the first half of the 21st century, the more and the less developed regions will be having the ageing of populations. In developed countries, where the demographic transition started earlier, the elderly population already forms a significant proportion of the total population; in the developing countries, ageing issues have only recently begun to emerge as a cause of concern. This is because of the proportion and the numbers of elderly persons in most of these countries are still quite low.

In mid 1995, the world's elderly population (defined as persons 60 years and older) was estimated as 542.7 million, nearly equalling Africa's population in 1985. One in eleven of the world's inhabitants are at least 60 years of age. Fifty five percent of the world's elderly persons are women, underscoring their lower levels of mortality as compared to men (Concepcion 1996). Over half (52 percent) of the world's senior citizens dwells in Asia. However, it was projected that Asia would have the majority of world's elderly population at the turn of the 20th century. The wide diversity of cultures and pace of development and the disparity in the process of ageing in different regions of India, the focus will be on demographic and health dimensions for which various indicators such as changes in age

structure, rural-urban difference in sex ratio, life expectancy, marital status and dependency ratios has been examined along with causes of death of the elders.

Demographic profile of the Aged

Table 7.1 : Demographic Profiles of Aged in Kanniyakumari district

Sl. No.	Block wise/District	Total population (2011)	Population aged above 60+			%
			Male	Female	Total	
1	Agastheeswaram	163842	11588	11602	23190	14.15
2	Thovalai	120926	10051	10231	20282	16.77
3	Rajakkamangalam	388333	12754	12581	25335	6.52
4	Kurunthencode	220818	15657	14846	30503	13.81
5	Thuckalay	209207	15484	13149	28633	13.69
6	Thiruvattar	176681	10432	10201	20633	11.68
7	Killiyoor	171727	13310	12193	25503	14.85
8	Munchirai	199967	12077	11543	23620	11.81
9	Melpuram	218873	18400	18105	36505	16.68
District Total (Including ULB)		**1870374**	**119753**	**114451**	234204	12.23

Source: A.D. Statistics, Dept.of Statistics, K.K. Dist, 2014

In Tamil Nadu, the projected population of the 60+ aged during the year 2011 was pictured as 75, 80,000. In Kanniyakumari district, total population was 18,70,374 and aged population was 2,34,204 (12.23%).The number of aged total males population is 1,19,753(6.40%) and total number of aged female population is 1,14,451(6.12%).

The percentage of the age group of sixty plus , shows 4.23% for 60-64 age group; 3.14% for 65-69 age group; 2.19% for 70-74 age group; 1.32% are in 75-79 age group and in the age group 80 plus, 1.30 % of the aged are living in Kanniyakumari district. While listing the blocks of Thovalai, Melpuram, Agasteeswaram and Killiyoor, the percentage is high in aged population 60+. Rajakkamangalam, Thiruvattar, Munchirai blocks have below 14% of aged population. The block where the old age population is high needs more focus on financial support, health care including mobile health care facilities.

Case Study 7.1: Issues pertaining to the Aged of Kanniyakumari district

Introduction: The elderly in the Kanniyakumari district are suffering due to separation or loneliness resulting from urbanization and emergence or increase of nuclear families. This study explores the gender differences of the elderly population in their socio-demographic, economic and health characteristics in Kanyakumari district. The data reveals that most of the rural elderly males are older and married, while most elderly females are widowed. Elderly males mostly live with their spouses and elderly females are taken care by their children. Marital status is found to be the most positive significant variable. The elderly suffer either not receiving sufficient economic support, physical support, or both to some extent. This is due to a rising cost of living, less or no reliable employment opportunities in the village, and increasing nuclear families.

Findings:

- The aged groups in Kanyakumari district spend much for the family, house construction and to maintain their status in the society. But the children fail to take care of their parents in return. They are left alone deprived of health care, love and attention.

- The elderly persons have no recreation, entertainment or refreshment which makes them more stressed out bringing more diseases. There is a wide gap between the family members and lack recognition.

- Due to breaking down of joint family the elders are forced to live separately or in homes for the aged. These elders face major financial problems and lack of security..

- The elderly suffer from more than one disease process at a time like, cancer, blood pressure, diabetes, depression, asthma, stroke, heart diseases, kidney problems, impairment of vision, bone joint problem, nervous problem, impairment of hearing, sleeplessness, liver problem, thyroid, uterus and piles etc.,

Need for their economic well-being and satisfaction

It is well realized that the elders suffer because they do not receive sufficient economic support or moral support from the children residing outside the village. Rural area needs to be improved with opportunities. This analysis shows that the elderly in the study villages suffer, the rising cost of living, less or no reliable employment opportunities in the village, and increasing nuclear families either by not receiving economic support, physical support, or both.—even in villages.

Suggestions to improve the current scenario

There is an urgent need for geriatric care and health care centres as separate units specialized infrastructure in addition to, hearing and walking aids, toilet chair, bed sheets, spectacles, wheel chairs etc., District level Recreation centers should have library and games. Transport will be an added advantage in day care centres.

Old age homes should be controlled via the district authority and there should be no more old age homes in Kanyakumari district. Instead, there should be day care homes and government authorized home for every district with mandatory requirements of the need for the elders. There should be counselling for the family members to handle the elders. Government can avail the facilities of the existing religious volunteers and movements to execute the same. In essence, older people are the heartbeat of our communities, and they give us the energy and motivation to move forward and contribute to our nation's strength, success and prosperity.

Financial Security

Table 7.2 gives details of financial assistance to old age in kanniyakumari district. The target population of 60+ was 109646 in 2001, and 234204 in 2011. It has increased from 2001 to 2011 in the district.The Government of Tamilnadu has implemented the pensioner schemes through the Revenue Department to provide social security for the aged and destitute persons and the coverage has increased over the period since 2001. There are 65,364 pensioner benefitted through different schemes as on 31.3.2015. The schemes, such as Indira Gandhi National old age pension scheme, Indira Gandhi National Disability Pension scheme, Indira Gandhi National widow pension scheme, Destitute Differently abled pension scheme, Destitute widow pension scheme, Destitute / deserted wives pension scheme and Unmarried women pension scheme.

Table 7.2 Financial Assistance to Old Age People

Sl.No.	Name of the Scheme	Coverage		
		2008-09	2012-13	Upto 31.3.2015
1	IGNOAP	8069	18975	28287
2	IGNDPS	138	1016	1861
3	IGNWPS	794	3996	9111
4	DAPS(PHP)	1177	5893	6996
5	DWP	2391	3162	9774
6	DDWP	774	1257	2840
7	UWP	647	1345	1824
8	FOAP	127	128	3558
9	DALP	239	877	-
10	SOAP	40	57	75
11	SWP	6	10	24
12	SDDWP	5	5	9
13	SPHP	2	4	5
14	SMP	4	4	-
Total		14413	36729	65364

Source: Social Security Pension Scheme, Collectorate, K.K.District.

With advancing age, the elders are afflicted through perennial health problems and chronic diseases and illnesses sometimes of a multiple nature. As a result, their functional capacity often gets affected due to the impairment of vision, hearing and movement. Hence they require special medical and nursing care and long term management illnesses at home and in medical institutions. Major diseases like heart diseases and diabetes among the elderly are more prevalent in urban areas than in rural areas, perhaps due to urban lifestyles. There are also age-specific diseases which affect the elderly such as dementia. In addition, the high

prevalence of multiple co-existing physical conditions can lead to poor mental health outcomes such as depression, anxiety and even suicide.

Report on registration and disposal of maintenance claims under the maintenance and welfare of Parents and Senior Citizen Act-2007: out of the total 65 cases in the year 2013, only 13 cases are settled through conciliation officers and the remaining cases are yet pending. It shows the need for care and concern for the aged and to fit into the family structure. It is an advantage for them to meet their daily requirement, mainly basic medical and health needs and other routine family responsibilities and necessities.

Amma Thittam

A new scheme named 'AMMA Thittam' introduced by the Hon'ble Chief Minister of Tamil Nadu was started on 6.4.2013 in Parakkai village of Agastheeswaram taluk in Kanniyakumari district and is being conducted continuously on every Tuesdays covering all revenue villages within a six month time.

As on 31.7.2013, the data shows that before 2011, the beneficiaries were 20,662. From May 2011-July 2013 – beneficiaries are 68,116. 47,454 new cases are sanctioned. Hence the scheme is beneficial to the public in order to rectify their issues at a faster pace and result in lifestyle upliftment, social security and economic welfare.Out of the total of 1,08,533 petitions received, 45,566 are sanctioned and 26,717 are pending for the process.

Differently Abled Programmes in Kanniyakumari district

Table 7.3 gives details of assistance to differently abled persons in kanniyakumari district. The entire differently abled population in the Kanniyakumari district is 31,996, out of which 17,739 are males and 14,270 are females. In this 787 are blind, 1,592 have low vision, 3,367 suffer from hearing impairment, 16,941 have locomotor disability, 6,292 suffer from mental retardation, 639 have cerebral palsy, 1,478 have multiple disability and 832 persons have mental illness. Free bus pass for the disabled are issued for 1,893 according to 2012-13 data.

Table 7.3 Assistance to Differently Abled

Name of the Block	Total blind			Low Vision			Hearing Impairment			Locomotor Disability			Mentally Retarded			Cerebral palsy			Multiple Disability			Mental Illness			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Thovalai	7	8	15	35	37	72	91	70	161	970	657	1627	304	232	536	6	4	10	36	28	64	14	9	23	1463	1045	2508
Rajakkamangalam	42	34	76	78	72	150	107	130	237	794	655	1449	266	197	463	21	10	31	33	21	54	17	15	32	1358	1134	2492
Agastheeswaram	30	26	56	204	137	341	209	157	366	1188	1070	2258	267	216	483	17	14	31	7	4	11	61	54	115	1983	1678	3661
Nagercoil(M)	28	18	46	61	36	97	236	207	443	815	571	1386	230	224	454	22	14	36	32	28	60	22	6	28	1446	1104	2550
Kuzhithurai (M)	6	7	13	7	3	10	29	21	50	63	33	96	56	37	93	5	9	14	11	4	15	2	3	5	179	117	296
Munchirai	32	17	49	31	18	49	102	91	193	297	275	572	414	421	865	52	29	81	59	33	92	23	9	32	1040	893	1933
Killioor	62	33	95	58	46	104	257	265	522	2218	1481	3702	555	578	1133	72	27	101	85	42	127	121	94	215	3428	2571	5999
Melpuram	37	22	59	46	40	86	170	123	293	953	504	1457	77	73	150	27	33	54	50	46	96	102	67	169	1462	902	2354
Kurunthancode	16	16	32	67	54	121	101	89	190	986	616	1602	282	318	600	21	75	54	71	60	131	21	19	40	1611	1234	2845
Thiruvattar	52	39	91	156	100	256	100	105	205	840	616	1456	509	351	860	88	21	163	179	410	589	85	46	131	2009	1748	3754
Thuckalay	120	130	250	140	135	275	305	375	680	500	537	1037	244	217	461	22	10	43	110	110	220	16	17	33	1457	1542	2999
Colachel (M)	1	1	2	4	7	11	4	5	9	70	65	135	64	82	146	3	5	13	8	8	14	3	2	5	155	180	335
Padmanabapuram (M)	3	0	3	6	14	20	10	8	18	92	72	164	28	20	48	3	280	8	1	4	5	2	2	4	148	122	270
District	**436**	**351**	**787**	**893**	**699**	**1592**	**1721**	**1646**	**3367**	**9786**	**7155**	**16941**	**3296**	**2966**	**6292**	**359**	**531**	**639**	**795**	**683**	**1478**	**489**	**343**	**832**	**17739**	**14270**	**31996**

Source: Assistant Director, District Disability Welfare, K.K.District.2014.

Disabled – Schemes

1.4.2013 to 31.3.2014 – Achievements: Disability Welfare Board:

- 18 members received Rs. 7, 50,000.
- 2143 disabled received Rs.27, 05,000 for various welfare programmes.
- 4233 received identity cards.
- 2913 received free bus concession cards from Transport department during the campaign conducted.
- 680 disabled received Rs.60,04,025 accessories.
- Severely disabled, mentally retarded and muscle dysfunction are the categories that receive Rs.1000 per month. 4,597 people are under this category.At mentally retarded home for male named Manolaya, 14 men are taken care of.

Box 7.1: Marriage and Maternity Assistance Programme

Marriage Assistance Scheme:

- For the year 2011-12 in the Moovalur Ramamirtham Ammaiya Ninaivu Marriage Assistance Scheme, 10th pass – Rs.25,000 + 4gms./ Degree – 50,000 + 4 gms.
- The Total amount spent on the General category under this scheme is Rs.23,83,95,000 for 7771 beneficiaries.
- The amount spent for the SC category was Rs.45,25,000 for 151 beneficiaries.
- The amount spent for ST category was Rs.4,75,000 for 16 categories.
- 2011-13: 10808 gold coins / Rs. 451120000
- 2013-14: 5929 gold coins received./ Rs. 222600000
- Dr.Dharmambal Ammaiyar Ninaivu Widow Remarriage Assistance Scheme: same
- In the year 2011-12, the amount allotted was Rs.2,25,000 out of which Rs. 2,20,000 spent for 8 beneficiaries.
- 2011-13: 6 gold coins / Rs.245000
- 2013-14: 7 coins / Rs.175000
- E.V.R. Maniammaiyar Ninaivyu Marriage Assistance Scheme for Daughter of poor widows:
- In the year 2011-12 under the general category, the amount allotted was Rs. 1,06,25,000 which was spent on the whole for 388 beneficiaries.
- For the SC category, the amount allotted was Rs. 1,75,000 which was spent for 7 beneficiaries.
- 2011-13: 340 gold coins / Rs. 14275000
- 2013-14: 145 gold coins / Rs. 4000000
- Annai Theresa Ninaivu Marriage Assistance Scheme for Orphan girls:
- In the year 2011-12 under the general category, the amount allotted is 20,20,000 for 75 beneficiaries.
- Under the SC category, the amount allotted was 25,000 for one beneficiary.
- 2011-13: 41 gold coins / Rs.2695000
- 2013-14: 15 gold coins / Rs. 500000

Box. 7.1 Cont…..

- Dr. Muthulakshmi Reddy Ninaivu Inter-caste Assistance Scheme:
- In the year 2011-12, under the general category, the amount allotted was Rs. 6, 75,000 out of which Rs. 6, 55,000 was spent for 28 beneficiaries.
- Under the SC category, the amount allotted was Rs. 16, 00,000 out of which Rs. 15, 85,000 was spent for 64 beneficiaries.
- 2011-13: 43 gold coins/ Rs.3540000
- 2013-14: 50 gold coins / Rs. 1875000
- Girl Child Protection Scheme:
- 2012-13: 1 girl: 2525 beneficiaries. 2 girls: 114 beneficiaries.
- 2013-14: 1 girl: 2004; 2 girls: 54
- Sathiyavanimuthu Ammaiyar Ninaivu Free Sewing machine: 2012-13: 125 beneficairies.
- Backward class welfare board: 132 machines
- Adidravidar Welfare board: 20 machines.
- Total: 277 beneficiaries.
- In 5.5.2015 distribution of finance assistance 10 schemes total amount allocated Rs.223500000 and 5787 gold coins distributed to 5731. In this, number of graduates are 2244.

For 10th qualification, an amount of Rs.25,000 and for the graduate Rs.50,000 is provided. In all the marriage schemes, an additional 4gm of gold is given for the women.

Crimes against Women

Table 7.4 gives the magnitude of crime against women in kanniyakumari district. According to the DCRB report of crimes against women from the period of 2007 to 2014 a total of 2,532 cases have been recorded. Out of them, rape cases recorded are 102 during the period 2007-2014, cases of molestation are 91 and an higher number of cases of cruelty by husband recorded are 658 and 277 cases of kidnapping are recorded in the Kanniyakumari district. But the majority of cases recorded during the period are under women harassment Act and 34 cases recordes related to dowry deaths. Kanniyakumari district has been known for its dowry harassment and deaths and cruelty by husbands.We find that the total number of cases of crime againt women have increased throughout the period from 2007 to 2014 except in the year 2009.

Table 7.4 Crimes Against Women

Sl. No.	Category	Number of cases							
		2007	2008	2009	2010	2011	2012	2013	2014
1	Rape	11	11	18	13	11	12	12	14
2	Molestation	11	24	20	10	7	11	5	3
3	Cruelty by Husband	70	71	61	93	89	100	118	56
4	Kidnapping	22	42	31	57	49	33	30	13
5	4 of Women Harassment Act	45	70	74	102	137	230	316	396
6	Dowry Death	7	6	9	2	3	4	1	2
District		**166**	**224**	**213**	**277**	**296**	**390**	**482**	**484**

Source: DCRB, Department of Police, K.KDistrict, 2014.

All these crimes occurred inspite of increase in female literacy and women empowerment during this period. The standard of living and prevalence of psychosocial problems have given way to increase in such crimes. Deviation and misconception of women education have been the major cause in creating a drift among the families affecting the structure. The total number of cases has increased after 2010. Women harassment has increased during 2008 onwards. Cruelty of husband has decreased. Awareness programs and workshops can be conducted by the police department with the help of college students and SHGs through documentaries; street plays also can improve this situation.

Conclusion

The security of the aged is the strength of the country that improves the life expectancy and family as well as social structure which leads to the human development of the nation. Likewise, the security of the disabled and destitute women means a healthy scenario for mankind that ensures a developmental aspect in the country. So, the Kanniyakumari district shows more prospects in such efforts bringing in new schemes and funds to help such bases and develop the district.

The success of Amma Thittam has shown notable improvement making it beneficial to the public in order to rectify their issues at a faster pace and result in lifestyle uplift, social security and economic welfare. The schemes for the aged, destitute widows and disabled have proved to be beneficial in the Kanniyakumari district. The marriage assistance scheme has benefitted and apart from this others have received money and gold according to the expected criteria to receive support.

The standard of living and prevalence of psychosocial problems have resulted in increase the crimes against women. Deviation and misconception of women education have been the major causes creating a drift in the family which is a basic structure of the society.

CHAPTER 8

INFRASTRUCTURE

Chapter
8
Infrastructure

Introduction

Infrastructure plays a crucial role in promoting the economic growth and contributes to reduction of economic disparities, poverty and deprivations in a developing country. To bring equitable development and social empowerment there is a need to improve the education, health services, water and sanitation, tele communication, road network and electricity. It is essential to realize the full potential of the growth impulses through the economy. It is very important to improvise the "Human Development Index" for the need to provide the basic amenities of life. Human development is associated with knowledge, health, drinking water, sanitation and shelter. Social infrastructure is used to include those facilities to develop the quality of human life. It heavily relates the human development, infrastructure and the economic development .All those directly or indirectly contribute to the productivity.

Road

Table 8.1 gives details of the total length of the road in the Kanniyakumari district. Out of the total length of 5558.959 kms in the district, 760.788 kms constitute mud, 521.831 kms constitute WBM, 3309.322 kms constitute BT, and 967.029 kms constitute CC. In the panchayats, road length is 425.00 kms, panchayat union road length is 5681.150 kms, highways – 1211.604 kms, national highways – 63.600 kms. At the block level analysis, we find that Munchirai has the highest road length 440.365 kms. Rajakkamangalam block has a road length of 282.495kms. The block with lesser road length is Agastheeswaram 121.21 kms and the next is Kurunthancode 149.47 kms. At the municipality level, Colachel has the minimum road length of 30.94 kms followed by Padhmanabapuram 43.48 kms. The national highways have a road length of 78.60 kms in the Kanniyakumari district whereas the highways cover a road length of 1190.61 kms. The town panchayat in the district covers a length of 1831.76 kms. Nagercoil Municipality covers a road length of 418.44 kms.

Table 8.1 Distribution of Total Road Length

(in Kms.)

Sl. No	Block wise / urban local bodies/ District	Total length	Mud	WBM	BT	CC	Total
1	Agastheeswaram	121.21	7.11	6.49	103.43	4.18	121.21
2	Thovalai	148.759	8.64	7.751	112.195	20.173	148.759
3	Rajakkamangalam	282.495	19.51	7.38	253.83	1.775	282.495
4	Kurunthancode	149.47	5.18	0.6	135.715	7.975	149.47
5	Thuckalay	158.62	27.75	2.79	97.84	30.24	158.62
6	Thiruvattar	254.05	47.12	6.04	180.76	20.13	254.05
7	Killioor	177.32	14.645	6.02	140.683	15.972	177.32
8	Munchirai	440.365	7.57	42.72	381.06	9.015	440.365
9	Melpuram	246.865	18.61	13.92	208.755	5.58	246.865
10	Nagercoil Muncipality	418.44	165.38	6.79	179.17	67.1	418.44
11	Padmanabapuram Muncipality	43.48	2.85	0	20.72	19.91	43.48
12	Colachel Muncipality	30.94	1.51	0	8.12	21.31	30.94
13	Kuzhithurai Muncipality	41.975	1.712	0	20.714	19.549	41.975
14	Town Panchayat	1831.76	433.201	421.33	253.12	724.12	1831.76
15	High ways	1190.61	0	0	1190.61	0	1190.61
16	National High ways	78.60	0	0	22.60	0	78.60
	District	5558.959	760.788	521.831	3309.322	967.029	5558.959

Source: TNRD Web Site/Municipality/ Town Panchayat/ High ways, Department, K.K.District, 2014.

The town panchayat covers length of 433.201 kms of mud road which is the maximum in the Kanniyakumari district. The second maximum mud road length is Nagercoil Municipality with 165.38 kms. The minimum length covered with mud road is Colachel municipality length with a 1.51 kms and the next is 1.712 kms in Kuzhithurai municipality. The maximum length covered with WBM is the town panchayat with 421.33kms followed by Munchirai block with 42.72.kms. The maximum length covered through BT is the highways 1190.61kms. The next is the town panchayat that covers BT length of 253.12 kms. The town panchayat in the district has the maximum length covered with CC which is 724.12kms.

Electricity

Table 8.2 shows the status of electrification. In the entire Kanniyakumari district (2013-14) 104 revenue villages and 2,148 hamlets have electrictiy. In 95 village panchayats 48,325 street lights are available.Among them, 46,223 (96%) street lights are there in 55 towns with a population of 18,70,374. Rajakkamangalam has the maximum number of streetlights of 23,387 covering a population of 3,22,457 which is the maximum in the Kanniyakumari district. The second major block is Kurunthancode which covers larger population of 2,44,045 with 9,831 street lights. The minimum number of street lights (3,686) are in Agastheeswaram block covering a population of 1,63,842 . Thuckalay has a higher population coverage of 2,30,549 and contains only 4,621 street lights. The types of street lights are

Mercury vapour, Sodium vapour, Tubelights, CFL, LED and Solar. More concentration is needed on Villukuri, Thiruparappu, Kollamcode and Nallur for street lights among the town panchayat area.

Table 8.2 Status of Electrification

(in Nos.)

Sl. No	Block wise/ District	No of Revenue Villages	No of Hamlets	No of Towns	Pop. Covered	No of Street lightes
1	Agastheeswaram	13	83	10	163842	3686
2	Thovalai	13	162	4	120926	4070
3	Rajakkamangalam	15	173	3	322457	23387
4	Kurunthancode	9	123	9	244045	9831
5	Thuckalay	5	97	8	230549	4621
6	Thiruvattar	16	158	6	176681	5342
7	Killioor	8	78	6	171727	5342
8	Munchirai	15	171	3	206698	8298
9	Melpuram	10	111	6	233449	9901
10	Town Panchayath	0	992	0	-	52647
District Total (Including ULB)		104	2148	55	1870374	127125

Source: BDO(VP)/AD(TP)/Municipality Commissioners, K.K.District.

There are five revenue units, two at Nagercoil, one at Thuckalay and two at Kuzhithurai which are responsible for collection and accounting of revenue. All the existing 5 towns, 66 Villages, 2,490 hamlets and 371 Adi-dravidar colonies in the Kanniyakumari district have already been electrified. There are two power houses namely Hydro Kodayar Power House I and Kodayar Power House II supplying electricity to Kanniyakumari district.

Communication System

Telecommunication has evolved as a basic infrastructure like electricity, roads and water and has also emerged as one of the critical components of economic growth required for overall socio-economic development of the country. The Indian telecom sector has registered a phenomenal growth during the past few years and has become second largest telephone network in the world, only after China. A series of reform measures by the Government, the wireless technology and active participation of private sector have played an important role in the exponential growth of telecom sector in the country. National Telecom Policy-2012 (NTP-2012) announced that during the year with the primary objective of maximizing public good, the government would make available affordable, reliable and secure

telecommunication and broadband services across the entire country.

Table 8.3 shows the details of telecommunication and networks in the Kanniyakumari district and the corresponding population covered. The telephone exchanges of BSNL established during 2007 to 2013 are 44. The number of PCO's has decreased from 4,494 in 2007 to 2,170 in 2013. This shows the increased usage of mobile phones. A total population of 18,70,374 is covered by telecommunication. The number of mobile connections that are covered through various networks connections are ; Aircel 2,16,000 connections, Airtel 3,05,000, Vodafone 2,18,000, Docomo 72,000, Reliance 42,000, Idea 35,000 connections and MTS 28,737 connections. This shows positive growth in the field of telecommunication.

Table 8.3 Telecommunication

(in Numbers)

Sl. No	Kanya Kumari District	Years	No.of Tel. exchange	No.of PCO	No. of line	No. of connection (Mobile)	Number of Mobile phone towers
1	BSNL	2007-08	44	4494	112001	-	92
2	BSNL	2008-09	44	5836	101561	-	137
3	BSNL	2009-10	44	4631	93483	-	154
4	BSNL	2010-11	44	3857	82025	-	195
5	BSNL	2011-12	44	2625	81841	200147	210
6	BSNL	2012-13	44	2170	79979	93313	218
7		2013 (19th Nov)	-	-	-	37183	-
8	Air Cel	2012-13	-	-	-	216000	-
9	Air Tel	2012-13	-	-	-	305000	-
10	Voda fone	2012-13	-	-	-	218000	-
11	Docomo	2012-13	-	-	-	72000	-
12	Reliance	2012-13	-	-	-	42000	-
13	Idea	2012-13	-	-	-	35000	-
14	MTS	2012-13	-	-	-	28737	-

Source: BSNL Office & Managers, Regional Office, K.K.District, 2014.

Financial Institutions

Table 8.4 Commercial Banks and Cooperative Banks

(in Numbers)

Sl. No.	Block wise / District / State	2013-14			
		No. of Co-operative Societies	No. of Members	Commercial Banks	No. of Account Holders
1	Agasteeswaram	45	68102	20	91,000
2	Thovalai	12	48520	15	69,000
3	Rajackamangalam	14	24854	14	83,000
4	Kurunthencode	24	59661	16	99,000
5	Thuckalay	26	51992	18	1,06,000
6	Thiruvattar	19	52307	13	1,01,000
7	Killiyoor	20	52640	13	1,64,000
8	Munchirai	12	35491	21	1,06,000
9	Melpuram	15	47647	15	95,000
10	Nagercoil Muncipality	4	12594	56	1,25,000
11	Padmanabapuram Muncipality	3	1207	9	23,000
12	Colachel Muncipality	0	0	17	23,000
13	Kuzhithurai Muncipality	3	943	05	17,000
	District	**197**	**455958**	**232**	**11,002,000**

Source: Joint Registrar Co-operative Societies/Lead Bank, K.K.District.

Table 8.4 gives details of cooperative societies, commercial banks and the number of account holders in the Kanniyakumari district. There were 194 co-operative societies with 4, 51,876 members in 2012 and in 2014 it increased to 197 co-operative societies with 4, 55,958 members. There were 217 commercial banks and 9, 94,000 account holders in Kanniyakumari district in 2012. It increased to 232 banks and 11, 002, 00 account holders in the year 2014. Killiyoor has the maximum number of account holders 1, 64,000 in the Kanniyakumari district. Nagercoil municipality comes next with 1, 25,000 account holders. The least number of account holders 17,000 is in Kuzhithurai municipality.

It is advisable that every member in the family should have an account and awareness on importance of savings should be made by every bank in the district.

Insurance

Table 8.5 gives the details of insurance companies, number of branches and the various policies issued to the people in the Kanniyakumari district. The companies in the district are United India Insurance, Oriental Insurance Company, LIC, National Insurance Company and New India Insurance Company. There are four branches for United Indian Insurance which has 52,413 policies in the year 2007. But now it has increased to 71,597 in 2013. Oriental

Insurance Company has one unit in 2007 and two branches in 2013-14 with an increase of 19,852 policies in 2007 to 23,455 in 2013-14. LIC has four branches and 99,485 policies were issued in 2007 which now has issued 69,706 policies. National Insurance Company issued 18,243 policies in 2007 and 22,657 policies in 2013. The New India Insurance Company has issued 18,500 policies.There is an increase in membership in the insurance schemes underlining the importance of financial security and savings. This is lot of scope for improvement in the number of insurance policies in the district.

Table 8.5 Insurance Companies

(in Numbers)

Sl. No	Name of the companies	No. of branches			Policies issued					
		2007-11	2011-12	2012-13	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
1	United India Insurance	4	4	4	52143	62173	62965	55241	66856	71597
2	Oriental Insurance Company Ltd	1	2	2	19852	20201	21458	20356	22120	23455
3	LIC	4	4	4	99485	79754	86782	77324	75827	69706
4	National Insurance Company Ltd	1	1	1	18243	16557	17712	19527	21728	22657
5	The New India Insurance Company Ltd	1	1	1	-	-	-	16360	17110	18500
	District				**189723**	**178685**	**188917**	**188808**	**203641**	**205915**

Source: Divisional Managers of GIC and LIC.K.K.District.

Transport Facilities

Roadways

Roads play a vital part in economic development, opening up remote areas, stimulating the growth of agriculture as well as industry, besides facilitating communication. As an essential element of the transport infrastructure, they contribute, along with the railways, the nation's lifeline.

The road network in Kanniyakumari district consists of National highways, State highways, District roads and rural roads. The trunk road from Madras to Nagercoil joins at Kanniyakumari – Trivandrum road near Aralvoimozhi and passes through important places over a distance of 62.4 Km. and finally enters Kerala State. The road from Kanniyakumari to Trivandrum is one of the busiest roads in the country. The State of Travancore-Cochin has adopted a policy of nationalization of transport and as a result the Transport Department was formed in the state in 1938. Routes between Trivandrum and Kanniyakumari (Via) Nagercoil and Colachel are the first to be taken up for nationalization.

After the re-organization of States in 1956, the bus transport service in Kanniyakumari district was taken over by the State Transport Department of Madras State.The important private bus operators in the district during 1960s were Messrs. Pioneer Motors (P) Limited, P.T.S. Motor Service and Sri Ganapathy Motor Service at Nagercoil and Messrs. R.K.V. Motors and Timbers (P) Limited and P.C. Motor Service at Marthandam. The private sector has been taken over by government sector. So, the name of Tamil Nadu Transport Corporation was changed as Nesamony Transport Corporation.

In the T.N.S.T.C (TNLY) LTD, Nagercoil Region, there are 12 depots in Kanniyakumari district with a total fleet of 897. Out of this, there are 480 town scheduled service, 78 spare buses for a scheduled km of 1,55,818 and 1,77,065 mouffsil services. The connecting road of 22 kms starts from Kaavalkinaru ending at Parvathipuram and 56 kms of road connecting Kaliyakkavilai to Kanniyakumari and 48 kms of Nedumankadu road and also Palaya Uchakadai road of 48.9 kms connecting Kanniyakumari and the border of Kerala.In State Express Transport Corporation Ltd, there are 4 depots at Nagercoil, Kanniyakumari, Marthandam and Trivandrum. A total of 188 fleet strength covering 1, 20,884 kms operate daily state and inter-state buses.

Railways

Public transport facilities are available in Kanniyakumari district for the movement of m`en and material (road/rail/air). There are a wider range of train facilities available from Kanniyakumari district to different parts of the State and the country. From Nagercoil town, there are 30 trains going to Mangalore, Mumbai, Bangalore, Shalimar, Chennai, Kolkata, Coimbatore etc and 13 trains from Kanniyakumari to different parts of the country. Likewise, there are 30 trains moving in and around the neighbouring district including shuttle trains of the State.

Airways

The Kanniyakumari district is provided with Airway transport from Thiruvananthapuram which is 60 Kms from the Kanniyakumari district headquarters with a National and International terminal. The district is in need of an Airport near Kanniyakumari in order to improve the economy, job opportunities, easy accessibility and convenience for the people.

There are major ports, dams, reservoirs, irrigation channels, major drinking water projects and industries in this district.

Water Supply and Storage Facilities

❖ Kodayar System

There are two dams namely Pechipparai and Perunchani and a network of channels for irrigating 25,900 ha in the district. The scope of the system is to divert the Kodayar water to Palayar. Supply to the channels is taking off from Paralayar and thus feed the lands in Kalkulam, Agastheeswaram and Thovalai taluks. There are two channels namely A' Channel with 255.80 kms and B'Channel with 308.84 kms. The main channels are Thovalai Main Channel, Ananthanar Main Channel, Padmanabapuram Puthanar Main Channel, Nanjilnadu Puthanar Channel, Kodayar Left bank Main channel, Pandiyankal main channel, Regulator Kal Main Channel and Pazhayar River. The Branch Channels are Thirupparappu Branch Left Bank Canal, Thirupparappu Branch Right Bank Canal Extension, Aruvikarai Left Bank Canal and Aruvikarai Right Bank Canal.

❖ Neyyar System

Another river basin division is the Neyyar System 'A' Channel is 22.56 kms and 'B' Channel is 49.90 kms. The Neyyar System has the Neyyar Main Channel and the Kanniyakumari Branch Channel. Altogether, there are 278.36 kms in the 'A'Channel and 358.74 kms in the Branch channels. The Pechipparai dam has a catchment area of 207.19 ha and a total length of 555.35 kms suppliying water to an Ayacut area of 38,850 hac. The Perunchani dam has a total length of 308.46 metres and a catchment area of 159.46 ha and Ayacut area of 38,850 ha. The Chittar dam has a total length of 762 metres and a catchment area of 22.01 sq. kms and Ayacut area of 6070.42 ha. The Chittar II has a total length of 1075.94 ms and a catchment area of 26.16 sq. kms and Ayacut area of 6070.42 ha. The Poigaiyar has a total length of 1202 metres and a catchment area of 7.37 sq.kms and Ayacut area of 383.60 ha. Mambazhathuraiyar has a total length of 330 metres and a catchment area of 7.25 sq kms and Ayacut area of 366.70 ha.

❖ Mukkudal

The Mukkudal dam was built in the year 1945. It has -19.50 depth storage and goes up to +25. At present the death storage is -19.35 as on 14.7.14. The main source is rainfall. In Catchment area – rain water is rich with medicinal and vegetation content. The PH value is 6.5 to 7. The distance from Mukudal to filter-house is 12kms. By gravity there are 3 lines – 400 mm diameter, 600mm dia and 800mm diameter. When shortage of water is

supplied from Pechiparai and Perunchani, it comes to Marthal pumping station and then it is supplied 85hp. When there is overflow, it gets refilled in the dam. 20 MLD (Million litre /day) filter 24 hrs. The supply is LPC – Litre per capita per day – 90 – 95, but our population is 2,30,000 x90 20 MLD. In Mukudal the force is 120 HP and 60 HP with motor fixed for pumping. From Mukudal, it goes to Boothapandi and Erachkulam panchayat in another line and it goes to Erachakulam via to Therroor pumping station and from there it goes to Kanniyakumari town panchayat and Sucindrum. The number of connections in Nagercoil is 33,815 households, 2010 public fountains and 11 overhead tanks.

Fisheries

Fish is a source of healthy food for humanity at large. Historically, fishing has been a major source of livelihood for coastal and inland fishing communities.

Estuarine Ecosystems

There are three important riverine ecosystems, which confluence with Arabian Sea in Kanniyakumari:

- Thengapattinam estuary, formed by the confluence of river Tamirabarani in between Thengapattinam and Eraiummanthurai.
- Valliyar estuary formed by the river Valloiyar near Kadiapattinam
- Manakudy estuary formed by the confluence of river Pazhayar in between East and West Manakudy villages.

Apart from these two minor estuaries are also there:

- Pambar estuary near Colachel and
- Pantri estuary near Rajakkamangalam.

These are formed from the drainage canal excess waste during monsoon and the water drained from the irrigational fields mixing with sea.

Wedge Bank

Wedge bank is a fertile fishing source where rich marine biological diversity occurs, where rich availability of fish food organisms is available and water depth of this region is low. The

physical features of the water like underwater current, tides and waves will have less impact on the fishes and animals of this region. Fishes select this region for feeding and breeding purposes. Throughout the maritime countries of the world, there are about twenty such wedge banks. Of these one is situated near Kanniyakumari on the coastline of Kanniyakumari district on the eastward as well as on the westward region for about 30 Km. Seafood export is now recognized as a major avenue for export earnings. In order to meet international standards, it is imperative to have world class fishing harbours. Kanniyakumari stands to gain with a number of fishing harbour works in progress.

Fishing Harbour at Colachel

There is a Fishing Harbour at Colachel in Kanniyakumari district. The construction of Eastern and Western breakwaters and its approaches to Colachel fishing harbour was taken up in the first phase.

Fishing Harbour at Thengapattinam

An Administrative approval has been accorded by the Government of India for the construction of fishing harbour at Thengapattinam in Kanniyakumari district at an estimated cost of Rs.40 crores. A sum of Rs.30 crores towards Central and State share has been released in three installments for implementing the Project. The construction of main breakwater has been completed partially up to 530 m. against 580 m. envisaged and Leeward breakwater has been constructed partially upto 105 m. against 120 m.

Fishing Harbour under "BOT" (Build, Operate & Transfer) System at Muttom: There is a fishing harbour at Muttom in Kanniyakumari district under "BOT" (Build, Operate and Transfer) System. The total cost of the project is Rs.53.92 crores. The concessionaire Viz. M/s Jeppiaar Fishing Harbour Muttom Pvt. Ltd has so far spent Rs.34 crores for the project. Similarly Fishing Harbour works under the BOOT (Build, Own, Operate and Transfer) system is underway at Rajakkamangalam and Manakudy.

Case Study 8.1: Need for water storage and protection of water resources in Kanniyakumari district

Water is crucial to life and several interrelated factors are decreasing its availability. The factors include climate changes, increasing demand, lowered water tables and environmental degradation. Drinking water supply is the basic responsibility of the Government and an important indicator of development. Moreover, it is one of the targets under Millennium Development Goals. Cutting of trees to promote plots have reduced the rainfall leading to dry lands because of the scorching sun causing water scarcity. Due to the exceeding population and extensive construction of houses at a rapid rat, water scarcity is an urgent issue to be considered serious.

Case Study 8.1. Cont…..

Hence the need for rainwater harvesting should be emphasized in every house. The importance and necessity of trees should be emphasized and the rate of cutting of trees should be reduced.

Drinking water is a great problem in Thovalai block. In Thovalai there are 92,000 people in 16 village panchayats and 4 town panchayats are all rock areas. Thamiraparani Kootukudineerthittam which is a 110 crore scheme of the TWAD department that can provide water supply from Kuzhithurai river is still under process. There are job opportunities in this block. Perfumes from the flower gardens, rubber factories can be started if there is adequate water supply. Vermicompost, natural manures, SHG – flower cultivation (Sahaya nagar – samangi poo), Waste land development can be initiated full fledged for a source of income generation.

Thadikarankonam – Meenmutti Anai – pipeline is under the control of the forest department. So bore wells cannot be used. But Ulakaruvi thittam is proposed for water supply to Nagercoil which has failed now. If this is implemented in Thovalai and Agasteeswaram, there will be no water scarcity at all. Now they are pumping water directly from Veeranamangalam without filtration. For 16 habitations there are only 10 pipes. Since there is no purification there is a risk of diseases. So Ulakaruvi supply can be started from the power station at Boothapandi and the water can be supplied that way. It can be also used for agriculture. If water storage tanks are improved and maintained appropriately then these blocks will also develop and thus pave way to the human development of the district.

Suggestion

Implementation of the government proposed schemes on time would claim more water storage sooner than later to save the irrigation and agricultural lands of the district through means of proper monitoring and maintenance of the existing tanks and measures against encroachment of both PWD and block controlled ponds and water storage systems. Purification and proper channelizing of drinking water will prevent contamination of the water supplied and to stop the water borne diseases thus ensuring healthcare.

Conclusion

This chapter has discussed about the infrastructure which is one of the major components that has greatly contributed to the development of the Kanniyakumari district. Though the implementation of infrastructure facilities in the district is constructed well, they fail to concentrate on the maintenance especially the roads which are in very bad shape causing most of the accidents. It may be mentioned that the Kanniyakumari district has a special type of road which needs special focus on laying them and maintaining them frequently. Then there is the drainage system that must be maintained properly to keep the roads in good shape. Good roads can lead to a good transport facility, which also enhance the transportation in the Kanniyakumari district. The long route buses should be modernized according to the lifestyle of the people and also generate more revenue for the district. The lack of electrification should be looked upon so that the proper utilization can be promoted where there is little supply. The communication system is an appreciated effort and also income generating zone. The Kanniyakumari district is in need of an Airport near Kanniyakumari in order to improve the economy, job opportunities, easy accessibility and convenience for the people.

CHAPTER 9

SUMMARY AND WAY FORWARD

Chapter
9
Summary and Way Forward

Introduction

In the preceding chapters of the HDR, an attempted has been made to review the human development gains comprehensively. The existing schemes, utilization of funds, details of beneficiaries in the concerned departments of health, agriculture, education, social welfare and income and employment have been examined. Human development indices such as HDI, MDPI, CDI and GII focus on the dimensions of health, education, empowerment, labour market and standard of living. The overall index values have to be promoted for the effective human development.

From the analysis in the earlier chapters, the follow-up steps and the welfare programmes through the District Administration that would support and also motivate various departments concerned for the development of the blocks have been suggested.

Employment, Income and Poverty

- In Kanniyakumari district, there has a BPL population of 15.20%. Livelihood mission programme in NRLM at 2013-14 surveyed 5 blocks and identified 21364 [4.42%] BPL families.

- Rajakkamangalam has the highest number of non-workers in the Kanniyakumari district. They can be provided with various skill training programs and awareness about the SJSRY scheme can be implemented for the improvement of this situation.

- Thovalai needs more concentration on female literacy programme to avoid poverty for its development through MGNREGA schemes. The women are employed to improve their livelihood.

- The total number of agriculture labourers has come down in Melpuram and Munchirai due to the concentration of cash crops. Grazing lands have to be maintained and the existing ones need to be expanded so that the growth of livestock gets improved. Infrastructure for cattle and buffalo breeding should be extended through a wide network

of insemination centres in the Kanniyakumari district. Thovalai, Killioor , Melpuram and Kurunthancode need more focus on this aspect. People's participation in the wasteland development programme has to be improved for their standard of living and that should be ensured.

- There is a scope for the district administration to establish processing facilities and new equipments, controlling the encroachment of ponds and water resources in order to support the farmers and construct check dams to improve the agriculture in Thovalai, Kurunthancode, Melpuram and Killiyoor.

- Location, specifically cropping pattern in cluster mode, making available of quality planting material and seeds, production of vegetables through organic farming and to help the exporters in giving export guidance through training can improve the field of agriculture and production in the district.

- Apart from tank works other works such as drainage and IAY house construction, social forestry can also be used with the help of MGNREGA.

- Livestock already shows only a growth but yet has to improve in livestock nutrition and care. Quality of livestock products and effectiveness of support services should be ensured and private enterprises and farmers should be encouraged. Economic growth must target poverty reduction.

- The grazing lands have been drastically decreasing due to deforestation and real estates bringing down the growth of agriculture and the development of cattle and livestock in the Kanniyakumari district. This issue has very much affected especially the blocks of Thovalai and Rajakkamangalam in reducing the rate of agriculture.

- Cropping intensity has decreased in almost all the blocks. There are 2623 tanks in the Kanniyakumari district.But out of 143 tanks in the block of Rajakkamangalam including MI tanks, PT tanks and PWD tanks, 7 tanks are converted as sites for buildings, 12 tanks are in agriculture land and likewise encroached by private people and taken as private assets.

- About Rs.2 crores and 90 lakhs have been spent on irrigation, channels, shutters, repairing leakages, maintaining water resources etc. There are 2623 tanks in the district. There are 25,248 wells used for domestic purposes. There are 1304 tube wells. There are

2051 wells used for irrigation purposes only. There are 5 reservoirs and 53 canals in the district. The tanks have to be taken care of that they are not polluted in order to prevent diseases and promptly to be used for agricultural purposes. Stringent measures have to be taken to prevent encroachment.

- Deforestation is one of the major issues in the Kanniyakumari district through which the forests are destroyed and made unfit for agriculture and irrigation.

- Worker Participation rate is high in the urban areas compared to the rural areas due to out-migration, division of labour and regular monthly wages.

- Expansion of the education sector needs to be emphasized.

- Tourism interventions should be focused to improve the quality of reception to attract foreign tourists and that makes a good source of income.

- BPL can be brought down by fish marketing, processing units and retail stores in Kurunthancode and Agastheeswaram –Inland fishermen should avail government schemes.

- IT Park has to be established by the government. Many students graduating from engineering colleges with the aim of professional orientation should be encouraged by government by way of financial help and incentives for start ups. Unemployed youth may be encouraged to start new ventures. Industrial Centers must give all the government sectors support, subsidy and guidance.

- Every district to constitute District Research and Development Cell Committee to identify resources in each block and give guidance to that area particularly to promote employment and economic development through various projects and programmes.

Health and Nutrition

- The sex ratio has increased in the Kanniyakumari district. General population increased by 11.60%. The IMR rate decreased to 9 in the year 2013-14. IMR rate need to be reduced and this is possible only with the reduction in neo-natal mortality rates. Maternal mortality has declined from 37 to 30 which yet need more concentration and medical and healthcare during pregnancy and maternity. Ideally the CBR should be reduced from the current rate which could be done through campaigns.

- The Kanniyakumari district life expectancy has increased during 2013-14 to 70.7 for males and 77.7 for females, which is a positive indicator and shows the development through literacy, standard of living, health care and medical facilities.

- PHC is not accessible to the public in Kurunthancode. PHCs should always be located in the accessible area for the conveniences of the people so that number of deliveries can be increased in the PHCs.They have to be equipped with adequate infrastructure, canteen facilities and equipments. The PHCs where there are a few cases of general diseases and ailments, more care could be given for maternity and childcare as a special focus.

- Special focus on schemes for maternal care is successful due to the proper supervision especially in Rajakkamangalam, Melpuram and Killiyoor. This model can be followed in other blocks also.

- Proper response in the GH would enhance the registration of more no of patients in the Government hospitals. Continuous monitoring using CCTV should be encouraged.

- Malaria, Filaria, Dengue, TB and Leprosy need to be fully eradicated through awareness programs and campaigns. This can be done through the help of SHGs and school students

- Correlation between health and living conditions is well established. Providing decent shelter, drinking water, and electricity and sanitation facilities are essential, if health indicators in the district are to improve. All government hospitals should be available with hi-tech scans, equipments and health facilities and people's participation should be emphasized.

- Open defecation in the villages is still a problem. It is a common practice, especially Elanthaiyadivilai, kothigramam and Kaniyakulam. Water scarcity is also a problem in these villages.

- In every block, drinking water should be purified in the pumping station.

- Expansion of multi-speciality facilities including free medical lab in the GH can help the people stop running to hospitals of Kerala state.

- Appointment of staff on appropriate vacancies is advisable.

- Testing of the blood group periodically and basic medical checkups are needed.
- A separate building for Cancer ward is under construction in the GH of Kanniyakumari and Kurunthancode
- With an increase in population of the elderly, geriatric care needs special attention.
- The prevalence of HIV is 163 now in the district which still needs concentration. Since it is prevalent in the age above 30, they need awareness and proper treatment and care. Prevention of HIV should be done through district intervention programs and health campaigns. It is possible to achieve the above if a comprehensive health policy is drawn up addressing each of the issues. Distinct disparities in health care and incidence of diseases should be taken into account while allocating resources under such a design.

Literacy and Education

- Rajakkamangalam, Killiyoor, Thovalai, Agasteeswaram and Melpuram drop outs to be focused.
- Special coaching has to be provided for dropouts through a Bridge course with special teams.
- Introducing a government scheme for the enrollment of the children in the government and primary and middle schools, a Fixed Deposit of One lakh Scheme may be introduced for all the enrolling children. The maturity amount may be withdrawn after 16 years.
- Mapping of schools need to be done to ensure that no more new schools are opened and the existing schools need to be checked if there are playgrounds, recreation centres, health centres, library and lab facilities and smart classrooms.
- Enrolment of girls should receive utmost priority to ensure that all school age girls attend school at least at the elementary level in Thovalai, Melpuram and Killiyoor. Parents need to be educated and counselled on the importance of economic and social benefits of educating girls.
- Improving school infrastructure should receive attention and rational redeployment of teachers is also called for so as to reduce the pupil-teacher ratio to manageable levels in concerned blocks.

- The syllabus should be child centered and constantly revised to make learning joyful. Appointments should be given to qualified professionals of sociologists and educational counselling centres should be set up in each school to give guidance and counselling for students in emotional problems and attitude changes.

- Adult literacy efforts should be revamped and post-literacy campaigns made effective to see that the neo-literates do not relapse into illiteracy. Data of dropouts of each block should be collected and should be given special care and individual attention.

- The district authority should take efforts to concentrate on developing Role Model school in each block so that it becomes an example for other schools.

- Very few blocks require focus in the field of education such as Thovalai, Munchirai and Melpuram which otherwise can show a better human development.

Gender

- When analysing the gender inequality in Kanniyakumari district, we find that it is backward in terms of health which brings down the index. In the health index, such as MMR, share of institutional deliveries and share of antenatal coverage is low in the district, though there are 100 percent institutional deliveries in the district. The other fields such as maternal care and nutrition should be concentrated.

- Compulsory awareness program has to be initiated through the doctors of the concerned PHCs in their corresponding blocks. Medical charts should be maintained properly and periodically. Monitoring committees have to be involved with parents.

- Ensuring high wages for women.

- Gender equity in health and education.

- Highlighting gender specific issues of vulnerable groups.

- Involve women as stakeholders in the policy level.

- Train girl children in NSS and Scouts to learn self-defence techniques.

- Crimes against women should be controlled.

- Awareness on sexual harassment, domestic violence and abuse should be given to women using family counselling centres. More family counselling and intervention has to be commenced. Trained social workers, sociologists and psychologist should be appointed in the schools to deal with students who are subjected to abuse in the schools and educational institutions.

- Secret suggestion boxes should be placed in every school. Intervention of NGOs and police departments should be given training on these issues.

- Bias against SHG concept should be removed and the real meaning of SHG should be implemented and livelihood and life skill training should be given to the women so that they involve in the social activities and raise questions against the crimes that have happened around them.

- Crimes against women: Mobile Outreach for emergency programme for women has been introduced in the Kanniyakumari district – 1091 is the mobile number provided to call for emergency. Working women have to be monitored and guided with the support of police patrol.

- Regarding legal safeguard of women in the school and college level syllabi has to be framed inclusive of social value Education subject.

Social Security

- The aged not only need income and security but also health and social security.

- Geriatric care has to be functioned as separate departments and wards in each hospital should be implemented. Diabetes, hypertension, sugar, obesity, cardio logical diseases should be screened and medical charts should be maintained periodically in the GH and PHCs.

- Block-wise mobile units should be supplied and records should be maintained. The aged also need emotional security, as they feel lonely, helpless and unwanted by society. They need an environment where they can live with dignity and self-respect. Social security should be holistic, not limited in providing financial security through old age pensions.

- Block-wise survey of the aged should be compulsory and chart wise schemes; details of funds, pensioners should be produced in every block. Block-wise websites should be created.

- Community Development Officer with appropriate qualification of sociology, psychology, life skill, human resource and women development and social work should be appointed who should be responsible for scrutinizing the petitions and implementation and sanction of schemes. They should enquire and deal with the beneficiaries. Allocation in telephone booths should be given to the aged with ATM security.

- Widows and destitutes should be focused more and welfare schemes and literacy programme is the need of hour. Education, income and livelihood schemes should be enhanced for such women including their children. Training them in income generation programmes, SHG involvement and livelihood programmes should be implemented.

- Accessibility to the disabled should be ensured in all government departments including court. Survey should be maintained including types of disabilities. Special schemes for income generation and job opportunities for the disabled should be provided.

- Involvement in handicrafts, computer skills, cottage industries and micro enterprises should be given.

- Exam centers should be given priority to the disabled placing them in the ground floors. Special centers for speech therapy, occupational therapy, mentally retarded treatment should be provided.

Infrastructure

- The development of any district is determined with its infrastructure. Road, Railways and Airways are the most important source for development through means of income generation and accessibility and convenience for the people in the district.

- A proper road is still a question in Kanniyakumari district. Sustainability of the roads is the major problem since the roads are not laid for long term view of maintenance.

- Proper laying of roads for a long term is the plan to maintain a perfect means of transport and it will avoid major number of accidents. There should be legal assurance from the contractor that the roads are guaranteed for minimal maintenance for the next five years.

- Retaining walls around the tanks must be constructed so as to assure the strength of the road which will not be affected even after it overflows. With the help of MGNREGA not only tank works but also other works such as drainage and IAY house construction, social forestry can also used.

- Check dams should be constructed in order to save this water that can be used for agriculture and drinking purposes. Paddy is cultivated in the low level areas and there is need for water in abundance for the entire society.

- Development in the field of railways is needed in the Kanniyakumari district. The stations are congested causing inconvenience to the people.

- Need to be developing the transport facility to control traffic issues and time management among the public, construct new bus stands in the outer Nagercoil town (Parvathipuram, Ozhuginasery).

- A well built aerodrome is needed for the Kanniyakumari district since most of the people travel abroad for jobs which is now the one of the main sources of income for the district. This can also create job opportunities for the unemployed youth in the Kanniyakumari district. This will prove the human development of the district in terms of infrastructure.

- Electrification is good in the Kanniyakumari district through means of dams, windmills and Koodankulam project. However, a storage system is essential for proper storage of electricity in the district.

- Communication system has paved way for the growth of income in the Kanniyakumari district.

- It is advisable that every person should possess a savings account and should be aware of the importance of maintaining the account.

- There is enough awareness on insurance schemes and policies to assure self-security for health education and self sustainability. There are more types of insurance policies. Yet common people should be aware of the benefits of taking policies on health insurance and government should avail such schemes for the economically backward sector.

ANNEXURES

Human Development Index

Annexure 2.1: Block-wise HDI Indicators

Sl.No.	Block	Standard of Living					Health			Education		
		Access to Cooking Fuel	Access to Toilet Facilities	Access to Drinking Water	Access to Electricity	Access to Pucca Houses	IMR	MMR	U5MR	Literacy Rate	GER Primary	GER Secondary
		2011	2013-14	2013-14	2011	2013-14	2013-14	2013-14	2013-14	Census 2011	2013-14	2013-14
1	Agatheeswaram	66.39	93.81	94.56	96.77	75.83	10.79	0	8.23	92.87	99.63	94.64
2	Thovalai	75.37	90.54	92.15	94.85	66.56	15.45	0	14.23	90.27	99.49	94.66
3	Rajakkamankalam	72.31	86.96	93.23	96.77	91.57	7.31	49	12.45	95.35	99.45	95.89
4	Kurunthancode	47.10	95.85	94.29	93.92	74.66	6.87	0	9.72	91.13	99.58	95.61
5	Thuckalay	62.55	95.21	94.68	93.86	91.06	6.89	0	7.68	92.23	99.34	95.85
6	Thiruvattar	66.05	93.88	96.09	93.92	87.51	6.71	44	6.13	90.44	99.64	95.84
7	Killioor	37.99	95.65	91.67	95.06	86.15	6.94	78	11.67	91.23	99.57	94.99
8	Munchirai	39.54	97.67	98.15	95.06	89.93	9.72	41	10.32	89.30	99.74	94.99
9	Melpuram	32.76	95.98	90.66	95.06	69.68	7.93	46	10.43	90.51	99.31	94.88
	Maximum	72.31	97.67	98.15	96.77	91.57	17.00	85.80	15.65	95.35	99.74	95.89
	Minimum	29.48	78.26	81.59	84.47	59.90	6.71	0.00	6.13	80.37	89.38	85.18

Cont……

Sl. No.	Block	Standard of Living					Health			Education			Standard of Living Index	Health Index	Education Index	Overall Index	Rank
		Access to Cooking Fuel	Access to Toilet Facilities	Access to Drinking Water	Access to Electricity	Access to Pucca Houses	IMR	MMR	U5MR	Literacy Rate	GER Primary	GER Secondary					
1	Agatheeswaram	0.86	0.80	0.78	1.00	0.50	0.60	1.00	0.78	0.83	0.99	0.88	0.77	0.78	0.90	0.814	3
2	Thovalai	0.84	0.63	0.64	0.84	0.21	0.15	1.00	0.15	0.66	0.98	0.89	0.57	0.28	0.83	0.511	9
3	Rajakkamankalam	1.00	0.45	0.70	1.00	1.00	0.94	0.43	0.34	1.00	0.97	1.00	0.79	0.51	0.99	0.739	5
4	Kurunthancode	0.41	0.91	0.77	0.77	0.47	0.98	1.00	0.62	0.72	0.98	0.97	0.63	0.85	0.88	0.781	4
5	Thuckalay	0.77	0.87	0.79	0.76	0.98	0.98	1.00	0.84	0.79	0.96	1.00	0.83	0.94	0.91	0.893	1
6	Thiruvattar	0.85	0.80	0.88	0.77	0.87	1.00	0.49	1.00	0.67	0.99	1.00	0.83	0.79	0.87	0.830	2
7	Killioor	0.20	0.90	0.61	0.86	0.83	0.98	0.09	0.42	0.73	0.98	0.92	0.60	0.33	0.87	0.558	8
8	Munchirai	0.23	1.00	1.00	0.86	0.95	0.71	0.58	0.56	0.60	1.00	0.92	0.72	0.61	0.82	0.711	6
9	Melpuram	0.08	0.91	0.55	0.86	0.31	0.88	0.46	0.55	0.68	0.96	0.91	0.40	0.61	0.84	0.588	7

Source : Computed.

Gender Inequality Index

Annexure 2.2: Block-wise GII Indicators

Indicators	Health			Empowerment						Labour					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	MMR	Share of Institutional Deliveries	Share of Ante Natal Coverage	Female Literacy	Male Literacy	Share of female Children (0-6) years	Share of male Children (0-6) years	Female Elected Representatives	Male Elected Representatives	Female Worker Participation Rate	Male Worker Participation Rate	Female Worker Participation Rate in Non-Agri Sector	Male Worker Participation Rate in Non-Agri Sector	Female Agri. Wage rate	Male Agri. Wage rate
Blocks	2013-14	2013-14	2013-14	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011
Source	Health Department			Census				RD&PR Department		Census				Statistic Dept.	
Unit	**rate**	**%**	**nos**	**%**	**%**	**%**	**%**	**%**		**%**	**%**	**%**	**%**	**%**	**%**
Agastheeswaram	0	100	98.32	91.26	94.50	49.18	50.82	34.86	65.14	16.63	56.30	84.39	79.60	200	350
Thovalai	0	100	99.62	87.59	93.01	48.81	51.19	35.34	64.66	20.55	57.99	72.97	71.85	175	350
Rajakkamangalam	49	100	98.50	92.59	98.29	49.57	50.43	33.86	66.14	14.80	67.22	94.98	92.64	200	300
Kurunthencode	0	100	98.12	90.38	91.87	49.28	50.72	39.33	60.67	15.65	51.88	92.78	88.55	150	350
Thuckalay	0	100	99.31	91.01	93.46	48.74	51.26	38.82	61.18	15.44	51.63	93.19	86.23	200	400
Thiruvattar	44	100	98.56	88.50	92.40	48.78	51.22	35.59	64.41	16.70	58.11	89.99	81.00	250	400
Killiyoor	78	100	98.72	89.34	93.19	48.65	51.35	35.45	64.55	16.03	55.78	95.62	88.28	200	400
Munchirai	41	100	99.03	87.39	91.25	48.93	51.07	34.63	65.37	16.78	54.33	94.88	89.53	200	400
Melpuram	46	100	99.13	88.47	92.61	49.24	50.76	37.65	62.35	18.31	53.17	91.49	82.01	250	400

Cont……

Indicators / Blocks	Indices														
	Health			Empowerment						Labour					
	MMR	Share of Institutional Deliveries	Share of Ante Natal Coverage	Female Literacy	Male Literacy	Share of female Children (0-6) years	Share of male Children (0-6) years	Female Elected Representatives	Male Elected Representatives	Female Worker Participation Rate	Male Worker Participation Rate	Female Worker Participation Rate in Non-Agri Sector	Male Worker Participation Rate in Non-Agri Sector	Female Agri. Wage rate	Male Agri. Wage rate
Agastheeswaram	0.00	1.00	0.98	0.91	0.95	0.49	0.51	0.35	0.65	0.17	0.56	0.84	0.80	0.57	0.62
Thovalai	0.00	1.00	1.00	0.88	0.93	0.49	0.51	0.35	0.65	0.21	0.58	0.73	0.72	0.35	0.62
Rajakkamangalam	0.20	1.00	0.99	0.93	0.98	0.50	0.50	0.34	0.66	0.15	0.67	0.95	0.93	0.57	0.23
Kurunthencode	0.00	1.00	0.98	0.90	0.92	0.49	0.51	0.39	0.61	0.16	0.52	0.93	0.89	0.13	0.62
Thuckalay	0.00	1.00	0.99	0.91	0.93	0.49	0.51	0.39	0.61	0.15	0.52	0.93	0.86	0.57	1.00
Thiruvattar	0.23	1.00	0.99	0.88	0.92	0.49	0.51	0.36	0.64	0.17	0.58	0.90	0.81	1.00	1.00
Killiyoor	0.13	1.00	0.99	0.89	0.93	0.49	0.51	0.35	0.65	0.16	0.56	0.96	0.88	0.57	1.00
Munchirai	0.28	1.00	0.99	0.87	0.91	0.49	0.51	0.35	0.65	0.17	0.54	0.95	0.90	0.57	1.00
Melpuram	0.22	1.00	0.99	0.88	0.93	0.49	0.51	0.38	0.62	0.18	0.53	0.91	0.82	1.00	1.00

Cont……

Indicators / Blocks	Female Health Indices	Male Health Indices	Female Emp Indices	Male Emp Indices	Female LF Indices	Male LF Indices	GF	GM	GFM	Health Bar	Emp Bar	LF Bar	GFM Bar	GII	Rank
Agastheeswaram	0.99	1	0.54	0.68	0.43	0.65	0.61	0.76	0.68	1.00	0.61	0.54	0.69	0.015	1
Thovalai	1.00	1	0.53	0.68	0.37	0.64	0.58	0.75	0.66	1.00	0.60	0.50	0.67	0.022	2
Rajakkamangalam	0.59	1	0.54	0.69	0.43	0.52	0.51	0.71	0.60	0.79	0.61	0.48	0.61	0.029	4
Kurunthencode	0.99	1	0.56	0.66	0.27	0.66	0.53	0.76	0.62	1.00	0.61	0.46	0.65	0.048	8
Thuckalay	1.00	1	0.56	0.66	0.43	0.76	0.62	0.80	0.70	1.00	0.61	0.60	0.71	0.022	3
Thiruvattar	0.61	1	0.54	0.67	0.53	0.78	0.56	0.81	0.66	0.80	0.60	0.65	0.68	0.035	6
Killiyoor	0.50	1	0.54	0.68	0.44	0.79	0.49	0.81	0.61	0.75	0.61	0.62	0.65	0.064	9
Munchirai	0.65	1	0.53	0.67	0.45	0.79	0.54	0.81	0.64	0.83	0.60	0.62	0.67	0.043	7
Melpuram	0.60	1	0.55	0.66	0.55	0.76	0.57	0.80	0.66	0.80	0.61	0.65	0.68	0.031	5

Source : Computed.

Child Development Index

Annexure 2.3: Block-wise Child Development Indicators and Index in Kanniyakumari District

Block name	N	N	N	P	P	N	P	P
	Health		Nutrition	Education				
	U5MR	Juvenile sex ratio (0-6)	Percentage of Malnourished Children	Enrollment in Primary	Enrollment in Secondary	Children never enrolled in schools	Transition rate from primary to upper primary	Transition rate from Upper primary to Secondary
	13-14	2011	13-14	13-14	13-14	13-14	13-14	13-14
Agastheeswaram	8.23	968	10.15	99.63	94.64	0.00	99.84	99.87
Thovalai	14.23	954	20.31	99.49	94.66	0.00	99.84	99.64
Rajakkamangalam	12.45	983	7.32	99.45	95.89	0.00	99.80	99.98
Kurunthancode	9.72	972	7.05	99.58	95.61	0.00	99.70	99.86
Thuckalay	7.68	951	7.21	99.34	95.85	0.00	99.82	99.89
Thiruvattar	6.13	952	10.36	99.64	95.84	0.00	99.82	99.92
Killioor	11.67	948	14.71	99.57	94.99	0.00	99.83	99.87
Munchirai	10.32	958	11.35	99.74	94.99	0.00	99.89	99.84
Melpuram	10.43	970	10.31	99.31	94.88	0.00	99.81	99.83

Cont……

Block name	Indices								Overall index	Rank
	Health		Nutrition	Education						
	U5MR	Juvenile sex ratio (0-6)	Percentage of Malnourished Children	Enrollment in Primary	Enrollment in Secondary	children never enrolled in schools	Transition rate from primary to upper primary	Transition rate from Upper primary to Secondary		
	1	2	3	4	5	6	7	8		
Agastheeswaram	0.689	0.116	0.728	0.011	0.117	0.000	0.005	0.011	0.209	3
Thovalai	0.000	0.223	0.000	0.024	0.115	0.000	0.005	0.033	0.050	9
Rajakkamangalam	0.204	0.000	0.930	0.028	0.000	0.000	0.009	0.000	0.146	7
Kurunthancode	0.518	0.085	0.950	0.015	0.026	0.000	0.019	0.012	0.203	4
Thuckalay	0.752	0.247	0.938	0.039	0.004	0.000	0.007	0.009	0.249	1
Thiruvattar	0.930	0.239	0.712	0.010	0.005	0.000	0.007	0.006	0.239	2
Killioor	0.294	0.270	0.401	0.016	0.084	0.000	0.006	0.011	0.135	8
Munchirai	0.449	0.193	0.642	0.000	0.084	0.000	0.000	0.014	0.173	6
Melpuram	0.436	0.100	0.716	0.042	0.094	0.000	0.008	0.015	0.176	5

Source : Computed.

Multidimensional Poverty Index

Annexure 2.4: Block-wise Multi-Dimensional Poverty indicators in Kanniyakumari District

Block Name	N	N	N	N	N	P	P	P	P	P
	Health			Education		Living Standards				
	IMR	High order Birth Rate	Malnourished Children	Drop out in primary	Drop out secondary	Access to cooking fuel	Access to toilet facilities	Access to drinking water	Access to Electricity	Pucca house
	13-14	13-14	13-14	13-14	13-14	2011	13-14	13-14	2011	13-14
Agastheeswaram	10.79	6.12	10.15	0.92	0.63	66.39	93.81	94.56	96.77	75.83
Thovalai	15.45	3.31	20.31	0.47	2.27	65.37	90.54	92.15	94.85	66.56
Rajakkamangalam	7.31	5.23	7.32	0.59	1.36	72.31	86.96	93.23	96.77	91.57
Kurunthancode	6.87	3.92	7.05	0.40	1.01	47.10	96.86	94.29	93.92	74.66
Thuckalay	6.89	3.14	6.21	0.20	0.69	62.55	95.21	94.68	93.86	91.06
Thiruvattar	6.71	2.21	10.36	0.42	0.62	66.05	93.88	96.09	93.92	87.51
Killioor	6.94	3.15	14.71	0.39	0.21	37.99	95.65	91.67	95.06	86.15
Munchirai	9.72	6.93	11.35	0.22	0.79	39.54	97.67	98.15	95.06	89.93
Melpuram	7.93	2.01	10.31	0.41	1.14	32.76	95.98	90.66	95.06	69.68
Maximum	15.45	6.93	20.31	0.92	2.27	72.31	97.67	98.15	96.77	91.57
Minimum	6.04	1.81	5.59	0.18	0.19	29.48	78.26	81.59	84.47	59.90

Cont ……

Block Name	N	N	N	N	N	P	P	P	P	P	Overall index	Rank
	Health			Education		Living Standards						
	IMR	High order Birth Rate	Malnourished Children	Drop out in primary	Drop out in secondary	Access to cooking fuel	Access to toilet facilities	Access to drinking water	Access to Electricity	Pucca house		
Agastheeswaram	0.50	0.16	0.69	0.00	0.79	0.86	0.80	0.78	1.00	0.50	0.392	8
Thovalai	0.00	0.71	0.00	0.61	0.00	0.84	0.63	0.64	0.84	0.21	0.552	9
Rajakkamangalam	0.86	0.33	0.88	0.45	0.44	1.00	0.45	0.70	1.00	1.00	0.289	4
Kurunthancode	0.91	0.59	0.90	0.70	0.61	0.41	0.96	0.77	0.77	0.47	0.292	5
Thuckalay	0.91	0.74	0.96	0.97	0.76	0.77	0.87	0.79	0.76	0.98	0.148	1
Thiruvattar	0.93	0.92	0.68	0.68	0.79	0.85	0.80	0.88	0.77	0.87	0.183	2
Killioor	0.90	0.74	0.38	0.72	0.99	0.20	0.90	0.61	0.86	0.83	0.288	3
Munchirai	0.61	0.00	0.61	0.95	0.71	0.23	1.00	1.00	0.86	0.95	0.308	6
Melpuram	0.80	0.96	0.68	0.69	0.54	0.08	0.91	0.55	0.86	0.31	0.362	7

Source : Computed.

Annexure 4.1: Crude Birth and Death Rate

S.No.	Blockwise/ District/ State	CBR		CDR	
		2013	2014	2013	2014
1	Agastheeswaram	12.09	8.53	6.69	6.06
2	Thovalai	14.09	12.63	5.81	7.29
3	Rajakkamangalam	6.18	7.06	4.53	4.13
4	Kurunthancode	13.24	12.44	7.05	5.40
5	Thuckalay	7.26	6.84	5.63	5.68
6	Thiruvattar	16.11	14.32	6.64	6.34
7	Killiyoor	7.67	7.91	6.24	6.28
8	Munchirai	10.95	10.73	5.33	6.05
9	Melpuram	6.76	4.58	5.63	3.93
	District	**10.32**	**9.30**	**5.96**	**5.61**

Source : Deputy Director of Health Service, K.K.District.

Annexure 4.2: Infant Mortality Rate (2013-2014)

S.No.	Blockwise / District / State	2013	2014
1	Agastheeswaram	19.80	10.79
2	Thovalai	4.06	15.45
3	Rajakkamangalam	13.73	7.31
4	Kurunthancode	9.42	6.87
5	Thuckalay	10.73	6.89
6	Thiruvattar	10.00	6.71
7	Killiyoor	17.21	6.94
8	Munchirai	11.56	9.72
9	Melpuram	6.91	7.93
	District	**10.39**	**8.73**

Source : Deputy Director of Health Service, K.K.District.

Annexure 4.3: Percentage of Institutional Deliveries - 2014

S. No.	Blockwise / District / State	Home	HSC	PHC	GH	PNC	Percentage
1	Agastheeswaram	0.00	0.00	16.01	31.11	52.88	100
2	Thovalai	0.00	0.00	17.62	18.34	64.04	100
3	Rajakkamangalam	0.00	0.00	7.72	19.63	72.62	100
4	Kurunthencode	0.00	0.00	10.53	19.73	69.73	100
5	Killiyoor	0.00	0.00	11.71	21.55	66.74	100
6	Munchirai	0.00	0.00	11.89	21.32	62.80	100
7	Melpuram	0.00	0.00	10.71	17.92	71.37	100
8	Thiruvattar	0.00	0.00	16.04	27.77	56.19	100
9	Thuckalay	0.00	0.00	14.19	26.47	59.34	100
	District	0.00	0.00	12.73	22.02	65.24	100

Sources : Deputy Director of Health Service, K.K.District

Annexure 4.4: Malnourished Children 0-5 during 2013-2014

S.No.	Block	No.of AWCs	Weighed Children of 0-5 yrs	% of underweight (MUW+SUW)
1	Agateeswaram	109	9136	10.25
2	Thovalai	123	7703	22.69
3	Rajakkamangalam	130	9241	8.45
4	Kurunthancode	177	12791	8.17
5	Thakkalai	144	8911	6.78
6	Thiruvattaru	147	10347	11.81
7	Killiyoor	122	10135	15.27
8	Munchirai	174	10755	10.79
9	Melpuram	173	12473	11.12
District		1401	99410	10.95

Sources : DPO, ICDS, K.K.District

Annexure 4.5: Percentage of Drinking Water facilities

Sl. No	**Block wise/District**	Total No. of Habitations	Habitations provided with Safe Drinking water	Percentage
1	Agatheeswaram	276	261	94.56
2	Thovalai	242	223	92.15
3	Rajakkamankalam	310	289	93.23
4	Kurunthancode	298	281	94.29
5	Thuckalay	282	267	94.68
6	Thiruvattar	258	246	96.09
7	Killioor	228	209	91.67
8	Munchirai	216	212	98.15
9	Melpuram	289	262	90.66
District Total (including ULB)		2399	2250	93.79

Source : NRDWS / Census 2011 / TWAD, Web-site 2015

Annexure 5.1: Literacy Rate during 2001 and 2011 in Kanniyakumari District

Sl. No	Block wise/District	Literacy (2011)			Rate		
		Male	Female	Total	Male	Female	Total
1	Agastheeswaram	69017	67880	136897	94.50	91.26	92.87
2	Thovalai	50439	48451	98890	93.01	87.59	90.27
3	Rajakkamangalam	137493	138441	275934	57.74	92.59	71.18
4	Kurunthancode	101766	98926	200692	94.13	90.38	92.24
5	Thuckalay	97090	95953	193043	95.40	91.01	93.17
6	Thiruvattar	73594	71375	144969	92.40	88.50	90.44
7	Killioor	70648	70010	140658	93.19	89.34	91.23
8	Munchirai	83900	81787	165687	91.57	87.39	89.45
9	Melpuram	96594	95374	191968	93.97	88.47	91.15
District Total		780541	768197	1548738	93.65	89.99	91.75

Sources : Census 2011.

Construction of Human Development Index (HDI)

Introduction

The UNDP Report-2010 on HDI continues to adopt the same basic three indicators of education, health and standard of living/income for the calculation of HDI. Simultaneously, an effort was also made to arrive at Gender Inequality Index. To compute HDI, 10 indicators were used covering the area of living standard, education and health. HDI presents information on the human development in three dimensions while GII provides information gender differentials in achievements.

Indicators for HDI

The indicators that may be used for deriving HDI at the block level are as follows:

Indicators for measuring HDI

Dimensions	Indicators	Methods of obtaining indicators	Nature of indicator
Standards of living	Percentage of HHs having access to Cooking fuel	No. of households using modern fuels like LPG, Electricity, Gas etc/ Total number of households *100.	Positive
	Percentage of HHs having access to Toilet	No. of households having toilet /Total no. HHs. *100.	Positive
	Percentage of HHs having access to Water	No. of households provided with safe drinking water/Total no. HHs.*100.	Positive
	Percentage of HHs having access to Electricity	No. of households having electricity /Total no. HHs.*100.	Positive
	Percentage of HHs having access to Pucca house	Total no. of HHs. with pucca houses/Total no. of HHs. * 100	Positie
Health	Child Mortality Rate(IMR)	Number of Infant Deaths (under the age of 5 years) in a Year / Total Number of live Births * 1,000	Negative
	Maternal Mortality Rate(MMR) U5MR	Number of Maternal Deaths in a Year / Total Number of Live Births * 100,000 Under5 years Mortality Rate	Negative
Education	Literacy Rate	2011 Census	Positive
	Gross Enrolment Rate (Primary & secondary) Schools	Gross Enrollment at primary & secondary schools / No. of children in the age group of 6 to 14	Positive

There are two indicators for measuring health, three for education and seven for standard of living. All these indicators reflect human development.

Method of Estimating HDI

For the estimation of the HDI, the following steps may be followed:

1. All computations would be done at two stages. The first computation would help in understanding the relative positions of different blocks within the district. The second set of computation would relate to the position of a block with reference to other blocks

   As a first step, a minimum and maximum value has to be set for each of the above 11 indicators to transform them into indices lying between zero and one. For this purpose, the observed minimum and maximum figures for each of the indicators will be taken. Since the Geometric Mean has to be calculated, in the case of a positive indicator, the minimum value would be taken as 10 per cent less than the observed minimum value in the block similarly, in the case of a negative indicator, the maximum value would be taken as 10 per cent more than the observed maximum value.

2. The index value (in the case of a positive indicator) can be calculated using the formula –

   Index Value = (Actual Value – Min. Value) / (Max.Value – Min.Value)

   Eg.: calculations will be based on highest values being assigned highest ranking

3. The index value (in the case of a negative indicator) can be calculated by using the formula –

   Index Value = (Max. Value – Actual Value) / (Max.Value – Min.Value)

4. For Computing sectoral indices (health, education and standard of living) geometric mean is to be used and the method of calculation is as below. Thus there will be three indices one for Standard of living, another for health and the last for education.

   Sectoral Index = If I_1. I_2….. I_n are the n indices for a particular sector, then the Geometric mean for the sector = $(I_1 \times . I_2 \times \ldots . I_n)^{(1/n)}$.

5. To compute HDI, aggregate the three sectoral indices using geometric mean with the following formula.

   HDI= $(SI_l \times SI_h \times SI_e)^{(1/3)}$; where SI_l is the sectoral index for living standard, SI_h is the sectoral index for health and SI_e is the sectoral index for education.

Note : The observed minimum and maximum figures for the block should be taken into account. The minimum figure for calculation should be taken as 10 per cent less than the observed minimum figure for all the blocks

Construction of Gender Inequality Index (GII)

Introduction

GII measures the loss in potential of human development due to inequality between female and male achievements. As it reflects an inequality situation, a value of zero represents no inequality and a value of one represents highest level of inequality in the society. The UNDP report of 2010 has brought out the GII index for all the countries. For measuring GII, three dimensions are considered by the report. They are:

1. Reproductive Health
2. Empowerment
3. Labour market

Indicators considered for measuring GII

Dimensions	Indicators	Nature of Indicator
Health	Maternal Mortality Rate (MMR)	Negative
	Share of Institutional deliveries (ID)	Positive
	Share of pregnant women Anti-natal coverage	Negative
Empowerment	Share of female and male elected representatives in PRIs and ULBs (PR_F and PR_M)	Positive
	Share of female and male literacy (LIT_F, LIT_M)	Positive
Labour market	Share of female and male Work Participation Rate (WPR_F, WPR_M)	Positive
	Share of female and male workers in the non agricultural sector (NAG_F, NAG_M)	Positive
	Female and male Agricultural wage rate ($WAGE_F$, $WAGE_M$)	Positive

Method

1. Aggregating across dimensions within each gender group using geometric mean.

For females

$$G_F = \sqrt[3]{\left[\left(\frac{1}{MMR}\right)\times ID \times ANE\right]^{1/3} * \left[PR_F \times CHLD_F \times LIT_F\right]^{1/3} * \left[WPR_F \times NAG_F \times WAGE_F\right]^{1/3}}$$

For Males

$$G_M = \sqrt[3]{1 * \left[PR_M \times CHLD_M \times LIT_M\right]^{1/3} * \left[WPR_M \times NAG_M \times WAGE_M\right]^{1/3}}$$

2. Aggregating across gender group using a Harmonic mean.

$$HARM\,(G_F, G_M) = \left[\frac{(G_F)^{-1} + (G_M)^{-1}}{2}\right]^{-1}$$

3. Calculate the geometric mean of the Arithmetic means of the each indicator

$$G_{\overline{F},\overline{M}} = \sqrt[3]{\overline{health}.\overline{empowerment}.\overline{LFPR}}$$

Where $$\overline{health} = \left[\frac{\left[\left[\left(\frac{1}{MMR}\times ID\times ANE\right]^{1/3}+1\right]}{2}\right]$$

$$\overline{empowerment} = \frac{\left[PR_F \times CHLD_F \times LIT_F\right]^{1/3} + \left[PR_M \times CHLD_M \times LIT_M\right]^{1/3}}{2}$$

$$\overline{LFPR} = \frac{\left[WPR_F \times NAG_F \times WAGE_F\right]^{1/3} + \left[WPR_M \times NAG_M \times WAGE_M\right]^{1/3}}{2}$$

4. Calculating the GII by comparing the equally distributed gender index to the reference standard. The GII value ranges from zero (no gender inequality across dimensions) to one (total inequality across dimensions)

$$GII = 1 - \frac{HARM(G_F, G_M)}{G_{\overline{F},\overline{M}}}$$

Step I

$$G_F = \sqrt[3]{\left[\left(\frac{1}{235}\right)\times 0.997\times 0.924\right]^{1/3} * \left[0.411\times 0.490\times 0.671\right]^{1/3} * \left[263\times 0.410\times 0.489\right]^{1/3}}$$

$$G_F = \sqrt[3]{0.158 * 0.513 * 0.375} = 0.312$$

$$G_M = \sqrt[3]{1 * \left[0.589\times 0.510\times 0.785\right]^{1/3} * \left[0.610\times 0.535\times 0.662\right]^{1/3}}$$

$$G_M = \sqrt[3]{1 * 0.618 * 0.599} = 0.718$$

Step II

$$HARM(G_F, G_M) = \left[\frac{(0.312)^{-1} + (0.718)^{-1}}{2}\right]^{-1} = 0.435$$

Step III

$$\overline{health} = \left[\frac{0.158+1}{2}\right] = 0.579$$

$$\overline{empowerment} = \left[\frac{0.513+0.618}{2}\right] = 0.565$$

$$\overline{LFPR} = \left[\frac{0.375 + 0.599}{2}\right] = 0.488$$

$$G_{\overline{F},\overline{M}} = \sqrt[3]{0.579 \times 0.540 \times 0.488} = 0.542$$

Step IV

$$GII = 1 - \frac{0.435}{0.542} = 0.198$$

Other Issues of importance

Another important issue that needs to be addressed in the section relates to the crimes against women that are reported in the districts. This may relate to issues related to dowry harassment, domestic violence, girl child marriage and other forms of crimes against women including harassment at workplace that are reported within the district.

Construction of Child Development Index (CDI)

Introduction

Child Development Index (CDI) is an index combining performance measures specific to children - education, health and nutrition - to produce a score on a scale of 0 to 100. A zero score would be the best. The higher the score, the worse children are faring.

The Child Development Index (CDI) was developed by the campaign in UK, "Save the Children" in 2008 through the contributions of Terry McKinley, Director of the Centre for Development Policy and Research at the School of Oriental and African Studies (SOAS), University of London, with support from Katerina Kyrili.
The indicators which make up the index are chosen because they are easily available, commonly understood, and clearly indicative of child well-being. At the international level, the three indicators used for measuring child development index are:

- **Health:** the under-five mortality rate (the probability of dying between birth and five years of age, expressed as a percentage on a scale of 0 to 340 deaths per 1,000 live births). This means that a zero score in this component equals an under five mortality rate of 0 deaths per 1,000 live births, and a score of 100 equals our upper bound of 340 deaths per 1,000 live births. The upper bound is higher than any country has ever reached; Niger came the closest in the 1990s with 320 under-five deaths per 1,000 live births.
- **Nutrition:** the percentage of under fives who are moderately or severely underweight. The common definition of moderately or severely underweight, which we use here, is being below two standard deviations of the median weight for age of the reference population.

- **Education:** the percentage of primary school-age children who are not enrolled in school. For our measure of education deprivation, we use the opposite of the Net Primary Enrolment rate, i.e., 100 – the NER. This gives us the percentage of primary school-age children who are not enrolled.

Indicators for Child Development

In the preparation of District Human Development reports , the following four indicators would be used to measure the CDI:

Dimension	Indicator	Nature Of Indicator
Health Nutrition	U5MR	Negative
	Juvinile sex ratio(0-6)	Negative
	Percentage of Malnourished Children	Negative
Education	Enrollment in Primary and Secondary	Positive
	Children Never Enrolled in School	Negative
	Transition Rate Primary to Upper Primary and Upper Primary to Secondary	Negative

Computation of Child Development Index

- The indicators have been broadly categorised under the 3 parameters that influence the HDI.
- All the above indicators are negative and positive in nature.
- The index values for each of the indicators can be calculated by using the following formuls as explained earlier

  Index Value = (Max. Value – Actual Value) / (Max.Value – Min.Value)
- The index values for each of the indicators would range between 0 and 1 - 0 indicating the lowest ranking for the blocks and 1 indicating highest ranking of the block
- The Child Development Index would be the average of the index values of the three indicators – with highest value indicating better child development.
- The composite index is the average of the consolidated index values of all sectors and this is to be used to assign the ranks for the blocks within the district.

Multidimensional Poverty Index

In the preparation of District Human Devleopment reports, the following indicators would be used to measure of MDPI.

Dimension	Indicator	Nature Of Indicator
Health	Infant Mortality Rate	Negative
	Higher order Birth Rate	Negative
	Malnourished Children	Negative
Education	Drop out in Primary and Secondary	Negative
Living Standards	Access to cooking fuel	Positive
	Access to toilet facilities	Positive
	Access to drinking water	Positive
	Access to Electricity	Positive
	Pucca house	Positive

Computation of Multidimensional Poverty Index

- The indicators have been broadly categorised under the 3 parameters Health, Education and Standard of Living.
- The data collected for the above indicators has to be used for calculating the index values. This would help in making the values unit-less and would allow summation of the index values of all the indicators.
- The index values have to be calculated for each of the indicators after identifying whether the indicators are positive or negative. This is done to make the index values unidirectional.
- The index value (in the case of a positive indicator can be calculated using the formula Index values = (Actual value – Min. Value) / (Maximum value – Minimum value). Eg. Calculations will be based on highest values being assigned highest ranking.
- The index value (in the case of a negative indicator) can be calculated by using the formula – Index Value = (Max. Value – Actual value) / (Maximum value – Minimum value).
- The index values for each of the indicators would range between 0 and 1 – 0 indicating the lowest ranking for the block and 1 indicating highest ranking of the block.
- The consolidated index for each of the parameters / sectors / dimensions will be the average index value of all the indicators.
- The composite index is the average of the indicators of all the three parameters – Health/ Education and standard of Living – this will be used to assign the ranks for the blocks within the district.

Abbreviations

ABL	Activity Based Learning
AICTE	All India Council of Technical Education
AIDS	Acquired Immuno-deficiency Syndrome
ART	Anti-Retro Viral Treatment
AWC	Anganwadi Centre
BPL	Below Poverty Line
BPO	Business Process Outsourcing
BSNL	Bharat Sanchar Nigam Limited
CAW	Crime against Women
CBR	Crude Birth Rate
CCE	Centre for Continuing Education
CDI	Child Development Index
CDR	Crude Death Rate
CeMONC	Comprehensive Emergency Obstructive and New Born Care
COTPA	Cigarette and Other Tobacco Product Act
DADWO	District Adhi Dravidar Welfare Office
DALP	Destitute Agricultural Labourers' Pension
DAPS (PHP)	Destitute Differently Abled Pension Scheme
DBCW	District Backward class welfare
DDHS	Deputy Director of Health Service
DDWP	Destitute Deserted Wives Pension Scheme
DEEO	District Elementary Educational Officer
DEO	District Educational Officer
DHDR	District Human Development Report
DIC	District Industries Centre
DISE	District Information System for Education
DRDA	District Rural Development Agency
DSWO s	District Social Welfare Office
DWP	Destitute Widow Pension Scheme
EER	Elementary Education Register
EGS	Education Guaranty Scheme
FC	Forward Caste

GDI	Gender-related Development Index
GDP	Gross Development Product
GEM	Gender Empowerment Measure
GER	Gross Enrollment Rate
GII	Gender Inequality Index
GOI	Government of India
HD	Human Development
HDI	Human Development Index
HIV	Human Immuno- deficiency virus
HMIS	Health Management Information System
HMS	Hospital Management System
IAY	Indira Awar Yojana
ICDS	Integrated Child Development Service Scheme
ICT	Information and Communication Technology
IDA	Infant Death Audit
IDSP	Integrated Disease Surveillance Project
IFA	Iron and Folic Acid
IGNDPS	Indira Gandhi National Diability Pension Scheme
IGNOAP	Indira Gandhi National Old Age Pension Scheme
IMR	Infant Mortality Rate
IT	Information Technology
JSSY	Janani Sisu Suraksha Yojana
JSY	Janani Suraksha Yojana
LBW	Low Birth Weight
LEB	Life Expectancy at Birth
LIC	Life Insurance Corporation
MDA	Maternal Death Audit
MGNREGA	Mahatma Gandhi National Rural Employment
MHRD	Ministry of Human Resource Development
MMR	Maternal Mortality Rate
MDPI	Multi Dimensional Poverty Index
NABARD	National Bank For Agriculture and Rural Development.
NCRB	National Crime Records Bureau
NDDP	Net District Domestic Product
NFHS	National Family Health Survey
NGO's	Non Government Originations

NNMP	National Nutrition Monitoring Bureau
NMP	Noon Meal Programme.
NREGS	National Rural Employment Guarantee Scheme
NRHM	National Rural Health Mission
NSDP	Net State Domestic Product
NSSO	National Sample Survey Organisation
NVBDC	National Vector Borne Disease Control.
OAP	Old Age Pension
OBC	Other Backward Caste
PDS	Public Distribution System
PG	Post Graduation
PHC	Primary Health Centre
PMEGP	Prime Minister's Employment Generation Programme
PMRY	Pradhan Mantri Rojgar Yojana
PNDT	Pre Natal Diagnostic Technique
RCH	Reproductive and Child Health
RMCA	Rashtriya Madhyamik Shiksha Abhiyan
PHP	Physical Handicapped Person
SB	Still Birth
SIDCO	Small Industries Development Corporation
SC	Scheduled Caste
SHDRC	State Health Data Resource centre.
SHG	Self -Help Group
SNP	Supplementary Nutrition Programme
SPC	State Planning Commission
SRS	Sample Registration System
SSA	Sarva Sikshya Abhiyan
SSI	Small Scale Industries
SSLC	Secondary School Leaving Certificate
SSS	Social Security Scheme
ST	Scheduled Tribe
TANSAC	Tamilnadu Society of AIDS Control
TB	Tuberculosis
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
THAI	Tamil Nadu Village Habitations Improvement Scheme.

TNCSC	Tamil Nadu Civil Supplies Corporation
TNCDW	Tamil Nadu Corporation for Development of Women
TSC	Total Sanitation Campaign
TNHSP	Tamil Nadu Health system Project
U5MR	Under 5 Mortality Rate
UNDP	United Nation Development Programme
UNICEF	United Nations Childrens Education Fund
UWP	Unmarried Women Pension Scheme
VHN	Village Health Nurse
WASH	Water and Sanitation and Hygiene
WIFS	Weekly Iron and Folic Acid supplementation
WPR	Work Participation Rate

References

Manju Dev .2004 Socialization of Women In India: New Delhi: Concept Publishing Company.

Khan, M.Z.1997.Elderly In Metropolis.New Delhi : Inter-India Publications.

Dr.S.Gokilavani, Dr.S.G.Jelestin .2008. Marriage, Dowry Practice and Divorce. New Delhi: Mayur Enterprises– Regal Publication.

Tinkul Paul .2009.Women empowerment through work participation. New Delhi: New Century Publications.

Shyam Kartik Mishra, Pradeep Kumar Pandey, 2012. Women status and Empowerment in India.New Delhi: New Century Publications.

Bhaskar Chatterjee. 2006. – Education for all the Indian .New Delhi: Saga Lotus Press.

,Saraswati Mishra . 1987. Social Adjustment in Old Age.New Delhi : B.R.Publishing Corporation.

Vijaya Laxmi Biradar, Abhijeet 2009. Sociology of Widowhood – a study of Veerashaivas .New Delhi.

Kattakayam,Jacob John and Vadackimchery,James.1999.Crime and Society(Current Issues and Trends).New Delhi : A.P.H.publishing corporation.

S.Irudaya Rajan.2008.Social Security for the Elderly. New Delhi. Routledge.

Murty.S.2008 Female Ageing Population. Jaipur: RBSA Publishers.

Surendran.S. 2014 .Elderly in Town .Chennai: MJP publishers.

Babita Agrawal, Mahamaya.2008. New Delhi:, Child Labour, Issues, Causes and Interventions. Publishing House

Dr.Namita Sharma, 2007. New Delhi. HIV-AIDS in Women and Children of India. Pearls Books.

Sawalia Bihari Verma, Sant Gyaneswar Prasad Singh, Shib Kumari Singh, sarup and Sons.2008.New Delhi : Rural Infrastructure, Sanitation, Housing, Health Care

Mir K.Desai, Binod C.Agrawal, Television and Cultural Crisis.2009. New Delhi: An analysis of transnational television in India Concept Publishing Company.

Niranjan Pani, Jitendra Sahoo 2008.New Delhi: Tribal Development. Mahamaya Publishing House.

Clinical Approach to Rural Development – E.D.Setty – Anmol Publications Pvt. Ltd.,New Delhi – 110002, Sri P.V.R.K.Prasad, IAS

G.Palanithurai 2009. New Delhi: Panchayats in Disaster Preparedness and Management Supported by Action Aid India International, Concept Publishing company.

Sharmila Rege, 2008. New Delhi: Sociology of Gender – The Challenge of Feminist Sociological Knowledge – editor Sage Publication.

Khomdon Singh Lisam, Suchitra Lisam – 2009. New Delhi.Nutrition and AIDS. Kalpaz Publications.

Sushma Ray-2010.New Delhi: Sanitation and Hygiene – Promoting Dignity and Human Rights Adhyayan Publishers and Distributors.

Parimal Sharma .2009.NewDelhi: Coastal Zone Management Global India Publications Pvt. Ltd.

S.L.Goel, 2010. New Delhi: Organizational Structure of Health Care System and Hospital Administration Deep and Deep Publications Pvt. Ltd.

Dr.Mahendra Gaur, National Rural Health Mission 2008 .New Delhi: Alfa Publications.

S.L.Goel, 2010.New Delhi: Emerging and Thrust Areas of Health Care System and Hospital Administration. Deep and Deep Publications Pvt. Ltd.

Suresh M., 2008, New Delhi; Economics of Primary Health Care Mohit Publications.

Binod C.Agrawal, (ed) 2009.New Delhi: Media for Health, Planning, Programmes and Practice Concept Publishing Company.

Statistical Hand Book of Tamil Nadu 2011,Issued by Additional Chief Secretary and Director,Deptartment of Economic and Statistics, Chennai-6.

Manual for Programme Managers.Programme for Prevention Screening and Treatment of NonCommunicable Diseases. 2012. Tamil Nadu Health System Project ,Department of Health& Family Welfare.Govt of Tamil Nadu.

INDIA, Social Development Report 2008: Development and Displacement, Council for Social Development, Oxford University Press-New Delhi 2008

INDIA, Reducing Poverty Accelerating Development: A World Bank Country Study, 2001, Oxford press, New Delhi.

Gopalakrishnan, M.(ed). 1995, Madras: Kanniyakumari District Gazetteer.

INDIA, Towards Population and Development Goals, UNFPA for United Nation System In India, Oxford University Press, 1997.

www.tn.nic.in

www.tn.govt.in.of tamilnadu web site.

www.tn.gov.in/spc

www.tnschool.gov.in/

www.tn.gov.in/deptst/

https://www.nabard.org/

www.thhealth.org

www.kanniyakumari.nic.in/