District Human Development Report - 2017

The Nilgiris District

State Planning Commission
Tamil Nadu

THE NILGIRIS

DISTRICT HUMAN DEVELOPMENT REPORT 2017

District Administration, The Nilgiris and
State Planning Commission, Tamil Nadu
in association with
Govt. Arts College, Udhagamandalam - 643 002.

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

The State Planning Commission always considers the Human Development Index as indispensable part of its development and growth. Previously, the State Planning Commission has published Human Development Report for eight districts from 2003 to 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 removing the disparities.

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

As far as the Nilgiri District is concerned, Government Arts College, Udhagamandalam has prepared the DHDR for the Nilgiri District under the assistance of UNDP & SPC. This report has been prepared with an assortment 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. The report reveals the ups and downs of Nilgiri District, which was worst affected by the natural disasters like land sliding, cyclone, floods and heavy monsoon fall in every year. This report not only serves as a summary of the Human Development Scenario in Nilgiri District but also explores that why the district has fared well in certain areas and not in others.

Perfect preparation leads to successful completion of the project. In this milieu, the SPC has thus provided an opportunity for such a planning in Nilgiri District to highlight several challenges that the district faces in improving HDI and to accelerate the process of development.

Last but not least, I show gratitude to all those concerned who have put their energy and efforts and personal attention in preparing this report which would be inclusive of all minute details of this district and pave way for the equitable and sustainable growth of the district in the right direction.

27/4/15

Dr. P. Sankar,
District Collector,
The Nilgiris.

ACKNOWLEDGEMENT

The Preparation of the Nilgiri District Human Development Report (DHDR) has originated primarily from the initiative of the State Planning Commission, Government of Tamil Nadu, with the support received from the UNDP. The State Planning Commission took up the assignment as a constructive exercise towards strategizing the Government Programmes to yield the intended results. The task of preparing this report has been assigned to Govt. Arts College, Udhagamandalam by the State Planning Commission in collaboration with the District Administration. The District level Core Committee was constituted with the District Collector as the Chairman and M. Subramani, Assistant Professor, Department of Economics, Govt. Arts College as the Co-ordinator. This Human Development Report has been kept on track and been seen through to completion with the support and encouragement of numerous people. It is a pleasant task to express my thanks to all those who contributed in many ways in the formulation of the report.

First of all, I would like to express my sincere thanks to Tmt. Santha Sheela Nair, IAS (Retd.), Former Vice Chairman, State Planning Commission, Government of Tamil Nadu for constantly reviewing the progress of this exercise and for supplementing with valuable suggestions. I am extremely indebted to Thiru. M.Balaji, IAS, Member Secretary, State Planning Commission, who initiated this exercise and also my thanks is due to Dr.Sugato Dutt, IFS., Member Secretary i/c., State Planning Commission for providing all necessary administrative support and resources to accomplish the task.

I sincerely acknowledge Dr. P.Sankar, District Collector, The Nilgiris, for his encouragement and periodical reviews, Mrs. S.Kavitha Project Director The Nilgiris. Thiru. S. Kandaswamy, District Planning Officer, in Nilgiris and Thiru R. Kumaresan, Technical Assistant, Nilgiris and this work would not have been possible without their continued support.

I express my thanks to Thiru. P. Selvarajan, Head of Division, Rural Development and District Planning, State Planning Commission and Selvi. S. Namagiri, Senior District Planning Officer, State Planning Commission, whose encouragement, and support from the preliminary to the concluding level enabled me complete this task.

I thank Dr. G.N. Krupa Subramanian, Mrs. Raja Lakshmi, Planning Officer, State Planning Commission for providing critical inputs which helped me in enriching the report.

I owe a deep sense of gratitude to Dr. A. Manoharan, Former Principal, Dr. S.S. Rathina Kumar, Principal, Government Arts College, Udhagamandalam and Tmt. V. Mallika Vice-Principal, Govt. Arts College, Udhagamandalam for their moral and ethical support for this Planning report.

The preparation of the DHDR was possible only due to the untiring efforts of the team. I am thankful to my fellow study team members Dr. Paulraj Asst. Professor and Head, Mrs.R.Saron Nithya, Asst. Professor, Selvi. Rajeswari Asst. Professor in Economics, Govt. Arts College, Udhagamandalam for spending their precious time with me travelling all the areas of the

district to take part in several stakeholders meet and focus group discussions and providing critical inputs.

It is my pleasure to acknowledge for the help rendered by the Block Development Officers (BDOs) the elected representatives of the District, SHG members, and Municipal Commissioners, besides, the various Heads of department at the District level provided invaluable assistance. Specifically Superintendent Engineer, TNEB Join Director, Health & Family Welfare. Joint Director, Agriculture, Deputy Director, Health Services, Chief Educational Officer, Chief Educational Officer (SSA), Project Officer, Mahalir Thittam, Executive Engineer (Urban) TWAD; Executive Engineer (RWS), TWAD, Deputy Director, Statistics, Special Deputy Collector, SSS, the Nilgiri District Elementary Educational Officer; District Social Welfare Officer, Project Officers, ICDS; Labour Officers, Manager, Lead Bank, Manager, CANARA BANK, All Executive Officers, All town Panchayats, all block Medical Officers; The Nigliri District and others who have also co- ordinate with us in executing the work.

I express my deep sense of gratitude to Dr. J. Bala Subramaniam, Dr. Gayathiri Assistant Professors of English and Dr. M. Saravanakumar, Government Arts College, Udhagamandalam for meticulously reviewing the technical aspects of the report and for looking out for syntax and semantic errors in the report.

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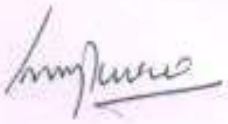
Finally I acknowledge with a deep sense of appreciation, unremitting co-operations and help of all the Officers and Staff of the SPC and District Administration, without whom the presents endeavour would not have achieved frutiful.



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I

THE NILGIRIS DISTRICT – A PROFILE

Topography

The Nilgiri district which forms a part of Tamil Nadu; in Sanskrit, the Nilgiris means "Blue Mountains" and in Tamil "Neelamalai". The Nilgiri district known as "The Queen of Hill Stations" is situated at an elevation of 900 to 2636 meters above MSL. Approximately 65% of the geographical area of this district lies at an altitude of above 1800-2500 meters above MSL and the remaining 35% at lower altitude. The climate is temperate to sub-tropical. The average annual rainfall ranges from 950 to 1550 mm. The Nilgiri district is situated in the north western part of the state in the Western Ghats. It differs considerably from its neighbouring districts with respect to the agro-climatic conditions. The Nilgiri district is surrounded by the Coimbatore district, Kerala and Karnataka States on the eastern, western and the northern side respectively. The district is a summer resort for tourists from the entire world. Udhagamandalam the headquarters of Nilgiris has once been the venue of Tamil Nadu Legislative Assembly.

The Geographical area of this district is 2,544 square kilometers and consists of six taluks namely Udhagamandalam, Kundha, Coonoor, Kotagiri, Gudalur and Pandalur. The unique feature of Nilgiri district is that about 56% of the total area of the district is under forest. The Nilgiris is a tiny district in the Western Ghats located between 11010 and 11045 N latitude and 76014 and 7702 E longitude. The topography of this district is rolling and steep. About 60% of the cultivable land falls under the slope ranging from 10 to 33%. Nilgiris, being basically a Horticultural District in the entire economy depends on the success and failure of horticulture crops like potato, cabbage, tea, coffee, spices and fruits. The total geographical area is 2,54,381 ha.

In Nilgiri District the topography is rolling and steep. About 60% of the cultivable land falls under the slopes ranging from 16 to 35%. The entire district is hilly and is divided into natural zones viz., the Nilgiris plateau and the Wined tableland. Soils have been defined as a thin layer of earth's crust which serves as a natural medium for the growth of plants.Soil formation may be classified into four varieties viz., alluvial soil, lateritic soil, black soil and red soil.

The district is prone to landslides and soil erosion during heavy rains. The major types of soil in the district are sandy loam, red loamy soil and black soil seen in the dam and riverbed areas. Due to its altitudes, the climate in this district remains to the Maximum of 21 degree Celsius to 25 degree Celsius and the minimum of 10 degree Celsius to 12 degree Celsius during the summer. During winter, the maximum tempetature is 16 degree Celsius to 21 degree Celsius and minimum of 2 degree Celsius.

History

The name, Nilgiris means Blue Hills. It could have easily been coined by the locals or by the people at the distant plains below the hills. Anthropologically and linguistically, the idea of Dravidian origins is tenable enough. The ancient Tamil classic Silappadikkaram, contains a reference to Nilgiris. Valmiki's Ramayana too has mentioned its name. The actual discovery, for the world outside, begins with a Portuguese priest who was studying the growth of Christianity. In 1602, Fr. Ferreiri was supposed to have been a guest in a couple of adequately established villages. The district was ceded to the British in 1789 Mr.Sullivan, Collector of Coimbatore, of which Nilgiris was an administrative unit in the initial decades of 1800s, deputed Keys and MacMohan to find out the feasibility of establishing a sanatorium for the British. The names of J.C.Wish and N.W.Kindersley are also mentioned in connection with discovering the existence of the hill range possessing European climate. Once Mr. Sullivan himself visited the place and got some land to build a bungalow for himself, the salubrious hill was on its way to becoming the summer capital of the British Government of Madras Presidency.

Language

Tamil is the principal language spoken in the Nilgiris. Many people speak and understand English. Kannada, Malayalam and Hindi are also used to an extent. The Nilgiris is also home to the Toda language, spoken by the Toda people and Kota language is spoken by the Kota Tribes. The Paniya language is spoken in the western parts of the district. Among the languages spoken in the district is Badaga, which has no script and spoken by about 245 000 Badaga people in 300 villages in the Nilgiris.

Art, Architecture and Culture

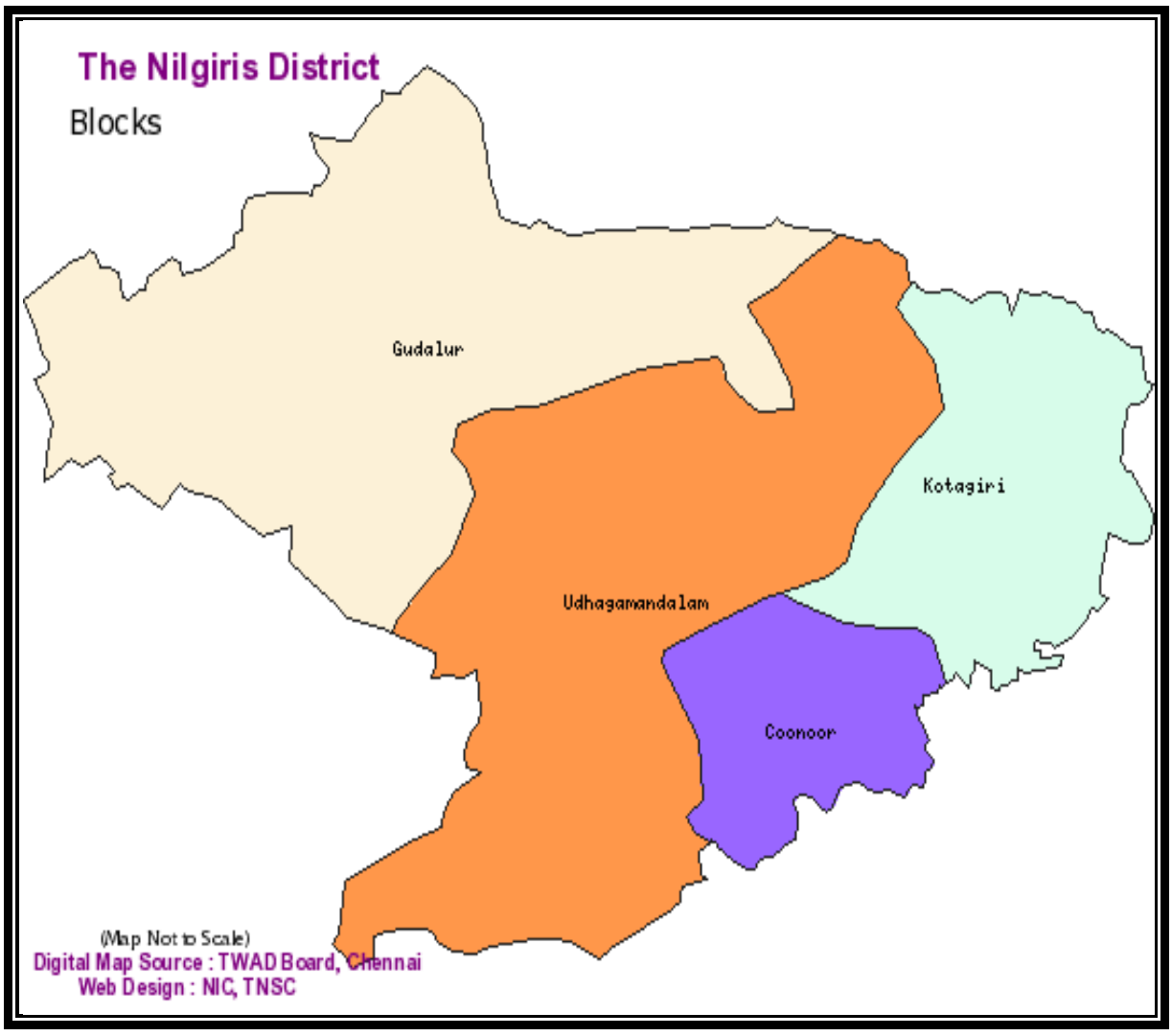
The Nilgiri hills have a history going back a good many centuries. It is not known why they were called the Blue Mountains. Several sources cite the reason as the smoky haze enveloping the area; while other sources say it is because of the Kurinji flower, which blooms once in every twelve years giving the slopes a bluish tinge. The name of the district – Nilgiris – literally means Blue Hills which we must seem to believe the superlative of our title. The most

pleasing tint of the distant undulating hill ranges emanates, we are told, from the profusion of Kurinji flowers. It could also be from the widespread blue gum trees. The sky is ever inviting for it seems to be so close, especially after dusk. This report proposes to highlight most of the enchanting vistas of the Nilgiris which made the blue hills sure fixtures in the international tourist's itinerary.

The study of their culture by anthropologists and linguists would prove important in the creation of the fields of social anthropology and ethno-musicology. There was some cultural give and take among the tribes; the great wonder is that it amounted to so little. The four tribes lived in constant and close contact with each other, yet were culturally and linguistically segregated. Any village of one tribe was, and still is, within a short walk of villages of each of the other tribes. But the four cultures have relatively little in common.

According to 2011 census, the population of the district is 735071, of which 360170 are males and 374901 are females. The population has declined by -3.55 per cent when compared to 2001 census. The density of population in this district is 288 persons per square Kilometers. The Nilgiri district has almost 30.21% of land under the cultivation when compared to total geographical area. The triennial average of Net Sown Area is 76895.33 ha with a cropping intensity 100 percent. In this district, only one canal of 2 km distance which is in the Kotagiri block is being used for irrigation purpose. Apart from that, there are 779 wells being used exclusively for agricultural purpose. Among these 779 wells, 293 wells with electric pumps, 325 wells with diesel operated pumps and 161 wells are used by other means. Rainfed agriculture is the predominant feature of this district with an area of 76886 ha. The district consists of four Municipalities, one Cantonment and four Panchayat unions, 11 town Panchayats, 35 village Panchayats and 54 revenue villages covering 1534 hamlets. The Nilgiri District consists of four blocks namely Udhagamandalam, Coonoor, Kotagiri and Gudalur respectively.

Fig.1.1: Nilgiri District Map



Primitive Tribal Groups of Nilgiri District (PTGs)

In Tamil Nadu, out of 36 Scheduled Tribes, the Government of India identified six tribal communities as PRIMITIVE TRIBAL GROUPS (PTGs) on the basis of a pre-agriculture level of technology, a stagnant or declining population, extremely low literacy level and a subsistence level of economy. These six PTGs are Todas, Kotas, Kurumbas, Irulas, Paniyans and Kattunayakans. Surprisingly, all these six PTGs are found in the Nilgiri District, each of these tribes maintaining unique cultural traits; because of these PTGs, the Nilgiri District has become an important tribal ethnic zone in the world of indigenous heritage.

According to 2001 census, the total population of the Nilgiri District is 7.64 lakhs, out of which the total primitive tribal groups population is 28,373, constituting 4.32 percent of the total general population. The tribal population in Nilgiri district is not evenly distributed in the six taluks. 32.08 percent of them are living in Kotagiri taluk; 14.33 percent of them are in Gudalur taluk; 13.16 percent of the tribes are living in Udhagamandalam Taluk and remaining 6.96 per cent are living in Coonoor and Kundah taluks. The total population was 7.35 Lakhs as per 2011 census.

Indigenous Tribal Group

A visit to the tourist paradise the Nilgiri, the Blue Mountains, is not complete without a visit to the local tribal village. Though no more listed as a 'tribe' by the official sources, the Badaga community, the largest of the indigenous tribe inhabiting in the Nilgiris have an unique life style of its own.

Though, their origin is steeped in mystery, with the popular misconception that they have migrated from the north [Mysore] due to their name being Badaga (Northner), the Badaga people and their Language also called Badaga which is a source of research for both anthropologists and serious historians. The highest peak in the Nilgiris "Doddabetta" got its name from the Badaga in which Doddabetta means 'Big Mountain'. Their villages called Hattis are located on the mountain slopes facing the East, as Badagas are basically Nature worshippers, and their social bonding is reflected in the unique construction of the houses sharing common walls.

The cardinal celebration of the patailineal and virilocal society of the Badagas of Nilgiris is cantered on a supra – historical ideal women, venerated as an ancestress called 'Hethe'. Hethe simply means 'grandmother' or one who gives birth to generations to come. In other words, worship is offered to her at the beginning of every annual cycle of Badaga life. From her sacred

abode in the North- east of the Nilgiri Mountains at Beragani, she endows the whole of the community with her unfailing boons and presides over the welfare of all her progeny. The greatest tokens of vow and offering made to Hethe are sacred sticks, she wielded with her buffalo herds, prior to her disappearance and attainment of divinity.

Population trends

As per official census 2011, Nilgiri District had the population of 7,35,071 in which the number of males and females were 3,60,170 and 3,74,901 respectively. There was a change of – 3.55 percent in the population growth compared to the population as per 2001.The Nilgiri District recorded increase of 7.31 per cent to its population compared to 1991. The initial provisional data suggests a density of 288 in 2011 compared to 299 in 2001.Total area under the Nilgiri district covers about 2,549 sq.km. With regard to sex ratio in The Nilgiris, it stood at 1041 per thousand males compared to 2001 census figure of 1014. The average national sex ratio in India was 940 as per latest report of census 2011.

The Economy

Agriculture continues to be a dominating Sector in the Economic Development sustaining 75% of population in this district. Agriculture sector plays a key role in filling the food requirement meeting the Raw Material Requirement (Tea Industry) of Agro Based Industries and providing the employment opportunities to the rural population.Tea, coffee, carrot, potato, pepper, beans, beetroot, cabbage, radish are the major crops.

Demographic Indicators

Table 1.1: District Basic Demographic Indicators

Sl. No	Indicators	2001	2011
1	Population	762,141	735,071
2	Decennial Growth (%)	7.31	-3.55
3	Density of population Per KM	299	288
4	Urban population (%)	60.72	59.32
5	Sex ratio	1014	1041
6	Percentage of 0 - 14 year old (%)	26.14	25.10

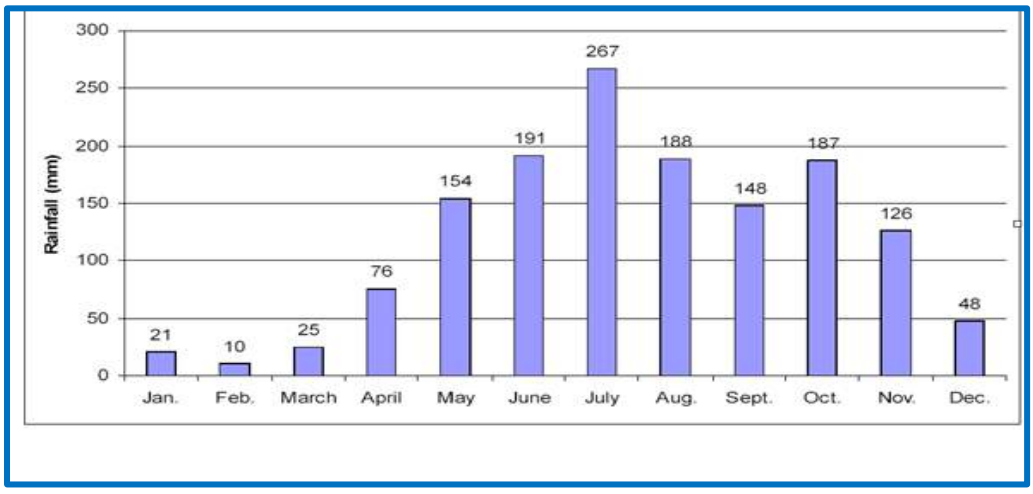
Source : Census Documents 2001 and 2011.

The above table 1.1 reveals the demographic indicators of the Nilgiri district in 2001 and 2011. In 2011, the district had the population of 7,35,071 but it was 7,62,141 according to 2001 census report. As for as decennial growth rate is concerned, in the year 2001 it had registered 7.31 percent and it has come down to (-3.55%) in the year 2011. It is significant to note that the density of population per kilometre was 299 people in 2001 but it has come down to 288 in the year 2011. The urban population in the district was 60.72 percent in 2001 where as it shows a declining trend in the year 2011 registering 59.32 percent. The sex ratio has increased in the year 2011 having the ratio of 1041 for 1000 male and it was 1014 in 2001. Children, aged between 0-14 are found more in 2001 i.e. 26.14 per cent which has slightly come down to 25.10 percent 2011.

Agriculture

The Nilgiri district occupies a unique position as a hill station in the sense that these hill ranges, though situated in the tropical belt, enjoys temperate climate because of its altitude. The district has different climatic conditions such as Tropical, Sub-tropical and Temperate. The district experiences an average minimum and maximum temperature of 20 C and 32 C. The entire district is a hilly region with a minimum and maximum height of 800 meters and 2595 meters above mean sea level respectively. Rainfall in the district varies considerably and ranges from 1063 to 2368.6 mm per annum, depending upon the altitude and topology of the place. The Nilgiri district has the advantage of more precipitation over last three years (2008-09 to 2010-11) from normal rainfall. It has the 2139.2 mm triennial average precipitation against normal precipitation level of 1701.23 mm with the positive deviation of 25.74%. The district comes under the influence of the South-West monsoon and North-East monsoon (Figure 1.2).

Fig 1.2: Mean annual rainfall of Nilgiri district



Source: NDPA Report- 2014

Geology

The district is dominantly composed of pyroxene geneisses inner banded with pyroxene ganulites and gameliferousquartzofelspathic gneisses. The relatively low country is made up of homblende-biotite gneiss, micaceous and ferruginous quartzites with emplacements of ultra-basics like dunite, peridoite, pyroxenite, gabbro and anorthosite. All these are intruded by younger granites, vein quartz, gabbros and dolerites. On the Nilgiri plateau there are a number of laterite cappings which are aluminous.

Physiography

The Nilgiri district is dominantly a mountain district, which can be physiographically divided into the following four divisions such as Nilgiris plateau, Nilgiris Wynadplateau, Sigurplateau and Outer slopes facing the plains. The elevation ranges from 320m to 2640m. The Doddabetta peak at the elevation of 2640m above mean sea level represents the highest peak in the district. The relatively low country around the Nilgiris hills is an undulating terrain rising to 800m above MSL.

Drainage and river basins

Bhavani and Moyar are the two most important rivers. Along the Northern boundary of the district flows the Moyar river in an easternly direction. The streams are of consequent type with dendritic pattern characterized by rapids, cascades and waterfalls. The drainage is mainly in the northern and western portions occupied by the Sigur and Mukurti Rivers and krothaHalla. In the Southern portion drainage is mainly by Bhavani and Kundha River which flow south wards. In the Eastern portion, Kateri river flows eastwards into the Bhavani River. The water of the Nilgiri plateau has been harnessed at several points under hydro-electric schemes for power generation.

Soil Type

The district's predominant soil type is Lateritic soil with a PH ranging from 4.00-6.50. Eleven soil series were encountered in the Nilgiri district and most of which occur as association with them.

Land Use Pattern

The nine fold classification of land use pattern is given in Table 1.2 below. The total geographical area of the district is 254484.94 hectares of which the net sown area constituted less than one third (29.76 per cent) whereas the forests covered 56.00 percent of the total area. As per the National Forest Policy – 1988, the area under forest cover should be one third of the total geographical area in order to maintain the ecological balance. Almost 85 percent of the area is under the forest and agricultural activities in this district. Plantation crops like tea and coffee are the major crops which covered most of the agricultural area. Among the four blocks Coonoor has the highest agricultural activities with 56.14 percent and followed by Gudalur with 39.21 percent, Kotagiri with 33.57 percent and Udhagamandalam with 17.76 percent of net cultivable area, corresponding to its block total geographical area. Udhagamandalam has the least agricultural activities than other blocks. It is indicating that most of the tourism and other commercial activities are in district headquarters. The share of district area under cultivable waste, current fallow and other fallow accounted for about 5.47 per cent of the total area and this would reveal that implementation of land reclamation, strengthening of irrigation facilities and so on through schemes by various departments increases the net sown area or area under forest. Table (1.2).

Table: 1.2 Land Use Pattern in the Nilgiri District

In Hectare

Sl. No	Classification	Udhagai	Coonoor	Kotagiri	Gudalur	Total
1	Forest	80634.00	4107.08	20203.62	37631.99	142576.69
2	Barren and Uncultivatable land	1761.00	562.00	694.72	357.00	3374.72
3	Land put in Non-Agricultural use	3640.00	2764.15	1169.01	2403.00	9976.16
4	Cultivable Waste	973.14	28.13	501.03	216.68	1718.98
5	Permanent pastures and other Grazing Lands	2132.00	923.02	1660.96	362.00	5077.98
6	Miscellaneous trees crops and grows not included in the net area sown	2253.00	600.37	414.08	553.00	3820.45
7	Current fallow lands	5627.31	1014.12	1704.72	792.59	9138.74
8	Other fallow lands	1467.23	38.00	0.00	1555.08	3060.31
9	Net - Cultivated Area	21276.32	12846.56	13317.06	28300.97	75740.91
10	Total Geographical area	119764.00	22883.43	39665.20	72172.31	254484.94

Source: NADP Report-2014

Table: 1.3 Area under Crops in Different Blocks of the Nilgiri District

In Hectare

Sl. No	Name of the Crops	Udhagai	Coonoor	Kotagiri	Gudalur	Total
1	Vegetables	5385.82	490.07	260.39	127.12	6263.40
2	Fruits	1.90	38.64	44.08	985.05	1069.67
3	Spices and Condiments	145.86	113.80	31.22	2372.20	2663.08
4	Flowers	8.12	33.34	36.39	5.3	83.15
5	Medicinal Plants	6.10	1.08	0.80	2.20	10.18
6	Plantation Crops	15029.02	12163.68	12915.86	23975.54	64084.10
7	Field Crops					
	I) Cereals	0.00	4.30	5.22	394.35	403.87
	II) Oil Seeds	15.40	0.96	0.89	49.16	66.41
	III) Sugar Crops	0.00	0.00	0.00	0	0.00
	IV) Pulses	0.00	0.00	0.00	0.00	0.00
8	Other Non-Food Crops	684.10	0.69	22.21	390.05	1097.05
	Total Cultivated Area	21276.32	12846.56	13317.06	28300.97	75740.91

Source: NADP Report -2014.

Major Potential Crops identified based on Area

Based on the percentageof total cultivable area, the major 18 principal crops are Identified and given in Table: 1.4

Table 1.4: Major Potential Crops in the Nilgiri District

S.No	Crop	Percentage to total cultivable area
1	Tea	74.36
2	Coffee	9.63
3	Carrot	3.21
4	Potato	2.36
5	Cardamom	1.37
6	Pepper	1.27
7	Banana	1.17
8	Cabbage	0.84
9	Beans	0.72
10	Ginger	0.54
11	Paddy	0.53
12	Turnip	0.52
13	Garlic	0.24
14	Beet root	0.21
15	Raddish	0.12
16	Tapioca	0.07
17	Cauliflower	0.01
18	Knolkhol	0.01

Source: NADP report-2014

Income:

Sectoral Distribution of Gross Domestic Product

The Gross District Domestic Product for the year 2004-2011 is furnished in Table 1.5. There was an increase in the average growth rate in gross domestic product in primary sector as 22.02; secondary sector 7.69 and Tertiary sector 16.89 growth in 2011-12.

Table 1.5: Sectoral Distribution of Gross District Domestic Product

(in Rupees @ 2004-05 Prices)

(Rs. in Lakhs)

Year	Primary	Secondary	Tertiary	GDDP	Primary	Secondary	Tertiary	GSDP
2009-10	77743	44397	18172	309852	3279727	10857492	21525966	35663185
2010-11	99743	50847	236959	387549	3516987	12542302	24282284	40341573
2011-12	63296	59459	285677	408432	3872767	13039248	26411788	43323803

Source: Department of Economics and Statistics, Govt of Tamil Nadu.

The Gross District Domestic Product (GDDP) is Rs. 408432 lakhs, which is nearly 1 percent in the Gross State Domestic Product (GSDP) of Rs. 43323803 lakhs in 2011-12 .It is clear that tertiary sector's share was the maximum level (70 %) in the district. followed by the primary sector (15%) and Secondary sector (14.5%).

Industries

Various types of industries are there in the Nilgiri district. There are 223 registered working factories with 126 registered trade unions. These factories provided 25.87 lakhs man days of employment during 2011. There are large scale, small scale and cottage industries, which generate employment for a large number of people in the district. Some of the important industries present in the district include Hindustan Photo Films, Needle Industries, Sterling Bio-tech Ltd, Tea factories, TANTEA, 17 INDCO Serve tea factories and Cordite factory. The products of cottage industries and small industries are being sold through Khadi and Village Centres for about Rs 33 lakh in the district.

Income and Poverty : Growth Rate of Per Capita Income

The per capita income of the Nilgiri district during 2001 was Rs.19,377. It has increased to Rs.58, 170 in the year 2010. The growth rate of 17.83 was recorded in the district.

Table 1.6: Per Capita Income (in Rupees @ 2004-05 Prices)

(In Rupees)

Year	District	State
2008-09	54270	43193
2009-10	58170	47394
2010-11	66017	53507
2011-12	51738	63996

Source - Department of Economic and Statistics, Govt of Tamil Nadu 2014.

Per capita income of Nilgiri district is Rs. 51738 against State per capita income of Rs. 63996 which is nearly 17 percent lower than the State per capita income. In the year 2011-2012 the per capta income has decreased when compared to 2008-2009.

Social Sector

Health

The human development concept envisages a long and healthy life of individuals where long life is measured in terms of life expectancy at birth. The life expectancy at birth is considered as an important indicator as it has 77.19 in average years.

Health Infrastructure

Health infrastructure facilities of the Nilgiri District comprises of one District Head Quarters Government Hospital, 5 Taluk Hospitals, 28 Primary Health Centres, 194 Health Sub-Centres and 5 Plague circles.

Crude Birth Rate

Crude Birth Rate (CBR) indicates the number of live births occurring during the year, per 1,000 populations estimated in the midyear. Subtracting the crude death rate from the crude birth rate provides the rate of natural increase, which is equal to the rate of population change in the absence of migration. CBR in Nilgiris is 10.5 which is lower than the CBR of Tamil Nadu (15.99). During 2013-14, Crude Birth Rate and Crude Death Rate in the district were 10.50 and 4.6 respectively. The Birth rate of all the blocks in the Nilgiri district shows a declining trend. But it continues to be high in Gudalur block. The Nilgiri district's CBR has declined from 12.60 in 2009 to10.5 in 2013-14. The higher the difference between CBR and CDR indicates the potential for high population growth.

Figure 1.3 : Crude Birth Rate (CBR)

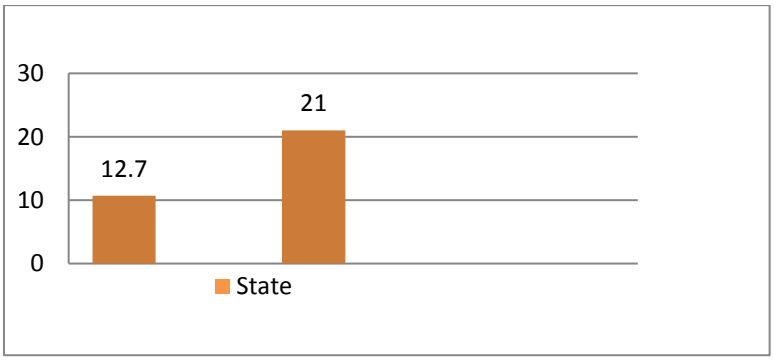
Source: Office of DDH, The Nilgiris, 2013-14

In Census Enumeration Data regarding children under 0-6 ages were collected from the Nilgiri district. There were total of 61,644 children under the age of 0-6 against 85,860 of 2001 census. Among the total 61,644, male and female were 31,099 and 30,545 respectively. Child sex Ratio as per census 2011 was 982 compared to 979 of census 2001. In 2011, children under 0-6 formed 8.39 percent of the Nilgiri District compared to 11.27 percent of 2001. There was a net change of – 2.88 percent in this compared to previous census of India. The Nilgiri District population constituted 1.02 percent of total Tamil Nadu population. In 2001 census, this figure for the Nilgiri District was at 1.22 percent of Tamil Nadu population and a decline of 0.20 per cent.

Infant Mortality Rate

The Infant Mortality Rate (IMR) was low in Nilgiri district (12.75) compared to the State average (21) in 2013-14. This clearly depicts not only the state of health, nutrition and health care accessible to the infants below one year of age, but also the general well-being of the society.

Figure 1.4: Infant Mortality Rate (2013-14)



Source: Office of the DDH, The Nilgiris

Literacy and Education

Average literacy rate of the Nilgiri District in 2011 was 85.65 compared to 80.01 of 2001. If we analyse gender wise, male and female literacy were 92.15 and 79.44 respectively. In 2001, it was 88.54 and 71.64. Total number of literates in the Nilgiri District was 5,76,799 of which male is 3,03,249 and female is 2,73,550 respectively.

Labour Problem

One of the biggest problems confronting the district is the growing tendency of the small tea growers to sell their tea gardens to real estate promoters, the Chairman of the Nilgiri Planters' Association (NPA) said that about 8000 to 9000 acres have been already sold to various people. Tea cultivation mainly depends on soil, water and sunlight, if tea estates were converted into concrete jungles, the rainfall pattern will change and tea estates will suffer. Unpredictable weather and shortage of labour is a serious problem. Though there is a steady flow of labourers from Northern Ssates, thay do not stay for longer period. Due to poor maintenance over the last 20 years the yield in many of the tea gardens has been more or less reduced to half. Tea gardens which used to give about 6000 kilograms per acre are now yielding only 3000 to 3500 kilograms. On the labour front, representatives of various unions said that though many of the estates are paying wages in accordance with the state government's minimum wage act, it does not match with the rising cost of living.

Conclusion

There are four blocks and six taluks in the district with the range of 900 to 2636 MSL. 50 % of the total area is under forest. The major hill vegetables are cultivated in the district. The total population is 7.3 lakhs with the density of 288 unit. The urban population is 59.32 %. Wells are the main source of irrigation. Nearly 15000 hectares of tea gardens feed 40 factories. In agriculture sector, the total workers population is around 1, 60,151, out of which females constitute 24.74 % in Non-Agriculture Sector. The female wage rate in the Nilgiri district is Rs.173 per day. Gross District Domestic Product was 408432 for the year 2011-12. Primary, secondary and tertiary sectors contribute 15%, 14.5% and 70% respectively. Per capita income of Nilgiri district is Rs. 51738 against the state per capita income of Rs. 63996 . BPL family constituted 32 percent in the year 2011. The life expectancy at birth is 77.9.

Crude birth rate and crude death rate in the district was 10.50 and 4.6 respectively. The CBR of all the blocks in the Nilgiri district shows a declining trend. Gudalur block had higher CBR and Udhagai had higher CDR. But it continues to be higher in Gudalur block. In 2011, it was as high as 15.6 followed by 17.5 in Gudalur block respectively. Also children under 0-6

formed 8.39 percent of the Nilgiri District compared to 11.27 percent of 2001. Udhagai block had the highest IMR (16.00) than the district average value. In the district, IMR has reduced from 21.50 in 2007 to 10.70 in 2013-14. Maternal Mortality Ratio (MMR) was high (74.75) compared to the State average (68) in 2013-14. Average literacy rate of the Nilgiri District in 2011 was 85.65 compared to 80.01 of 2001. If we analyse gender wise, male and female literacy was 92.15 and 79.44 respectively.

This chapter highlights Topography as well as the socio-economy, demography history, art architecture and culture of the district which paves way for making in-depth study of human development with various dimensions. This chapter brings focus of the core issues as well as some incidental development occurred over the year through various Central and State government sponsored programmes in the district. A delineated analysis is presented in the following chapters.

CHAPTER 2

STATUS OF HUMAN DEVELOPMENT

CHAPTER

2

STATUS OF HUMAN DEVELOPMENT IN THE NILGIRI DISTRICT

Introduction

Human development is a process of people's choices, as well as raising the level of well being. Three indicators are longevity, education and command over resources. In brief, the Human Development Index is a composite index that measures a country's average achievements in three basic aspects of human development: longevity, knowledge and a decent standard of living. The origins of the HDI are found in The Annual Development Reports of the United Nations Development Programme (UNDP). These were devised and launched by Pakistani economist Mahbubul Haq in 1990 and had the explicit purpose "to shift the focus of development economics from national income accounting to people centered policies". Haq was sure that a simple composite measure of human development was needed in order to convince the public, academics, and policy-makers that they can and should evaluate development not only by economic advances but also improvements in human well-being. Sen initially opposed this idea, but he went on to help Haq to develop the Index. Sen was worried that it was difficult to capture the full complexity of human capabilities in a single index but Haq persuaded him that only a single number would shift the attention of policy-makers from concentration on economics to human well-being.

The basic goal of development is to create an environment that enables people to enjoy a long, healthy, creative life. This fundamental truth is often forgotten in the immediate concern with the accumulation of goods and money. Thus human development can be simply defined as a process of enlarging choices. It is concerned with the process through which choices are enlarged, but it also focuses on the outcomes of enhanced choices. Hence human development is both a process and an outcome. Development of the people involves building human capabilities through the development of human resources. Development for the people implies that the benefits of growth must be translated into the lives of people, and development by the people which emphasizes that people must be able to participate actively in influencing the processes that shape their lives

A distinction can also be drawn between human resources development and human development. The former focuses of the production aspect and as such deals with people as a

factor of production like material capital and natural resources. Thus, the end goal of investment in human capital, in terms of health, education, nutrition and training, is to boost production and generate additional income. Thus, the concept of human development, in line with its focus on enabling people to enjoy a better life as the ultimate goal of human endeavour, highlights that this goal cannot be achieved solely through improvements in income or material well-being.

The concept further emphasizes the inter-dependence between the key components of human well-being: without adequate income, many health and education services may not be accessible; and without a good education rewarding jobs and income opportunities may not be available to an individual. Therefore, these components of human development must be treated within a comprehensive framework. And while the evaluation by people may change over time and differ between countries and even groups within the same country, the basic components of human development - income, education and health - are nevertheless considered essential at all levels of development. Furthermore, if these three essential choices or ingredients are not available, other opportunities, which are also important for human well-being, would remain inaccessible. The expansion of choices in the areas of education, income and health not only provides necessary conditions for a better material life, but also paves the way for the creation of a suitable environment for advancement and creativity.

UNDP introduced the Human Development Index (HDI), with the objective of measuring human progress and quality of life at the global level. The international community adopted the HDI as the indicator to measure a country's development progress. The HDI constitutes the first comprehensive attempt to measure achievements in development from a human perspective, expressed in terms of numerical indicators that permit inter-country and inter-temporal comparisons. The HDI combines in one composite index, indicators of health, education and income which intend to reflect achievements in the most basic human capabilities: living a long life, being knowledgeable and enjoying a decent standard of living.

The study of human resources is vital from the point of view of economic welfare. It is particularly important because human beings are not only instruments of production but also ends in themselves. It is necessary to know in quantitative terms the number of people living in a country, the rate at which they are growing and the composition and distribution of population.

Demographic transition consists of three stages. In the first stage, an agrarian economy on account of poor diet, primitive sanitation and absence of effective medical aid, birth rate is high as a consequence of widespread prevalence of illiteracy; absence of knowledge about family

planning techniques, early marriage and deep-rooted social beliefs and customs about the size of the family and attitude towards children.

In the second stage, rise in income level enables the people to improve their diet. Economic development also brings about all-round improvement including the improvement in transport by which the supply of food is regular. All these factors tend to reduce death rate. Thus, in the second stage, birth rate remains high but death rate begins to decline rapidly. This accelerates the growth of population. High growth potential of the first stage is realised in the high actual growth in the second stage as a consequence of decline in death rate.

High birth rate and falling death rate contribute to the growth of the average size of the family in the second stage. In the third stage, population tends to shift away from rural areas towards industrial and commercial centres. Growth of urban population, the consciousness to maintain reasonable standard of living tends to reduce the size of family in an industrialized economy. Thus, the characteristics of the third stage are low birth rate, low death rate, small family size and less growth rate of population. This is the stage of incipient decline of population. There are four indices namely, Human Development Index, Gender Inequality Index, Child Development Index and Multi Dimensional Poverty Index.

Human Development Index in Nilgiri District

Human development is a multidimensional feature. HDI is a composite index measuring average achievement in 3 basic dimensions and 11 indicators of human development. The dimensions are standard of living, health and education. These three dimensions are crucial contributing the human development of the block and district. Details of the indicators have furnished 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 Ratio Under 5 Mortality Rate
Education	Literacy rate Gross enrollment in Primary Gross enrollment in secondary

Index value falls from 0 to 1. The human development index is the positive index. Here closer to the 1, higher the index value shows higher human development and the value shows closer to 0, lower the index value shows lower human development. In this report HDI, GII, CDI and MPI are computed for the 4 blocks in Nilgiri district. HDI is presented in Table 2.1.

Table 2.1. Top and Bottom two blocks in Human Development Index, 2013

Top 2	Bottom 2
Coonoor (0.69) Udhagai (0.68)	Gudalur (0.51) Kotagiri (0.52)

Source computed: Nilgiri district indices Computation

The table shows source the HDI of the Block in the district based on HDI scores, the Coonoor block was ranked as the first (0.69) and followed by Udhagai block (0.68), Kotagiri block (0.52) and Gudalur block (0.51). It shows within the district, the inter-block disparity is high in terms of human development.

Gudalur block is backward in the three computed dimensions. In standard of living indicator, the follwoing are the indicaters low access to cooking fuel (28%), pucca house (53.8%), toilet (63.88%) and electricity (67%). In health indicator, high IMR (5) and high U5MR (4), low literacy rate (86) are the causing factors for poor performance of the block.

Kotagiri block is the second worst block in the district, the reasons are less access to cooking fuel (58%), toilet facilities (50.76%) in standard of living category, whereas high MMR (227) and high IMR (70) from health indicators.

Gender Inequality Index

Gender inequality index measures human development attainment of females as a proportion over that of males. The Gender Inequality Index (GII) reflects gender-based disadvantages and discrimination in different dimensions. 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 Gender Inequality Index consists of three indicators viz., health, empowerment and labour market. The health indicator consists of three factors such as Maternal Mortality Rate, share of institutional deliveries and share of Ante natal coverage. The empowerment indicator consists of female literacy rate, male literacy rate, share of female

children, share of male children in the age group of (0-6), share of female elected representatives in ULB/RLB and share of male elected representatives in ULB/RLB. The labour market indicators consist of female work participation rate, Male work participation rate female agri wage rate etc. These three dimensions have fourteen indicators to compute the GII. The indicators are given below.

Dimensions	Indicators
Health	MMR Share of institutional delivery Share of 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

Based on GII, Gudalur (0.03) is designated as the first rank, followed by Coonor (0.04). Udhagai (0.06) and Kotagiri (0.08).

Table 2.2. Top and Bottom two blocks in GII, 2013

Top 2	Bottom 2
Gudalur (0.03 Coonoor (0.04)	Kotagiri (0.08) Udhagai (0.06)
Source: Nilgiri district indices computation	

In Kotagiri block, the highest GII value is due to higher MMR (227) from health aspects, share of female children (0-6) years is low (48.44%), share of elected representative in RLBs and ULBs (29%) and low female work participation rate (44.75%).

In Udhagai block, higher MMR (72), low share of elected representatives in RLBs and ULBs (28%) , low female worker participation rate(43.40%) and low female worker participation

rate in non agri sector (68%). There is minimum difference between the share of male children and female children in the district. Each factor stands with nearly 50 percent. The share of male children is more than the share of female children in all the blocks except in Udhagai. In Udhagai, both factors share are more or less equal. Both in the district as well as in the blocks the share of female elected representatives is low when compared with male elected representatives. While the share of female elected representatives are less than 45 percent, the share of male are more than 45 percent. Due to increasing importance of service sector the worker participation rate in non – agriculture sector has increased many fold.

In the entire block male worker participation rate is higher than that of female. Female worker participation rate ranges between 30–45 percent while male worker participation rate ranges between 55-60 per cent. In both the cases worker participation rate in non- agricultural sector is more in all the blocks, which shows the development of service sector. The female agriculture wage rate in the block ranges between 170–180 and the male agriculture wage rate ranges between 240–260

Contrary to this high MMR, Lower Female literacy, higher share & female children low female work participation rate, low account cooking fuel, low access to electricity, low percentage share access to Pucca house have all been trussing a higher GII in the case of Udhagai. The high dependence on tea plantation, small scale tea sectors either as tea growers or laborious has poor remuneration wage rate which eventually affected the standard of living of these masses.

Child Development Index

The Child Development Index consists of two parameters with seven indicators. The Child Development Index (CDI) provides insight into how children are faring across geographical units. The index combines measures of health, nutrition and education. Indicators are for Health (UR5MR), for Nutrition (Child sex ratio (0-6) and percentage of Malnourished Children) and for Education (Enrolment in primary and secondary, transition rate from primary to upper primary and to secondary, children never enrolled in school). Their right to education includes the right to learn. High-quality early-childhood care and education are now widely acknowledged as having the potential to enhance the lives not only of children but of whole communities. Early childhood is an important period in life that sets trajectories in the development of a child's health, education and wellbeing. Research shows that quality Early Childhood Care and Education (ECCE) has multiple benefits for individual children, their families and society as a whole. In general, it is observed that these two parameters are found high in urban areas and low in rural. The following analysis shows the details about the child development index. For analysing the data pertained to child development index, the methodology was adopted as given by the state planning commission. Indicators used for CDI

computation are furnished here.

Dimensions	Indicators
Health	U5MR Child sex ratio Percentageof 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

In the district, the CDI value is higher than HDI. It denotes child development is better than the human development in the district. The top and bottom two blocks of the district in the CDI has given below:

Table 2.3. Top and Bottom three blocks in Child Development Index, 2013

Top two blocks with higher CDI value	Bottom two blocks with lower CDI value
Coonoor (0.80) Udhagai (0.65)	Gudalur (0.51) Kotagiri (0.53)

It could be seen from the table that Coonoor (0.80) stands first, followed by Udhagai (0.65), Kotagiri (0.53) and Gudalur (0.51). The health and education index was favourable to Coonoor block(1.0) when compared to Udhagai and Gudalur blocks .Moreover, Coonoor is very near to plain area, so the people of Coonoor get treatment in plain such as Mettupalayam and Coimbatore immediately where improved medical facilities are available.

In Gudalur block, high U5MR (5), malnourished children (18%) from health indicators; comparatively low transition rate from primary to upper primary (97.6%) and upper primary to secondary (97.63%) from education indicators are causing poor performance of Gudalur block based on child development index.

In Kotagiri block, high malnourished children (24%), comparatively lower transition rate from primary to upper primary (98.20%) and upper primary to secondary (97.34%) from education indicators are causing for poor performance of the block based on Child Development Index. The poor CDI index is due to low due to low standard of living, more people dependence on small tea growers and agricultural labours.

Multidimensional Poverty Index

In Multidimensional Poverty Index, the important parameters considered are health, education and living standards. The major indicators of health are IMR, high order birth rate and malnourished children. The proportion of population without access to basic medical services, proportion of deliveries not receiving medical attention, proportion of children not immunized were also considered as important health variables. The education indicators indicates dropout in primary and secondary. The prime indicators are access to cooking fuel, access to toilet facilities, access to drinking water access to electricity and access to pucca house. All the cited variables would reflect the economic inability of people to have access to these services. Indicators used for MPI computation furnished here.

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

The top and bottom three blocks of the district in the Multi-dimensional poverty index are given below table 2.4

Table 2.4. Top and Bottom two blocks in Multidimensional poverty index, 2013

Top Two blocks with Lower MPI value	Bottom Two blocks with Higher MPI value
Kotagiri (0.62) Udhagai (0.52)	Gudalur (0.41) Coonoor (0.33)

It is observed from the above table that Kotagiri (0.62) is found tohave the highest MPI, followed by Udhagai (0.52), Gudalur (0.41), and Coonoor (0.33). In Kotagiri block, high IMR(17), high malnourished children (24%) from health indicators; low access cooking fuel (58%), and toilet facilities (50.76%) are the causing variables for higher MPI. Udhagai has registered less Pucca house, toilet facilities, more over high MR, and higher malnourished children. When we compared to all the blocks Udhagai block depends on small tea growers and agricultural labourers. The fluctuating raw tea price is one of the major causes for poverty in Udhagai.

HDI, GII,CDI AND MPI are computed for 4 blocks in Nilgiri district and presented in Table 2.5

Table 2.5: Different Indices of Human Development

Blocks	HDI		GII		CDI		MPI	
	Value	Rank	Value	Rank	Value	Rank	Value	Rank
Udhagai	0.68	2	0.06	3	0.65	2	0.52	2
Coonoor	0.69	1	0.04	2	0.80	1	0.33	4
Kotagiri	0.62	3	0.08	4	0.53	3	0.62	1
Gudalur	0.51	4	0.03	1	0.51	4	0.41	3

Source: Computated data.

Conclusion

Human Development Indices in the selected blocks of the Nilgiri District, Coonoor block was ranked as the first (0.69) and followed by Udhagai block (0.68), Kotagiri block (0.52) and Gudalur block (0.51) back ward of Gudalur block is due to low access to cooking fuel (28%), pucca house (53.8%), toilet (63.88%), electricity (67%), high IMR (5), high U5MR (4) and low literacy rate (86). In Kotagiri block, low access to cooking fuel (58%), toilet facilities (50.76%) and high MMR (227) and high IMR (17) are the causing factors (annexure 2.1)

Based on GII, Gudalur (0.03) is designated as the first rank, followed by Coonor (0.04). Gudalur (0.04), Udhagai (0.06) and Kotagiri (0.08). In Kotagiri block, the highest GII inequality is due to higher MMR (227), low share of female children (0-6) years (48.44%), low share of elected representatives in RLBs and ULBs (29%) and low female work participation rate (44.75%). Higher MMR (72), low share of elected representatives in RLBs and ULBs (28%), low female worker participation rate(43.40%) and low female worker participation rate in non agri sector (68%) are the causing factors in the Udhagai block (annexure 2.2).

CDI inequality is higher than HDI. Coonoor (0.80)stands first, followed by Udhagai (0.65), Kotagiri (0.53) and Gudalur (0.51). In Gudalur block, high U5MR (5), malnourished children (18%) from health indicators; comparatively low transition rate from primary to upper primary (97.6%) and upper primary to secondary (97.63%) from education indicators are causing factors for poor performance. In Kotagiri block, high malnourished children (24%), comparatively lower transition rate from primary to upper primary (98.20%) and upper primary to secondary (97.34%) from education indicators are causing factors for it. (annexure 2.3)

The highest MPI is found in Udhagai (0.52), Gudalur (0.41), and Coonoor (0.33). In Kotagiri block, high IMR(17), high malnourished children (24%) from health indicators; low access cooking fuel (58%), and toilet facilities (50.76%) are the causing variables. Udhagai has

registered less Pucca house, toilet facilities, more over high MMR, and higher malnourished children. (annexure 2.4)

This chapter accommodates theoretical and conceptual framework and the methodology for evolving various indices such as HDI, GII and MDPI. Each index reflects the development of specific sector and reveals the pros and cons of each block. This analysis would help the policy makers for evolving policies and achieving overall development of the block both at the household and regional level. Further, it gives guidelines for removing stumbling blocks in the execution of various development programmes conceived for alleviating poverty and reduction of inequality in the district. Each index, indictors and block wise performances are categorized as top and bottom two blocks, Juxtaposition of the results, there is no symbiotic relationship among the indices as well as with in the index. It shows that the level of development varies among the block as well as various sectors. It clearly prescribes specific sector and block wise interventions needed in achieving sustainable and balanced development in the district.

The performance of HDI is varied significantly across four blocks of the district. The differences between minimum and maximum HDI values are around 20 percent. The human development perspective is that adequate attention may be given to the worst two blocks, who have performed well below the level of district such as Gudalur (0.51) and Kotagiri (0.52) Among the four blocks, government can prioritize sectors and earn mark the funds for achieving human development uniformally in the areas of the Nilgiris District. The GII of the district is very close to zero in all the blocks of the district however, there is a scope to reduce gender discrimination in the district. This index may also be conceptualized in addressing the issues of gender development accommodating ground overlie.

The performance of CDI well below the mark in two blocks (Kotagiri and Gudalur) indicates adequate attention may be given to these blocks in terms of education and health. The performance of MDPI is fairly well only in two blocks of the district. The rest of the two blocks such as Gudalur (0.41) Coonoor(0.33) may be prioritized and funds be earn marked in alleviating poverty and establishing egalitarian society Intra- District variations in terms of HDI, GII, MDPI and their contributing factors are examined in the following chapter.

CHAPTER 3

EMPLOYMENT, INCOME AND POVERTY

CHAPTER

3

EMPLOYMENT, INCOME AND POVERTY

Introduction

The main objective of this development is to raise levels of living, including in addition to higher income, the provision of more jobs, better education and greater attention to poverty reduction. Proper identification of the poor and better targeting of subsidies under various schemes and programmes has necessitated the significance reduction of poverty. Amartya Sen defines poverty as deprivation of basic capabilities rather than merely low income, which is the standard criterion of capability deprivation. Paradigm shifts in economic and social policies which are needed to augment more employment opportunities.

The population engaged in productive work, the quality of employment and the remuneration received by the working population plays a major role in determining the human development. Lack of adequate opportunity for employment creates the vicious circle of poverty. There is a strong relationship among employment, income and poverty. This chapter reveals the effects of employment, income and poverty in the development of the district. The work participation rate(WPR) i.e, proportion of working population to total population, depends upon such factors as age and sex composition, attitude to work, availability of workers etc. All these factors differ from country to country and may differ even within the same country in different periods.

Employment

Total Workers and Non-Workers

Labour, being a primary factor of production, the size of labour force is of great importance for the level of economic activity in a country. In the determination of the size of the labour force, it is customary to exclude children below the age of 15 years and old people above the age of 60. In India, poverty forces people belonging to these groups also to work just to meet the subsistence.

Table 3.1: Total Workers and Non Workers in the Nilgiri 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	Udhagai	117707	165805	66225	15301	10228	12714	14041	160552	128484	219305
2	Coonoor	76424	40252	7129	53714	10228	2025	98643	98638	175067	177306
3	Kotagiri	59025	61491	55200	57939	5215	3552	54572	54948	113597	108684
4	Gudalur	46661	131923	76176	113583	3825	18340	125140	171466	215369	230099
	District	**299817**	**398471**	**204730**	**242548**	**29496**	**36631**	**292396**	**458615**	**632517**	**735394**
	Tamil Nadu	**27878282**	**32884681**	**23757783**	**27942181**	**4120499**	**4942500**	**34527397**	**39262349**	**62405679**	**72147030**

Source: Census Hand Book 2001 - 2011

Table 3.1 shows total workers in the Nilgiri District had increased from 47.40 % in 2001 to 54.32 % in 2011. The total workers in Udhagai during 2001 were 39 %, which increased to 41% during 2011. While in Coonoor and Kotagiri, the total workers had decreased from 26% during 2001 to 11% in 2011 in Coonoor and in Kotagiri from 20 % during the year 2001 to 15 % during 2011. This reduction is due to out-migration of local labourers to Mettupalayam, Tiruppur and Coimbatore for higher wages in industries. In Gudalur, it had increased from 15 % to 33 % during 2011. This is due to immigration of labourers from Kerala state.

Among the main workers, WPR was high in Gudalur (37 %), followed by Udhaga (33 %), Kotagiri (27 %) and Coonoor (3%) in 2001, whereas it was 47% in Gudalur, 24 % in Kotagiri, 22% in Coonoor and 7% in Udhagai. Among the marginal workers, Udhagai and Coonoor had 35% during 2001 while Kotagiri had 17% followed by 13% in Gudalur. It increased in Gudalur from 13% to 50 %. Coonoor had a decline of 6% from 35% followed by Kotagiri, it decreased by 10% from 17%. Among the non – workers in 2001, 34% belonged to Coonoor followed by Gudalur with 32%, and 19% by Kotagiri and 5% by Udhagai. During 2011, Udhagai increased to 20% Gudalur's % had increased to 34% while Coonoor and Kotagiri's percentage age decreased to 28% and 19% respectively. The increase of labour force in the blocks is due to in-migration of north India labourers especially from Bihar, Odissa, West Bengal. The reduction of labour force in the blocks is due to outmigration of local labourers to Mettupalayam, Tiruppur and Coimbatore for higher wages in industries. The details of worker participation rate are given in Table. 3.2

Work Participation Rate

Table 3.2 : Percentage of Work Participation Rate

Rural/Urban	2001	2011
Rural		
Male	25.07	25.42
Female	20.32	20.34
Persons	22.69	22.88
Urban		
Male	35.38	35.20
Female	19.24	19.04
Persons	27.31	27.12
Total		
Male	60.45	60.63
Female	39.55	39.37
Persons	50.00	50.00

Source: Labour department, The Nilgiris

Work Participation Rate (WPR), in the district is 50 percent, and there is not much variation in the WPR between 2001 and 2011. The female WPR has slightly decreased from 39.55 percent to 39.37 percent. There is wide disparity in WPR between rural and urban population. The WPR is more than double among males in urban areas compared to that of rural areas.

Employment and Placement

Unemployment is said to exist when people are willing to work at low wages and cannot find jobs. Unemployment leads to increase in economic overload. The dependence of the unemployed on the working population increases. The quality of the individual as well as of society is adversely affected. The registrations and placement is presented in table 3.4.

Table 3.3. Number of Persons Registered and Placed during 2007 to 2014

Year	Registration	Placement	% of Placement
2007	11987	181	1.51
2008	10123	423	4.18
2009	11271	279	2.48
2010	13294	560	4.21
2011	16575	227	1.37
2012	16754	429	2.56
2013	15738	197	1.25
2014	16574	69	0.42

Source: Employment office, The Nilgiris- 2014

Percentage of placement through District Employment Office had only 1.25 percent in 2013 (Table 3.5). The registration for employment, the number of unemployed increased from 11987 in 2007 to 16574 persons in 2014. The number of persons registered for employment in the registration office and got placement is showing a decreasing trend. There is wide fluctuation in the percentageof placement.

Growth in Per Capita Income

Per capita income, also known as income per person, is the mean income of the people in an economic unit such as a country or city. It is calculated by taking a measure of all sources of income in the aggregate (such as GDP or Gross national income) and dividing it by the total population.

Table 3.4: Per Capita Income in The Nilgiri District

(In Rupees@ 2004-05 prices)

Year	District	State
2008-09	54270	43193
2009-10	58170	47394
2010-11	66017	53507
2011-12	51738	63996

Source: Department of Economics and Statistics, Govt of Tamil Nadu.

The per capita income in the district during 2001 was Rs 19,377 whereas it was Rs. 51738 in 2011-12. It shows the positive trend in per capita income and also lower than the state average (Rs. 63996).

Box 3.1: MGNREGP in the Nilgiri District

The Mahatma Gandhi National Rural Employment Guarantee Act (NREGA), established on September 7, 2005, marked a paradigm shift from the previous wage employment programmes with its rights-based approach that makes the Government legally accountable for providing employment to those who demand it. In Nilgiri District the scheme is being implemented since 01.04.2008.

In Nilgiri District, the 35 Village Panchayats in the 4 blocks viz., Udhagamandalam, Coonoor, Kotagiri and Gudalur have been divided into 200 clusters and works are being executed in these clusters. During the year 2012-13, 474 project works were taken up and completed by incurring an expenditure of Rs.2055.574 lakhs. During the year 2013-14, 1896 project works have been taken up and out of which 1885 works have been completed at an expenditure of Rs.1440.96 lakhs and the spill over 11 works have been taken up during 2014-15. Upto 2013-14, only 100% labour oriented works were taken up under MGNREGS in this district.

From the year 2014-1, 5 materials involved in infrastructural works such as construction of Village Panchayat Service Centre, Block Panchayat Service Centre, Foodgrain Godown, Anganwadi centres, Panchayat Buildings, Cattle and Goat Shelters are also taken up. During the year 2014-15, apart from building works focus has been given for providing Green Cover by planting 42519 tree saplings outside forest area i.e., in Panchayat/Revenue lands, avenue plantation in Panchayat roads and Panchayat union roads.

51022 households were benefited and employment provided 5.3 lakhs man-days. As envisaged in Para 17.1 of MGNREGS Act 2005, Social Audit Unit has been established. The Social Audit Team comprising of District Resource Person, Block Resource Persons and Village Resource Persons are taking audit in Panchayats and in field.

Poverty and Inequality

Poverty can be defined as a social phenomenon in which a section of the society is unable to fulfil even its basic necessities of life. Since poverty has many facets, social scientists look at it through a variety of indicators. Usually indicators are used to relate to the levels of income and consumption.

But now poverty is looked through other social indicators like literacy level, lack of general resistance due to malnutrition, lack of access to health-care, lack of job opportunities,

lack of access to safe drinking water, sanitation etc. Analysis of poverty based on social exclusion and vulnerability is now becoming very common. The percentageof BPL households in the district is presented in table 3.5.

Table 3.5: Percentageof BPL Households in The Nilgiri District

S.No.	Block	BPL Families (%) 2013-14
1	Udhagai	43.18
2	Coonoor	44.62
3	Kotagiri	38.14
4	Gudalur	16.73
	District	**32.19**

Source: DRDA, The Nilgiris. 2014

It is observed from the above table that among the total no of households in the district, 32.19 per cent of families are below poverty line and the highest registered is in Coonoor (44.62 %), followed by Udhagai 43.18 %), Kotagiri (38.14 %) and Gudalur block (16.73 %) in 2013-14.

Table 3.6: Family Card Holders in the Nilgiri District - 2014

Sl. No	Block wise/ District	% of H.H. Family Card Holders 2013-14
1	Udhagai	87
2	Coonoor	86
3	Kotagiri	90
4	Gudalur	97
	District	90

Source: DSO, The Nilgiris 2014

In the district, nearly 90 percent of people are provided with ration cards. Among the four blocks, Gudalur has the highest (97 %) card holders and least in Coonoor (86%).

Box 3.2: Child Labourers

The detail about the prevalence of child labour in four blocks were given in the Appendix Table . It was observed a decreasing down trend in terms of employing children. In Nilgiris, Coonoor has the maximum child labour i.e. three nos. Next to Coonoor, the child labour is more in Udhagai i.e. 2 numbers and in Gudalur it was only one. It was given to understand that there is more child labour in Kotagiri during the period 2013-04.

3.3. Case Study 1: Potentiality and Status of Tourism in the Nilgiri District

Tourism is an important source of revenue for the Nilgiri District. The district is home to much beautiful hill station popular with tourists who flock to them during summer. The Mountain Train is popularly known as the Toy Train is popular among tourists. Mudumalai National Park is popular among wildlife enthusiasts, campers and backpackers. The flower show organised by the Government of Tamil Nadu at the Botanical Garden in Ooty is a much attracted event. Nilgiris is renowned for its eucalyptus oil and tea. The district with its suitable climatic condition throughout the year makes the place a very comfortable tourist destination.

There is a stagnant growth in the flow of foreign tourists and domestic tourists. Domestic tourist arrivals are more i.e. 20,11,165. Foreign tourist arrivals in 2001 and 2011 were 20,654 and 32,438 respectively. The department of tourism is to take care of this stagnant growth of the tourism; even it has an enormous opportunity. Generally, from January to March tourist arrivals were less but only during April tourist arrivals would be higher compared to other months. The arrival of tourists during April was the highest of 2,47,488 in the year 2013.

It is the opinion that the environment is not so good to attract more tourists. It is noted that the development of tourism is one of the important areas where the local authorities need to concentrate because it earns more revenue for the economy to grow. The data on tourist arrival shows a fluctuating trend. Change of climatic condition also another important cause for the less arrival of tourists. In the month of April and May normally the tourists will be high, remaining months the crowd may not be much as expected. The district has every potentiality to attract tourists; the authorities have to concentrate more on this area to increase the tourist arrival thereby to increase the revenue of the district.

Conclusion

The total workers in the district are 54 % of the total population. The main and marginal workers constitute 33% and 5% respectively. Per capita income of the district was Rs. 51738 in 2011-12. The work participation rate was 50%. Percentage of registration of households to total households in the district under MGNREGS was 65.40%. Employmens provided under MGNREGS was 23820 households in the districts. BPL households in the districts were 32%. 90% of the total households in the district had family cards. The details about the prevalence of child labour in four blocks are given in the table, it was observed that there was a declaining trend in terms of employing children. In Nilgiris, Coonoor has the maximum child labour in 3

numbers. Next to Coonoor, the child labourers are more in Udhagai in two numbers and Gudalur it was only one. It was given to understand that these is no child labour in Kotagiri (During the year 2013)

In the right of above analysis, it could be concluded that the District's work participation rate has constant between 2001 and 2011. A similar picture is obtained both in rural and urban areas of the district. In the context of composition of workers, the number of cultivators has drastically come down in the district. This has been offset in agricultural labourers, household industry workers, and other workers. It reveals that there is a transition from agriculture to non-agriculture activities due to fluctuating green leaf tea prices. Further avenues opened up in the district to switch over for having high profit. Besides, Government has executed MGNREGS in all the blocks of the district for providing sustainable employment.

The role of district employment exchange in providing employment is very marginal and the opportunities are very limited in government sector. The district per capita income is low compared to state income. It reflects in the number of below poverty line households. The level of poverty varied among the blocks. There is rich scope in addressing poverty and alleviating the same specifically vulnerable population live in all the blocks of the district. This government is providing a lot of freebies to the targeted population expecting to fill the income gap at the households' level. This chapter leads to make further analysis on demography, health, and nutrition, which follows in the next chapter.

CHAPTER 4

DEMOGRAPHY, HEALTH AND NUTRITION

CHAPTER

4

DEMOGRAPHY, HEALTH AND NUTRITION

Introduction

Health is much more than just life expectancy that includes fertility, morbidity, mortality and nutrition status. Hhealth status is an outcome of Government policies and programmes along with other socio-economic conditions. This chapter documents the demographic, health and nutrition status of the Nilgiri district. It analyses the trends and changes in health and nutritional indicators in the district and the Government policies and programmes.

Demography, Health and Nutrition

Before proceeding to the study of the methods used for demographic analysis, it is necessary to have a clear formulation of the process of change in the population. The demographic process can be defined as the sequence of changes that are brought about in a population due to the interplay of demographic events. The description of the demographic process as proposed can help to provide a basis to build up arguments towards the construction measures. As far as birth, marriage, death occurs in a definite sequence. The birth marks the beginning and death the end, with events like entry into school, marriage and pregnancy, occurring in between in a definite order.

The demographic process can be viewed as the continuous formation and reformation of sub- groups in a population due to the occurrence of several events that can take place only in a definite natural sequence in the case of an individual. The basic unit for the measurement of the process of demographic change will be provided by the number of demographic events occurring in it during a unit of time. Demography is the study of process of change in population. Technical demography is a branch of the subject that deals with the methods, techniques and measures used in demographic analysis.

Population and Demographic Transition

The change in size of population is called population growth. The term growth is used irrespective of whether the change is negative or positive. The simplest measure of population growth is the rate of natural increase. The difference between the number of births and deaths during a given period is the natural increase during the period.

Table 4.1: Demographic Profile(2011)

Sl.No	Block wise / District / State	Population		Density		SC pop%		ST Pop %	
		2001	2011	2001	2011	2001	2011	2001	2011
1	Udhagai	258108	219305	299	288	31.34	29.82	1.73	1.55
2	Coonoor	175067	177306	303	292	30.12	24.11	1.26	0.33
3	Kotagiri	113597	108684	296	286	29.34	14.78	1.36	0.86
4	Gudalur	215369	230099	299	287	32.18	31.29	1.52	1.48
	District	**762141**	**735394**	**299**	**288**	**30.75**	**25.00**	**1.47**	**1.06**
	State	62405679	72138958	480	555	19.00	20.01	1.04	1.10

Source: Census Handbook – 2001 and 2011

Population size and its growth rate have been examined in the table 4.1 based on the block wise data in the Nilgiri District. The total population of the district is 7,35,394 according to the 2011 census, but it has declined compared to 2001 census which accounted 7,62,141. Among the four blocks of the district, the total number of population diminished in Udhagai and Kotagiri compared to 2001 census which was registered 2,19,305 and 1,08,684 in 2011 census. But in Coonoor and Gudalur block, it increased in 2011 census compared to 2001 census. The total population in 2001 census was 1,75,067 in Coonoor and in Gudalur, it was 215369 but as per 2011 census it was 177306 in Coonoor and 230099 in Gudalur.

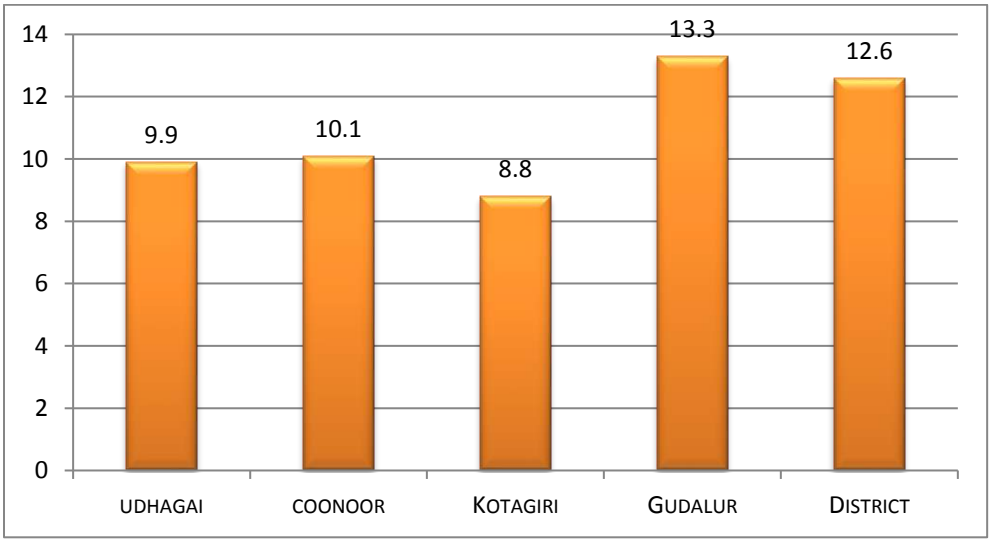
The percentage of SC and ST population decreased from 30.75 % and 1.47 % respectively in 2001 to 25 % and 1.06 % respectively in the district. The percentage of SC population was 31.34 per cent in 2001 and 29.82 percent in 2011 in Udhagai, 30.12 percent in 2001 and 24.11 percent in 2011 in Coonoor, 29.34 percent in 2001 and 14.78 percent in 2011 in Kotagiri, 32.18 percent in 2001 and 31.29 percent at Gudalur in the year 2011. The percentage of the ST population is accounted 1.73 percent in 2001 and 1.55 per cent in 2011. The reason for the reduction of the population in the district is due to out migration of native people to Mettupalayam, Coimbatore and Tiruppur for getting adequate employment, education and health facilities. Age old persons (more than 60-65 years) are not able to live normal life especially sick persons. They want to move down to plains for treatment and health care.

Crude Birth and Death Rate

The Crude Birth Rate (CBR) and Crude Death Rate (CDR) are statistical values that can be utilized to measure the growth or decline of a population. The Crude Birth Rate and Crude Death Rate are both measured by the rate of births or deaths respectively among a population of

1000. The CBR and CDR are determined by taking the total number of births or deaths in a population and dividing both values by a number to obtain the rate per 1000(Appendix 1 table 1.1 and 1.2)

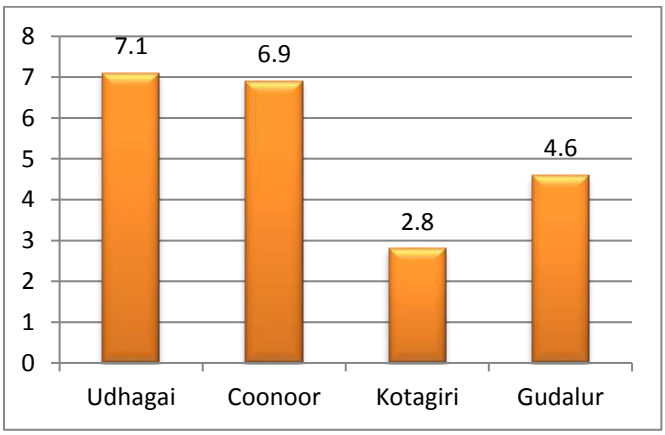
Figure 4.1: Crude Birth Rate in the Nilgiri District (2013-14)



Source : Office of the DD Health, The Nilgiris.

The CBR in the district was 12.6 in 2007,the figure is given for 2013-14, it shows showed whereas it was reduced to 10.5 in 2013-14. The highest CBR was found in Gudalur (13.30), followed by Coonoor (10.1) and Udhagai (9.9). In the case of urban areas, the crude birth rate is same both in Udhagai Municipality and Coonoor which accounts 9.3 per thousand in 2013-14.

Figure 4.2: Crude Death Rate in the Nilgiri District (2013-14)



Source : Office of the DD Health, The Nilgiris.

The CDR in the district was 4.9 in 2013-14 which is found to be the highest in Udhagai (7.1), followed by Coonoor (6.9), Gudalur (4.6) and Kotagiri (2.8). Udhagai Municipality and Coonoor are considered as urban areas in the district. In the recent year, Udhagai and Coonor are to be considered seriously for this problem. (Appendix 1.1 & 1.2)

Sex Ratio

The sex ratio is an important indicator of social values and systems. In the past, problems like female infanticide and preference for the male children were reported in some parts of the state. Sex ratio refers to the ratio of number of females to every 1000 males. In the Population Census of 2011 it was revealed that the population ratio in India 2011 is 940 females per 1000 males. In Nilgiris, the overall sex ratio was 1041 as per 2011 census (Table 4.2)

Table 4.2: Sex Ratio

Sl. No.	Block wise / District / State	General		No. of Increase or Decrease	SC		No. of Increase or Decrease
		2001	2011		2001	2011	
1	Udhagai	1014	1055	37	1019	1020	1
2	Coonoor	1016	997	-32	1028	1038	10
3	Kotagiri	1020	1064	27	1032	1047	15
4	Gudalur	1008	1048	40	1013	1027	14
	District	**1014**	**1041**	**22**	**1023**	**1033**	**10**
	State	**987**	**995**	**8**	**999**	**995**	**-4**

Sources: Census hand book 2011

For comparing the relative strength of the number of male children and the female children in a population the common measure used is the Child sex ratio is 956 in Kotagiri followed by Gudalur with 986, Udhagai with 1014 and Coonoor with 1055 (Table 4.3)

Table 4.3: Child Sex Ratio (0-6)

Sl. No.	Block wise / District / State	2011		Sex-ratio	% of 0-6 age group	
		Population in the age group of 0-6				
		Male	Female		Male	Female
1	**Udhagai**	9814	9947	1014	49.66	50.34
2	**Coonoor**	7174	7569	1055	48.66	51.34
3	**Kotagiri**	4666	4459	956	51.13	48.87
4	**Gudalur**	6564	6472	986	50.35	49.65
	District	**28218**	**28447**	**1008**	**49.80**	**50.20**
	State	**3820276**	**3603556**	**946**	**49.66**	**50.34**

Source: Census Hand Book, 2011

Life Expectancy

Life expectancy is a statistical average of the number of years a human is expected to live; this will vary according to region and area. Advances in medical field and the implementation of many welfare schemes targeting the poor increased the life expectancy. The life expectancy in the Nilgiri district is shown in the table 4.4. The average life expectancy at birth based on 2011 census is 77.9 years which is higher than that of the State average (73.4)

Table 4.4: Life Expectancy at Birth (2013-14)

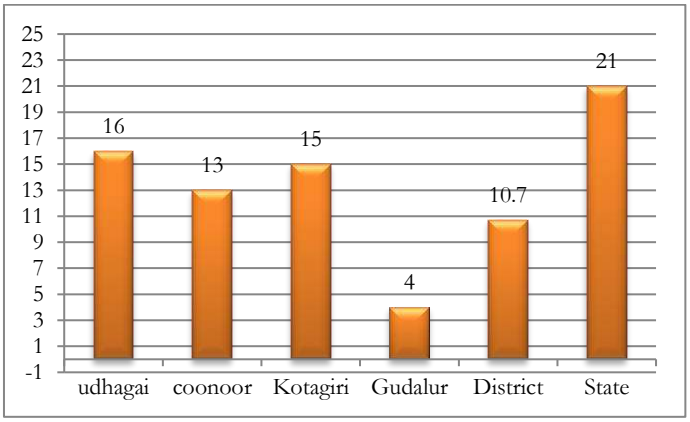
Sl.No	Block /District /State	Male	Female	Average
1	District	75.9	80.1	77.9
2	State	71.78	75.20	73.4

Source: SRS 2014

Infant Morality Rate

In some developing countries, deaths before the age of five account for as much as half of total mortality. A high proportion of these deaths are the result of infectious or parasitic diseases which thrive in unsanitary and overcrowded living conditions the inevitable accompaniments of poverty. Disease related to malnutrition is more dangerous, which increases vulnerability and decreases the ability to recover and is typically found among the poor. A considerable improvement can be made by spreading awareness of the causes of disease and helping to eliminate them. The children of uneducated mothers are least likely to know about the importance of nutrition and hygiene and are twice as likely to die in infancy compared to the children of literate mothers. The infant mortality rate in the Nilgiri district is based on the block wise in 2013-14 (Appendix .1, Table 1.3).

Figure 4.3: Infant Mortality in the Nilgiri District (2013-14)



Source:Office of the DDH,The Nilgiris(2013-2012)

The Infant Mortality Rate in the Nilgiri district was 10.70 in 2013-14 which was lower than the State average (21). The IMR was the highest in Udhagai (16), followed by Kotagiri (15) and Coonoor (13). The overall IMR in all blocks had a decreasing trend. This is a positive sign for health indicators. This is due to consistent efforts of medical professionals and administrators in the district.

Maternal Mortality Ratio

Maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. To facilitate the identification of maternal deaths in circumstances in which cause of death attribution is inadequate, a new category has been introduced: The MMR also depends upon the health and well – being of the community. The MMR at block level is presented in Table 4.5.

Table 4.5: Maternal Mortality Ratio in the Nilgiri District (2013-14)

Sl. No	Block wise/ District	2013-14
1	Udhagai	72.00
2	Coonoor	0.00
3	Kotagiri	227.00
4	Gudalur	0.00
	District	**74.75**
	State	**68.00**

Source: Office of the DDH, The Nilgiris (2013-14)

The Maternal Mortality Ratio in the Nilgiri district was 74.75 in 2013-14 which was higher than the state average (68). The MMR was the highest in Kotagiri (227) and Udhagai (72). This is due to lack of medical facilities in the remote tribal hamlets. Socio-economic factors also play a crucial role, for instance, patriarchal attitudes, the enormous burden of hard toil and poor nutrition, the lacunae in transport and communication facilities, delay in accessing proper health facilities and the lack of and/or poor quality of essential and emergency obstetric service. The high MMR is due to diabetic in pregnancy, hyper-blood pressure, illiteracy and lack of communication. Kotagiri and Udhagai blocks are to be taken care to reduce MMR further.

Institutional Deliveries

The institutional deliveries at the block level in the Nilgiris are taking place at, health sub centre, primary health centre, Government hospital and private hospital respectively. The institutional deliveries in the blocks of the Nilgiri district are given in Table 4.6

Table 4.6 Percentage of Institutional Deliveries in the Nilgiri District (2013-14)

Sl. No	Block wise / District	Home	Health Sub Centre	Primary Health Centre	Govt. Hospital	Private Hospital	Total	Percentageof the total (2011)	Percentage of the total (2013-14)
1	Udhagai	-	2	307	365	389	1063	98.2	99
2	Coonoor	-	6	231	329	313	879	98.7	99
3	Kotagiri	-	2	182	223	271	678	98.4	99
4	Gudalur	15	36	743	755	671	2220	96.5	99
	Rural	15	46	1463	1672	1644	4840	98.15	99
	Urban	0	7	16	358	407	788	98.25	99
	District	30	99	2942	3702	3695	10468	97.95	99

Source: Office of DD Health, The Nilgiris 2013-14

The institutional deliveries in the district were 99 percent in 2013-14. In the district nearly, 36 percent of the institutional deliveries were in government hospitals, 34 per cent in private hospitals, 28 per cent in PHCs (Annexure 4.4). Among the four blocks, Gudalur has taken the first place, Udhagai the second, Coonoor in the third and Kotagiri placed fourth respectively.

While maternal and child health in Nilgiris have improved, the level of delivery in a health facility, which is a major contributor for reducing the Maternal Mortality Ratio, is low. At the national level, two out of five births take place at home. The current estimated ratio in India is 212 maternal deaths per 100,000 live births, whereas the country's MDG target is 109 per 100,000 live births by 2015. These 212 maternal deaths translate into about 56,000 pregnant women or new mothers dying annually, often from preventable causes.

Antenatal care (ANC) services during pregnancy serve dual functions. First, antenatal care provides a preventive service that monitors signs of pregnancy complications, detects and treats pre-existing and concurrent problems, and thus lowers the risk of pregnancy complications. Second, ANC visits during pregnancy are an entry point for women into the health care system. Women who make ANC visits are exposed to health facilities and it could be encouraged to continue such health care for themselves and their newborn.

There is, however, a debate on the importance of ANC visits for improving subsequent delivery in a health facility. Some studies have shown that ANC was an important factor for increasing delivery in a health facility. Others argue that a woman's attitudes, beliefs, and motivations concerning ANC visits also lead them to seek delivery in a health facility and that ANC visits themselves do not increase the likelihood of delivery in a health facility.

Maternal health needs to become a political priority. The results of this analysis shows seeking that institutional care for child birth in rural areas is currently influenced by community access, economic status, education, region and birth order. While education and region show the strongest association, the focus of this analysis is a comparison of the influence of access and economic status and results show the latter emerging as a more crucial determinant. The impact of high delivery costs and distance to service as barriers to care seeking was highlighted.

Still Birth Rate

The definition recommended by WHO for international comparison is a baby born with no signs of life at or after 28 weeks' gestation. Table 4.7 shows that the still birth rate across the blocks in the district.

Table 4.7: Still Birth Rate of the Blocks (2013-14)

Sl. No.	Block wise / District / State	2013-14
1	Udhagai	10
2	Coonoor	8
3	Kotagiri	22
4	Gudalur	12
	Urban	14
	District	**12**

Source: Office of DD Health, The Nilgiris (2013-14)

The birth rate varies from year to year. When compared to 2007, the Still Birth Rate has declined in 2011 except Kotagiri in all the blocks of the district. The overall still birth rate in the district has increased. The still birth rate in the district was 12 in 2013-14.

The analysis of the various determinants would show the possible predictors of still births. In addition, an effort has been made to understand the pathways of these predictors, through which these influence the occurrence of still births in India. The present analysis reveals that the role of socio-economic factors in influencing the occurrence of still births has been

augmented. Among the different indicators of socio-economic development, education of the women (i.e. prospective mothers), the better household environment standard, and the strong willingness of the mother and the family towards care during pregnancy emerged as a few of the most regulating actors of the occurrence of still births. The latter, was assessed considering the proportion of female births women already had, and the result showed that this had a direct and strong influence in reducing the occurrence of still births.

Basic permise lies in the fact that if we provide better and safe measures during pregnancies, we could control the unfortunate mishaps in the form of still births which also poorly affects the future reproductive processes of the concerned mother.

The poor economic status of the family was not observed as a strong influencing factor of the occurrence of stillbirths as a whole. This suggests that the household economic status has undoubtedly a pertinent influence in regulating still births. The exposure to mass media wields positive impact in regulating still births but through indirect sources. Most importantly, the immediate external environment, which was judged by the house-hold environmental standard, seems to have a positive impact in regulating the occurrence of still births. Although, some of the programmatic indicators have also appeared in the analysis as regulating factors for the incidence of still births, however, the phenomenon has not been observed consistently over the period.

Immunization

Immunization is a means to save people against attack by disease. The standard of health of the people depends on the levels of living, literacy, employment and organisation of health services. Health is widely linked with development. Investment in health is sometimes called an investment in human capital. The sustainability of health sector needs to be considered in the provision and utilisation of health care services. Health care has registered significant improvement over the years. Generally, people in rural area are not knowledgeable about health matters. Socio-economic backwardness, ignorance, traditions and superstitions have been acting as impediments to progressive thinking on the concepts of positive health. Health education has been very inadequate. Illiteracy particularly of the women has acted as a barrier to communication in health and related matters. Immunization of the Children of four blocks in the Nilgiri District is shown in the table 4.8

Table 4.8: Immunization of Children below 5 years in the Nilgiri District (2013-14)

Sl. No.	Block wise / District / State	Total Number of children below year			Total number of children immunized			% of Children immunized		
		2011	2013-14	2014-15	2011	2013-14	2014-15	2011	2013-14	2014-15
1	Udhagai	718	1344	1360	692	1344	1360	96.38	100	100
2	Coonoor	835	1207	1171	791	1207	1171	94.73	100	99
3	Kothagari	889	388	841	847	388	841	95.28	100	98
4	Gudalur	1617	2298	2192	1566	2298	2192	96.85	100	100
5	Urban	2161	2144	2161	-	2144	2161	-	100	100
	District	6220	7381	7725	3896	7381	7725	95.98	100	99.4

Source: Office of DD Health – The Nilgiri District 2013-14

The percentage of children immunized in Nilgiri District was 99.4 percent in 2013-14. 100 percent achievement of immunizing children was noticed in Gudalur, Udhagai and urban areas.. The rural-urban disparity in vaccination is not due to demographic factors, but due to socio-economic factors. Mother's education level, mother's age, mother's exposure to mass media and mother's awareness about immunization. Some antenatal care during pregnancy raises immunization chances significantly. This increases the possibility of meeting health personnel who help mothers to raise their awareness by disseminating information regarding immunization. .

These results suggest that a synergistic effort incorporating a number of other sectors is needed to achieve universal immunisation. Policies and programmes in other sectors such as education, welfare, industry, labour, information, environment, etc. had to be informed and influenced by public health considerations. To stimulate immunisation coverage, policy makers should also try to improve mothers' education, media exposure, mothers' awareness, mothers' empowerment, wealth index of the household, electrification and to promote a small family norm. It is also necessary to target girl children and children from backward classes.

Nutritional Status of Children

Nutritional status is the outcome of several biomedical processes interacting over time. Malnutrition hinders the physical and mental development of a child. It is generally observed that even when mortality is controlled, the nutritional status may not improve. Education and communication regarding the importance of nutrition can go a long way in bringing about long-term changes in attitudes and recognition by parents on the importance of nutrition for their children. The statistical information of them is given in Table 4.9.

Table 4.9 : Percent of malnourished children below 5 years (2013-14)

Block	Normal Children		SUW Children		MUW Children		% of Underweight (MUW+SUW)
	0-5 year	%	0-5 year	%	0-5 year	%	
Udhagai	3306	17.67	16	16.67	708	19.03	17.96
Coonoor	8505	45.45	36	37.50	1379	37.06	14.25
Kotagiri	1963	10.49	8	8.33	442	11.88	18.65
Gudalur	4939	26.39	36	37.50	1192	32.03	19.90
District	18713	100.00	96	100.00	3721	100.00	16.93

Source: Office of DD Health, The Nilgiri. 2013-14

The percentage of underweight (MUW+SUW) children (below 5 age group) in the district was about 16.93 percentage in the year 2013-14. It is the highest in Gudalur (19.90 %), followed by Kotagiri (18.65%), Udhagai (17.96%) and Coonoor (14.25%) respectively.

Provision of IFA Tablets

IFA tablet is used by women and girl children and the percentage has varied from one another. Infant mortality rate can be reduced through the reduction in neonatal and mortality rates. To ensure this, focus has to be laid on early antinatal registration, monitoring the weight gain of mothers and by ensuring intake of food with micro-nutrients by mothers and with supplements of iron/folic acid tablets and Vitamin 'A' capsules and increasing the level of institutional deliveries. The provision of IFA tablets in the Nilgiri district was 98 per cent

The provision of IFA tablets in the Nilgiri District in 2014 is given in the following table no 4.10.

Table 4.10 : Provision of IFA Tablets (2013-14)

Sl. No.	Block wise / District / State	% of women took IFA tablets		% of children took IFA tablets		% of adosolent girls took IFA tablets	
		2013-14	2014-15	2013-14	2014-15	2013-14	2014-15
1	Udhagai	100	100	100	100	97	93
2	Coonoor	90	100	98	91	100	100
3	Kotagiri	100	100	100	100	100	100
4	Gudalur	100	100	97	91	98	91
	District	97.5	100	98.75	95.5	98.75	96

Source : DD Health, The Nilgiris, 2013-14

Table 4.10 reveals the different categories of the people in Nilgiri District who used IFA tablets in 2013-14. The categories of the people who used IFA tablets are women, children and adolescent girls. Children took 98.75 percent, women took 97.50 percent, and adolescent girls took 98.75 percent.

Pregnant women with Anaemia

Table 4.11: Pregnant women with Anaemia

Sl. No	Block Level	Pregnant Women with Anemia (in Percentage)				
		2007-2008	2008-2009	2009-2010	2010-11	2013-14
1	Udhagai	22.00	37.00	47.00	61.00	49.00
2	Coonoor	34.00	31.00	34.00	50.00	38.00
3	Kotagiri	31.00	36.00	44.00	37.00	42.00
4	Gudalur	38.00	33.00	42.00	47.00	39.00
	District	31.25	34.25	41.75	48.75	41.00

Source : Office of the DD Health, The Nilgiris 2013-14

From the table mentioned above, the percentage of anaemia for pregnant women ranges from 31.25 in 2007-08 to 41.00 in 2013-14. The reason for this hike is pregnant women are not getting adequate balanced rich food and also due to the cold environment.

Non – Nutritional Factors

Drinking water supply

Safe drinking water totally changes the health status of the people by conferring on them so many boons. Safe drinking water leads to perceptible decline in the difference of water borne disease and the incidence of child killer diseases such as diarrhoea.

According to the World Health Organisation, estimates in about 80 per cent of the third world countries diseases are transmitted through polluted water. According to National Environment Engineering Research Institute, 70 per cent of India's water is unfit for human consumption. Non – nutritional factors such as provision of poor drinking water and lack of sanitation has been identified as gaps and it has an impact on health (Table 4.12)

Access to Drinking water facilities

Table 4.12: Access to Drinking water

Sl. No	Blocks	Access to drinking water	
		2011	2013-14
1	Udhagai	97.00	98.18
2	Coonoor	94.00	95.56
3	Kotagiri	97.00	98.60
4	Gudalur	98.00	98.49
	District	**96.5**	**98.41**

Source: Office of the DD Statistics, The Nilgiris 2013-14

Since, there is a good rainfall in Nilgiri district; the district administration is able to provide drinking water facility for 98.41 per cent of the people in 2013-14. The highest water facilities was available Kotagiri with 98.60 percent, followed by Gudalur (98.49), Udhagai (98.18) and Coonoor (95.56). The access of the toilet facilities in the Nilgiri district is furnished in Table 4.13.

Access to Toilet Facilities

Table 4.13: Access to Toilet Facilities (2013-14)

Sl. No	Blocks	Access to Toilet facilities(%)
1	Udhagai	52.53
2	Coonoor	71.41
3	Kotagiri	50.76
4	Gudalur	63.88
	District	**59.65**

Source: DD Statistics, The Nilgiris (2013-14)

In the Nilgiri district, 59.65 percent of the people are provided with toilet facilities. Coonoor block stands with the highest percentage i.e. 71.41 percent, followed by Gudalur block with 63.88 percent, Udhagai with 52.53 percent and Kotagiri with 50.76 percent. The lower access to the toilet facilities is due to the reason that these blocks have easy access to open areas they use public places.

Age and Sex wise HIV Positive

The human immunodeficiency virus (HIV) is a lentivirus (a subgroup of retrovirus) that causes the acquired immunodeficiency syndrome (AIDS), a condition in humans in which progressive failure of the immune system allows life-threatening opportunistic infections and cancers to thrive. Without treatment, average survival time after infection with HIV is estimated to be 9 to 11 years, depending on the HIV subtype. Infection with HIV occurs by the transfer of blood, semen, vaginal fluid, pre-ejaculate, or breast milk. Within these bodily fluids, HIV is present as both free virus particles and virus within infected immune cells.

HIV infects vital cells in the human immune system such as helper T cells (specifically CD4+ T cells), macrophages, and dendritic cells. HIV infection leads to low

levels of CD4+ T cells through a number of mechanisms, including apoptosis of uninfected bystander cells, direct viral killing of infected cells, and killing of infected CD4+ T cells by CD8 cytotoxic lymphocytes that recognize infected cells. When CD4+ T cell numbers decline below a critical level, cell-mediated immunity is lost, and the body becomes progressively more susceptible to opportunistic infections.

HIV means Human Immuno Deficiency Virus, the virus that is believed to cause the disease like AIDS, Human body is affected when HIV is positive. The age and sex wise persons affected by HIV positive in 2013-14 is given in Table 4.14.

Table 4.14: Age and Sex wise HIV Positive during 2013–14

Sl.No	Age- Group wise	Positive cases in 2013-14	
		Male	Female
1	0 - 14	1	0
2	15 - 19	1	0
3	20 -24	2	2
4	25 - 29	4	3
5	30 - 39	12	8
6	40 - 49	8	6
7	50 and above	4	1
	Total	**32**	**20**

Source: Office of DD Health, The Nilgiris

From the table that HIV had affected more persons in the age group of 25-29 and 30-39 among both male and female in 2013-14. The overall HIV Positive cases in the district in both male and female had increased to 32 male and 20 female in 2013 from 29 male and 16 female in 2011.

HIV/AIDS research includes all medical research that attempts to prevent, treat, or cure HIV/AIDS, as well as fundamental research about the nature of HIV as an infectious agent and AIDS as the disease caused by HIV. Currently, no cure for HIV/AIDS exists. The most universally recommended method for the prevention of HIV/AIDS is to avoid blood-to-blood contact between people and to practice safe sex. The most recommended method for treating HIV is to receive attention from a doctor in charge of coordinating the patient's management of HIV/AIDS.

Many Governments and research institutions participate in HIV/AIDS research. This research includes behavioural health interventions, such as research into sex education, and drug

development, such as research into microbicides for sexually transmitted diseases, HIV vaccines, and antiretroviral drugs. Other medical research areas include the topics of pre-exposure prophylaxis, post-exposure prophylaxis, and circumcision and HIV.

TB and Leprosy

Tuberculosis, MTB, or TB (short for tubercle bacillus), in the past also called phthisis, phthisis pulmonalis, or consumption, is a widespread, and in many cases fatal, infectious disease caused by various strains of mycobacteria, usually Mycobacterium tuberculosis. Tuberculosis typically attacks the lungs, but can also affect other parts of the body. It is spread through the air when people who have an active TB infection cough, sneeze, or otherwise transmit respiratory fluids through the air. Most infections do not have symptoms, known as latent tuberculosis. About one in ten latent infections eventually progresses to active disease which, if left untreated, kills more than 50% of those so infected.

The classic symptoms of active TB infection are a chronic cough with blood-tinged sputum, fever, night sweats, and weight loss (the latter giving rise to the formerly common term for the disease, "consumption"). Infection of other organs causes a wide range of symptoms. Diagnosis of active TB relies on radiology (commonly chest X-rays), as well as microscopic examination and microbiological culture of body fluids. Diagnosis of latent TB relies on the tuberculin skin test (TST) and/or blood tests. Treatment is difficult and requires administration of multiple antibiotics over a long period of time. Social contacts are also screened and treated if necessary. Antibiotic resistance is a growing problem in multiple drug-resistant tuberculosis (MDR-TB) infections. Prevention relies on screening programs and vaccination with the bacillus Calmette-Guérin vaccine.

The positive TB and Leprosy are the initial stages which are possible due to the deficiency of nutritional food consumed by the people. The positive TB and Leprosy cases at the block level in the district is expressed in table no 4.15

Table 4.15 : TB in the Nilgiri District

Sl. No	Block wise/ District	Positive TB casesNumbers		
		2007	2011	2013-2014
1	Udhagai	41	35	28
2	Coonoor	50	62	55
3	Kotagiri	50	58	47
4	Gudalur	86	75	63
	District	**227**	**230**	**193**

Source: DD Health, The Nilgiris, 2011-14

It is evidenced from the table 4.15 that the positive cases of TB has increased from 227 in 2007 to 230 in 2011. Among all the blocks, Gudalur is registered with the highest number of positive cases (75) and Coonoor with 62. Except Udhagai, all blocks has a decreasing trend in TB cases in the years 2013-14.

Box 4.1: Govt. Nutrition Programme Puratchi Thalaivar M.G.R. Nutritious Meal Programme Centres

The Puratchi Thalaivar MGR Noon Meal Programme was introduced and commenced on 01.07.1982 with a aim to create the future human resource of our children with nutritious, courageous and to become literate citizens of our country. The main objectives of this scheme are i) to considerably reduce the dropout of the school going children, ii) guaranteed the serving of cooked food to the children of socially and economically backward class families, iii) to raise the knowledge of education among such children, iv) to raise the nutrition strength, and v) to reduce the disease due to mal nutrition. There are 505 noon meals centres in rural and 15 centres in urban cover 39581 and 546 beneficiaries respectively. More rural noon meals centres are located in Udahagai (171) and Gudalur (149).More beneficiaries are registered in Gudalur (19708) and followed by Udhagai (9692). The urban centres are more in Udhagai (8) to cover 260 beneficiaries, whereas 7 centres in Coonoor to cover 286 beneficiaries

The overall workforce of the scheme in service is lower than the number of post sanctioned. The particulars show the Food Commodities given to each beneficiary under the Puratchi Thalaivar M.G.R. In all schools and in all working days, noon meal with boiled egg is given to all the students, banana (100gm per head) is provided to vegetarian students. On supplementary foods like boiled green gram and Bengal gram is also given along with the regular meal every Tuesday and 20 gms of boiled potato is also given as food supplement on every Friday.Potato at the rate of 0.16 per beneficiaries in local stores is received through the Noon Meal Organisers.The G.O.T.N has recently announced to provide 13 types of variety rice and 5 types of egg fry in all schools. 520 centers (505 rural , & 15 urban)are effectively working in the district to feed nearly 40012 lakhs students.

Summary & Conclusion

The district population growth rate is 7.35 lakhs in 2011. The population density has decreased from 299 in 2001 to 288 in the year 2011. The CBR is 12.6 in 2009 and 10.5 in 2013. CDR is 1.9 in 2001 and 4.6 in 2013. The sex ratio of the district is 1014 and 1041 in 2001 and 2011 when compared with the State average (996). Child sex ratio is 979 in 2001 and 1008 in 2011 and the

state average of 943. The life expectancy at birth is 77.9 whereas; it was 75.9 for male and 80.10 years for female in 2013. IMR was 10.70 in 2013-14. The MMR was in 74.75 in 2013 which is higher than the State average (68). With regard to institutional deliveries, 36 percent of the institutional deliveries were in government hospitals, 34 percent in private hospitals, 28 percent in PHCs. Still birth rate was 12 in the year 2013. The percentage of underweight (MUW+SUW) children (below 5 age group) in the district was 16.93 in 2013-14. 98.41 of household access drinking water, 59.65 of the households have toilet facilities. The average life expectancy in the district was 77.9. Immunization of children below five years in the district was 100 per cent. Provision of IFA was found as 99 percent. It was found that positive TB in the district was 193 persons.

The demographic profile of the district highlights population, sex ratio, density, SC population, ST population, and Child sex ratio between 2001 and 2011. The district's decennial population growth rate is -3.55 (2011). This has reflected the reduction in the density of population. The life expectancy of the female in the district is low compared to State. The district's health administration have provided all types of health care services and tracking each and every case through VHNs/ CHNs and controlled IMR, MMR and SBR in the district. The district has achieved 99 percent institutional deliveries, which is a remarkable achievement. The child development index highlights that the performance differs only on health rather than education in the district. The poor health performance is noticed in certain blocks and these blocks have to be provided adequate attention in enhancing overall child health in the district. The government has scaled up their activities in providing portable drinking water, good sanitation and controlling communicable and non- communicable diseases in the district. These factors are related to the levels of literacy of the population, which is analysed in the next chapter.

CHAPTER 5

LITERACY AND EDUCATION

CHAPTER

5

LITERACY AND EDUCATION

Introduction

The term "Education" has been derived from the two Latin words Educare (Educere) and Educatum. Educare means to train or mould. It again means to bring up or to lead out or to draw out, propulsion from inward to outward. The term "Educatum" denotes the act of teaching. It throws light on the principles and practice of teaching. The term Educare or Educere mainly indicates development of the latent faculties of the child. But child does not know these possibilities. It is the educator or the teacher who can know these and take appropriate methods to develop those powers.

Thus, education may be defined as a purposive, conscious or unconscious, psychological, sociological, scientific and philosophical process, which brings about the development of the individual to the fullest extent and also the maximum development of society in such a way that both enjoy maximum happiness and prosperity. In short, education is the development of individual according to his needs and demands of society, of which he is an integral part. The elementary (primary and upper primary) education, is considered as one the important pillars of human development. Various innovation and initiatives have been taken from time to time for not only universalizing the primary education but also for improving, the quality of education in India. Invesment in education plays an important role in this regard, though the other factors such as motivation and involvement of teachers and parents matter a lot.

Literacy performance of the District

Literacy rate is one of the basic indicators to measure the performance of the literacy of the social groups. The literacy across the years, female literacy rate, literacy rate in urban-rural area and literacy rate among various social groups are considered to assess the literacy performance of the district in comparison to that of the State and nation.

The district literacy rate has increased from 82.45% in 2001 to 85.13 % in 2011. Among all blocks, Udhagai (88.12%) stands the first, followed by Coonoor (86.10 %), Gudalur (85.10 %) and Kotagiri (81.20 percent), it is found that the literacy rate was found to be higher in 2011

than in 2001. The literacy rates in Kotagiri and Gudalur blocks are slightly lower than the district average. Hence, proper infrastructure must be created for these two blocks.

Primary Education

The Primary Enrolment Rate (PER) is presented in table 5.1. The gross enrolment ratio in primary education of the district was 98.41% in 2009 and 99.92% in 2013-14. The number of boys enrolled in 2013-14 was 99.98 %. On the other hand, girls' enrolment also increased from 98.23% in 2009 to 99.86 girl students in 2013. The difference between the enrolment of boys and girls is very minimal. The Kotagiri block has the lowest enrolment ratio. Though, there are minor fluctuations in the growth, all blocks in the district are heading towards achieving 100% enrolment rate.

Table 5.1: Primary Enrolment Rate (2011- 2014)

Sl. No	Block wise / District/ State	Primary														
		Boys					Girls					Total				
		2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14
1	Udhagai	97.15	97.42	98.45	98.54	99.65	98.13	98.25	98.52	98.80	99.81	97.64	97.84	98.49	98.67	99.73
2	Coonoor	98.92	99.10	99.12	99.30	99.59	99.01	99.12	99.24	99.43	99.73	98.97	99.11	99.18	99.37	99.66
3	Kotagiri	98.32	98.45	98.91	99.20	98.85	98.72	98.92	99.15	99.75	99.75	98.52	98.69	99.03	99.48	99.30
4	Gudalur	98.78	98.89	97.12	97.82	99.79	97.06	97.12	97.24	97.91	99.65	97.92	98.01	97.18	97.87	99.72
	Total	98.29	98.47	98.40	98.72	99.98	98.23	98.35	98.54	98.97	99.86	98.26	98.41	98.47	98.85	99.92

Source: CEO, SSA, The Nilgiris – 2014

The upper primary enrolment rate is presented in table 5.2

Table 5.2: Upper Primary Education Enrolment Rate (2009- 2014)

S. No	Block wise/ District/ State	Upper Primary														
		Boys					Girls					Total				
		2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14
1	Udhagai	98.12	98.18	98.89	98.12	99.14	99.28	98.74	98.12	98.45	99.01	98.70	98.46	98.50	98.56	99.08
2	Coonoor	97.13	97.1	97.10	97.29	97.29	98.12	98.1	98.12	98.81	98.81	97.63	97.60	97.61	99.09	98.05
3	Kotagiri	98.14	98.15	98.24	98.66	98.66	99.04	99.07	99.12	99.24	99.24	98.59	98.61	98.68	99.36	98.95
4	Gudalur	99.01	99.05	99.12	99.45	99.45	99.05	99.01	99.10	99.31	99.31	99.03	99.03	99.11	98.59	99.38
Total		98.10	98.12	98.34	98.02	98.12	98.87	98.73	98.62	97.59	97.89	98.49	98.43	98.47	98.22	98.01

Source: CEO, SSA, The Nilgiris - 2014

The overall enrolment rate in the upper primary school in the district was 98.01% in 2013-14. The overall enrolment rate is lower in girls category (97.89%) than boys (98.12%). District male and female enrolment ratio were 98.02 per cent and 97.59 % respectively in 2013-14. On the other side, the district female enrolment ratio also declines from 98.87 % in 2001 to 97.59% in 2011. The marginal reduction of female enrolment ratio is due to the houses bing located far away from the school premises. The villages are also located in a scattered manner in the hilly terrain area. They have to reach the school by walk. For the fear of animals and insecurity, female children are reluctant to attend the schools.

Completion Rate in Primary Schools

The overall completion rate of students in primary schools is 98.81 during the year 2013-14. The completion rate of students is found to be low in Gudalur (97.87 %) and high in Kotagiri (99.48 %) during the year 2013-14. The completion rate of student's upper primary schools was 98.85 % in Nilgris district, 99.37 % in Coonoor block and 99.87 % in Gudalur during the year 2013-14. The completion rate in primary is higher than upper primary education in 2013-14 in all blocks. Both completion rates are found to be lower in Gudalur block.

Table 5.3: Completion rate in primary upper primary education during 2011- 2014

Sl. No	Block wise/ District/ State	Primary			Upper Primary		
		2011- 12	2012 - 13	2013-14	2011 - 12	2012 - 13	2013-14
1	Udhagai	98.67	98.67	98.67	97.46	97.46	98.71
2	Coonoor	99.37	99.37	99.37	98.26	98.26	99.41
3	Kotagiri	99.48	99.48	99.48	97.56	97.56	99.52
4	Gudalur	97.87	97.87	97.87	97.36	97.36	97.91
	District	98.59	98.58	98.81	96.70	96.70	98.85

Source: CEO, SSA, The Nilgiris - 2014

Drop Out Rate Primary and Upper Primary School

The overall dropout rate in the district has declined from 0.98 % in 2011-12 to 0.95% in 2013-14. The drop rate in the boy's category has increased to 1.72 % in 2013-14 from 0.90 % in 2011-12. The same trend is also found in the female category during the same period. This may be due to poor family background, unaware of the importance of education, unavailability of adequate transport facilities in remote villages.

Table 5.4: Primary Drop Out Rate (2011-14)

Sl. No.	Block wise / District/ State	Primary								
		Boys			Girls			Total		
		2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
1	Udhagai	0.28	0.28	2.65	0.28	0.28	0.50	0.28	0.28	1.09
2	Coonoor	0.27	0.27	2.30	0.67	0.67	0.25	0.47	0.47	0.39
3	Kotagiri	0.67	0.67	2.30	0.27	0.27	0.25	0.47	0.47	0.28
4	Gudalur	2.51	2.51	4.06	2.51	2.51	1.21	2.51	2.51	1.89
	District	0.90	0.98	1.73	0.98	0.98	1.59	0.98	0.98	0.95

Source: CEO, SSA, The Nilgiris – 2014

Table 5.5: Upper Primary Drop Out Rate (2011 to 2014)

(In Percent)

Sl. No.	Block wise / District / State	Upper Primary								
		Boys			Girls			Total		
		2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
1	Udhagai	1.17	1.17	2.65	1.28	1.28	0.50	1.23	1.23	1.70
2	Coonoor	1.17	1.27	2.30	1.01	1.01	0.25	1.14	1.14	1.70
3	Kotagiri	1.67	1.03	2.30	1.03	1.03	0.25	1.35	1.35	1.68
4	Gudalur	2.81	2.81	4.06	2.81	2.81	1.21	2.81	2.81	1.67
	District	1.73	1.73	1.73	1.59	1.59	1.59	1.66	1.66	1.70

Source: CEO Nilgiris 2013-14

The upper primary dropout rate was 1.70 % in 2013-14, whereas it was 1.66 % in 2011-12. Almost all blocks have the same trend. The dropout ratio was found to be higher in boys (1.73%) than female (1.59%). The difference between the dropout rate at district level and dropout rate of various boys and girls is found to be very minimum. In the district, Gudalur block has the maximum dropout rate of boy students from 2.81 % in 2011-12 to 4.06 % in 2013-14.

Pupil Teacher Ratio in Primary and Upper primary schools

Pupil-teacher ratio is a vital indicator that provides information on attention of teacher on students' development and performance. This indicator has direct impact on literacy rate. The pupil-teacher ratio in Nilgiri district is 19 in primary school and 22 in upper primary schools in 2013-14. Within the district, Coonoor block has the lowest pupil-teacher ratio in both primary and upper primary schools. The overall ratio of the district has been decreasing for ten years, which is a positive trend.

Table 5.6: Pupil Teacher ratio (2001 and 2014)

Sl. No	Block wise / District / State	Pupil Teacher Ratio					
		Primary School			Upper Primary School		
		2001	2011	2013-14	2001	2011	2013-14
1	Udhagai	1	16	17	1	20	23
2	Coonoor	1	17	13	1	21	15
3	Kotagiri	1	18	20	1	21	20
4	Gudalur	2	29	24	1	29	25
	The Nilgiris	1	20	19	1	23	22

Source: CEO, SSA, The Nilgiris – 2014

Availability of Basic Infrastructure Facilities

Infrastructure facilities are essential to create conducive learning environment for the children. Out of 414 schools in the district, 249 schools are having three class rooms and 165 schools are having more than 3 class rooms in Nilgirs district. The schools established must demonstrate and build the culture of using toilets, access to safe drinking water. It is essential to make them functional to ensure sanitation in the schools. More than 190 schools do not have electricity and 94 schools was not having compound wall.Tthis indicates that insufficient infrastructure facilities need to be advised. 100 % of the schools are had drinking water facility.

Table 5.7 School Infrastructure(2013-14)

Sl. No.	Block wise / District	Total No. of schools	With 3 class rooms	more than 3 class rooms	Without Toilet	Without girls toilet	Without electricity	Without Compound wall	Without Drinking water	Without desk and chair
1	Ooty	146	88	58	-	4	89	19	0	0
2	Coonoor	63	42	21	-	0	42	14	0	0
3	Kotagiri	61	39	22	-	3	39	7	0	0
4	Gudalur	144	80	64	-	1	20	54	0	0
	District	414	249	165	-	8	190	94	0	0

Source: CEO The Nilgiris – 2013-14

Higher Education

The development of higher education in the district was least when compared to other districts since there were only four Arts Colleges, one Engineering College, one Pharmacy College and three Polytechnic Colleges. Hence the planners should take an initiative to increase the infrastructure of higher education in the district. To reduce migration from the district to plain area for higher education, it is suggested to improve infrastructure and implementation is for the development of higher education in the Nilgiri district. Table(5.8)

5.8.Higher Education

Sl. no	Block wise	Art / Science		Polytecnics		Other Institutions	
		2013 - 2014		2013 - 2014		2013 - 2014	
		No of Institution	Students	No of Institution	Students	No of Institution	Students
1	Udhagai	4	2440	1	1470	2	2325
2	Coonoor	1	1192	0	0	0	0
3	Kotagiri	0	0	1	1013	0	0
4	Gudalur	1	2305	0	0	0	0
	District	6	5937	2	2483	2	2325

Source : CEO – The Nilgiris – 2014

Hostel facilities

Table 5.9: Hostel facilities (2001 and 2011-14) (ADW)

Sl. No.	Block wise/ District/ State	No of Schools	Total Number of Students			No. of students in Hostels		
			2008	2011	2013-14	2008	2011	2013-14
1	**BC/MBC &Minorities Welfare**	17	0	782		449	782	-
2	**AD W**	20	0	931	2817	0	931	1484
3	**CEO**	124	21590	12528	46401	0	0	-
	District	164	21590	14241	2817	449	1713	1484

Source: BC-W, AD-W, CEO Office - 2014

The above table 5.9 shows the number of students admitted in the hostel during the year 2013-14. Under ADW hostel the strength of students in the year 2013-2014 is 1484.

Box 5.1: Incentives for Enrolment .

"Quality Education should reach every individual child. Not even a single child in school going age should be left out without Education." To achieve this, various schemes are introduced by the Government of Tamil Nadu. Opening of new Primary Schools, upgrading Primary Schools into Middle Schools, Middle Schools into High Schools and High Schools into Higher Secondary Schools are some of the Schemes. Introduction of ABL, ALM AND CCE helped children get interest to go to school continuously.

More than all these, the following free schemes are introduced for the children from Classes I to XII to avoid drop out and to enable each child to complete his school education. The free schemes were introduced to motivate the children and to enhance the enrolment in government and aided schools.

Incentives for the students

S.NO	CATEGORY	PRIMARY/MIDDLE/HIGH AND HIGHER SECONDARY
1	CRAYONS	I-II
2	COLOUR PENCILS	III-V
3	BOOKS, NOTE BOOKS , BAG FOOT WEAR, UNIFORM BUSPASS , NOON MEAL, CUT SWEATER	I-VIII
4	ATLAS, GEOMETRY BOX	VI-VIII
5	BYCYCLE	XI
6	LAPTOP (2013-14)	XII
7	SPECIAL INCENTIVES TO DROUP OUT	X,XI,XII

Source:CEO,TheNilgiris

Box 5. 2: Initiatives for Quality Improvement in Education

Sarva Shiksha Abhiyan (SSA) (Anaivarukkum Kalvi Thittam) stands as a balancing pole to supplement the efforts of the Government of Tamil Nadu in ensuring quality education to all the children. SSA, The Nilgiris has framed the expected learning outcome with the guidance of state project office for primary and upper primary classes. In the necessary process of enhancing the quality of education as per the mental ability, special strategies were adopted primary and upper primary classes.

Trimester pattern, Special school visit formats , and the quality trainings given to the teachers ultimately reflect in the stability of the students in the society. The topics selected during the academic year 2013-2014 were not constrained to the subjects, but also to mould a perfect human being in the society. E – Learning is a rapidly growing phenomenon. To enhance E – learning, SSA has provided Computers, TV, DVD/CD players, CDs, DVDs. This helps all type of learners like, audio, visual, kinesthetic, tactile etc., In this academic year E- Learning has evolved as a regular part in the everyday school activity.

To assess the status of existing facilities in schools and to provide remedy in basic reading and arithmetic skills, a baseline survey was carried out throughout the state. For this evaluation procedure, 10 primary schools, ten upper primary schools per block were selected in 2013-2014.

Inclusive Education Programme for Disabled children (IED): Disabled students of mild, moderate and sever, categories are cared in different methods. Both mild and moderate category students, special classes will be taken for them. Under School Readiness Programme (SRP), there are 13 centres functioning to care of 240 children. For several category students, Home Based Teaching (HBT) is followed in the district. 19 specially trained staff are employed to care for 245 children. A low vision student got the first rank in academics among disabled persons. Special medical and physiotherapy are given at all SRPs and HBTs. Last year, 19 students got power spectacles and Scholarships for disabled students were given.

There are 83 Government High and Higher Secondary Schools, 285 Panchayat Union Primary and Middle Schools, 121 Aided Schools and 7 Adi Dravidar Welfare Schools in the 4 SSA blocks. Block Resource Centres will inspect the schools with the help of block resource trainers, supervisors and Head Masters of the Government Schools.

Box 5.3: Reading and Writing Skills among Primary and Upper Primary Students Improvement of Reading, writing and basic arithmetic Skills

Students develop the concept of "Print awareness", understand it has meaning and carries a message Student get familiarized in language aspects like combining speech sounds and syllables, blending and segmenting sounds and sound identification. Students are exposed to "Phonic awareness" where they inhibit the ability to associate letters and sounds.Students acquire the basic writing skill through proper fine motor activities like scribing or pretending to write. Students observe the texture of plants, leaves; barks by their sensory touch students obey simple commands like jump, shout, laugh, run etc. Students become familiar with colours, shapes, animals, birds, transport, patterns sounds and so on. Students gain ability to use and understand picture dictionary. Students learn to show skill or writing, starting with pattern writing. Students are strengthened in the basic mathematical concepts like shapes, numbers and operations. Computer aided learning is always remarked as a hallmark in the field of Education. As every field at the present age is filledwere innovations and technologies, it automatically becomes a must to boost up the assistance of Computers in the field of Education. Education is considered the mother of all fields since it feeds to all the other fields. So our Government has taken steps to enhance Education with technology. Now-a-days, technology is based on computers.

Box 5. 4: Technology Initiatives in Education

Quality Monitoring Tools (QMT)

- The Sarva Shiksha Abhiyan (SSA) have been using Quality Monitoring Tool to analyze the existing status of attendance, grades scored by children, reports of SMC/VEC members and others using three specific format developed by NCERT. At school level, students' attendance and achievement levels of children are recorded in the SMF I & SMF III. School infrastructure and academic improvement is recorded in the SMF II. SMF II is discussed in the VEC & SMC meeting and remedial measures are taken up. The help of community and VEC members are ensured through this discussion.
- QMT formats are filled at school level, CRC level and BRC level to monitor the progress of achievement level of children in the primary and upper primary classes. Now the recording formats are modified so as to accommodate Continuous Comprehensive Evaluation (CCE). Record Sheet and Report Card are used to monitor the progress of child achievement.
  - School Monitoring Format – I: This gives a clear picture of the attendance details of the students, which has to be submitted to the Block Resource Centre.
  - School Monitoring Format – II: VEC meeting is conducted in the school every month. In the first meeting of every year SMF II is recorded. The format contains the general details of the school – Name of the school, VEC details etc., It contains a questionnaire regarding to the VEC members opinion about the school. The format has to be filled once in a year and one copy is maintained in the school and another copy is submitted to the Block Resource Centre.
  - This format is concerned with the achievement of the students in the examination, which has to be filled every term by the class teacher and the head of the institution. The Students achievement is evaluated in two levels, scholastic and co-scholastic. This format is altered to suit CCE. SMF III format is concerned with the achievement of the students in examination; have to be filled by teachers at the end of the term.
  - Scholastic area is evaluated in two scales, formative assessment for 40 marks which continues evaluation it may be either oral or writing where as summative evaluation is for 60 marks which is only written during the term end. As a whole, grade is given as A1, A2, B1, B2, C1, C2, D, E1, and E2 accordingly the score in Scholastic area.
  - In the field of education, quality is much expected by the society. SSA has been successful in improving education quality. A tool is necessary to evaluate the strategies adopted regarding quality. QMT forms have been issued to the schools to enter the attendance rate, scholastic and co scholastic grades and marks achieved by the student and collected at block level. In 2013-2014 a website specially to enter the grades and to consolidate in State, District, Block and Cluster level was created. Thus entered data is transparent throughout the state.

Summary & Conclusion

The literacy rate in the district as per 2011 census was 85.65 percent, male literacy was 92.15 percent and female literacy was 79.44 per cent. In 2013-14, the gross enrolment ratio in primary education in the district was 99.92%. The overall enrolment rate is lower in girls' category (97.89%) than boys (98.12%). District male and female enrolment ratio were 98.02 per cent and 97.59 % respectively. The completion rate of students is found to be low in Gudalur (97.87 %) and high in Coonoor (99.37 %). The overall dropout rate in the district was 0.95%. The upper primary dropout rate was 1.70 %. The pupil-teacher ratio in Nilgiris district is 19. Within the district Udhagai block has the lowest pupil-teacher ratio. 249 schools are having three class rooms and 165 schools are having more than 3 class room in Nilgirs district, 1481 students are in welfare Hostels.

CHAPTER 6

GENDER

CHAPTER

6

GENDER

The beliefs, values and attitude taken up and exhibited as per the agreeable norms of the society and the personal opinions of the person is not taken into the primary consideration in the assignment of gender and imposition of gender roles as per the assigned gender. Gender also refers to the socially determined differences between women and men, such as roles, attitudes, behaviour and values. Gender roles are learned and vary across cultures and over time; they are thus amenable to change.

In 2011, The Nilgiris had a population of 735,394 of which male and female were 360,143 and 375,251 respectively. In 2001 census, the Nilgiris had a population of 762,141 of which males were 378,351 and remaining 383,790 were females. The data released by census India 2011, shows that density of the Nilgiris district for 2011 is 288 people per sq. km. In 2001, the Nilgiri district density was 299 people per sq. km. The Nilgiri district has 2,549 square kilometers of area.

Status of Women

As per 2011 census, 40.76 % population of the Nilgiri district lived in rural areas of villages. The total population of the district people living in rural areas is 299,739 of which males and females are 145,909 and 153,830 respectively. In rural areas of the district, sex ratio is 1054 females per 1000 males. The child sex ratio data of the district is 990 girls per 1000 boys. Child population in the age 0-6 is 26,292 in rural areas of which males and female are 13,212 and 13,080 respectively. The child population comprises 9.05 % of total rural population in the district. Literacy rate in rural areas of the district is 81.17 % as per census data 2011. Gender wise, male and female literacy are 89.27 and 73.53 per cent respectively. Of the total, 221,955 people are literate of which males and females were 118,463 and 103,492 respectively.

Table 6.1: Status of Women

Sl.No	Category	District
1	Female Population	3,75,251
2	Percentageof female population in total population	51
3	Sex-ratio	1041
4	Female literacy rate	79.44
5	MMR	74.75
6	Percentage of women workers in agriculture sector	75
7	Percentage of women in non-agri. sector	25

Source: Census Report, 2001 and 2011

From the above table, the female population in the district is 3,75,251 (2011 census) which is 51 percent of the total population in the district. The sex ratio is 1041 which is more than the state and nation. The female literacy rate in the district is 79.44 percent, MMR is 74.75, women worker in agriculture sector is 38 percent and non-agri sector is 24.5 percent. The gender inequality index shows that there is no significant variation between in gender among the blocks.

Sex Ratio

Table 6.2. The Sex Ratio in 2011

Sl.No	Block wise/district/State	Sex ratio
1	Udhagai	1058
2	Coonoor	986
3	Kotagiri	1064
4	Gudalur	1056
	District	1041

Source: Census Report, 2011.

The sex ratio is an important demographic parameter which depicts the number of females per 1000 males at a given point of time and a particular area. The difference shows the status of women in the society and is widely used as an indicator for gender discrimination. With regards to Sex Ratio in the Nilgiris, it is accounted as 1041 per 1000 male in 2011 census whereas it was 1014 in 2001 census. This is well above the sex ratio of the State (987) and the nation (933). When we interpret at the block level ,the sex ratio reveals that highest in Kotagiri 1064 and least in Coonoor 986 per 1000 male.

Urban Population

Based on 2011 census, the total Nilgiris population, 59.24 per cent of them are living in urban regions of district. 435,655 people live in urban areas of which males are 214,234 and females are 221,421. Sex Ratio in urban region of the Nilgiri district is 1034 per 1000 Males as per 2011 census data. Similarly child sex ratio in the Nilgiri district is 982 as per 2011 census. Child population (0-6) in urban region is 40,507 of which males and females are 20,436 and 20,071. The child population figures of the Nilgiri district is 9.54 % of total urban population. Average literacy rate in the Nilgiri district as per census 2011 is 87.99 % of which males and females are 93.39 % and 82.80 % literates respectively. 347,692 people are literate in urban region, out of which males and females are 180,984 and 166,708 respectively.

Child Sex Ratio (0-6 years)

The Child sex ratio which is calculated for the 0-6 year's population of the district was 985 when we look at the 2011census. It also reveals that the Nilgiris had the highest Child sex ratio among all the other districts in the Tamil Nadu state.

Table 6.3: Child Sex Ratio in the Nilgiri district

Taluks/ district	2001	2011
Udhagamandalam	984	997
Coonoor	980	985
Kotagiri	975	968
Gudalur	975	991
District	979	985

Source: Census 2001 and 2011

The Child sex ratio of the state is only 916. The Child sex ratio is found to be the highest in Udhagamandalam (997) and lowest in Kotagiri (968 per 1000 male).

Employment

The reasons for the increase in the female work participation rate in all other blocks could be due to the improvement in literacy rate of women and the increased cost of living of families which necessitates women to earn and support the family.

Table 6.4 Female work participation Agri and Non-agri

Blocks	Female workers	
	Agri	Non agri
Udhagai	76.81	23.19
Coonoor	49.89	50.11
Kotagiri	76.91	23.09
Gudalur	80.19	19.81
District	74.26	24.74

Source: JD Agriculture Depart,emt

Trends in Political Participation Local Bodies and State Assembly

Political participation of women in State Assembly and Panchayat Raj institutions empower women. At the district level, the female participation rate was 36.5 percent. Female participation was lowest in Udhagai block about 33 (%). In the district, there is no women member in the State Assembly. But in all the blocks in the district, the political participation rate of women is 36.5 percent or more.

Table 6.5: Membership of Women in State Assembly and Local Bodies(2013-14)

Sl.No	Blocks/District	Number of Male	Number of Female	% of Female participation in local bodies
1	Udhagai	122	65	33
2	Coonoor	59	35	39
3	Kotagiri	103	67	37
4	Gudalur	149	85	37

Source: District Collectorate

Box 6.1: Self Help Groups in Nilgiris

"Mahalir Thittam" is a project of Tamil Nadu Corporation for Development of Women (TNCDW). The main objectives of the schemes are achieving empowerment of poor women through improvement in their social, political and economic status indicated through their power of participation, decision making and equity role in democratic provisions, constitutional entitlements and cultural spheres of life, and building capacities for women from poor and disadvantaged sections of society.

The Project area encompasses all the 32 districts of Tamil Nadu. In Nilgiri district, the scheme covers 35 Village Panchayats from 4 blocks in Rural areas and Urban areas. There are 4 blocks containing 35 Rural Panchayats, 11 Town Panchayats and 4 Municipalities in Nilgiri district. 8511women self help groups have been formed and 1,40,987 women are members, in these groups. The group members have the savings of Rs. 42.00 crores and the groups have lent internally sanga loan to their members to the tune of Rs. 60.00 crores. The total Credit Linkage of these groups stand at Rs. 198.58 crores.

- Revolving Fund to SHGs under SGSY: The Mahalir Thittam has assisted 350 Rural SHGs with the subsidy amount of Rs.3.50 Crores under SGSY as a Revolving Fund. Revolving Fund to SHGs under Mahalir Thittam: 2289 Urban SHGs are assisted by Mahalir Thittam with the Subsidy amount of Rs.2.37 Crores under the State Government Fund. Economic Assistance to SHGs under SGSY: 146 Rural SHGs have availed loan under Economic Activity under SGSY with the subsidy amount of Rs.1.99 Crores. 1139 Youths were trained and placed in the various leading companies so far. Coir mat making, fashion designing, tailoring and food processing training were given to SHG Members

Summary

Women constitute 51% per cent of the total population in the Nilgiri district. The sex ratio in the district is 1041. Literacy rates in 2011 were 92.15% for men and 79.44% for women. In the district majority about of the women (75%) were employed in agricultural sector as the district is relatively industrially backward. The members of SHGs were lowest in Coonoor block. Under the Mahalir Thittam basic trainings were organised to all blocks SHGs. Incentives were given to SHGs.

Conclusion

The gender analysis of the chapter gives an outline of gender development in the district. There is no much difference between the State and district in the proportion of female population and female literacy rate. The female population is more than male population 51%. The District has in unique feature of high concentration of SC population and high proportion of women work force work in agriculture sector. The gender inequality index reveals that there is no significant difference in terms of health, empowerment, and labour market. Further, the State and district administration have introduced various women centred development programmes for promoting women to participate in socio – economic and political life. Besides, both central and state governments have introduced various social security schemes aiming to avoid risks in their life. A detailed analysis of social security of the district is presented in the next chapter.

CHAPTER 7

SOCIAL SECURITY

CHAPTER

7

SOCIAL SECURITY

Introduction

Social security is to promote the welfare of the population through assistance measures ensuring access to sufficient resources for food and shelter and to promote health and well-being of the population at large and potentially vulnerable segments such as children, the elderly, the sick and the unemployed. Services providing social security are often called social services. The concept of social security is to support the individuals to get a reasonable standard of living. The broad social effect of social security programme is improvement in the quality of life and its economic effect is redistribution of income through a combination of promotional and protective measures. While promotional measures include growth-mediated and direct anti-poverty measures, protective measures seek to provide guarantees or entitlements to those affected by specific contingencies such as old age, death, employment injury, sickness, maternity etc.

Demographic profile of the Aged

Demography is the statistical study in human population. It can be a very general science that can be applied to any kind of dynamic living population i.e. one can change over time or space. It encompasses the study of the size, structure, and distribution of population, spatial and temporal changes in them in response to birth, migration, aging and death. "Demo" means "the people" and "graph" means "measurement". Demography data is used widely in public opinion polling and marketing. Commonly examined demography includes gender, age. Both distribution and trends of values within a demographic variable are of interest. Demography can be viewed as the essential information about the population of a region and the culture of the people.

The Nilgiri Hills are part of a large mountain chain known as the Western Ghats. It id ranked first in a comprehensive Economic Environment index ranking of districts in Tamil Nadu not including Chennai prepared by Institute for Financial Management and Research in August 2009. According to 2011 census, it is the second least populous district of Tamil Nadu out of 32 districts.

Table 7.1: Demographic Profile in the Nilgiri District

Sl.No	Block	Total Population	Population aged above 60 %	Population aged above 60 %
			Male	Female
1	Udhagai	219305	3.90	2.90
2	Coonoor	177306	3.80	2.80
3	Kotagiri	113597	3.60	2.70
4	Gudalur	230099	4.20	3.00
	District	735071	15.50	11.40
	Tamil Nadu	72147030	5.07	5.33

Source: Census Report 2011

It is evident from the above table that the percentage of male population aged above 60 is found to be higher (15.50 %) than female (11.40%). The more number of aged persons are in Gudalur, Udhagai and Coonoor blocks.

Important Features of Demographic Profile

Change in population, density, sex ratio, fertility, age composition, occupation and distribution are the important features of demographic profile of the district. The age composition of persons in the district is presented in the table 7.2.

Table 7.2 : Age composition

Sl. No	Age group	Percentage
1	0-14	26.14
2	15-59	67.01
3	60 and above	06.70
4	Not given	00.13
		100.00

Source: Census Report 2011

The table 7.2 illustrates that the composition of popularity Age Group in the Nilgiri district. The highest percentage was in the Age group of 15- 59 which accounts for 67 percent of the population. Nearly 26 percent of people fall in the category of 0-14 age group whereas above 60 age group 7 percent of the population. The age group between 15-59 determines the working force in the district and above 60 years will come under retirement and get old age pension and social securities and other beneficiaries.

Old Age Pension Scheme

Since 01.04.1962 old age pension scheme was granted to all old age persons who neither have any means of subsistence nor any relative to support them as 65 years and above, 60 years in case of destitute who are incapacitated to earn their livelihood due to blindness, leprosy, insanity, paralysis or loss of limb. To become eligible for the grant of old age pension under this scheme. The eligibility for old age pension are i) should not have any source of income or means of subsistence to support, ii) should not be a professional beggar, iii) should not be supported by son or son's age should not be 20 years or above and iv) should not own property valued above Rs. 5,000/. The government of India contributes Rs.200/- out of the total of Rs. 400/- per month paid to the old Age pensioners covered under this scheme, which was part of the National Social Assistance Programme. The balance amount of Rs. 200/- was borne by the State Government as dated from 29.02.2008, nearly 6,25,819 old aged persons were benefited under this scheme. This scheme has been renamed as Indira Gandhi National Old Age Pension Scheme (IGNOAPS) with revised norms since 19.11.2007.

The National Old Age Pension Scheme has been renamed as Indira Gandhi National Old Age Pension Scheme and launched in Tamil Nadu on 19.11.2007, the birthday of former Prime Minister Tmt. Indira Gandhi by the Hon'ble Chief minister. As per the new scheme, the criteria for destitutes have been relaxed and pension will be granted to persons who are 65 years of age or above belonging to households Below Poverty Line. A sum of Rs.455.15 crores had been provided for this scheme in the Budget Estimate for the year of 2008 – 2009. Special camps for identifying beneficiaries had been conducted in 82 villages. The district administration ensured that old age pension was granted to all the eligible persons, 102 application had been received at Nanjanad, they received a sum of rupees 400 per month. Since 1.11.1974 Physically handicapped destitute persons aged 45 years and above whose permanent disability is 50 percent or more are eligible for this pension District level committees, constituted by the Government in all the district functioning under the chairmanship of the District collectors in which the District

medical officers and District social welfare officers are members, examine applications received from physically handicapped persons and sanction pension to them considering the individual hardship without reference to age limits prescribed by the scheme. Other conditions applicable to old age pension scheme are applicable to this scheme also. Patients suffering from Leprosy are also covered under this scheme.

Table 7. 3: Financial Security of the aged (2001 and 2014)

Sl.No.	Block level	Category	2014 Number
1	Udhagai	OAP	2480
		Destitute widows	206
		Disabled persons	280
2	Coonoor	OAP	3297
		Destitute widows	555
		Disabled persons	307
3	Kotagiri	OAP	1700
		Destitute widows	220
		Disabled persons	148
4	Gudalur	OAP	2301
		Destitute widows	35
		Disabled persons	142
5	District	OAP	9778
		Destitute widows	1016
		Disabled persons	877

Source : DRO The Nilgiris (2011-14)

Coonoor is ranking first (34%) followed by Udhagai (25%), Gudalur (24%) and Kotagiri (17%) in 2014. There is a significant percentage of change in OAP in all blocks except Udhagai block during in the year 2014.

Destitute widows were more in Udhagai block (43%), followed by Gudalur (29%), Coonoor and Kotagiri (14% each) in 2011, and whereas it was more in Coonoor (16%) followed by Udhagai and Kotagiri (6%) each. Between 2011 and 2014 destitute widows were shortly reduced in all blocks except in Coonoor. This may be due to more number of plantation workers, traders, construction workers, floating population.

Disabled persons were more in Coonoor (31%), followed by Udhagai (28%), Kotagiri and Gudalur (14% each) in 2011, whereas it was sharply reduced in all blocks except Coonoor in 2014. Between 2011 and 2015, 54 % increase of disabled persons in the district. This may be due to lake of awareness, illiteracy ignorance among parents.

Crime against Women

In the ancient period, women held a high place of respect in the society as mentioned in Rig-veda and other scriptures. Volumes can be written about the status of women and their heroic deeds from the Vedic period to the modern times. But later on, because of social, political and economic changes, women lost their status and were relegated to the background. Many evil customs and traditions stepped which enslaved the women and tied them to the boundaries of the house. The official statistics showed a declining sex – ratio, health status, literacy rate, work participation rate and political participation rate among women. While on the other hand the spread of social evils like dowry, deaths, child marriage, domestic violence, rape, sexual harassment, exploitation of women workers are rampant in different parts of India. Humiliation, rape, kidnapping, molestation, dowry death, torture, domestic violence such as beating wives etc. have grown up over the years.

The crimes against women are direct or indirect physical or mental cruelty to women. Crimes which are directed specifically against women and in which only women are victims are characterized as crimes against women. It is equally important to clarify the concept of violence against women. Violence is also known as abuse and includes any sort of physical aggression or misbehaviour. When violence is committed at home it becomes domestic violence and involves family members such as children, spouse, parents or servants. Domestic violence may involve different means such as hitting, kicking, biting, shoving, restraining, throwing objects etc.

Constitutional and Legal Provision for Women

The principle of gender equality is enshrined in the India constitution in its preamble i.e. Fundamental Rights, Fundamental Duties and Directive Principles. The constitution not only grants equality to women, but also empowers the State to adopt measures of positive interactions in favour of women for neutralizing the cumulative socio- economic, education and political disadvantages faced by them. Within the framework of a democratic policy, our laws, development policies, plans and programmes have aimed at women's advancement in different spheres.

India has also ratified various international conventions and human rights instruments committing to secure equal rights for women. Key among them is the ratification of the Convention of Elimination of all forms of Discrimination Against women (CEDAW) in 1993.

Table 7.4: Crime Against Women (2011)

Sl. No.	Category	Number of cases 2011	Frequency (2011)	Number of cases 2013 – 2014	Frequency (2014)
1	Dowry Death	3	1.01	0	0.00
2	Rape	38	12.79	25	22.32
3	Molestation	62	20.88	30	26.79
4	Cruelty by husband and relatives	26	8.75	6	5.36
5	Kidnapping and Abduction	31	10.44	14	12.50
6	Dowry Prohibition Act	24	8.08	7	6.25
7	Sexual Harassment / TNPHW Act	58	19.53	22	19.64
8	Attempt to Rape	10	3.37	0	0.00
9	False Promise	13	4.38	1	0.89
10	Abetment to commit suicide	31	10.44	6	5.36
11	Child Marriage Act	1	0.34	1	0.89
	Total	**297**	100.00	112	100.00

Source: SP Office, The Nilgiris – 2011 – 2014.

From the above table, the highest crime against women is Molestation (26.79 %), followed by rape (22.32 %) and sexual Harassment (19.64%). No crime against women with respect to dowry death and attempted to rape. Sexual related problems are more, this may be due to more number of tourists and higher floating population in the district. The effective checking and periodic combing operations is the only solution for reduction of sexual harassment. Overall cosidering all types of crime against women in Nilgiri District it about 112 cases in 2013-14.

Impact on Society

The term crime against women has deeply, penetrated in our society, and resulted in creating different problems at the social level. The term violence against women must be understood as any act of gender based violence, which results in physical, sexual and psychological harm to women. Every now and then we come across different press reports of violence against women, throughout the country. In our daily lives we come across different practices of violence against women, being followed in our society so often.

Violence against women prevails in different practices such as violence occurring in the family, including physical and mental aggression, emotional and physiological abuse, threats, rape and sexual abuse, crimes committed in the name of honour and other traditional practices that are harmful to the women such as forced marriages etc..The World Health Organization reports that violence against women puts an undue burden on health care services with women who have suffered violence being more likely to need health services and at higher cost when

compared to women who have not suffered violence. The physically and mentally disabled persons are presented in table 7.5

Table 7.5: Physically and Mentally Disabled Person in the Nilgiri District

Locomotors disorder		Mentally retarded		Visually impaired		Sharing Impaired		Deaf Mute		Cerebral palsy		Mentally Ill		Multiple Disability		Speech Impaired		Autism	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
3050	1486	1212	926	658	455	848	686	302	219	52	42	23	22	82	37	3	6	4	2

Source: District Collectorate - 2014

The physical condition of the people living in the district is given in the table 7.5. This was analyzed both for male and female separately. When we look at the locomotor disorder, it was observed that the male population registered high in the district when we compared to the female population. About 1212 male population was falling under the category of mentally retarded and in the same category 926 female were found. As far as visually impaired people are concerned, 658 of them were male and 455 of them here female respectively. The hearing and impaired are found more in the case of male population i.e. 848 and female 686. In case of deaf mute, again, the males were observed to be more i.e. 302 and female were 219 in the district.In the case of people who suffer from cerebral palsy, male population was 52 and the female was 42. When we see the mentally ill category, the male category was 23 and female was 22 in number.

In case of mentally ill people in the district is concerned, almost male and female both have same ratio of 23 and 22. Multiple disabilities was found more in male and less in female i.e. 82 and 37. The speech impaired is male 3 and female 6 in the district. In case of Autism the male was 4 and the female was 2. Altogether the total disabled persons in the district were 10121.

The above problems related to the human beings living in the district may be due to the genetic and environmental factors, malnutrition, consumption of heavy dosages of medicines during the pregnancy and carelessness of the people during the maternal and childhood. Other factors leading to this type of problems is illiteracy, ignorance, superstitious and lethargic factors.

Box 7.1: MARRIAGE ASSISTANCE SCHEMES

Thirumangalyam made of gold is a customary cultural requirement for marriages in many communities of Tamil Nadu. The cost of gold often puts a burden on the parents apart from the other marriage expenses. In order to help poor parents and to encourage them to educate their daughters till the right age, Five Marriage Assistance Schemes were introduced by the Government for the daughters of poor parents, orphan girls, widows who re- marry, widow daughters marriage and inter-caste married couples. The percentage of graduate beneficiaries has increased from 28% in 2011-12 that of 49% in 2015-16.

MOOVALUR RAMAMIRTHAM AMMAIYAR NINAVU MARRIAGE ASSISTANCE SCHEME : Marriage assistance to the poor girls who have attained the age of 18 years at the time of marriages and should have studied upto X standard and in the case of scheduled Tribes, they should have studied up to V standard. Along with cash assistance of Rs. 25,000 for non- graduates and Rs. 50,000 for Graduates/ Diploma holders, one sovereign (8 gram) 22 carat gold coin for making "Thirumangalyam" are provided, the annual income of the family should not exceed Rs. 72,000.

Dr. DHARMAMBAL AMMAIYAR NINAVU WIDOW REMARRIAGE ASSISTANCE SCHEME: This initiative has led to provide a life of respect, social acceptance and dignity for the young widows. Cash assistance of Rs. 25,000, out of which Rs.15,000 is disbursed through ECS and Rs. 10,000 as National Savings Certificate for non graduates and Rs. 50,000 out of which, Rs. 30,000 is disbursed through ECS and Rs. 20,000 as National Savings Certificate for the degree /diploma holders are given along with one sovereign (8gram) 22 carat gold coin for making "Thirumangalyam. There is no income ceiling and educational qualification prescribed to avail benefit under this scheme.

E.V.R. MANIAMMAIYAR NINAIVU M.A SCHEME FOR DAUGHTERS OF POOR WIDOWS : To help the poor widows to get their daughters married a financial assistance of Rs.25,000 for non-graduates and Rs.50,000 for degree / diploma holders is given along with one sovereign (8 gram) 22 carat gold coin for making "Thirumangalyam" is given by the Government.

ANNAI THERASA NINAIVU MARRIAGE ASSISTANCE SCHEME FOR ORPHAN GIRLS: To provide a safe future and a secured life for poor orphan girls and to enable them to get married decently, a financial assistance of Rs.25,000 for non graduates and Rs. 50,000 for degree / diploma holders along with one sovereign (8gram) 22 carat, gold coin for making "Thirumangalyam" with effect from 23.05.2016. There is no income ceiling for availing benefit under this marriage assistance scheme.

Dr. MUTHULAKSHMI REDDY NINAIVU INTERCASTE MARRIAGE ASSISTANCE SCHEME : To eradicate caste based discrimination which is a major barrier to growth and development of the society, the GoTN have been implementing the Inter-Caste Marriage Assistance Scheme. Cash assistance of Rs.25,000 out of which Rs.15,000 is disbursed through ECS and Rs.10,000 in the form of National Saving Certificate to non graduates and cash assistance of Rs.50,000 out of which Rs.30,000 is disbursed through ECS and Rs.20,000 as National Saving Certificates given for degree / diploma holders along with one sovereign (8gram) 22 carat gold coin for making "Thirumangalyam" is given. There is no income ceiling and minimum educational qualification stipulated for this scheme.

Summary and Conclusion

The percentage of male population aged above 60 is 15.50 % and female (11.40%). The more number of aged persons are in Gudalur, Udhagai and Coonoor blocks. 67 percent of the population is in the age group of 15- 59. This highest workforce is good for the district. Nearly 26 percent of population are children and 7 percent of the population are above 60 years. 8445 persons are benefiting from different OAP schemes. Nearly 23 percent of people are mentally ill and more number of male is having multiple disabilities problems. There are 10,121 disabled persons in the district to be taken care. Sexual related problems are more; this may be due to more number of tourists and higher floating population in the district. The effective checking and periodic combing operations is the only solution for reduction of sexual harassment.

In the right of the facts discussed above, it could be concluded that a significant proportion of aged population live in the district. It is observed that the family system has been changed from joint family to nuclear family, tries to exclude the aged population. In realizing the importance, the governments have introduced various financial security schemes for the aged. These schemes help the aged people to live independently and meet their immediate needs. The role of destitute widows and destitute deserted widow's financial assistance scheme benefits is remarkable in the district and all the targeted groups have benefited. In the process of wiping out caste and communal discrimination, marriage schemes were introduced and significant number of people benefited on this scheme. Similarly, maternity assistance provided to all the targeted population. However, the crimes against women are low in the district.Overall infrastructural development is essential for enhancing the status of human development in the district. The district's infrastructure is analyzed in the next chapter.

CHAPTER 8

INFRASTRUCTURE

CHAPTER
8
INFRASTRUCTURE

Introduction

Infrastructure refers to the conditions surrounding the existence and the functioning of a sector or a group of sectors in any economy. The more such facilities are available in an economy the speedy is the growth momentum of the economy. If the infrastructural facilities are actually in usable condition then the returns in the economic sector would be high.

The sectors like road, electricity, transport, telecommunication, co-operative banks and financial institutions and insurance agencies that are treated as central components of infrastructure economy should be developing themselves in order that agriculture and industry make progress. These are important for judging a country or region's development.

The technical structures that support a society are roads, bridges, water supply, sewers, electrical grids, and telecommunications. Provision of high quality infrastructure is critical for achieving growth and improving the standard of living. Initiation and expansion of economic development in the district become possible and easy only in the context of the availability of adequate and appropriate infrastructural facilities.

Road

In 2001, Tamil Nadu had 3,865 km of National Highways (NH) as against 57,737 km in India, 7,136 km of state Highways (SH) as against 1,28,000 km in India, 7,408 km of major district roads (MDR) and 40,853 km of other district roads (ODR) as against 1,50,000 km of other District Roads and village roads at the National level.

Besides, there are other categories of roads. The roads was in Tamil Nadu in 2001 1,50,647 km, while the total road length in India is 3,30,000 km. Based on block wise, the length and types of roads in the Nilgiri District is presented in the table 8.1.

Table 8.1: Road length (2014)

Sl. No.	Depart-ment	Leanth of roads in km.									
		Total Road	BT	CC	WBM	Gravel	Earthern	SH	MDR	ODR	Others
Urban Local bodies											
1	Udhagai Municipality	142.000	139.350	2.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	Coonoor Municipality	69.255	50.675	18.550	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	Gudalur Municipality	156.060	60.450	56.710	18.550	0.000	9.500	0.000	0.000	0.000	29.400
4	Nelliyalam Municipality	140.000	70.300	41.660	3.500	0.000	0.000	0.000	0.000	0.000	0.000
5	Town Panchayat	386.560	191.200	56.990	0.000	61.820	76.560	0.000	0.000	0.000	0.000
6	Rural Local bodies (RD)	1017.840	566.719	30.350	205.738	46.415	168.546	0.000	0.000	0.000	0.000
7	Highways	124.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	National Highways	971.140	0.000	0.000	0.000	0.000	0.000	114.600	202.720	653.804	0.410
	District Total	3006.855	1078.694	207.010	227.788	108.235	254.606	114.600	202.720	653.804	29.810

Source: EE, DRDA, The Nilgiris

The total length of the roads in the district is 3006 km. 64 percent of the total road length is BT roads, nearly 15 percent and 14 percent of roads are WB and mud roads respectively. Less than one percent of road is CC in the district. Among all blocks, Gudalur district has higher road length (296 Km), followed by Udahagai (142 KM).

Electrification

The electrification indicates the development of the block. It is a basic input for all developments. The electrification of the district is presented in the table 8.2.

Table 8.2: Electrification (2011-14)

Sl. No.	Block wise / District / State	Revenue Village	Hamlets	Towns	Pop. Covered 2011 %	No. of street lights	Pop. Covered % 2013 -14	No. of street lights
1	Udhagai	20	441	5	94.0	3475	94%	3684
2	Coonoor	8	163	2	95.8	2020	96.5%	222
3	Kotagiri	15	360	1	94.3	2882	95.2%	201
4	Gudalur	12	475	2	79.0	2524	80%	2764
	District	55	1439	10	90.8	10901	91.4%	6871

Source : SE, TNEB, The Nilgiris - 2014

As per 2011 census, nearly 91 percent of the population has an adequate electrification. Population covered in electrification is 94 percent in Udhagai, 95.8 percent in Coonoor, 94.3 percent in Kotagiri and 79 percent in Gudalur.. Total number of street lights in the district is 10901 numbers in 2011. The district has 55 revenue villages, out of them which are 20 in Udhagai, 8 in Coonoor, 15 in Kotagiri and 12 in Gudalur. The total number of hamlets in the district is 1439, out of which there are 441 in Udhagai, 163 in Coonoor, 360 in Kotagiri and 475 in Gudalur block. The Nilgiri district has only 10 towns which are situated 5 towns in Udhagai, 2 towns in Coonoor, 1 town in Kotagiri and 2 towns in Gudalur. Street lights are operated in four blocks which are noticed by 3475 numbers in Udhagai, 2020 numbers in Coonoor 2882 numbers in Kotagiri and 2524 numbers in Gudalur block respectively.

Generation of Electricity

Electricity is one of the form of energy. It is an essential part of economic development. It is required for commercial use of electric power in industry, agriculture and transport. Non – commercial uses include using electric power for domestic lighting, cooking, and use of mechanical gadgets like refrigerators, air conditioners, etc, in domestic households. There are three main sources of generation of electric power viz., hydro power, thermal power and nuclear power. Its consumption serves as an index of a country's economic development. The use of electricity by the people in different areas in Nilgiris is represented in the table 8.4.

Table 8.3: Electricity

Sl.No	Name of the Power Stations	Year of Operations	Installed Capacity	Generation
	HYDRO			
1	Kundah power house – I			
	Unit I	08.07.60	20.00	83.04
	Unit II	24.07.60	20.00	101.91
	Unit III	01.04.64	20.00	93.81
2	Kundah power house – II			
	Unit I	30.10.60	35.00	142.8078
	Unit II	19.01.61	35.00	126.2712
	Unit III	02.05.61	35.00	135.8481
	Unit IV	16.06.61	35.00	146.1553
	Unit V	06.03.64	35.00	183.1300
				438.241

Source : TNEB, The Nilgiris

Table 8.3 shows the name of the power stations, Year of operation, installed capacity and generation in the Nilgiri District. Name of the power stations are Kundah power house II. There are three units in Kundah power House-II. The unit I of the Kundah power house I, II. The unit I of Kundah power House I was operated in 08-07-1960, unit II IS 24-07-1960.

The unit I of Kundah power house-II was operated in the year 30-10-1960, unit II in the year 19-01-1961, unit III in 02-05-1961, unit IV in 16-06-1961 and unit V in 06-03-1964 respectively. The installed capacity of all three units in Kundah power house I is 20 and all the five units of Kundah power House II. The generation capacity of all the eight units of Kundah power house I and II are vary from unit to unit. The electricity generated in the district is 438.24MW units

Telecommunication

The communication system comprises posts and telegraphs, telecommunication systems, broadcasting, television and information services. By providing necessary information about the markets and also supplying necessary motivation, the communication system helps to bring buyers and sellers together effectively and helps to accelerate the growth of the economy.

Accordingly the modern communication system has become an integral part of the development process. Since 1950- 51, the postal network has been expanded throughout the country, and in recent years, with special emphasis on the rural, hilly and remote tribal areas. With more than 1.5 lakh post officers, the postal network in India is the largest in the world. Indian telegraphs are one of the oldest Governments – owned public organisation in the world. The number of telegraph offices increased from 8200 in 1951 to over 30,000 now.

Telecommunication is a vital input for global competition and for India's success in the international markets. It is important not only because of its role in bringing the benefits of communication to every corner of India but also in serving the new policy objectives of improving the global competitiveness of the Indian economy and stimulating and attracting foreign direct investment. There has been a phenomenal growth in the telecommunication sector since 1955. The telecommunication network of the public sector (BSNL and MTNL) is one of the largest telecommunication Networks in Asia with capacity of 50 million lines and 40 million working connections comprising 35,510 telephone exchanges in the country by the end of December 2002.

In the year 2013-14, there were more than four phone connections per 10 people. There were nearly 46 telephone connections, out of which around 90 percent were mobile connections. This study shows the number of telephone exchanges, number of PCOs, number of landline, number of house hold with connection and population covered in Nilgiri district.

Table 8.4: Telecommunication in the Nilgiri District (2013-14)

Postal &Telegraph	182
No. of Telephones in use	36352
No.of Public Call Offices	3885
No.of Telephone Exchanges	46

Source: District Hand Book - 2014

The table 8.4 shows the status of telecommunication in the Nilgiri District. The total number of postal and telephones is 182. The total number of telephones in use at present is 36352. There are 3885 number of public call offices and 46 numbers of telephones exchanges are presently working in the district.

Financial Institution

Financial institutions provide support to all the sectors of the economy. Financial institutions are backhouse of businessmen, farmers and others. These organizations fulfil both the present and the future short term, medium term and long term financial needs of the individuals, the corporate bodies and government, relating to consumption, production and development activities in the economy.

The banks and other financial institutions are rightly termed as performing financial institutions. Since they are directed and guided to become instruments of social change. They establish links between the savers and the investors.

In the process they establish, maintain strength and enhance their financial infrastructure. In fulfilling these activities, they are governed by the rules and regulations stated by the Reserve Bank of India (Table 8.5).

Table 8.5: Financial Institutions during 2010-2014

Sl.No.	Blockwise / District / State	Number of Co-operative societies	Number of Members (2010-11)	Number of Members (2011-12)	Number of Members (2013-14)
1	Udhagai	83	147103	149241	150733
2	Coonoor	28	99846	100819	101827
3	Kotagiri	14	68731	69036	69726
4	Gudalur	19	76864	77736	78513
The Nilgiri District		**144**	**392544**	**396832**	**400799**

Source: JD Co-Op Societies, The Nilgiris, 2013 - 2014.

In Nilgiri district, among the four blocks, there is no change in the number of co-operative societies in between 2010-11 and 2013-14, but the numbers of members have increased by 2.10 % the percentage is higher in Udhagai (2.47%), followed by Gudalur (2.15%), Coonoor (1.98%) and Kotagiri (1.45%).

In Nilgiri District, there are banks like State bank groups nationalized banks, private sector banks, co-operative banks and regional rural banks which functioning in different categories. Each group has different banks with different names. They are giving different types of loans to the community as a whole, viz., agri-indirect, MSME, SRTO, retail trade, small business, P&S.E. education and housing. Under state bank group, two banks are operating which are S.B.I. and S.B.T. The total number of branches in SBI is only eleven (11) out of which they are 3 in rural 8 in sub urban and its total account is 19318 and 31857 lakhs . In S.B.T, the total number of banks is only 2 which are situated only in sub- urban area. The total number of accounts in 3270 and also the total amount is Rs. 3971 lakhs. The total number account of state bank group is 22,588 and the value of the total amount is Rs. 35828 lakhs.

Nationalized banks in Nilgiri District are B.O.B, B.O.I. Canara bank. S.B.I Corporation bank, DENA bank, Indian bank, Indian Overseas bank, Industrial Development Bank of India, O.B.C bank, P.N.B bank Syndicate bank, UCO bank, U.B.I bank, UNI, BOI and Vijaya bank

respectively. The total number of nationalized banks in Nilgiri District is 65 numbers which have made 11052 accounts and 117799 lakhs disboursed amount is used for various purposes.

Private sector banks are also functioning in the Nilgiri District. The name of them is Axis Bank, HDFC, ICICI, Indus, Karnataka, TMB, Ltd, CUB, Federal, KVB, and South Indian bank. The total number of them is 15. The total number of priority of them is 7174 is Rs. 7978 lakhs. There are only three types of co-operative banks operating in the district which are NDCC, TAICO and SARD respectively. In the Nilgiri District there is only 121 numbers of 118775 accounts which are ensured Rs. 36566 lakhs for the loan amount. The total number of regional bank is registered only one (1) in the district. Its total account is 1277 and also made the loan amount is Rs. 845 lakhs. The grand total of all these banks has 116 number and reached 2,59,866 accounts. It has granted loan amount the worth of Rs. 1,99,026 lakhs.

The total number of credit deposit in state bank group is 56 per cent, 83 percent in nationalized banks, 36 percent in private sector banks, 113 percent in co-operative banks an 185 percent in regional rural bank. Over all percentage of all these banks in Nilgiri District is only 73 percent. The credit deposit of the co-operative banks is the highest than other banks in the Nilgiri district. The total number of accounts is the highest only in the Co-operative banks but the disbursement of loan amount is the highest in nationalized banks than other banks. All the banks in Nilgiri district are created 997262 lakhs accounts which made Rs.3,36,838 lakhs amount of deposits.

Public Transport

Transport in Tamil Nadu gets nationalized. All routes in Chennai city were taken over in 1948. All bus routes exceeding 120 miles are to be in the state government hands according to the policy proclaimed in 1959. In 1967 all state carriages were nationalized. The policy statement made in August 1972 proclaimed to bring under the ownership of the government all the passenger transport service by 1977.The mini buses were permitted by the government of Tamil Nadu in un-served rural areas to cater to the needs of the people living in remote villages,

The network of government buses, private buses and mini buses cover almost every town and hamlet in Tamil Nadu. The Government of Tamil Nadu privatized certain selected routes, services and operations as a measure to provide better service to the public. By linking the backward regions with the relatively more advanced, transport development helps in the better and fuller maximum utilization of resources. Public and private transport facilities provide better services to the public in the Nilgiri District.

Table 8.6: Insurance Scheme

Sl.No	Name of the Insurance	No of Branches	Policy issued	Sum assured (crore)	No .of beneficiaries	Amount paid as compensation (crore)
1	Rural Postal Life Insurance	170	3763	31223	3763	---
2	Life Insurance Corp.ofIndia	3	30456	2468	---	---
3	New India Assurance	2	5500	0.048	---	---
4	United India Insurance Co.Ltd., Ooty	4	29061	1.704	951	1.58
5	National Insurance Company Ltd.,Ooty	1	4153	1.177		6.501
6	National Insurance Company Ltd., Coonoor	1	2567	0.725		4.781
7	Oriental Insurance company	1	293	2.93	293	

Source: DD Statistics, The Nilgiris

Table 8.6 shows insurance scheme available in the district. Total rural postal life insurance branches in the district were 170, the total numbers of policy holders are 3,763 and some of them assured of amount Rs.31,223 crores. Since, the establishments of branches of Life Insurance Corporation of India are there, number of policies issued was 30456 and the assured amount was 2,468 crores. There are two branches for New India assurance in the Nilgiri district which issued the total policy of 5,500 with the policy holders' assured amount of 0.048 crores. The United India Insurance Co Ltd has four branches having policy holders about 29,061 policies which issued to the public and assured amount was 1,704 crores. Therefore, in Nilgiri district, the total policy holders were benefited through Insurance Sector was about 5,007 Crores.

Market infrastructure in Nilgiri District

The Marketing facilities available in the district for agricultural commodities are listed out in the table 8.7.

Table 8.7: Marketing Infrastructures

Sl.No	Particulars	No. units	Department / Agency
1	Drying yard	30	Department of Agricultural Engineering
2	Storage godown	Nil	-
3	Cold storage	1	Department of Horticulture
4	Uzhavar santhai	4	Department of Agricultural marketing & Agri Business
5	Regulated markets	Nil	-
6	Carrot washing machines	25	Private establishments
7	Marketing complex	1	Department of Agricultural marketing & Agri Business

Source: DD , Dept of Agriculture

There are 30 drying yards, one cold storage and 25 Carrot washing machines and one market complex in the district. As of now there is no regulated markets and storage godown is in the Nilgiri district and four number of farmers markets are located at Udhagai with 35 tonnes / day capacity Coonoor with 20 tonnes/day capacity Gudalur with 6 tonnes/ day capacity and Kotagiri with three tonnes/day capacity. There is only one cooperative societies in this district called NCMS-Ooty (Nilgiris Co-op Marketing Society), through which vegetables are marketed outside the district. Apart from that there is another cooperative society which is being operated in Mettuppalayam (NCMS-Mettuppalayam.) for the benefit of Nilgiris vegetable growers.

Four numbers of Farmers market located at Ooty (~35 tons/day), Coonoor (~20 tons/day), Gudalur (~6 tons/day) and Kotagiri (~3tons/day). Marketing through NCMS-ooty (Nilgiris Co-op Marketing Society) and NCMS-Mettuppalayam. There are 25 nos. of Carrot washing units (private) are available and one number of fruit processing unit. 166 Tea processing factories (23 – Govt and 143-private), 24 nos. of Coffee grinding units and one number of pepper processing unit are functioning.

Summary and Conclusion

This section deals with road, electricity, communication, transport, banking sector and insurance schemes in the Nilgiri district. The total road length in the district is 3006 Km The length of National Highways in the Nilgiri district is 971 km. The State Highways covers the distance of 124 km. Among all blocks, Gudalur district has a higher road length (498), followed by Udhagai (339 Km). Total electricity generated from the Nilgiri district is 438241 mw. Nearly 91 percent of the population has adequate electrification. Total number of telephone and telecommunications in the district is 36352. Number of telephone exchanges established is 46. The Co-operative primary agricultural banks and 10 private bank sectors are working in the district. There is no change in the number of Co-operative societies in between 2010-11 and 2013-14, but the numbers of members have increased by 2.10 %. 30 drying yards, one cold storage and 25 carrot washing machines and one market complex are in the district. No regulated markets and storage go-down is in the Nilgiris. Hence, it is recommended to start regulated market for farmers in the district. One drawback is that majority of horticultural products are highly perishable in nature especially vegetables which are to be distributed within short time. Therefore, a high-tech or modern refrigerated regulated market for vegetables may be established in the region in augmenting producers' share in consumers' rupees.

The above analysis reveal that the district has been equipped parallel to the state infrastructural development in terms of road, railways, electricity, communication facilities and financial institution. However, the quality of infrastructure may be scaled up for achieving durability and easing out discomforts and controlling deterioration of vehicles. Since the infrastructure has certain uniqueness, which has to be analyzed in detail. Further for achieving faster human development, infrastructure would be the complementary input for development.

CHAPTER 9

SUMMARY AND WAY FORWARD

CHAPTER
9
SUMMARY AND WAY FORWORD

1. Nilgiri District: A Profile

There are four blocks and six taluks in the district with the range of 900 to 2636 MSL. 50 % of the total area is under forest. The major hill vegetables are cultivated in the district. The total population is 7.3 lakhs with the density of 288. The urban population is 59.32 %. Wells are the main source of irrigation. Nearly 15000 hectares of tea gardens feed 40 factories. In agriculture sector, the total workers population around 1,60,151, out of which females constitute 24.74 % in Non-Agriculture Sector. The female wage rate in the Nilgiri district is Rs.173 per day.

Gross District Domestic Product was 408432 for the year 2011-12. Primary, secondary and tertiary sectors contribute 15%, 14.5% and 70% respectively. Per capita income of Nilgiri district is Rs. 51738 against state per capita income of Rs. 63996. BPL family constituted 32 percent in the year 2013-14. The life expectancy at birth is 77.9.

Crude birth rate and crude death rate in the district was 10.50 and 4.6 respectively. The CBR of all blocks in the Nilgiri district shows a declining trend. Gudalur block had higher CBR and Udhagai had higher CDR. But it continues to be higher in Gudalur block. In 2011, it was as high as 15.6 followed by 17.5 in Gudalur block respectively. In 2011, children under 0-6 formed 8.39 per cent of the Nilgiri District compared to 11.27 percent of 2001. Udhagai block had the highest IMR (16.00) than the district average value. In the district, IMR had reduced from 21.50 in 2007 to 10.70 in 2013-14. Maternal Mortality Rate (MMR) was low (74.75) compared to the state average (68) in 2013-14.

The CDR, CBR, IMR, MMR, U5 mortality rate must be reduced through creating adequate medical facilities at village level especially strengthening PHCs and GHs and creating awareness among women through proper health extension methods even right from schools to households. VHNs and volunteers are also to be trained and equipped with basic first aid materials. The village school teachers are to be trained and act as health ambassadors.

Average literacy rate of the Nilgiri District in 2011 was 85.65 compared to 80.01 of 2001. If we analyse gender wise, male and female literacy was 92.15 and 79.44 respectively. The female literacy must be enhanced to higher level by creating more residential free boarding schools.

Mostly villages are located in remote and hilly area with improper road connectivity and vehicle facilities.

2. Status of Human Development

Human Development Index

Based on Human Development Indices in the selected block of the Nilgiri District, the Coonoor block was ranked first (0.69), followed by Udhagai block (0.68) , Kotagiri block (0.52) and Gudalur block (0.51). Back ward of Gudalur block is due to low access to cooking fuel (28%), pucca house (53.8%), toilet (63.88%), electricity (67%), high IMR (5), high U5MR (4) and low literacy rate (86). In Kotagiri block, low access to cooking fuel (58%), toilet facilities (50.76%) and high MMR (227) and high IMR (17) are the causing factors.

In order to improve HDI in the backward blocks like Gudalur and Kotagiri, timely and adequate supply of cooking fuel like LPG, kerosene and electric cooling vessels to the villagers in the remote forest area hamlets are necessary. As ***AMMA GREEN HOUSES*** are to be given free of cost to the needy villagers especially for BPL households. This will not only improve the access to pucca house, but also improves access to electricity and toilet facilities.

Gender Inequality Index

Based on GII, Gudalur (0.03) is designated as the first rank, followed by Coonor (0.04). Gudalur (0.04), Udhagai (0.06) and Kotagiri (0.08). In Kotagiri block, the highest GII value is due to higher MMR (227), low share of female children (0-6) years (48.44%), low share of elected representative in RLBs and ULBs (29%) and low female work participation rate (44.75%). Higher MMR (72), low share of elected representative in RLBs and ULBs (28%) , low female worker participation rate(43.40%) and low female worker participation rate in non agri sector (68%) are the causing factors in the Udhagai block.

In order to reduce GII in the backward blocks in the district, as mentioned earlier,, health indicators must be improved with heavy investment on medical infrastructure and to encourage female education and female participation in the elected local bodies. Compulsory 50 per cent reservation quota for female candidates even in the public sectors must be given. This will reduce the work participation rate in non agricultural sectors. Free boarding schools especially for weaker section of the society may also be created at the block level.

Child Development Index

CDI value is higher than HDI. Coonoor (0.80) stands first, followed by Udhagai (0.65), Kotagiri (0.53) and Gudalur (0.51). In Gudalur block, high U5MR (5), malnourished children (18%) from health indicators; comparatively low transition rate from primary to upper primary (97.6%) and upper primary to secondary (97.63%) from education indicators are causing factors for poor performance . In Kotagiri block, high malnourished children (24%), comparatively lower transition rate from primary to upper primary (98.20%) and upper primary to secondary (97.34%) from education indicators are causing factors for it.

In order to improve CDI in the backward blocks, improve the general health indicators as mentioned above, encourage the students transition rate from primary to secondary education and reduce the dropout rates, the educational status of the district must be improved with the above mentioned recommendations.

Multidimensional Poverty Index

Kotagiri (0.62) is found to be the highest MPI, followed by Udhagai (0.52), Gudalur (0.41), and Coonoor (0.33). In Kotagiri block there is high IMR(17), high malnourished children (24%) low access cooking fuel (58%), and toilet facilities (50.76%) are the causing variables. Udhagai has registered less Pucca house, toilet facilities, moreover high IMR, and higher number of malnourished children. In order to reduce MPI in the blocks, health, education, standard of living indicators must be improved as mentioned above.

3. Employment Income and Poverty

The total workers in the Nilgiri District had constrained from 50 % in 2001 and 50 % in 2011. The total workers in Udhagai during 2001 was 39 %, it had increased to 41% during 2011. While in Coonoor and Kotagiri, the total workers had decreased from 26% during 2001 to 11% in 2011 in Coonoor and in Kotagiri from 20 % during the year 2001 to 15 % during 2011. This reduction is due to outmigration of local labourers to Mettupalayam, Thiruppur and Coimbatore for higher wages in industries. In Gudalur, it had increased from 15 % to 33 % during 2011. This is due to in-migration of labourers from Kerala state.

Among the main workers, WPR was in Gudalur (37 %), followed by Udhagai (33 %), Kotagiri (27 %) and Coonoor (3 %) in 2001, whereas it was 47 % in Gudalur, 24 % in Kotagiri, 22% in Coonoor and 7 % in Udhagai. Among the marginal workers, Udhagai and Coonoor had 35 % during 2001 while Kotagiri had 17 % followed by 13 % in Gudalur. It

increased in Gudalur from 13 % to 50 %. Coonoor had a decline of 6 % from 35 % followed by Kotagiri, it decreased by 10 % from 17 %. Among the non – workers in 2001, 34 % was contributed by Coonoor followed by Gudalur with 32 %, and 19 % by Kotagiri and 5 % by Udhagai. During 2011, Udhagai increased to 20 % Gudalur's % had increased to 34 % while Coonoor and Kotagiri's prercentage decreased to 28 % and 19 % respectively. The increase of labour force in the blocks is due to in-migration of north Indian labourers especially from Bihar, Odissa, West Bengal. The reduction of labour force in the blocks is due to outmigration of local labourers to Mettupalayam, Thiruppur and Coimbatore for higher wages in industries.

The percentage of employees in organized sector was only 5 per cent in 2013-14. It was high only in Coonoor and other blocks have nearly 2 per cent only.

In contrary to this overall trend, WPR in Udhagai block had positive and highest value (61.74 %) in rural 2011 census over 2001 census. The lowest rural WPR as found in Coonoor (38.97 %). Similarly in urban area the highest percentage was 48.50 in Udhagai block and lowest of 39.61 % in Kotagiri block. The district level calculated for urban and rural areas were 47.50 % and 43.20 % respectively. Udhagai block rose up in work participation rate due to increase in Labour in Tea Gardening, Tourism, Hotel workers and business.

Employment and Placement

Percentage of placement through District Employment Office was only 1.25 per cent in 2013 (Table 3.5). The registration for employment, the number of unemployed increased from 11987 in 2007 to 16574 persons in 2014. The number of persons registered for employment in the registration office and got placement is not showing any significant trend. There is wide fluctuation in the percentage of placement.

Growth in Per Capita Income

The per capita income in the district during 2001 was Rs 19,377 whereas it was Rs. 51738 in 2011-12. It shows the positive trend in per capita income and also higher than the state average (Rs. 63996).

Poverty and Inequality

32 per cent of families are below poverty line which is registered the highest in Coonoor (44.62 %), followed by Gudalur block (16.73 %), Kotagiri (38.14 %) and Udhagai (43.18 %) in 2011. In the district, nearly 90 per cent of people are provided with ration cards. Among the four blocks, Gudalur has the highest (97 %) card holders and least in Udhagai (87 %).

4. Demography, Health and Nutrition

Health is much more than just life expectancy which includes fertility, morbidity, mortality and nutrition status. The total population of the district is 735394 according to the 2011 census, but it had declined compared to 2001 census which accounted 762141. Among the four block of the district, the total number of population had diminished in Udhagai and Kotagiri compared to 2001 census which was registered 219305 and 108684 in 2011 census.

But in Coonoor and Gudalur block, it had increased in 2011 census compared to 2001 census. The total population in 2001 census was 175067 in Coonoor and in Gudalur, it was 215369 but as per 2011 census it was 177306 in Coonoor and 230099 in Gudalur. The sex ratio had declined to 986 in 2011 from 1018 in 2001 only in Coonoor block but increased in all other three remaining blocks which are 1053 in Udhagai, 1064 in Kotagiri and 1048 in Gudalur in 2011.

The percentage of SC and ST population had decreased from 30.75 % and 1.47 % respectively in 2001 to 25 % and 1.06 % respectively in the district. The percentage of SC population was 31.34 per cent in 2001 and 29.82 per cent in 2011 in Udhagai, 30.12 per cent in 2001 and 24.11 per cent in 2011 in Coonoor, 29.34 per cent in 2001 and 14.78 per cent in 2011 in Kotagiri, 32.18 per cent in 2001 and 31.29 per cent in 2011 in Gudalur. The percentage of the ST population is accounted 1.73 per cent in 2001 and 1.55 per cent in 2011. The reason for the reduction of the population in the district is due to outmigration of native people to Mettupalayam, Coimbatore and Thiruppur for getting an adequate employment education and health facilities. Old age persons (more than 60-65 years) are not able to live normal life especially sick persons. They want to move down to plains for treatment and health care.

Udhagai, 1.26 per cent in 2007 and 0.33 per cent in Coonoor, 1.36 per cent in 2001 and 0.86 per cent in 2011 in Kotagiri, 1.52 per cent in 2001 and 0.86 per cent in 2011 in Kotagiri 1.52 per cent in 2001 and 1.48 per cent in 2011 Gudalur respectively.

The CBR in the district had 12.6 in 2007, whereas it was reduced to 10.5 in 2013-14. The highest CBR was found in Gudalur (13.30), followed by Coonoor (10.1) and Udhagai (9.9). The CBR in all blocks have declined over 2009 to 2011 except Gudalur. In the case of urban areas, the crude birth rate is same both in Udhagai municipality and Coonoor which accounts 9.3 per 1000 in the year 2011.

The CDR in the district was increased from 1.9 in 2009 to 4.9 in 2013 with the estimated 7.1per 1000 in Udhagai, 6.9 in Coonoor, 4.6 in Gudalur and 2.8 in Kotagiri. Among the four blocks in the year 2013, Udhagai had the highest crude death rate than other blocks. Udhagai municipality and Coonoor are considered as urban areas in the district. In the recent year, Udhagai and Coonoor are to be considered seriously for this problem.

Sex Ratio

In the Population Census of 2011 it was revealed that the Sex ratio in India 2011 is 940 females per 1000 males. In Nilgiris, the overall sex ratio was 1041 as per 2011 census

Child Sex Ratio

For comparing the relative strength of the number of male children and the female children in a population the common measure used is the Child sex ratio which is 956 in Kotagiri followed by Gudalur with 986, Udhagai with 1014 and Coonoor with 1055.

Life Expectancy

The average life expectancy at birth based on 2011 census is 77.9 years which is higher than that of the state average (73.4)

Infant Morality

The infant mortality rate in the Nilgiri district was 12.75 in 2013-14 which was lower than the state average (21). The IMR was the highest in Coonoor (18), followed by Kotagiri (17) and Udhagai (11). The overall IMR in all blocks had a decreasing trend. This is a positive sign for health indicators. This is due to consistent efforts of medical professionals and administrators in the district.

Maternal Mortality Ratio

The maternal mortality in the Nilgiri district was 74.75 in 2013-14 which was higher than the state average (68). The MMR was the highest in Kotagiri (227) and Udhagai (72). The overall MMR in Kotagiri and Udhagai blocks had a increasing trend during 2007-2014. This was due to lack of medical facilities in the remote tribal hamlets. Socioeconomic factors also play a crucial role, for instance, patriarchal attitudes, the enormous burden of hard toil and poor nutrition, the lacunae in transport and communication facilities, delay in accessing proper health facilities and the poor quality of essential and emergency obstetric service. The high MMR due to pregnancy diabetic, hyper blood pressure, illiteracy and lack of communication. Kotagiri and Udhagai blocks are to be taken care to reduce MMR further.

Institutional Deliveries

The institutional deliveries in the district were 99 percent in 2013-14. In the district nearly, 36 percent of the institutional deliveries was in government hospitals, 34 percent in private hospitals, 28 per cent in PHCs (Annexure 4.4). Among the four blocks, Gudalur has taken the first place, Udhagai the second, Coonoor the third and Kotagiri the fourth place respectively.

Still Birth Rate

Still birth rate varies from year to year. When compared to 2007, the Still Birth Rate had declined in 2011 except for Kotagiri in all the blocks of the district. The overall still birth rate in the district has increased. The still birth rate in the district was 12 in 2013.

Immunization

The percentage of children immunized in Nilgiri District was 99.4 percent in 2013-14. 100 per cent achievement of immunizing children was noticed in Gudalur, Udhagai and urban areas.. The rural-urban disparity in vaccination is not due to demographic factors, but due to socioeconomic factors. The likelihood of vaccination increases with mother's education level, mother's age, mother's exposure to mass media and mother's awareness about immunization. Some antenatal care during pregnancy raises immunization chances significantly. This increases the possibility of meeting health personnel who help mothers to raise their awareness by disseminating information regarding immunization. The standard of living index or wealth index has a positive effect on immunization. Children from households with electricity are more likely to be immunized. The gender of the household head has no effect on childhood immunization. The likelihood of immunization increases with the mother's empowerment index.

Nutritional Status of Children

The percentage of underweight (MUW+SUW) children (below 5 age group) in the district was 16.93 in 2013-14. It is the highest in Gudalur (19.90 %), followed by Kotagiri (18.65%), Udhagai (17.96%) and Coonoor (14.25%).

Provision of IFA Tablets

The categories of the people used IFA tablets are women, children and adolescent girls. Children took 98.75 percent, women took 97.50 percent, and adolescent girls took 98.75 percent. It is found from the table that the percentage of anaemia for pregnant women had

increased from 31.25 in 2007-08 to 41.00 in 2013-14. The reason for this hike is pregnant women are not getting adequate balanced rich food and also due to the cold environment.

Non – Nutritional Factors

Drinking water supply

The district administration is able to provide drinking water facility for 98.41 percent of the people in 2013-14. The highest water facilities is in Kotagiri with 98.60 percent, followed by Gudalur (98.49), Udhagai (98.18) and Coonoor (95.56)

In the Nilgiri district, 59.65 percent of the people are provided with toilet facilities. Coonoor block stands with the highest percent i.e. 71.41 percent, followed by Gudalur block with 63.88 percent, Udhagai with 52.53 percent and Kotagiri with 50.76 percent . The lower access to facilities is due to these blocks have easy access to forest, the remaining people use public places.

Age and Sex wise HIV Positive

HIV had affected more persons in the age group of 25-29 and 30-39 among both male and female in 2013-14. The overall cases in the district of HIV positive in both male and female had increased to 32 males and 20 females in 2013 from 29 males and 16 females in 2011.

Positive TB and Leprosy

The positive cases of TB have increased from 227 in 2007 to 230 in 2011. Among all the blocks, Gudalur is registered with the highest number of positive cases (75) and Coonoor with 62. Except Udhagai, all blocks have a positive trend in TB positive cases in the last five years.

5. Literacy and Education

The district literacy rate has increased from 82.45% in 2001 to 85.13 % in 2011. Among all blocks, Udhagai (88.12%) stands the first, followed by Coonoor (86.10 %), Gudalur (85.10 %) and Kotagiri (81.20 percent). It is found that the literacy rate was found to be higher in 2011 than 2001. The literacy rate in Kotagiri and Gudalur blocks is slightly lower than the district average. Hence, proper infrastructure must be created for these two blocks.

Primary Education

The gross enrolment ratio in primary education of in the district was 98.41 % in 2009 and 99.92% in 2013-14. The number of boy students enrolled in 2013-14 was 99.98 %. On the other hand, girls' enrolment also increased from 98.23% in 2009 to 99.86 girl students in 2013.

the lowest enrolment ratio. Though, there are minor fluctuations in the growth, all blocks in the district are heading towards achieving 100% enrolment rate.

The overall enrolment rate in the upper primary school in the district was 98.01% in 2013-14. The overall enrolment rate is lower in girls' category (97.89%) than boys (98.12%). District male and female enrolment ratio was 98.02 per cent and 97.59 % respectively in 2013-14. The marginal reduction of female enrolment ratio is due to the houses which are located far away from the school premises. The villages are also located in scattered manner in the hill terrainial area. They have to reach the school by walk. For the fear of animals and insecurity, female children are reluctant to attend the schools.

Completion Rate in Primary Schools

The overall completion rate of students in primary schools was 98.81 during the year 2013-14. The completion rate of students is found to be low in Gudalur (97.87 %) and high in Coonoor (99.37 %) during the year 2013-14. The completion rate of student's upper primary schools was 98.85 % in Nilgris district, 99.41 % in Coonoor block and 97.91 % in Gudalur during the year 2013-14. The completion rate in primary is higher than upper primary education in 2013-14 in all blocks. Completion rates are found to be lower in Gudalur block.

Drop Out Rate- Primary and Upper Primary School

The overall dropout rate in the district has declined from 0.98 % in 2011 to 0.95% in 2013-2014. The drop rate in the boy's category has increased to 1.72 % in 2013-14 from 0.90 % in 2011-12. The same trend is also found in the female category during the same period. This may be poor family background, unaware of the importance of education in adequate transport facilities.

The upper primary dropout ratio was 1.70 % in 2013-14, whereas it was 1.66 % in 2011-12. Almost all blocks have the same trend. The droupout ratio was found to be higher in boys (1.73%) than female (1.59%). The difference between the dropout rate at district level and dropout rate of various boys and girls is found to be very less. In the district, Gudalur block has the maximum dropout rate of boy students from 2.81 % in 2011-12 to 4.06 % in 2013-14.

Pupil Teacher Ratio in Primary Schools and Upper primary schools

The pupil-teacher ratio in Nilgiri district is 19 in 2013-14. Within the district Udhagai block has the lowest pupil-teacher ratio. The overall ratio of the district has been decreasing for the ten years, which is a positive trend.

Availability of Basic Infrastructure Facilities

Out of 414 schools in the district, 249 schools are having three class rooms and 165 schools are having more than 3 class room in the Nilgiri district. The schools established must demonstrate and build the culture of using toilets, access to safe drinking water. It is essential to make them functional to ensure sanitation in the schools. More than 190 schools don't have electricity and 94 schools don't have compound wall. This indicates that sufficient infrastructure facilities are to be established. 100 % of the schools aren't having drinking water facility.

Higher Education

The number of students admitted in the hostel during 2013-14, under the scheme of minorities' welfare students is 1484 in 2013-14.

6. Gender

In 2011, The Nilgiris had a population of 735,394 of which male and females were 360,143 and 375,251 respectively. In 2001 census, the Nilgiris had a population of 762,141 of which males were 378,351 and remaining 383,790 were females. The initial provisional data released by census India 2011, shows that density of the Nilgiris district for 2011 is 287 people per sq. km. In 2001, the Nilgiri district density was 299 people per sq. km. has 2,549 square kilometers of area.

Sex Ratio

With regards to Sex Ratio in the Nilgiris, it is accounted as 1041 per 1000 male in 2011 census whereas it was 1016 in 2001 census. This is well above the sex ratio of the state (987) and the nation (933). When we interpret the block level the sex ratio reveals the highest in Kotagiri 1064 and least in Coonoor 986 per 1000 male.

Urban Population

Among the total Nilgiris population based on 2011 census, 59.24 percent of them are living in urban regions of district. 435,655 people live in urban areas of which males are 214,234 and females are 221,421. Sex Ratio in urban region of the Nilgiri district is 1034 as per 2011 census data. Similarly child sex ratio in the Nilgiri district is 982 in 2011 census. Child population (0-6) in urban region is 40,507 of which males and females are 20,436 and 20,071. The child population figure of the Nilgiri district is 9.54 % of total urban population. Average literacy rate in the Nilgiri district as per census 2011 is 87.99 % of which males and females are 93.39 % and 82.80 % literates respectively. 347,692 people are literates in the urban region, out of which males and females are 180,984 and 166,708 respectively.

Status of Women

As per 2011 census, 40.76 % population of the Nilgiri district lived in rural areas of villages. The total population of the district people living in rural areas is 299,739 of which males and females are 145,909 and 153,830 respectively. In rural areas of the district, sex ratio is 1054 females per 1000 males. The child sex ratio data of the district is 990 girls per 1000 boys. Child population in the age 0-6 is 26,292 in rural areas of which males and female are 13,212 and 13,080 respectively. The child population comprises 9.05 % of total rural population in the district. Literacy rate in rural areas of the district is 81.17 % as per census data 2011. Gender wise, male and female literacy are 89.27 and 73.53 percent respectively. Of the total, 221,955 people are literate of which males and females were 118,463 and 103,492 respectively.

The female population in the district is 374,901 (2011 census) which is 51 percent of the total population in the district. The sex ratio is 1041 which is more than the state and nation. The female literacy rate in the district is 79.44 percent, MMR is 74.75, women workers in agriculture sector is 38 percent and non-agri sector is 24.5 percent. The gender inequality index shows that there is no significant difference in gender among the blocks.

Child Sex Ratio (0-6 years)

The Child sex ratio of the state is only 916. The Child sex ratio is found to be the highest in Udhagamandalam (997) and lowest in Kotagiri (968 per 1000 male).

Trends in Political Participation

Political participation of women in State Assembly and Panchayat Raj institutions empower women. At the district level the female participation rate was 36.5 percent. Female participation was the lowest in Udhagai 33 (%). In the district, there is no women member in the State Assembly. But in all the blocks in the district, the political participation rate of women is 36.5 per cent or more.

7. Social Security

It is evidenced that the percentage of male population aged above 60 is found to be higher (15.50 %) than female (11.40%). The more number of aged persons are in Gudalur, Udhagai and Coonoor blocks.

The composition of age group in the Nilgiri district: The highest percentage of age group in the district is 15- 59 age group which accounts for 67 per cent of the population. Nearly 26

percent of people fall in the category of 0-14 age group and whereas above 60 age group has 7 per cent of the population. The age group 15-59 has been determined the working force in the district and above 60 years will come under retirement and get old age pension and social security's and other beneficiaries.

Old Age Pension Scheme

Out of 8443 OAP in the district, Udhagai block has the highest OAP beneficiaries (42%), followed by Coonoor (22%), Gudalur (21%) and Kotagiri (15%) in 2011, whereas Coonoor is ranked first (34%) followed by Udhagai (25%), Gudalur (24%) and Kotagiri (17%) in 2014. There is a significant percentage change of OAP in all blocks except Udhagai block during year 2013-14

Destitute widows were more in Udhagai block (43%), followed by Gudalur (29%), Coonoor and Kotagiri (14% each) in 2011, whereas it was more in Coonoor (16%) followed by Udhagai and Kotagiri (6%) each in 2014. In the year 2014 destitute widows were shortly reduced in all blocks except in Coonoor. This may be due to more number of plantation workers, traders, construction workers, floating population with a habit of alcoholism and dowry.

Disabled persons were more in Coonoor (31%), followed by Udhagai (28%), Kotagiri and Gudalore (14% each) in 2011, whereas it was sharply reduced in all blocks except Coonoor in 2014. Between 2011 and 2014, there was 54 % increase of disabled persons in the district.

Crime against Women

The highest crime against women is molestation (26.79 %), followed by rape (22.32 %) and sexual harassment (19.64%). No crime against women with respect to dowry death and attempted to rape. Sexual related problems are more; this may be due to more number of tourists and higher floating population in the district. The effective checking and periodic combing operations is the only solution for reduction of sexual harassment. In overall all the crime cases against women in Nilgiri District is 112 cases during 2013-14.

8. Infrastructure

The total road length in the district is 3006 Km. 64 percent of the total road length is BT roads, nearly 15 percent and 14 percent of roads are WB-III and mud roads respectively. Less than one percent of road is CC in the district. Among all blocks, Gudalur district has higher road length (296), followed by Udhagai (142 Km). Nearly 91 percent of the population had adequate electrification. Gudalur block had low electrification. Total number of street lights in the district is 10901 numbers in 2014.

The number of telegraph offices increased from over 30,000. The total number of postal and telephone offices 182. The total number of telephones in use at present is 36352. There are 3885 public call offices and 46 telephones exchanges presently working in the district.

In Nilgiri district, among the four blocks, there is no change in the number of Co-operative societies in between 2010-11 and 2013-14, but the numbers of members have increased by 2.10 % which is higher in Udhagai (2.47%), followed by Gudalur (2.15%), Coonoor (1.98%) and Kotagiri (1.45%). There are 5 branches of public sector insurance companies, besides private insurers. In 2012-13, a total number of 75793 policies were issued in the district to cover various types of risks.

There are 30 drying yards, one cold storage and 25 carrot washing machines and one market complex in the district. As of now there is no regulated markets and storage godown in the Nilgiri district and four farmers markets are located at Ooty with 35 tonnes / day capacity Coonoor with 20 tonnes/day capacity Gudalur with 6 tonnes/ day capacity and Kotagiri with three tonnes/day capacity. There is only one cooperative society in this district called NCMS-Ooty (Nilgiris Co-op Marketing Society), through which vegetables are marketed outside the district. There are 25 nos. of carrot washing units (private) available and one for fruit processing. 166 tea processing factories (23 – Govt and 143-private), 24 nos. of coffee grinding units and one pepper processing unit are functioning.

ANNEXURES

ANNEXURES

Human Development Index **Appendix I: Tables**

Table 1.1: Block –wise HDI Indicators

SL.No	Block	Standard of Living					Health			Education		
		P	P	P	P	P	N	N	N	P	P	P
		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
		census	DRDA	DRDA	Census	DRDA	Health Department - Nilgiris			Census	Education Department	
		2011	2013-14	2013-14	2011	2013-14	2013-14	2013-14	2013-14	2011	2013-14	2013-14
1	Udhagai	45.00	52.53	98.18	94.0	52.11	11.00	72.00	1.00	80	99.73	99.08
2	Coonoor	67.00	71.41	95.56	98.5	55.19	18.00	0.00	0.00	86	99.66	98.05
3	Kotagiri	58.00	50.76	98.16	94.3	76.16	17.00	227.00	0.00	81	99.30	98.95
4	Gudalur	28.00	63.88	98.49	79.0	53.80	5.00	0.00	4.00	85	99.72	99.38
	District	49.50	59.65	97.60	90.78	59.40	12.75	74.75	1.25	85.00	99.60	98.87

Sources: (i) Census of India 2011, (ii) NBA, MDWS, New Delhi- 2014, (iii) TNEB, (iv) Health and Education Department- 2013-14.

Table 1.2: Block –wise Human Development Index

Source : Computes.

Continue….

S.No	Block/ District	Standard of Living					Health			Education			Sectoral Index			Overall Index	Rank
		Cooking Fuel	Toilet Facilities	Drinking Water	Electricity	Pucca Houses	IMR	MMR	U5MR	Literacy Rate	GER Primary	GER Secondary	Standard of Living	Health	Education		
1	Udhagai	0.47	0.27	0.98	0.93	0.18	0.59	0.71	0.77	1.00	1.00	0.97	0.46	0.69	0.99	0.68	2
2	Coonoor	1.00	1.00	0.77	1.00	0.28	0.12	1.00	1.00	0.87	0.99	0.88	0.73	0.50	0.91	0.69	1
3	Kotagiri	0.78	0.20	0.97	0.94	1.00	0.19	0.09	1.00	0.54	0.96	0.96	0.68	0.26	0.79	0.52	3
4	Gudalur	0.07	0.71	1.00	0.32	0.23	1.00	1.00	0.09	0.80	1.00	1.00	0.32	0.45	0.93	0.51	4
	District	0.581	0.542	0.928	0.797	0.421	0.48	0.7	0.716	0.8	0.988	0.9537	0.548	0.473	0.906	0.6	

Gender Inequality Index

Table 1.3: Block –wise GII Indicators

S.No	Block/ District	MMR	Institutional Deliveries	Ante Natal Coverage	Female Literacy	Male Literacy	Girls (0-6) years	Boys (0-6) years	Elected Representatives		Female WPR	Male WPR	Female WPR Non-Agri	Male WPR Non-Agri	Female Agri. Wage rate	Male Agri. Wage rate
									Female	Male						
		2013-14	2013-14	2013-14	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2013-14	2013-14
		Health Department			Census Of India				(Local bodies / PAPD)		Census Of India				Statistical Department	
		rate	%	%	%	%	%	%	%	%	%	%	%	%	Rs.	Rs.
1	**Udhagai**	72.00	99.1	99.7	78.69	90.29	50.19	49.81	28.00	72.00	43.40	56.15	68.0	77.74	110.00	160.00
2	Coonoor	1.00	99.3	99.5	85.42	87.00	49.64	50.33	30.00	70.00	29.75	68.88	70.0	80.50	112.00	158.00
3	Kotagiri	227.00	99.0	99.3	79.45	81.05	48.44	51.55	29.00	71.00	44.76	61.05	69.0	80.19	114.00	155.00
4	Gudalur	1.00	99.2	99.0	80.77	83.51	49.53	50.47	30.00	70.00	33.84	55.87	67.0	67.71	111.00	154.00
	District	75.25	99.15	99.38	81.08	85.46	49.45	50.54	29.25	70.75	37.94	60.49	68.50	76.54	111.75	156.75

Source: i. Health Department, ii. Census Of India, iii. Local bodies / PAPD section – Collectorate and iv. Department of Statistics.

Table 1.4. Block- wise GII Index

Continue….

S.No	Block/ District	Health			Empowerment						Labour					
		MMR	Institutional Deliveries	Ante Natal Coverage	Female Literacy	Male Literacy	Female Children (0-6) years	Male Children (0-6) years	Female Elected Representatives	Elected Representatives	Female WPR	Male WPR	Female WPR in Non- Agri Sector	Male WPR in Non- Agri Sector	Female Agri. Wage rate	Male Agri. Wage rate
1	**Udhagai**	0.14	0.99	1.00	0.79	0.90	0.50	0.50	0.28	0.72	0.43	0.56	0.68	0.78	0.73	1.00
2	Coonoor	10.00	0.99	1.00	0.85	0.87	0.50	0.50	0.30	0.70	0.30	0.69	0.70	0.81	0.87	0.91
3	Kotagiri	0.04	0.99	0.99	0.79	0.81	0.48	0.52	0.29	0.71	0.45	0.61	0.69	0.80	1.00	0.77
4	Gudalur	10.00	0.99	0.99	0.81	0.84	0.50	0.50	0.30	0.70	0.34	0.56	0.67	0.68	0.80	0.72
	District	5.05	0.99	0.99	0.81	0.85	0.49	0.51	0.29	0.71	0.38	0.60	0.69	0.77	0.85	0.85

Source: Computed

Table 1.5: Block Wise GII Index

Continue….

Sl.. No	Block/ Distrct	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
1	**Udhagai**	0.52	1	0.48	0.81	0.56	0.75	0.52	0.85	0.64	0.76	0.64	0.66	0.68	0.06	3
2	Coonoor	2.15	1	0.51	0.78	0.51	0.79	0.82	0.85	0.84	1.57	0.64	0.65	0.87	0.04	2
3	Kotagiri	0.35	1	0.48	0.76	0.67	0.68	0.48	0.80	0.60	0.68	0.62	0.68	0.66	0.08	4
4	Gudalur	2.14	1	0.49	0.76	0.52	0.63	0.82	0.79	0.80	1.57	0.63	0.58	0.83	0.03	1
	District	**1.29**	1.00	0.49	0.78	0.57	0.71	0.66	0.82	0.72	1.14	0.63	0.64	0.76	0.05	

Source: Computed.

Child Development Index

Table 1.6: Block – wise Child Development Indicators and Index in Nilgiris District

	INDICATOR OF CHILD DEVELOPMENT								
SL.NO	Block name	Health			Education				
					Enrollment Rate			Transition Rate	
		U5MR	Child 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	Udhagai	1.00	1013	25	99.73	99.08	1.00	98.20	97.99
2	Coonoor	0.00	995	16	99.66	98.05	1.00	98.10	98.27
3	Kotagiri	0.00	980	24	99.30	98.95	0.00	98.20	97.34
4	Gudalur	4.00	950	18	99.72	99.38	0.00	97.60	97.64
	District	1.25	984.50	20.75	99.60	98.87	0.50	98.03	97.81

Source: (i) Health Department, and (ii) Education Department – 2013.14

Table 1.7: Block –wise Child Development Index in Nilgiri District

Continue….

S.No	Block. District	Index Value								overall average	Rank
		Health Index			Education Index						
					Enrollment Rate			Transition Rate			
		U5MR	Child sex ratio	P	Enrollemnet in Primary	Enrollemnet inSecondary	Child Never Enrolled in Schools	Transition rate from primary to Upper Primary	Transition rate from Upper primary to secondary		
1	**Udhagai**	0.750	1.000	0.00	1.00	0.77	0.00	1.00	0.70	0.65	2
2	**Coonoor**	1.000	0.714	1.00	0.84	1.00	0.00	0.83	1.00	0.80	1
3	**Kotagiri**	1.000	0.476	0.11	0.00	0.68	1.00	1.00	0.00	0.53	3
4	**Gudalur**	0.000	0.000	0.78	0.98	1.00	1.00	0.00	0.32	0.51	4
5	**District**	0.69	0.55	0.47	0.70	0.86	0.50	0.71	0.51	0.62	

Source : Computed

Table 1.8: Block- wise Multi – Dimensional Poverty indicators in Nilgiri District

Continue….

S.No	Block/ District	Health			Education		Living Standards				
		IMR	High Order Birh Rate	Malnourshied 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
1	Udhagai	11.00	0.8	25	1.09	1.7	45.00	52.53	98.18	94.0	52.44
2	Coonoor	18.00	0.6	16	0.39	1.7	67.00	71.41	95.56	95.8	55.19
3	Kotagiri	17.00	0.7	24	0.28	1.68	58.00	50.76	98.16	94.3	76.16
4	Gudalur	5.00	2.7	18	1.89	1.67	28.00	63.88	98.49	79.0	53.80
	District	12.75	1.20	20.75	0.91	1.69	49.50	59.65	97.60	90.78	59.40

Source: (i) Education Department ,(ii) Census of India 2011, (iii) NBA, MDWS- 2014, (iv) TNEB, and (v) Health Department -2014.

Table 1.9: Block wise Multi Dimensional Poverty index in Nilgiri District.

Continue….

S.No	Block/ District	Health			Education		Living Standards					MDPI Index Value	Rank
							Access to						
		IMR	High Order Birh Rate	Malnourshied Children	Drop out in primary	Drop out in secondary	cooking fuel	Toilet facilities	Drinking water	Electricity	Pucca house		
1	Udhagai	0.54	0.90	0.00	0.50	1.00	0.44	0.09	0.89	0.89	0.00	0.52	2
2	Coonoor	0.00	1.00	1.00	0.07	1.00	1.00	1.00	0.00	1.00	0.12	0.33	4
3	Kotagiri	0.08	0.95	0.11	0.00	0.33	0.77	0.00	0.89	0.91	1.00	0.62	1
4	Gudalur	1.00	0.00	0.78	1.00	0.00	0.00	0.64	1.00	0.00	0.06	0.41	3
	District	0.40	0.71	0.47	0.39	0.58	0.55	0.43	0.70	0.70	0.29	0.47	

Source Computed.

Annexure I

Crude Birth date & Crude Death date

Table 1.1 & 1.2

Sl.No	Block Wise/District/State	CBR				CDR			
		2009	2010	2011	2013-14	2009	2010	2011	2013-14
1	Udhagai	10.8	10.8	10.4	9.9	2.4	2.5	5.0	7.1
2	Coonoor	11.6	10.8	9.3	10.1	1.0	1.0	2.0	6.9
3	Kothagari	10.9	10.3	9.2	8.8	1.0	1.0	1.7	2.8
4	Gudalur	16.5	15.6	17.5	13.3	1.9	1.9	4.7	4.6
Urban									
1	Ooty Municipality	9.7	2.0	10.9	9.4	3.6	3.3	0.2	2.5
2	Coonoor Municipality	10.6	2.1	10.9	5.1	3.0	2.8	1.7	3.5
	District	12.6	10.6	11.8	10.5	1.9	1.9	1.6	4.9

Table 1.3

Infant Mortality rate (Block level- 2007-2014)

S.NO	BLOCKWISE/ DISTRICT	2007	2008	2009	2010	2011	2013-14
1	Udhagai	27	27	25	19	17	11
2	Coonoor	22	23	18	9	20	18
3	Kothagari	26	23	18	16	21	17
4	Gudalur	11	14	38	8	6	5
	District	21.5	21.7	24.7	13	16	12.75

Table 1.4

Still Birth Rate

Sl.No.	Block wise / District / State	2007	2008	2009	2010	2011	2013	2014
1	Udhagai	1.90	1.80	0.89	0.86	0.85	10.00	8.00
2	Coonoor	1.00	0.42	1.00	0.97	0.95	8.00	10.00
3	Kotagiri	1.18	1.60	1.40	1.30	1.20	22.00	4.00
4	Gudalur	1.16	1.10	1.00	0.96	0.89	12.00	27.00
	Urban	1.60	1.56	0.70	0.60	0.50	14.00	16.00
	District	**1.31**	**1.29**	**1.00**	**1.00**	**1.00**	**12.00**	**12.00**

Table-1.5

Percentage of Literacy

Sl.. No.	Block wise / District / State/Nation	2001			2011			2013-2014		
		Male	Female	Literacy Rate	Male	Female	Literacy Rate	Male	Female	Literacy Rate
1	Udhagai	99306	79668	77.71	115998	122269	88.12	115998	122269	88.12
2	Coonoor	72696	61164	85.14	94445	93616	86.10	94445	93616	86.10
3	Kotagiri	43887	35073	77.22	52668	56016	81.20	52668	56016	81.20
4	Gudalur	80684	68621	80.52	113134	117565	85.10	113134	117565	85.10
	District	296573	244526	82.45	303249	273550	85.13	303249	273550	85.13

TECHNICAL NOTES

Construction of Indices

Introduction

The latest 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
Living standards	Percentage of HHs having access to Cooking fuel
	Percentage of HHs having access to Toilet
	Percentage of habitations having access to Drinking Water
	Percentage of HHs having access to Electricity
	Percentage of HHs having access to Pucca house
Health	Infant Mortality rate
	Maternal Mortality Ratio
	Under 5 Mortality Rate
Education	Literacy Rate
	Gross Enrolment Rate (Primary And Gross enrollment in secondary) Schools

There are three indicators for measuring health, three for education and five 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)

.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 = $(I_1 \times . I_2 \times \ldots . I_n)^{(1/n)}$.

4. 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.

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.

Indicators considered for measuring GII

Dimensions	Indicators
Health	Maternal Mortality Rate (MMR)
	Share of Institutional deliveries (ID)
	Ante-natal coverage
Empowerment	Share of female and male elected representatives in Urban and Rural Local Bodies (PR_F and PR_M)
	Share of female and male literacy (LIT_F, LIT_M)
	Share of Female and Male Children (0-6) years
Labour market	Share of female and male Work Participation Rate (WPR_F, WPR_M)

	Share of female and male workers in the non agricultural sector (NAG_F, NAG_M)
	Female and male Agricultural wage rate ($WAGE_F$, $WAGE_M$)

Method

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

For females

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

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

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

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

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

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

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)

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

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.

Indicators for Child Development

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

Dimension	Indicator
Health	U5MR
	Child Sex Ratio(0-6)
Nutrition	Percentage of Malnourished Children
	Enrollment in Primary and Secondary
Education	Children never enrolled in schools
	Transition rate from Primary to Upper Primary and Upper Primary to Secondary

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 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

  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)

- 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
Indicators

Dimension	Indicator
Health	IMR
	Higher order Birth
	Malnourished Children
Education	Drop out in primary and secondary
Living Standards	Access to cooking fuel
	Access to toilet facilities
	Access to drinking water
	Access to Electricity
	Pucca house

Computation of Multidimensional Poverty 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 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
    - 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)
- 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 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.

ABBREVIATIONS

BPL	-	Below Poverty Line
IMR	-	Infant Mortality Rate
MMR	-	Maternal Mortality Rate
PTGs	-	Primitive Tribal Groups
TANSIDCO	-	Tamil Nadu Small Scale Industries Development Corporation
DIC	-	District Industrial Centre
SPC	-	State Planning Commission
HDI	-	Human Development Index
MDPI	-	Multidimensional Poverty Index
CDI	-	Child Development Index
GII	-	Gender Inequality Index
PDS	-	Public Distributors System
MGMREGA	-	Mahatma Gandhi Rural Employment Guarantee Act
CBR	-	Crude Birth Rate
CDR	-	Crude Death Rate
IGNOAPS	-	Indira Gandhi National Old Age Pension Scheme
TNCDW	-	TamilNadu Corporation for Development of Women Ltd.
THADCO	-	TamilNadu Adi – Dravidar Housing and Development Corporation
NABARD	-	National Bank for Agriculture and Rural Development
SHGS	-	Self Help Groups
UNDP	-	United Nations Development Programme

DRDA	-	District Rural Development Agency
NAC	-	Antinatal coverage
HIV	-	Human Immuno Deficiency Virus
TB	-	Tuberclosis
SSA	-	Sarva Shiksha Abhiyan
NPA	-	Nilgiris Planters Association
NER	-	Net Enrolment Ratio
IED	-	Inclusive Education Programme For Disable Student
HBT	-	Home Based Teaching
QMT	-	Quality Monitoring Tools.
NCERT	-	National Council of Educational Research and Training
AWC	-	Average weighted Children
SUW	-	Severely under weighted Children
MUW	-	Moderately under weight
TNSRLM	-	Tamil Nadu State Rural Livelihood Mission
IGNOAPS	-	Indira Gandhi National Old Age Pension Scheme.
OAP	-	Old Age Pension
CEDAW	-	Convention on the Elimination of all forms of Discrimination against Women
WHO	-	World Health Organization
WPR	-	Work Participation Rate
PER	-	Primary Enrollment Rate

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