

# HUMAN DEVELOPMENT REPORT



## *Sivaganga District*



State Planning  
Commission



Union Planning  
Commission

**SIVAGANGA**

**DISTRICT HUMAN DEVELOPMENT REPORT  
2007**

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**DISTRICT ADMINISTRATION, SIVAGANGA  
&  
STATE PLANNING COMMISSION, TAMIL NADU**

*in association with*  
**DHAN Foundation, Madurai**



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## **Foreword**

United Nations Development Programme has first published the Human Development Report in 1990. Since then 18 reports have been published covering all aspects of human life. The first report constructed a comprehensive index called – Human Development Index – reflecting life expectancy, literacy and command over the resources to enjoy decent standard of living. The famous Pakistani economist late Mahbub-ul-Haq has uniquely designed the first report, which kindled a new thinking in defining the quality of life of the people. Subsequent Human Development Reports added new indices such as human rights, gender equality, poverty, sanitation, drinking water, environmental issues, security, culture and language rights. Therefore, human development approach has been widening and covering new indices every year.

The Union Planning Commission published its first National Human Development Report in 2001 in which Tamil Nadu's achievements in education, health, family welfare were highlighted. Particular mention was made regarding the social reform movement in Tamil Nadu. "The state has, historically, been a hot bed of social reform movements, often precipitating political action in the desired direction. Social consciousness inspired by leaders such as Ramasamy 'Periyar' has influenced the people to become responsible parents, among other things, to adoption of family planning as a means to bridge the gap between increasing aspirations and availability of resources to meet these aspirations".

The states are also bringing out Human Development Reports highlighting the specific issues concerning to their states. As indicated in the National Human Development Report (2001), Tamil Nadu has been implementing comprehensive social development and welfare programmes covering child to old age people. It retains third position in the human development indices among the states in India, continuously since 1991 because of the Tamil Nadu government's commendable performance in the primary, secondary and tertiary sectors. The development strategy envisaged by Tamil Nadu government gives importance to equity and social justice. Therefore it is natural for the State Planning Commission to evaluate and ascertain many social and economic development schemes by encouraging human development studies in the districts.

The State Planning Commission with the cooperation of the UNDP and Union Planning Commission is utilising the services of the academia, scholars and policy makers to study, analyse and prepare reports on human development of different districts. These

studies would be helpful to arrive correct intervention programmes for the upliftment of deserving regions and deserving sections of the society.

I commend the services of the District Collector and officers of District Administration for the help they rendered to collect data and required information in the preparation of the Sivagangai District Human Development Report. I convey my thanks to the Chief Secretary and senior officers of the Steering Committee for their valuable suggestions in this regard. I congratulate the efforts of the HDRC team at the Planning Commission and senior researchers of the DHAN Foundation.

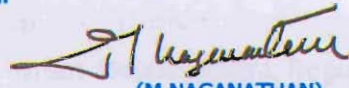
பொருள்கருவி காலம் வினைஇடனொடு ஐந்தும்

இருள்தீர எண்ணிச் செயல் - குறள் 675

(Resources, tools, time, place and deed;

Decide these five and then proceed - Kural 675)

The planning process, as thoughtfully defined by Thiruvalluvar, should prioritize schemes for strengthening and evolving appropriate social sector policies. In this context, the District Human Development Report of Sivagangai will form a milestone in the overall planning and development of the state of Tamil Nadu.

  
(M.NAGANATHAN)

26.02.2009



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### Foreword

Tamil Nadu has been a pioneer in implementing programmes for the development of people ensuring sustained growth tempered with social justice and equity. The State's Eleventh Five Year Plan aims at achieving employment generation, improving the livelihood of the people and reducing inequalities. While the State has been performing well in terms of Human Development indicators, it is necessary that the district differentials are analysed for bettering the well being of the individual.

The State Planning Commission in association with the United Nations Development Programme and Union Planning Commission under the Project "Strengthening State Plans for Human Development" has initiated the preparation of District Human Development Report (DHDR) for the districts of Dindigul, Sivaganga, Tiruvannamalai, Nagappattinam and Cuddalore. The objective of this exercise is to make an in depth analysis of the status of Human Development within a district based on the internationally accepted specific Human Development indicators. This would help to identify areas for intervention for location specific remedial actions.

Based on the conclusions and recommendations in the Reports, the policies and programmes implemented in the districts need to be provided with interventions that recognize the inter district and inter block differences in levels of achievement with respect to health, income and education indices. Better knowledge of the achievements of the district/block with reference to their indicators will lead to transparency which in turn increases the involvement of the community leading to better governance.

It is a matter of great satisfaction that the UNDP and the Union Planning Commission have come forward to support this initiative and

offer technical guidance. I take this opportunity to place on record my sincere thanks to the concerned District Collectors and their colleagues for sharing data on various parameters for the preparation of the report. I appreciate all the stakeholders for their contributions to this report. I am sure that these efforts will prove meaningful in improving the overall Human Development status of the district by quelling the intra district disparities.

ச. அருள்மொழி  
33/2009  
(K.ARULMOZHI)





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## Sivaganga District Human Development Report – 2007

### Preface

I am very happy to note that the Sivaganga Human Development Report has been brought out. It has been prepared with significant efforts of involvement of all district officials. This report is unique of its kind, because this is the first district report on human development in Tamilnadu. This report will serve to understand the gaps in the development of the district in a comprehensive framework.

This report prepared with a lot of statistical data, information from line departments especially from 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 departments for their action in specific areas.

I hope this report will be more useful to set district priorities for policy makers, line department officers, academia, media, voluntary institutions and common public. This report will serve as benchmark for scaling the development process by all the stakeholders.

In this occasion I thank all concerned who have put their energy and efforts to bring the qualitative report. I thank State Planning Commission for selecting sivaganga district for this pioneer attempt and I thank UNDP, line departments, academic institutions and other organizations involved in the process of preparation. My special thanks to DHAN Foundation, who served as facilitating resource NGO to bring this report.

I hope this human development report will pave way to see the development in an overall perspective and trigger the development processes in right direction.

Best Regards.

  
Collector

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# Introduction

In the last 200 years, economic growth has been the measure for human development. Yet, there has been considerable evolution in economic thinking in the past three decades. It was gradually realized that economic growth was not the end, but merely a means to development. As a result, there is a clear shift in the development concept from a uni-dimensional approach to a multi-dimensional one viz. human development and this concept ensured the place of people and their wellbeing right at the centre of all developmental thinking.

It is widely accepted that the ultimate purpose of development is to build human capabilities and to enlarge people's choices, and that these choices extend to a decent education, good health, political freedom, cultural identity, personal security, community participation, environmental security, and many other areas of human wellbeing. Progress in the human development framework is judged not by the expanding affluence of the rich, but by how well the poor and socially disadvantaged are faring in society. Implicit in this perspective is not only a strong concern for equity and social justice but also a strong conviction that improvements in the wellbeing of the poor are fundamental to ensuring a better life not just for them but for all.

The UNDP has been publishing the Human Development Report since 1990. So far, the HDR's helped in furthering the concept on the one hand and offered ground-breaking analysis on a wide range of issues on the other. They have served as the main vehicles for bringing the human development agenda closer to the people. The State of Tamil Nadu has also come out with its human development report in the year 2003. This is the first report of its kind for the State. The State HDR has comprehensively analyzed human development attainments in the State with district as a unit. It is a natural corollary that the district level human development report (DHDR) is prepared to gain the deeper understanding of the issues at the district level. The 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendment Acts provide ample scope for preparing district level plans. Preparation of DHDR will give an opportunity for preparing district plans from a human development perspective. Another major premise for preparing DHDR is Millennium Development Goals (MDGs) set by the UN General Assembly in 2000. DHDR will help to monitor the progress of achievements pertaining to MDGs. The DHDR would analyze the status of human development attainment and the key human development challenges faced at the district level with a special focus on efficiency at delivery systems and financial allocations. The Tamil Nadu government has come forward to pilot DHDR in five districts and Sivaganga is one among them.

DHDR preparation in Sivaganga was initiated by the district administration and State Planning Commission through a visioning workshop involving various stake holders in the district. It has also constituted a DHDR committee, which has line departments, NGOs and other stake holders as members. To assist the district administration, the DHAN Foundation was nominated as Associated Institution.

DHDR of Sivaganga deals extensively on the factors specific to Sivaganga's human development achievements and constraints. This report not only serves as a summary of the human development scenario in Sivaganga but also seeks explanations as to why the district has fared well in certain areas and not in others. Factors contributing to human development are

disaggregated and analyzed at the sub-district level with a view to understand the regional disparities and reasons behind them. The report also highlights the policy interventions that are required to correct such imbalances. Data from the Census of India 1991 and 2001, Department of Economics and Statistics, Chennai, line departments and various studies about the district were mostly relied upon. The report is limited by inadequate availability of data particularly regarding blocks in the district.

Furthermore, as a part of Sivaganga DHDR preparation, workshops and meetings were conducted to ensure people's participation by way of introducing the concepts of Human Development (HD) and also to capture their aspirations.

### **(i) Workshop**

A one day workshop was conducted to sensitize the Human Development concepts to the Panchayat presidents. The Panchayat presidents also reflected on the concept and appreciated the integrated nature, relevance and responsibility of village Panchayat council towards Human Development Initiatives. Later, participants were divided into sub-groups having one facilitator (DHAN functionary) in each group. Focused discussion was performed on human development related areas such as economic development, health, education and welfare activities of Sivaganga district. The reflections of the work shop were synthesized and presented in this report under the head '*People's Voice*' in their respective chapters.

### **(ii) Grama Sabha Meeting**

The DHDR team capitalized the 15<sup>th</sup> August, 2006 Grama Sabha meeting with the following specific objectives.

- ❖ To generate awareness among the people on 'Sivaganga District Human Development Report' and to introduce the concept of Human Development.
- ❖ To observe the dynamics of community participation in the Grama Sabha meeting: an indicator of political participation.
- ❖ To capture people's perception on the changes that have taken place during the last 5 years and the performance of different sectors in their Panchayat and identify the future thrust areas for development.

Considering the limited resources, it was decided to choose one Panchayat from each block for carrying out the DHDR process. The District Administration helped out to identify the Panchayats based on the likelihood of a Grama Sabha meeting. The outcome of the meeting was consolidated and is presented in an exclusive chapter 'Local Governance'. The report is organized into seven chapters. The first chapter introduces the reader to various features of Sivaganga district. The subsequent chapters analyze in detail various important aspects in the district like employment, income, poverty situation, agriculture, demography, health, nutrition, sanitation, literacy, education, infrastructure, social vulnerability and local governance. Pertinent case studies drawn from the district have been included in certain chapters. The report ends with a summary and way forward. We hope that the Sivaganga HDR will become an important tool in planning for growth, social justice and equity in the district.



## 1.3 Sivaganga – A Profile

The Sivaganga district is an administrative district of Tamil Nadu in Southern India. The city of Sivaganga is the district headquarters. The district is bounded on the north by Tiruchy and Pudukkottai district, on the east and south by Ramanathapuram district and on the west by Viruthunagar district. Sivaganga lies between  $09^{\circ} 31'$  -  $10^{\circ} 25'$  N latitude and  $78^{\circ} 08'$  –  $79^{\circ} 01'$  E longitude. The terrain is mostly plain with a maximum elevation of 170 MSL and a minimum of 20 MSL. Pambar, Manimuthar, Kottakakariayar and Vaigai rivers flow through this district and they are seasonal in nature.

This chapter presents an overview of the physical, historical, cultural and economic facets of the district and places it in an appropriate context in relation to human development. A detailed analysis of the various issues is taken up in the chapters that follow.

### History

The Sivaganga district was a part of the old Ramanathapuram District. The old Ramanathapuram District played a dominant role in the history of South India. In the early centuries, the Ramanathapuram District formed part of Pandian Kingdom till the end of the 15<sup>th</sup> Century. After the fall of Nayak, two of the Palaykarars viz Sethupathy of Ramanathapuram and Raja of Sivaganga became prominent rulers of this part. Towards the middle of the 18<sup>th</sup> Century the Europe, the French and the British entered into this part. The Sethupathy of Ramanathapuram lost his personal freedom and the British took control of the administration of Ramanathapuram in 1795. It was converted into a Zamindari in 1803 and Mangaleswari Natchiar became the first zamindar. During this period, the Raja of Sivagangai also revolted against the British. The famous Marudhu Brothers, Periya Marudhu and Chinna Marudhu assisted the Raja of Sivaganga in the revolts against the British. After the death of the Raja of Sivagangai (Muthu Vaduganadhar), the queen passed on the sovereignty to Marudhu Brothers, who ruled Sivaganga peacefully and devoted on payment of regular revenue to the East India Company in 1801. The Marudhu brothers were known for their efficient administration. They worked for the welfare of the people and made Sivaganga *Seemai* as a fertile land. They constructed many temples, *ooranis* and tanks.

The Marudhu Brothers of Sivaganga revolted against the British in collaboration with Kattabomman of Panchalankurichi. However, the two brothers were captured by the British and were hanged in Kalayarkoil on 1.10.1801. The British installed Gowri Vallabh Periya Uday as Zamindar of Sivaganga. Finally in 1795, a British Collector was appointed to administer the territory of Ramanathapuram district by carving out portions from Madurai and Tirunelveli District and Madurai as the Head Quarters of this district till 1985, when it was trifurcated. Perhaps, the old Ramanathapuram district was the biggest district in Tamil Nadu.

The Pasumpon Muthuramalingam district came into existence on 15.03.1985, consequent on the trifurcation of the composite Ramanathapuram District. In September 1997, the Government changed the name of the district as Sivaganga District.

## **Administrative setup**

The Sivaganga District has two Revenue divisions namely Sivaganga and Devakotai. It has six taluks: Thirupathur, Karaikudi, Devakotai, Manamadurai, Ilayankudi and Sivaganga. The taluks consist of 522 revenue villages of which Sivaganga has more than 100 revenue villages. A Block is a development unit for a district and it consists of about one lakh population or approximately 20,000 households. The Sivaganga district has 12 blocks and 445 village Panchayats.

## **Physical Features**

The geographical extent of the district is 4,189 Sq.km. accounting for 3.22 per cent of the geographical area of Tamil Nadu State. Out of the total geographical area, land put to non-agriculture comes around 27.6 per cent, forest area constitute 5.2 per cent, current fallow and other fallow lands constitute 33.35 per cent, which is very significant, and cultivable waste is around 4 per cent. The red sandy soil is generally found in most parts of the district. The district receives an average rainfall of 700 mm in a year. The bulk of the rainfall is received during the North-East monsoon between October and December. Hot and dry weather prevails for about nine months in a year and characterized by frequently hit droughts. This rain helps the agriculturist at least to show self-sufficiency in the production of cereals, particularly paddy, ragi and cholam.

## **Demography**

The total population of the district in 2001 was 1153747, comprising 567805 males and 585542 females in 2001. Nearly 74 per cent of the total population lives in rural area. The percentage share of the SC social group was 16.4 per cent and that of the ST group was 0.11 per cent in 2001. The density of the population was 275 persons per Sq.km, lowest in the State. The sex ratio for this district works out to be 1035 females for 1000 male population. The district is one among the five districts in the State having female predominance over male population. As per the 2001 census the district has 66 per cent literate population comprising 76 per cent male literates and 57 per cent female literates.

## **Agriculture**

Majority of the population in the district derives their livelihood from activities related to agriculture and livestock rearing. The gross area under cultivation during the year 2004-05 was 111576 ha. The average size of agriculture land holding is 1.26 ha. The data reveals that most of the farmers belong to small and marginal category. The district is not blessed with perennial source of river water supply, and the rainfed tank is the main source of irrigation. There are about 651 major tanks and 4260 minor tanks in the district. Next to tanks, irrigation wells help to irrigate crops to some extent. Paddy is the main crop cultivated in the district. Millets, groundnuts and sugarcane are also cultivated to a considerable extent.

## **Animal Husbandry**

The major activity under animal husbandry is rearing milch animals. The total cattle population in the district is 2,31,138 and buffaloes are 28,274. As the dairy is a major livelihood next to agriculture, it has got attention from the district administration and private concerns. There are two chilling plants, two veterinary hospitals, 24 (one dispensary services about 10,000 animals) dispensaries to provide adequate health care services. The milk production per day is 80,25,000 lit



during the flush season and 42,22,000 lit during lean season. It is one of the potential activities which can be further developed as an alternative to the agriculture for labour segment.

## **Industry**

The Sivaganga district is treated as an industrially backward district. The district is backward not only industrially but also in agriculture due to lack of irrigation facilities and also low rainfall. There are about 26 spinning and weaving mills in the district. Tamil Nadu Chemical Industries at Karaikudi, Central Electro Chemical Research Institute at Karaikudi, Sakthi Sugar Factory at Padamathur and Madras Motors at Singampunari are major industries in the district. Graphite is the only major mineral that is being excavated by Messer's Tamil Nadu Mineral Limited (TAMIN). The district is also noted for handloom industry and manufacturing of stainless steel at Karaikudi and Manamadurai centre, bricks, brick tiles and pot making centres at Manamadurai and Thiruppuvanam areas and coir manufacturing industries (Hand made) is providing larger employment to the rural and urban women in the Singampunari and S.Pudur blocks. The growth of the Small Scale Industries (SSI) units provides greater employment opportunities, for the rural and semi-urban folks. There were 5935 SSI units as on 31.3.2000 in the district. It aims at optimum utilisation of available raw material resources of the particular potential locality and also with lesser investment with good market facilities. *In the Sivaganga district, there are eight industrially backward blocks, namely, Kalayarkoil, Sivaganga (Urban), Ilayankudi, Thirupathur, Singampunari, Kallal, Devakottai, Devakottai (Urban) and two industrially most backward blocks, namely, S. Pudur and Kannangudi.*

## **Transport and Communication**

The means of transportation are by road and railway tracks in the district. National highways and State highways pass through for a length of 54.5 km. and 62.02 km. respectively. The length of corporation and municipality road is 257 km. The Panchayat union and town Panchayat union roads are for a length of 2100 km. and 1930 km. respectively. A railway track passes through the district for a 155.52 km. meter gauge and there are 17 railway stations in the district.

Two means of communication predominantly prevail in the district. They are post and telegraph and telephones. The district enjoys 312 post offices doing only postal business, and 62 post offices doing both post and telegraph business.

## **Income**

The Net Domestic Product (NDP) of the district at constant prices (1993-94) was Rs. 1110.04 crores by 2001-02. The contribution of primary, secondary and tertiary sectors to NDP was 19 per cent, 22 per cent and 59 per cent, respectively in the same year. Tertiary sector has remained as the main source of growth in the district since last one decade. The annual growth rate of the district income (1993-94 = 100) was of the order of 5.36 per cent little lower than the State income of 5.61 per cent. The per capita NDP of the district was Rs. 9139 in 2001-02.

## **Human Development Situation of the District**

Performance of Sivaganga on various dimensions of human development ranges from poor to moderate both absolutely and relatively when compared to other districts in Tamil Nadu. In terms of literacy, the district had only 66 per cent literacy rate in 2001 when compared to 73 per cent in the State. The female literacy rate was only 57 per cent when compared to 64 per cent in the State.



The per capita NDP of the district was Rs. 9139, which was lower than the State in 2001–02. Sivaganga stood at 8<sup>th</sup> rank among 30 districts of Tamil Nadu with 26.63 per cent of people below poverty line as per 1993–94. The district has fared well in the health sector. In many vital events such as Crude Birth Rate (CBR), Crude Death Rate (CDR), Infant Mortality Rate (IMR), etc, the district has performed above the State average. Tamil Nadu Human Development Report, 2003 identified the Sivaganga district at 18<sup>th</sup> rank in the State in terms of the Human Development Index (HDI). The district administration had taken various sectoral initiatives to further improve the human development status in the district and it is important to understand the progress in human development condition in the recent years and the current challenges.

## II. Income, Livelihood and Poverty

“Human development is the end - economic growth is the means. So, the purpose of growth should be to enrich people’s lives”. Human development encompasses three broad objectives: growth, equity and democracy. Evidences of growth over the years at state and national level disclose the fact that there is no automatic link between economic growth and human development. In recent times, the debate over ‘economic growth’ Vs ‘human development’ has gained momentum and unfolded a new direction of thinking.

The status of income, livelihood and poverty indicates the well being of a society. For instance, human development requires greater attention to be paid to the problems of employment, poverty reduction, empowerment of the weaker society, greater participation of the people in the process of growth and long-term sustainability.

Keeping this in view, an effort was made,

- a. To understand the dynamics of the economy of Sivaganga from human development perspective, and
- b. To identify the potential areas and end with a definite plan of action in order to rise the standard of living of the people.

### 2.1 District Income

The District income statistics present a glimpse of the districts’ entire economy. It introduces various participant groups such as producers and income receivers who form the axle in running the economy. Availability of data over a substantial period brings out the basic changes in the districts economy in the past and to some extent, forecast the future trends.

The growth of the Net Domestic Product (NDP) of the district at constant prices is an index of the total productive effort on the part of the community and indicates the rate of growth of goods and services in the economy. District income figures were deflated at constant prices to eliminate the effect of any changes in the price level during the period. During the period 1993–94 to 2001–02, the annual growth of the Sivaganga district income (1993–94=100) was of the order of 5.36 per cent and that of the state income was 5.61 per cent. As a result, the district was one among the bottom five districts in terms of Net Domestic Product (NDP) in 2001–02 and occupied a relative 27<sup>th</sup> position among 30 districts in the state. Though the district income figure at constant prices is a useful comparison tool, it conceals the population effect.

Per capita income is calculated to eliminate the effect of population growth. The growth of per capita income at constant prices is an indicator of the change in the standard of living of the people. The per capita NDP of Sivaganga district has not only been less than that of the state, its growth rate from 1993-94 to 2001-02 of the district (4.32) was found to be comparatively less than that of the state as a whole (4.57) (Table-2.1)

**Table 2.1 Per capita Net Domestic Product of Sivaganga District**

Year	Sivaganga	Tamil Nadu	Gap	All India
1993-94	6897	8955	2058	7690
1994-95	7577	9932	2355	8070
1995-96	6342	10147	3805	8489
1996-97	7178	10451	3273	9007
1997-98	8002	11260	3258	9242
1998-99	8635	11592	2957	9647
1999-00	8551	12181	3630	10067
2000-01	9344	13017	3673	10254
2001-02	9139	12717	3578	-
<b>Growth Rate</b>	<b>4.32</b>	<b>4.57</b>	-	-

Source: DOES, Tamil Nadu

In other words, per capita income increased from Rs.6987 to Rs.9139 with intermittent boom and slump between 1993-94 and 2001-02. The per capita income of the district and its growth rate was below the state income (Rs.12,717) and growth rate (4.57). In Tamil Nadu, Sivaganga occupied the 21<sup>st</sup> position in 1993 and was pushed further backward to the 24<sup>th</sup> place among 30 districts during 2001-02. This clearly illustrates the widening of the gap in per capita income between Sivaganga and other districts of the state. (Figure 2.1)

**Figure-2.1: The gap of per capita net domestic product from 1993-94 to 2001-02 (at constant 1993-94 prices) between Sivaganga district and Tamil Nadu**



## 2.2 Sectoral Share

The contribution of primary sector, which includes agriculture and allied sector, to the overall NDP (at 1993-94 prices) of the state of Tamil Nadu has gone down from 26.24 per cent in 1993-94 to 19.57 per cent in 2001-02. In case of the district of Sivaganga, the similar trend has been found, but this rate of decline (from 35.66 per cent in 1993-94 to 19.49 in 2001-02) is found to be comparatively faster than that of the state (Annexure-A2.2). Moreover, unlike the state as a whole, the amount of contribution from primary sector to the overall NDP of the district has come down from Rs. 27379 lakh in 1993-94 to Rs. 21233 in 2001-02, which results a negative growth rate of primary sector contribution in the district during the above period (Table-2.2). The negative growth



in income from primary sector, as compared to that of other sectors, is not only significant, but also it is much faster than the reduction of employment in agriculture (see Table-2.4). It reveals that the labour productivity in agriculture of the district has been declining at a faster rate over the years. In spite of that, around two-third of the total main workers were dependent on agriculture. One can understand from above that within the primary sector, agriculture alone is the most important contributor and the change in agricultural output determines the share of primary sector in the district output.

**Table 2.2 Sector wise Net Domestic Product at Constant (1993–94) Prices**

Year	Sivagangai			Tamil Nadu		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
1993–94	27379	17138	32253	1355029	1660933	2148367
1994–95	29517	20083	35771	1512211	1896385	2385721
1995–96	12646	20613	39056	1310673	2086180	2589268
1996–97	17049	22314	43395	1296844	2071602	2863124
1997–98	18919	24227	50094	1411911	2111950	3258366
1998–99	24023	24050	53542	1543666	2057953	3448898
1999–00	17250	26829	57412	1457837	2292115	3718552
2000–01	21996	26898	62642	1525229	2480442	4039584
2001–02	21233	23715	64021	1524792	2156554	4110606
<b>Growth rate*</b>	<b>-1.55</b>	<b>4.74</b>	<b>9.42</b>	<b>1.49</b>	<b>3.44</b>	<b>8.85</b>
<b>R<sup>2</sup> Value</b>	<b>0.0264</b>	<b>0.7574</b>	<b>0.9823</b>	<b>0.3458</b>	<b>0.6793</b>	<b>0.9831</b>

Note: Exponential Growth Rate

Source: DOES Tamil Nadu

The share of secondary sector includes mining, manufacturing, construction, electricity, and gas and water supply was not consistent and widely varied with rise and fall over the years. In 1993-94, the contribution of secondary sector was 22.32 percent of the District NDP. This rose to 28.50 per cent in 1995-96 and fell in 1998-99 to 23.17 per cent and further increased to 26.43 per cent in the succeeding year. This clearly demonstrates the consistency in the variations in the District NDP.

However, the share of tertiary sector, which includes trade, transport, storage, communication, banking, insurance, real estate and community and personal services improved, from 42.01 per cent in 1993-94 to 53.73 per cent in 1997 and further increased to about 58.75 per cent in 2001-02. Obviously, the service sector occupied the most dominant contributor to District NDP. The pattern of sectoral share of District NDP falls in line with the state. For instance, the district had the share of 19:22:59 under primary, secondary and tertiary sector as against the state ratio of 19:28:53.

### 2.3 Structural Change of Economy

The structural change that has so far taken place in the composition of the district income was mainly influenced by the service sector, quite unusual as well as puzzling. There was a steep decline in the contribution of the agricultural sector and reversely a rapid increase in the service sector. Since the growth process involved a rapid expansion of the share of tertiary sector, the share of service sector was bound to indicate a relatively sharp increase. However, agriculture did not indicate a fast rate of growth. As it is evident from Table -2.2, the growth rate of agriculture was

negative (-1.55). The share of manufacturing sector has shown a marginal fall of no significance, whereas, the rate of growth of service sector was of the order of 9.42 per cent per annum. The number of mining and quarrying units, production of minerals, and category wise number of industrial units are given in Annexure Table-A2.3, A2.4 and A2.5 respectively.

Change in the occupational structure from 1993-94 to 2002-03 is so in the sense that just as there was a fall in the share of agriculture, there was almost an equal rise in the service sector rather than in the commodity sector. In a growth-oriented economy, structural change of the economy is universal and inevitable. The nature of transformation of the economy directly from agriculture to services while bypassing industrial sector, clearly indicates the neglect of industrial development in the district. Hence, the district remains industrially backward and the nature of transformation needs careful examination.

The paradox is that the district has a vast waste land, untapped ground water and large number of traditional storage structures of small and big tanks under poor maintenance. The performance in agriculture is fading on the one hand and the industrial sector is not boosted up on the other. The changing structure of the district income needs further enhancement through industrial development, for accelerating the growth process in agriculture, industrialization of the economy with emphasis on agro-based industries and industries supplying input to agriculture is *sin quo non*. It is only then the process of transition of the district economy from developing to a developed one is possible.

The low per capita income of the district when compared to the state aggravates the disparity between the districts of the state. The serious implications would reflect on the workers participation in different sectors. One can expect, when the districts' per capita income is less than the state, the share of workforce in agriculture will be high compared to the non-agricultural sector.

## **2.4 Work Participation**

Labour, being a primary factor of production, the size of labour force is of great importance for the level of economic activity in the district. The number of working persons constitute the working population of the district. The working population in Sivaganga district was 4.7 lakhs in 2001, an increase of approximately 0.2 lakhs over 1991. Out of 4.7 lakhs total working population, 78 per cent were main workers and 22 per cent remain as marginal workers. Increase in working population was more perceptible in males than in females. The male working population increased from 2.3 to 2.8 lakhs, whereas the female working population has almost remained constant at 1.85 lakhs. (Annexure A 2.6)



**Table 2.3 Work Participation Rate in Sivaganga district as per 1991 and 2001**

Blocks	Total Workers		WPR		% of main workers to total workers		% of marginal workers to total workers	
	1991	2001	1991	2001	1991	2001	1991	2001
Sivaganga	47748	58069	52.69	42.59	89.05	74.86	10.95	25.14
Manamadurai	45433	31231	48.40	32.69	83.43	62.83	16.57	37.17
Kalayarkoil	51740	46674	51.52	48.45	82.66	78.99	17.34	21.01
Thirupuvanam	51521	46378	50.51	45.35	76.03	79.64	23.97	20.36
Ilayangudi	50627	50868	48.48	49.52	82.03	80.30	17.97	19.70
Devakotai	22834	46435	49.63	43.60	87.83	86.34	12.17	13.66
Sakkotai	35873	71099	39.89	36.35	91.43	84.62	8.57	15.38
Thirupathur	41160	42173	43.53	43.13	87.16	75.91	12.84	24.09
Singampunari	33081	NC	53.63	NC	84.40	NC	15.60	NC
Kannangudi	16008	17508	50.36	58.61	86.80	92.16	13.20	7.84
Kallal	39777	38858	54.38	47.31	88.38	67.67	11.62	32.33
S.pudur	20101	21236	52.05	53.23	70.96	79.20	29.04	20.80
<b>Total</b>	<b>455903</b>	<b>470529</b>	<b>48.73</b>	<b>43.37</b>	<b>84.19</b>	<b>78.48</b>	<b>15.81</b>	<b>21.52</b>
<b>Tamil Nadu (in lakh)</b>	<b>242</b>	<b>278</b>	<b>43.31</b>	<b>44.67</b>	<b>94.21</b>	<b>85.25</b>	<b>5.79</b>	<b>14.78</b>
<b>All India (in lakh)</b>	<b>3149</b>	<b>4025.12</b>	<b>37.46</b>	<b>39.13</b>	<b>90.63</b>	<b>77.81</b>	<b>9.36</b>	<b>22.19</b>

Note: Singampunari block data for 2001 Census is not included as it was not available.

Sources: Census of India 1991, District Census Handbook, Part XII-A&B, Series 23, Directorate of Census Operations, Tamil Nadu.

The proportion of population engaged in economic activity refers to the work participation rate. It depends upon many factors as age-composition, sex composition, life expectancy, definition of worker, attitude towards work, availability of work etc. Since these factors are different in different places, and changes over time, the proportion of persons falling in the category of workforce differs. As can be seen from Table – 2.3, however, the WPR has actually declined during the period 1991-2001 from 49 to 43 per cent. All the blocks fell in line with the district except the Ilayangudi and Kannangudi blocks.

Nonetheless, what is worrisome about the 2001 census results is that the percentage of marginal workers to total workers has gone up from 15 to 21 per cent between 1991 and 2001. This suggests that increase in work participation during this period was largely accounted for by an increase in the marginal workers as opposed to main workers that led to casualisation of work participation.

In terms of WPR, the declining trend was observed in both male and female. This illustrates the overall decline in WPR of the district. For instance, WPR of males declined from 55.8 per cent to 53.3 per cent and for female it was 41.8 per cent to 33.7 per cent i.e. 8.28 points between 1991 and 2001. Interestingly, unlike male, the percentage of female main workers has increased from 65.47 in 1991 to 71.53 in 2001.



## 2.5 Spatial Distribution of Workers

In Sivaganga, as per 2001 Census, Kannangudi block has the highest WPR (58.61). The blocks of Sakkotai (36.35) and Manamadurai (32.69) had a very low level of WPR mainly because of low female WPRs of 18.21 per cent and 22.74 per cent respectively. The rate of decline of agriculture main workers particularly in Sakkotai block is abnormally high (more than 41 per cent point). The similar trend has been found in both agriculture labourer and cultivator sub-category (Table-2.4). It might be because of growth in service sector and out migration. As many as six blocks had higher WPR than the district average of 43.4 per cent.

**Table-2.4: Percentage distribution of main workers into different sub-categories in different blocks of Sivaganga district as per 1991 and 2001 Census**

Blocks	Cultivators		Agri Labourers		Agri Workers		HH Indu., manufac, process, & repair		Other workers	
	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
Sivaganga	43.57	34.91	41.03	22.16	84.60	57.07	3.66	2.68	11.73	40.25
Manamadurai	41.82	57.31	29.60	38.46	71.42	95.77	10.00	4.23	18.58	
Kalayarkoil	58.06	61.18	27.35	18.96	85.40	80.14	3.62	1.52	10.97	18.34
Thirupuvanam	38.75	32.90	39.53	29.51	78.28	62.41	6.85	1.58	14.87	36.01
Ilayangudi	64.04	58.10	21.20	18.57	85.24	76.67	3.01	2.29	11.74	21.04
Devakotai	65.62	48.16	23.39	16.95	89.01	65.11	3.82	1.60	7.16	33.29
Sakkotai	35.84	12.77	26.07	7.87	61.92	20.65	10.74	3.11	27.34	76.25
Thirupathur	36.67	40.07	33.67	17.53	70.34	57.60	4.86	2.21	24.80	40.19
Singampunari	42.58	NC	36.83	NC	79.41	NC	6.68	NC	13.91	NC
Kannangudi	73.34	76.52	19.26	15.75	92.60	92.27	0.99	1.10	6.41	6.63
Kallal	49.95	41.06	32.89	21.36	82.84	62.43	4.65	2.46	12.50	35.11
S.pudur	36.83	47.19	53.09	36.44	89.92	83.64	2.06	2.13	8.02	14.23
<b>District</b>	<b>47.92</b>	<b>42.18</b>	<b>31.80</b>	<b>20.06</b>	<b>79.72</b>	<b>62.25</b>	<b>5.42</b>	<b>2.30</b>	<b>14.86</b>	<b>35.46</b>
<b>Tamil Nadu</b>	<b>24.94</b>	<b>18.4</b>	<b>34.16</b>	<b>31.0</b>			<b>4.6</b>	<b>5.4</b>	<b>36.24</b>	<b>45.3</b>
<b>All India</b>	<b>38.75</b>	<b>31.7</b>	<b>26.15</b>	<b>26.5</b>			<b>3.63</b>	<b>6.5</b>	<b>31.47</b>	<b>21.7</b>

Note: Singampunari block data for 2001 Census is not included as it was not available

Sources: 1. Census of India 1991, *District Census Handbook, Part XII-A&B, Series 23*, Directorate of Census Operations, Tamil Nadu.

2. Census of India 2001, cited in *Block Statistical Handbook of different Blocks 2004-05*, Sivaganga district, Sivaganga.

Out of twelve blocks, eight blocks had WPR more than the district average (53.33). It was below the district average in Sivaganga (52.46), Manamadurai (42.53) and Devakotai (42.09). The female WPR was unexceptionally high in the Kannangudi block (54.97). It is below the state average (33.72), in Sakkotai (18.21), Manamadurai (22.74), Thirupathur (31.00), Sivaganga (32.54) and Thirupuvanam (33.36) blocks.

## 2.6 Main features

We may now highlight the salient features of the workforce in Sivaganga. Together these reflect the under developed nature of the economy.

The *first* important feature is the low participation rate of the work force. This fact is brought out sharply when we compare it with the developed districts. Among the main reasons are the low participation rates among females, less availability of work etc. It also shows largeness in the number of dependents on the workforce.

The *second* feature is lower ratio of females in the workforce. Making a broad observation, it is a little more than half of the male participation. Quite a large part of the explanation lies in the fact that most of the women are housewives, whose work is not counted as part of productive work on the ground that they are neither working nor looking for jobs. However, this is bound to change with the spread of education among females and the change in attitude towards work 'outside the house'.

The *third* feature is the causalisation of work participation in the district since the marginal workers had increased largely.

## 2.7 Occupational Structure

By occupational structure of the district, we mean the distribution of workforce in different occupations or industries of the country. Over the past 10 years, the proportion of working population engaged in agricultural activities indicated a sharp decline from 79.72 per cent in 1991 to 62.25 per cent in 2001. Yet, a substantial proportion of the work force was engaged in agriculture, and a very small section was found engaged in industry and services. This is a clear indication of the prevalence of large scale disguised unemployment in agriculture and consequently low per capita labour productivity and poor standard of living; an important human development indicator. Thus the above picture on occupational structure of the district clearly illustrates the backwardness of the district economy.

Disaggregated data on occupational structure reveals a reduction in main workers under both cultivators and agricultural labour categories. In other words, between 1991 and 2001, the cultivators have gone down from 47.9 per cent to 42.1 per cent and agriculture labour from 31.8 to 20.1 per cent. Similarly, the percentage of main workers engaged in household industries, manufacturing, processing and repair has declined from 5.42 to 2.30 per cent. The drop in agricultural main workers is a healthy trend which needs to be sustained.

Diversion of the main workers to service sector led to increase from 14.86 to 35.4 per cent in service sector may be due to absorption of labours from all the above categories i.e. cultivators, agricultural labours and manufacturers. The proportion of increase in participation in this sector was 18.0 to 41.9 per cent in male and 8.8 to 24.0 per cent in female is a clear indication of gaining momentum of this sector and participation of both the genders.

The Sivaganga district is largely an agrarian economy and diversion of labour is of utmost importance to turn into a productive economy. It is likely that the scenario will change in favour of the secondary and tertiary sector in the future. Such transference is considered not only desirable, but also necessary. This operation should be completed in the shortest possible time.



## 2.8 Spatial Distribution of Workers Occupational Structure

Although there are no basic changes in the overall picture of occupational pattern, yet one can discuss some significant developments in some parts of the section and in some blocks of the district. Out of 12 blocks, the percentage of agricultural workers in 9 blocks is more than the district average (62.3). Particularly, Manamadurai (95.7), Kannangudi (92.3), S.Pudur (83.6) and Kalayarkoil (80.1) blocks have undergone a rise in agriculture workers in the past 10 years,. The remaining three blocks, Sakkotai (20.65), Sivaganga (57.07) and Thirupathur (57.60) fall below the district average and largely made up by a rise in the services sector. Sakkotai block has the highest percentage of main workers engaged in the services sector (76.25) followed by the Sivagangai (40.25) and Thiruppathur (40.19) blocks. This is a welcome trend and other blocks require similar kind of ignition and sustenance.

Gender wise analysis is also in order here. The share of male agriculture worker has declined from 75.09 to 56.15 between 1991 and 2001. The decrease is largely accounted for heavy reduction in male cultivators from 50.80 to 39.1 and 24.2 to 17.1 in male agriculture labours. In contradiction, the share of female agricultural workers has gone up from 66.4 per cent to 73.1 per cent, mainly attributed to the rise in cultivators from 42.2 per cent to 47.1 per cent. This vividly shows that more number of females have got ownership right than before and interestingly the women agriculture labour has gone down from 46.46 to 25.33 per cent. They either turned as cultivators or entered into the service sector. While sorting at block level, Manamadurai, Kalayarkoil, S.Pudur and Thirupathur and Kannangudi blocks registered an increase in the number of women cultivators. On the other hand Sakkotai, Devakotai, Thirupathur and Sivaganga blocks recorded a formidable rise in the service sector. Small but impressive expansion of job opportunities in service sector is indicative of the fact that the process of modernization of the economy is underway but without takeoff in the industrial sector.

### Registration and Placement

Over a span of five years from 2001 to 2005, there were totally 55,834 persons registered for employment opportunities. What is of concern is that, only 2.18 per cent of them have been employed so far.

**Table-2.5: Registration and placements (in nos.) in Sivaganga for the year 2001 to 2005**

Sl No	Year	Registration	Placement	Placement Percentage
1	2001	13494	360	2.67
2	2002	7806	65	0.83
3	2003	7588	24	0.32
4	2004	13300	517	3.89
5	2005	13646	250	1.83
<b>Total</b>		<b>55834</b>	<b>1216</b>	<b>2.18</b>

Source: Block Statistical Year Books 2004-05, Sivaganga district, Sivaganga

Taking advantage of the present favourable economic growth that opens vast opportunities is very crucial from the point of raising the standard of living. Hence, considering the opportunities every



educated person looking for a government job may not be feasible, since there is a tremendous scope for self employment for the people by venturing into new enterprises and become entrepreneurs.

## 2.10 Poverty

The poverty in the district is a problem with some grave dimension. It is, on the one hand, quantitatively a big problem as there were as much as 45,890 families living below poverty line (BPL). Of total BPL families, 29.16 per cent families belonged to the SC group and 59.5 per cent and 11.32 per cent from OBC category and others, respectively. Another aspect is the problem of very low productivity of the poor. These people are resource-poor in terms of assets, skills and credit availability. This makes their earnings to be dismally small. Equally serious is the fact that the poor, belonging mostly to the socially deprived or weaker sections of society have no means to political or social well being.

Majority of BPL families (31,444) did not own a single piece of land whereas, 12,367 BPL families had less than 1 ha. of dry or less than 0.5 ha. of wet land and only 2079 BPL families had more than one ha. of dry land or more than 0.5 ha. of wet land. This clearly illustrates, BPL families were resource poor in terms of assets with low or nil productivity of the poor. This makes their earnings to be abysmally low. For instance, 15,461 families earned less than Rs. 250 per month, around 8,329 families earned anywhere between Rs. 500 – Rs.1500. These people either did not produce or produced very little, so that their income remained low for a level of consumption-expenditure that can lift them above their miserable living.

The low productivity is associated with several handicaps from which these people suffer. For example, they work on assets that fetched little because either their assets were out of shape, technologically out of date, the inputs were insufficient, their marketing and other infrastructural facilities to use them were inadequate etc. In brief, these people lack the means to be productive enough for a reasonable living.

BPL families in the district belong mostly to the socially weaker sections of the society. Social group wise land holding analysis shows, out of the total landless BPL families, 32.58 per cent belong to SC categories and 56.24 and 11.16 per cent OBC and others, respectively. Income wise, 78.73 per cent of SC - BPL families earned less than Rs. 500 per month and 78.78 per cent in case of OBC - BPL families and 66.29 per cent from other BPL families. This clearly indicates the vulnerability of BPL families and unfortunately they are placed at a low status in the social system.

**Table-2.6: Social group and operational landholding wise distribution of BPL families in different blocks as per 2003 BPL Survey**

Blocks	Landless				<1 ha. of dry or 0.5 ha. of wet				>1 ha. of dry or > 0.5 ha. of wet				All			
	SC	OBC	Others	Sub Total	SC	OBC	Others	Sub total	SC	OBC	Others	Sub total	SC	OBC	Others	Grand total
Sivaganga	23.75	53.33	22.92	100.00 (4345)	10.04	73.27	16.69	100.00 (1594)	8.26	62.39	29.36	100.00 (109)	19.86	58.75	21.40	100.00 (6048)
Manamadurai	32.77	61.21	6.02	100.00 (2774)	26.02	68.90	5.08	100.00 (1299)	17.01	69.39	13.61	100.00 (1272)	30.14	63.86	6.00	100.00 (4220)
Kalayarikoil	33.95	51.04	15.02	100.00 (4728)	22.78	61.99	15.23	100.00 (2160)	19.01	71.90	9.09	100.00 (2120)	30.25	54.77	14.98	100.00 (7009)
Thirupuvanam	40.15	53.42	6.43	100.00 (3671)	11.41	79.21	9.39	100.00 (1236)	46.72	43.80	9.49	100.00 (1679)	33.29	59.48	7.24	100.00 (5044)
Ilayangudi	42.70	47.81	9.49	100.00 (4424)	28.11	65.54	6.35	100.00 (1544)	19.61	63.40	16.99	100.00 (2353)	38.44	52.67	8.89	100.00 (6121)
Devakotai	40.79	54.27	4.94	100.00 (2390)	27.38	61.83	10.79	100.00 (1103)	18.41	69.45	12.14	100.00 (1418)	33.29	58.96	7.75	100.00 (4259)
Sakkotai	43.46	45.90	10.64	100.00 (1682)	21.52	66.67	11.81	100.00 (237)	58.06	29.03	12.90	100.00 (818)	41.29	47.85	10.85	100.00 (1981)
Thirupathur	29.12	62.88	8.00	100.00 (625)	17.96	77.31	4.74	100.00 (401)	10.20	75.51	14.29	100.00 (259)	24.09	68.84	7.07	100.00 (1075)
Singampunari	14.29	79.83	5.88	100.00 (2940)	15.94	78.60	5.45	100.00 (715)	7.37	50.53	42.11	100.00 (548)	14.25	78.15	7.59	100.00 (3845)
Kannangudi	45.83	42.59	11.58	100.00 (803)	48.33	40.37	11.30	100.00 (929)	33.83	32.71	33.46	100.00 (907)	45.40	40.24	14.36	100.00 (1998)
Kallal	19.57	65.62	14.81	100.00 (2330)	10.47	73.90	15.63	100.00 (659)	5.71	71.43	22.86	100.00 (527)	17.43	67.49	15.08	100.00 (3024)
S.pudur	27.87	68.17	3.96	100.00 (732)	15.10	84.69	0.20	100.00 (490)	6.82	81.82	11.36	100.00 (281)	22.20	75.04	2.76	100.00 (1266)
District	32.58	56.24	11.18	100.00 (732)	21.80	67.78	10.42	100.00 (12367)	21.26	59.88	18.86	100.00 (13383)	29.16	59.51	11.32	100.00 (45890)

Note: Figures in square brackets show the respective absolute numbers. Source: NIC, Sivaganga.

Income wise, 78.73 per cent of SC - BPL families earned less than Rs. 500 per month and 78.78 per cent in case of OBC - BPL families and 66.29 per cent from other BPL families (Annexure Table-A2.10). Among the BPL families, the percentage of destitute in terms of family income (<Rs. 250 per month) is comparatively higher in SC community. The extent of this category of household is relatively higher in Kalayarkoil, Thirupathur, and Kannangudi blocks (Annexure Table-A2.10).

The percentage of female headed households among the BPL families is as high as 31 per cent in S Pudur block followed by 26 per cent and 25 per cent in Singamunari and Kallal block respectively. Social group wise, the share of female headed households of these blocks is found to be comparatively higher in SC community (Annexure Table-A2.11). This clearly indicates the vulnerability of BPL families and unfortunately they are placed at a low status in the social system.

In view of the serious nature of poverty, it is necessary to find out an effective solution for eradicating the menace. In this connection, pragmatic and long sighted solutions will be helpful in addressing poverty. This requires employment generating schemes, especially for the unemployed and for the casual labours whose income was erratic. As changes in the agriculture sector make fresh farm employment more difficult, the manufacturing and services sectors have to be exploited further to increase employment opportunities. The important thing is to implement and monitor them effectively.

## **2.11 Migration**

The discussion in the DHDR data Validation meeting captured the extent and intensity of Migration prevailing in the district mostly to abroad. Their main destination is the countries like Malaysia and Singapore. The issue of the pathetic plight of the people in the destination point warrants the attention of the district administration as it is found as cases of Human Rights violation where people of this district are under slavery. Also, the discussion on this issue necessitates the District Administration to have detailed exploratory study on the Migrated People at destination. Even the District can work with Government of Malaysia to bring them back and to rehabilitate.

## **2.12 The Public Distribution System**

The Public Distribution System, PDS, is an important nutrition- based intervention by the state in order to ensure food security. It aims at price stability and attempts to make available a few selected articles of mass consumption at reasonable prices particularly, to the vulnerable section. Effectiveness of PDS depends on access, purchasing power of the clientele and quality of implementation.

The PDS network extends to 632 outlets in the district. The number of ration card holders increased from 2.85 lakhs to 3.62 lakhs between 2000-01 and 2004-05. More number of households brought under the PDS cover is a positive sign in ensuring food security. Essential commodities such as rice, wheat, sugar and edible oils are distributed to consumers at below market prices. Thus, PDS is an essential element of the government's safety net for the poor in checking the erosion of real earnings.



**Table-2.7: Taluk wise number of family cards in Sivaganga district**

Taluk	Number Of Family Cards				
	2000-01	2001-02	2002-03	2003-04	2004-05
Sivaganga	55629	55629	69318	69318	76192
Manamadurai	47768	47768	49567	49567	57570
Ilayangudi	30819	30819	33828	33828	33606
Devakottai	29321	29321	31228	31228	41289
Karaikudi	61194	61194	64314	64314	80983
Thiruppathur	61063	61063	61269	61269	72035
<b>Total</b>	<b>285794</b>	<b>285794</b>	<b>309524</b>	<b>309524</b>	<b>361675</b>

Source: Block Statistical Hand books 2004.

### 2.13 Land Utilization Pattern

The total geographical area of the district was 4,19,563 ha. in 2004-05. The pattern of land use of a district at any particular time is determined by the physical, economical and institutional factors taken together. In other words, the existing land use pattern in different regions of Sivaganga has been evolved as a result of the action and interaction of various factors, such as physical characteristics of land, the institutional frame work, the structure of other resources (capital, labour etc) available, and the location of the block in relation to other aspects of economic development. The present pattern can, therefore, be considered in some sort of static harmony and adjustment with the other main characteristics of the economy of the district. A close study of the present land use pattern (nine fold classification) and the trends during the past 15 years will help to suggest the scope for planned shifts in the pattern.

#### Forest

The forest occupied 21,119 ha. which is 5.03 per cent of the total geographical area of the district. This is far below the desired level of 1/3<sup>rd</sup> area under forest cover. The potential areas for expansion of forest cover are cultivable waste land, fallow land and land other than current fallow covering permanent pasture and grazing land.

**Table 2.8 Land Use Pattern (Nine Fold Classification) 2004-05**

Categories	Area in percentage
Forest	5.03
Barren	10.32
Land put to non agriculture purpose	26.86
Cultivable waste	4.10
Permanent pasture and other grazing land	0.32
Miscellaneous tree crops included in the net area sown	1.90
Current Fallow	9.80
Other Fallow	9.80
Net area sown	28.10
Cropping intensity	100 per cent
Total Geographical Area (in ha.)	4,19,563

## **Agriculture**

Agricultural activity is carried out in 28.10 per cent of the geographical area adequate enough to meet the needs of agricultural planning for the district. It fluctuated from 26.3 per cent to 30.0 per cent between 2000-01 and 2004-05. In terms of percentage Net Sown Area (NSA) to the total area of the block, Ilayangudi block (44.86) has the highest and Sivaganga and Thirupathur (17.5) blocks have the lowest area under cultivation. Infact, both these lowest NSA blocks have more area under non-agricultural purpose compared to cultivated area. The non-agricultural purposes include land occupied by buildings, roads and railways or under water and other lands put to non agricultural use and it accounts for around 27 per cent of the total geographical area, almost matching with net sown area of the district.

In order to make a meaningful agricultural planning (land use planning) identifying the thrust areas is an important step. Current fallow (9.8), other fallow (9.8), barren (10.32) and cultivable waste land (4.1) together constitute 34.02 per cent of the total geographical area of the district. Particularly, Sakkotai (11.74) and Devakotai (8.75) blocks have more cultivable wasteland in this district. This necessitates immediate intervention by converting them into a productive land under waste land development schemes. There is a huge potential for growing horticultural crops, particularly plantation crops. The district mostly covered with fertile soil is an added advantage.

The barren lands are generally unsuitable for agricultural use either because of the topography or because of their inaccessibility. Perennial vegetation, such as trees and grasses, are not only the alternatives for economic utilization of degraded lands unsuitable for agriculture but at the same time they successfully prevent soil erosion and runoff and considerably reduce the soil and water losses from such lands usually left fallow. It has been well established that the perennial vegetation by effective interception of rain-water, reduces the energy of rain drops falling on the soil, and thus helps minimize soil dispersal and consequently the erratic flow of runoff. The proportion of barren land is 1.32 per cent of the total land area in this district. If these lands were brought under cultivation by tackling the factors resulting into fallow, the production can be significantly improved.

## **Land Holdings**

In the programmes of agricultural development, the operational holding was considered as the fundamental decision-making unit. Agriculture in the district abounds in small-sized farms. The agriculture census data reveals that the number of operational holdings increased from 2.90 lakhs in 1990-91 to 3.04 lakhs in 1995-96; contrarily, the area under agricultural operation decreased marginally from 2.0 lakhs ha. to 1.9 lakhs ha.

Disaggregated operational holding put the number of marginal holding (with land upto one ha.) at 83.48 per cent in 1995-96, up from 81.03 per cent in 1990-91 of the total holdings in the district. To these tiny holdings one should add small holdings (with land from one to two hectares) which account for 10.92 per cent of the total holdings in 1995-96, down from 12.53 per cent in 1990-91.

**Table 2.9 Percentage Distribution of Farmers on the Basis of Operational Landholding**

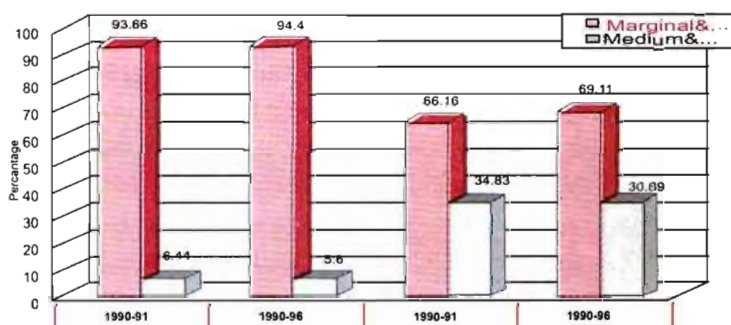
Categories	Percentage of farmers		Percentage of area	
	1990-91	1995-96	1990-91	1995-96
Marginal	81.03	83.48	39.80	46.26
Small	12.53	10.92	25.36	22.85
Semi-medium	4.85	4.37	19.00	17.87
Medium	1.42	1.10	11.49	9.30
Large	0.17	0.13	4.34	3.72
<b>All</b>	<b>100.00</b> <b>(290083)</b>	<b>100.00</b> <b>(304431)</b>	<b>100.00</b> <b>(200331)</b>	<b>100.00</b> <b>(199754)</b>

Note: Figures in parentheses show respective total absolute figures; farmers in no. and area in hectare.

Source: Agriculture Census, 1990-91 and 1995-96

The total marginal and small holdings accounts for as much as 94 per cent of the total holdings and have 65 per cent of the total cultivated land in the district. At the other end, the percentage of large, medium and semi-medium farmers account for 5 per cent of total holding and they possess 35 per cent of the land under cultivation. (Figure 2.2) Clearly, the agrarian structure is characterized by an unequal land distribution between small and large farmers.

**Fig 2.2 Distribution of Farmers on the Basis of Operational Landholding (%)**



Based on the social groups, the percentage of marginal farmers to total farmers among SC community is found to be comparatively higher than the rest of all categories added together. Operational holding statistics at both block level and social group wise fit with the general picture of the district as discussed above.

### 2.15 Cropping intensity

Cropping intensity signifies the intensive use of the land in the district. It's the ratio between Gross Cropped Area (GCA) and the Net Sown Area (NSA) expressed in percentage terms. The district reported cropping intensity of 100 per cent. This indicates only one crop is raised in a year and the second crop is not followed in this district. Infact, there are likely chances of growing more than one crop in a year but the area under second crop may be insignificant to bring it under a separate record.

### 2.16 Irrigation

Irrigation water is indispensable to agricultural production. The rainfall is abundant but concentrated in a short period of the year, the rest of the year being dry. As a result, cultivation



may not be possible for the whole year. In these regions, provision of irrigation will facilitate growing of more than one crop in a year. In short, irrigation is a vital input to increase the agricultural output to keep pace with the food requirements of the ever-increasing population.

Unfortunately there is a wide gap between irrigation potential and its utilization in Sivaganga. The bulk of the irrigated area in the district still continues to yield single crop. Theoretically, irrigation should make double cropping possible, if not multiple cropping. Thereby, the ultimate objective is to raise the yield per hectare under irrigated condition.

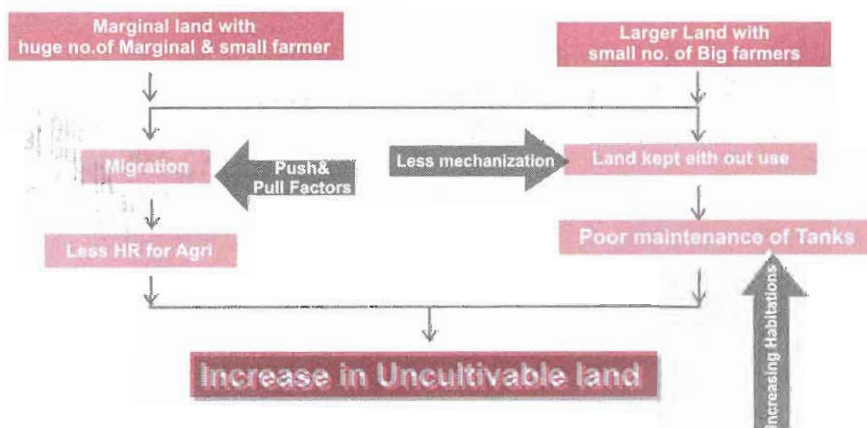
### Irrigation Source

Surface water through large and small tanks are the important sources of irrigation water in the district. Blockwise analysis gives a larger picture on the nature of irrigation water. Larger tanks irrigate more than 50 per cent of net area under cultivation in Ilayangudi (73.9) and Manamadurai (52.1) blocks. Smaller tanks cover larger portion of the area in the district. For instance, around 90 per cent of the Net Sown Area in Sakkotai (99), Kannangudi (97.4) and Devakotai (89.4) blocks are fed by small tanks. At the next level, 50-90 per cent of NSA in Kallal (81.4), Singampunari (69.9), Thirupathur (66.1) and Sivaganga (52.4) blocks draw irrigation water from the same source. This shows the importance of small tanks for irrigation purpose.

The other major source of irrigation water is utilization of ground water mainly public tube wells, private tube wells and dug wells. Only, S.Pudur block (74.5) has the largest per cent of net area sown using ground water for irrigation, followed by Thirupuvanam (56.5), Sivaganga (40.6) and Manamadurai (22.2) blocks. This shows the heavy dependence on surface water as irrigation water.

The gap between the potential created and the actual utilization is pertinent. The non-utilization of the created irrigation potential occurs mainly due to delay in the construction of field channels and drains and in land leveling as well as shaping. Lack of involvement of farmers is also an important constraint in achieving full utilization of created potential. Conjunctive use of ground water and surface water towards optimal utilization of water resources is also important for ensuring an environmentally sustainable development.

**Flow Chart: Process of increase in uncultivable land in Sivagangai district**  
**Increase in Uncultivable Land: How...**



## 2.17 Livestock

Sivaganga economy is predominantly agrarian in nature. The district has a considerable number of livestock population and which forms an important source of income along with agricultural income. The significance of animal husbandry arises also because of its assistance to tackle the serious problems of unemployment and under-employment for weaker section in the district and for providing subsidiary occupation for income generation. The livestock resources of the district comprises 2.65 lakhs cattle, 0.62 lakhs buffalo, 3.16 lakhs sheep and 1.24 lakhs goat population. The present level of less than one per cent in permanent pasture and other grazing land draws attention to bring more area under grazing. Estimating the potential of the district, concerted efforts are necessary to make animal husbandry a flourishing industry and thereby raise the standard of living of the people. The district lacks effective milk cooperative societies. Most of them were reported defunct. Reviving and regulating the milk co-operatives with people's participation is a necessary step to ensure sustainable income.

## 2.18 Tourism Development

Tourism is in many ways an activity that is emblematic of the 21<sup>st</sup> century. In India, the Planning Commission's subgroup on "**Targeting ten million employment opportunities over the tenth plan period**" has earmarked tourism as one of the major priority sector. This is primarily because of the ability to maximise the productivity of India's natural, human, cultural and technical resources. Reinforcing the importance of tourism in India, 'Vision 2020' states the triple contribution of income generation, employment opportunities and foreign exchange earnings in this sector.

It envisages,

- ❖ Total number of persons employed in the tourism sector will be 50 million persons i.e. one in every eight employed.
- ❖ Contribution of tourism to Gross Domestic Product (GDP) is expected to be 7 per cent by the year 2020, as against the present 4 per cent.
- ❖ Number of international visitors in India is expected to be 40 million by 2020 as against 2.2 million at present.

The Sivaganga district has many tourism attractions, such as **Chettinad** [Sakkottai block], **Kalayar koil** [Kalayar block], **Devakottai** [Devakottai block], **Pillaiyarpatti** [Thirupatthur block], **Kunrakudi**, **Vettangudi bird sanctuary**, **Thirupatthur**, **Thirukoshtiyur** [Thirupatthur block], **Natarasankottai**, **Kollangudi**, [Kalayar koil], **Sivaganga** [Sivaganga block], **Thayamangalam** [Ilayangudi block], **Madappuram** [Thiruppuvanam block], **Piranmalai** [Singampunari block], **Idaikattur church**, [Manamadurai block], **Thirupachethi**, [Thiruppuvanam block] and **Vairavanpatti** [Kallal block].

Tourism as an industry is yet to achieve a higher profile in the public consciousness of the Sivagangai district. Destinations and tourism-related businesses around the district need a profound shift in consumer confidence and travel behavior. Keeping in view the existing opportunities, the district administration has to take necessary steps to reap the emerging benefits of tourism.

## **Initiative of District Administration in Tourism**

The Sivaganga district administration has taken various initiatives to promote tourism in the district, with main focus on '*Chettinad*'. It organized state level seminar under the campaign "Enchanting Tamil Nadu". This paved the way for many tourism-related developments in the district.

## **Promotion of Rural Tourism Through The Endogenous Tourism Project:**

On this front, the Sivaganga district administration is instrumental for the Endogenous Tourism Project [ETP] supported by the Government of India (GoI) and United Nations Development Programme (UNDP). This district is acclaimed as one of the two districts in Tamil Nadu and 31 districts in India which got this unique opportunity. The ETP project comprises five specific objectives, which are as follows:

- ❖ Capacity building at local level
- ❖ Experimenting and evolving local specific model of community tourism
- ❖ Build strong community private partnership
- ❖ Supporting promising and innovative rural tourism initiatives
- ❖ Providing valuable inputs to National & State tourism policies

Endogenous Tourism Project (ETP) being implemented by DHAN foundation, a not for profit organization, focuses on regeneration of art forms of *chettinad* that spreads in Sakkotai, Kallal and Thirupathur blocks of Sivaganga district. The various art forms include; wood carving, stone carving, brass metal works, chettinad cuisine, kandangi saree weaving, silver, gold and diamond jewelry, egg plastering and kottan making. Under this project, the capacity building of the artisans in the above art forms will be enhanced through promoting community managed sustainable institutions like community colleges for tourism development, tourism marketing centers and tourism information centers.

People institutions comprise eight hundred artisans of various trades, people organization with 1500 women plus the disadvantaged section of the community. These permanent institutions will impart need-based skill building to the community mainly to promote tourism linked livelihood activities. For instance, this skill building activity in tune with the demand on the development of tourism will generate following employment opportunities.

1. Tourist guides. [Temples, rural tourism, mansions, art forms].
2. Tour operators.
3. Local transport operators.
4. Home stay operators [direct, indirect].
5. Event management operators.
6. Traditional food experts.
7. Artisans & craftsmen [new, young & master craftsmen].
8. I.T service providers.
9. Health and sanitation workers.
10. Traditional crafts shop operators [direct, indirect].
11. Micro enterprises based on various needs.
12. Folk artisans.



The learnings and success of Endogenous Tourism Project (ETP) will be helpful to develop the other rural tourism attractions in various blocks of Sivaganga district. In a way, the sustainable community organizations in the *Chettinad* would support the development of similar activities in the rural tourism centers of the different blocks of the Sivaganga district. Hence, apart from agriculture and other activity, tourism related livelihood promotion has immense potential in Sivaganga. What really needed is the will to harness it.

### **2.19 People's Voice**

The district is primarily characterized as an agrarian economy with few industries and services institution. Obviously, agriculture, animal husbandry, dairy, non-farm sectors and credit systems form the core instruments that lead to economic development. People perceived that the available infrastructure and human resources in Agriculture Department were above average but their service delivery was poor. As a result, modern techniques in agricultural practice did not reach the farming community. In fact, a blend of selective modern techniques with traditional practices are the tools to run the farming business as a profitable occupation. The work force engaged in agriculture mainly the casual labour has gone down significantly and a majority of them out migrated to abroad for higher earnings. This phenomenon has led to a shortage of casual labours on the one hand and raised the wage rates on the other. More fertile land in the district remains uncultivated due to lack of human resources to carry out agricultural practices. Hence, this necessitates the practice of scientific farming and selective mechanization in this district. District administration needs to take proactive steps to fill the void. Moreover supply of inputs for agriculture is better done by private players compared to the government agencies. But both the actors deliver poor marketing services in terms of buying agricultural produces. At present, the mindset of the cultivators is just to practice agriculture to meet their consumption needs. This results in subsistence farming with low surplus production and a small volume is left for selling in the market.

People reflected that the performance of animal husbandry, dairy and non-farm activity in the district was also poor. The potential in these activities need to be harnessed. The spurious informal credit system was widely prevalent in the district. Thus, revamping the formal credit systems like banks and promotion of SHGs are important measures to address the ill effects of the informal credit and to create a sound financial climate in the district.

### **2.20 Summary**

Human development is the end – economic growth is the means. Evidences of growth over the years at the state and national level disclose the fact that there is no automatic link between economic growth and human development. For instance, human development requires greater attention to be paid to the problems of employment, poverty reduction, empowerment of the weaker society, greater participation of the people in the process of growth and long-term sustainability.

District income statistics present a glimpse of the districts' entire economy. The annual growth of the Sivaganga district income was of the order of 5.36 per cent and occupied a relative 27<sup>th</sup> position among 30 districts in the state. The per capita income of the district was Rs. 9139 and the growth was 4.32 per cent, below the state level in 2001-02. This clearly illustrates the widening of the gap in per capita income between Sivaganga and other districts of the State.

Under Sectoral contribution, the share of the primary sector is declining and reversely a rapid increase in the tertiary sector has taken place. The share of the manufacturing sector has shown a marginal fall of no significance. The nature of transformation of the economy directly from agriculture to services while bypassing industrial sector clearly indicates the neglect of industrial development in the district. The changing structure of the district income needs further enhancement through industrial development, for accelerating the growth process in agriculture, industrialization of the economy with emphasis on agro-based industries and industries supplying input to agriculture is *sine quo non*.

The work force in Sivaganga has three distinct features say low work participation rate, lower ratio of females in the workforce and causalisation of work participation with increasing marginal workers. The proportion of working population engaged in agriculture was 62.25 per cent in 2001. This is a clear indication of the prevalence of large scale disguised employment in agriculture. Diversion of labour from agriculture to other sectors is of utmost importance to turn into a productive economy.

Sivaganga is largely an agrarian economy. The cropping intensity is 100 per cent. This indicates that only one crop is raised in a year and the second crop is not followed. The paradox is that the district has vast waste land, untapped groundwater and a large number of traditional storage structures of small and big tanks under poor maintenance. The condition has to be reversed, and proper utilization of irrigation facilities should make double cropping possible. Along with agriculture animal husbandry is an important income generating activity but the district lacks effective milk co-operatives. Most of them were reported defunct. Reviving and regulating them is a necessary step to ensure their income.

Poverty in the district is a problem with grave dimension. It is quantitatively a big problem as there are as much as 45,890 families living below poverty line (BPL). These people are resource-poor in terms of assets, skills and credit availability. This makes their earnings to be abysmally low. This requires employment generating schemes, especially for the unemployed and for the casual labours whose incomes are erratic.

## 2.21 Way Forward

Agriculture continues to be the primary source of bulk employment, disguised in nature. The agricultural share in income declined over the period, whereas the share of income from the tertiary sector improved and stagnated in the secondary sector. In per capita terms, this means that the average output per worker in the primary sector increased only marginal compared to the other sectors. This has wider implications of distribution of income and consumption.

Remedial measures in the agriculture sector are, therefore, necessary in both physical and monetary terms. Diversification of agriculture with emphasis on high value crops and allied activities to increase the productivity per unit of capital with proper forward and backward linkages would greatly mitigate the problem. The increase in workforce could be effectively utilized in more self-employment ventures such as animal husbandry, food processing and horticulture. Small scale industries producing items of mass consumption and other non-farm occupations need to be encouraged.

To achieve success in these policies, financing the self-employment is a necessary requirement, so appropriate measures and training for such ventures need to be devised. Institutional arrangements together with some marketing facilities for income generation have to

be put in place. More importantly, specific policies on tourism development have to be formulated exclusively for Sivaganga . All these efforts should converge to convert Sivaganga from developing to developed economy.

Also the issue of the pathetic plight of the migrated people in the destination point particularly Malaysia warrants the attention of the district administration as it is found as cases of Human Rights violation where people of this district are under slavery. Also, the discussion on this issue necessitates the District Administration to have detailed exploratory study on the Migrated People at destination. Even the District can work with Government of Malaysia to bring them back and to rehabilitate.

**Note:**

The following factors are mutually responsible in reducing the area under cultivation and increasing in fallow land in the district. This note is based on the focus group discussions held at Panchayat level in all the Panchayats of the district [Ref. Page 15 of the Report].

First, it has been observed that migration from Sivaganga district<sup>1</sup> especially to Malaysia and Singapore has been increasing. One could also observe that around half of the families have migrants to East Asian countries. In most of the cases, pull factors induce them to migrate out. The workers, who were involved in agriculture earlier, subsequently migrate out for better income. Agriculture, therefore, has become more vulnerable due to scarcity of labourers.

Second, surface water bodies mostly tanks are the important sources of irrigation<sup>2</sup>. But due to poor maintenance, most of those tanks are no longer used. Moreover, one can observe that overall agriculture has not been mechanized in the district.

Finally, in spite of the land consolidation, which is ongoing in the district, most of the land owners are not interested in agriculture due to labour scarcity. It has also been observed that agriculture in the district is mainly used for own consumption rather than commercial purpose.

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<sup>1</sup> It has been mentioned on Page 14 and suggestion has been mentioned on page 85 of the report.

<sup>2</sup> Refer page 17 of the report.



### III. Demography, Health, Nutrition and Sanitation

The World Health Organisation (WHO) has defined health 'as a state of complete physical, mental and social well being and not merely the absence of disease and infirmity'. Life expectancy is the indicator used for calculating HDI as it is expected to capture the overall health status of the population. But life expectancy is an outcome of nutrition, health, sanitation and availability of basic services like drinking water facilities. In fact, fertility, morbidity and mortality have significant influence on life expectancy and on demographic trends of the population.

Health, Nutrition, Sanitation and availability of basic services are closely related to the well being of an individual, family and society. Their condition depend largely on the social development in terms of literacy, awareness, provision of services by public and private entities and to an extent on the thrust given by the government through various programmes.

The Tamil Nadu State seems to perform fairly better in most of the health parameters than the country as a whole. In reality, there lies inter and intra district disparities, which require a detailed examination. This chapter focuses on the status of the critical indicators; Demography, Health and Nutrition of Sivaganga with the human development lens at inter and intra district level. Further, it probes the effectiveness of government policies and programs and the role that social norms and culture play in influencing the health outcome.

#### 3.1 Demographic Trends and Health Indicators

Demographic trends indicate broader changes that are happening in the population characteristics which have either a positive or a negative influence over human development. For example, the phase of demographic transition witnessed in the district indicates on the one hand the challenges to be met for ensuring human development and on the other hand general well being of the population.

##### 3.1.1 Population Size and Growth Rate

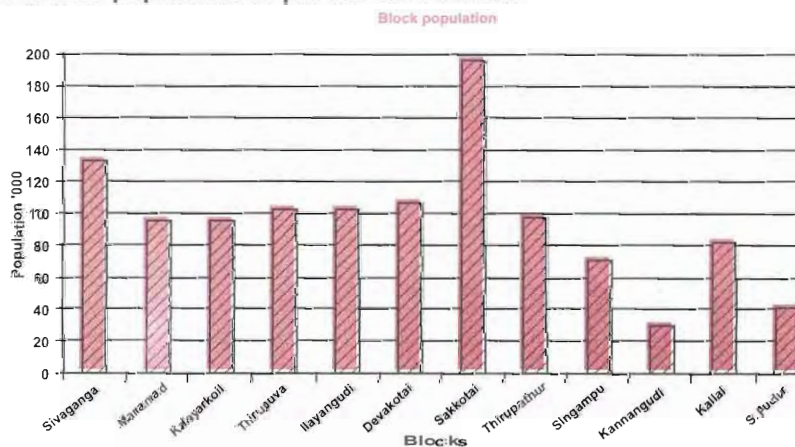
The study of human resources is vital from the point of view of economic welfare. It is particularly important because human beings are not only instruments of production but also ends in themselves. It is necessary to know in quantitative terms the number of people living in a district at a particular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

Table 3.1 Demographic Profile of Sivaganga District as per 2001 Census

Sl No	Blocks	Population	Sex ratio	Density	SC population (%)	ST population (%)
1	Sivaganga	134350	982	300.8	11.36	0.01
2	Manamadurai	95535	989	273.4	21.04	0.87
3	Kalayarkoil	96325	1078	165.3	16.56	0.13
4	Thirupuvanam	102260	990	312.4	20.52	0.14
5	Ilayangudi	102721	1079	230	20.73	0.01
6	Devakotai	106505	1081	313.3	18.23	0.01
7	Sakkotai	195584	1004	555.2	10.56	0.22
8	Thirupathur	97779	1051	287.7	14.94	0.02
9	Singampunari	70787	990	313.2	13.72	0.02
10	Kannangudi	29872	1091	134.8	36.93	0.08
11	Kallal	82137	1095	204.8	16.14	0.05
12	S.Pudur	39892	1035	249	16.83	0.01
	District	<b>1153747</b>	<b>1035</b>	<b>275.1</b>	<b>16.37</b>	<b>0.15</b>
	Tamil Nadu	<b>62405679</b>	<b>987</b>	<b>480</b>	<b>19.00</b>	<b>1.04</b>
	All India	<b>1028610328</b>	<b>933</b>	<b>313</b>	<b>16.20</b>	<b>8.19</b>

Source: 1. Block statistical book 2004-05, District statistical hand book 2005-06  
2. Census 2001

Fig 3.1 Block wise population as per the 2001 census



The total population of Sivaganga district is 11,53,747 persons (Census, 2001), accounting for 1.85 per cent of the Tamil Nadu State's population. The district has recorded the lowest density of 275 persons per sq.km. in the State. Social group wise, the percentage of Schedule Caste (SC) and Scheduled Tribe (ST) population to the total population were 16.02 and 0.11 per cent, respectively.

The population density implies the average number of persons living per sq.km. In 2001, the density of population was 275 per sq.km. in the Sivaganga district. The density of the district is relatively less compared to 478 per sq.km. for the Tamil Nadu State and the National figure of 324 persons per sq.km. However, density of population is very unevenly distributed.

**Table 3.2 Goals for Health Attainment Indicators**

Indicators	Position in 2002		Goals by 2000 <sup>1</sup>	Goals by 2007 <sup>2</sup>
	All India	Tamil Nadu		
Crude Birth Rate (per 1000 population)	25.0	18.5	21.0	15
Crude Death rate (per 1000 population)	8.1	7.7	9.0	6.0
Infant Mortality Rate (per 1000 live births)	64.0	44.0	60	28
Maternal Mortality Rate (per 1000 live births)	4.00	1.3	Below 2	Below 1
Total Fertility Rate (1999)	3.2	2.0	2.0	1.5
Life Expectancy at Birth (2001-2006) (Years)				
Male	64.11	67.00	64	70
Female	65.43	69.75		
Babies Birth Weight with less than 2.5 Kgs. (%)	30.0	17.6	10	15
Couple Protection Rate (%)	46.2	50.2	60	65
Natural Growth Rate	1.69	1.08	1.2	Below 1

Source: Family Welfare Department and State's Tenth Plan (2002-07) Document

<sup>1</sup>National Health Policy; <sup>2</sup>State Tenth Plan

Sakkotai, Singampunari, Devakotai and Sivaganga are some of the highly densely populated blocks with more than 300 persons per sq.km. but Kannangudi, Kalayarkoil and Kallal are, on the other hand, such blocks which have a low density population. It is generally agreed that the density of population cannot be treated as an index either of the poverty or of the prosperity of a district.

The growth of population of Sivaganga had a steep fall from 10.72 per cent during 1981-1991 to 4.32 per cent during 1991-2001. This illustrates, the declining trend in growth rate for the last three decades and the fall was rapid during the last decade. As a result, Sivaganga stood first in lowest decadal population growth rate (4.32 per cent) of all the districts of Tamil Nadu. There is a huge margin between the districts with highest decadal population growth rate (22.35 per cent in Thiruvallur district) and Sivaganga .

This indicates that the district is in the fast demographic transition like many other districts in the State. The reasons attributed to this change might be due to the successful implementation of the Family Planning programme undertaken by the district administration, increasing literacy and awareness among the common public etc. It is also observed that the district has a common feature of at least one male member per family going for foreign migration for want of livelihood option might have led to declining population growth rate.

Rate of growth is a function of birth rate and death rate. Consequently, variations in birth and death rates can provide an explanation for the declining population growth experienced in Sivaganga .



### 3.1.2 Crude Birth rate (CBR)

The CBR has shown a declining trend between 2002 and 2005 in Sivaganga. Birth rate which stood at 19.06 per thousand in 2002 came down to 17.31 per thousand in 2005. As a consequence of the family planning drive birth rate has registered a clear fall. Relatively, the CBR of Sivaganga is much lower than the State (19.20) and national (26.40) averages. The positive trend in CBR has to be sustained so that the district can achieve the CBR target of 15 per thousand by the end of the 2007 set in tenth five year plan of Government of Tamil Nadu.

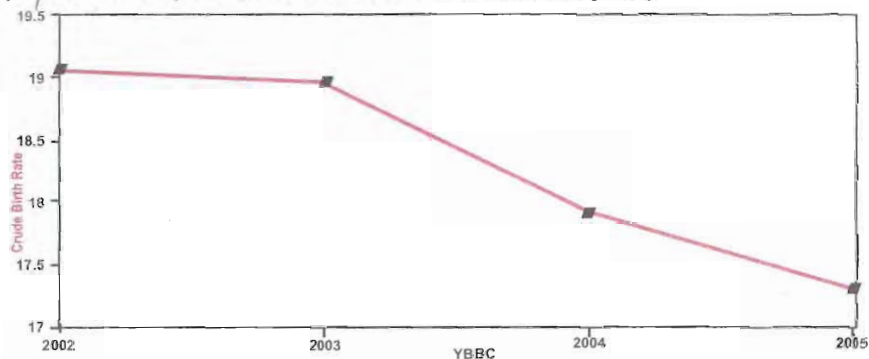


Fig 3.2 Trend in Crude Birth Rate (CBR) 2002 – 2005)

Blockwise analysis of data pertaining to birth rate reveals that five blocks namely Ilayankudi, Sivaganga, Manamadurai, Thirupuvanam and Singampunari were consistent with the declining trend, whereas other blocks showed fluctuations. The average CBR between 2002 and 2005 placed Kalayarkoil block on the top with 16.85 per thousand among twelve blocks in the district. On the other hand, S.Pudur block had the highest CBR of 21.25 per thousand. In comparison with the tenth five year plan target, we can predict atleast four blocks namely Kalayarkoil, Ilayankudi, Sivaganga and Singampuneri had CBR little closer to this target as of 2005. Also, it is to be noted that the S.Pudur and Thirupuvanam blocks reported CBR more than the State average, thereby drawing the attention.

Table 3.3 Block Wise Crude Birth Rate (CBR) from 2002 to 2005

Sl No	Block	2002	2003	2004	2005	Avg	Rank
1	Sivaganga	19.63	19.32	18.75	15.77	18.37	7
2	Manamadurai	19.38	18.82	17.38	16.50	18.02	6
3	Kallayarkoil	17.51	19.08	15.48	15.34	16.85	1
4	Thirupuvanam	20.92	20.58	19.25	19.23	19.99	11
5	Ilayangudi	19.68	18.05	16.90	15.49	17.53	3
6	Devakottai	19.06	18.24	18.38	19.17	18.71	10
7	Sackottai	17.96	17.37	18.55	17.40	17.82	5
8	Thirupathur	19.24	18.36	18.43	18.45	18.62	8
9	Singampunari	18.47	18.00	17.73	15.95	17.54	4
10	Kannangudi	17.45	17.55	17.10	17.92	17.51	2
11	Kallai	19.16	18.55	18.70	18.38	18.70	9
12	S.Pudur	20.54	25.69	19.40	19.35	21.25	12
	<b>District</b>	<b>19.06</b>	<b>18.97</b>	<b>17.93</b>	<b>17.31</b>	<b>18.32</b>	
	<b>Tamil Nadu</b>	<b>18.5</b>	<b>18.3</b>	<b>17.1</b>	<b>16.5</b>		
	<b>India</b>	<b>25.0</b>	<b>24.8</b>	<b>24.1</b>	<b>23.8</b>		

Note: 0 – denotes no event occurred

Source: Vital Events Report, Deputy Director of Health Services, Sivaganga.

The district has 44 Primary Health Centres (PHCs) and the data on CBR from 2002 to 2005 has been averaged and ranked accordingly. This brings out a clear picture on the differences that exist within the block level. Out of 44 PHCs, 9 PHCs had registered more than the district CBR. The top 5 PHCs with low CBR and bottom 5 PHCs with high CBR is presented below.

<b>Top Five PHCs with low CBR</b>		<b>Bottom Five PHCs with high CBR</b>	
Kalayarkoil	14.61	Pulithipatti	22.55
Maravangalam	15.85	Konthagai	21.13
Monnikarmangudi	15.89	Kulamangalam	20.96
Periyakottai	15.98	Peerkalaikadu	20.74
O.Siruvayal	16.19	Palayanur	20.63

### 3.1.3 Crude Death Rate (CDR)

The CDR of Sivaganga ranged between 6 and 6.7 per thousand from 1995 to 2005. This rate is below the national (8) and State (7.1) CDR figure of the year 2001. The target set to reduce CDR by 2000 for the country was 9 per 1000 population. The country achieved the target in 2001 whereas the State and the district did it earlier. The next level of target stated in the State's tenth plan document is to achieve CDR of 6 per thousand in 2007. The district has ample chances to reach this target since its CDR is hovering around 6 per thousand.

The low death rate in the district is a result of the provision of better diet, pure drinking water, improved hospital facilities, better sanitation and last but not the least, the control by wonder medicines for several diseases which have a toll on human life. Another important factor contributing to the low death rate is the decline in infant mortality. The infant mortality rate of 19.67 per thousand in 2005 is relatively low when compared to the other districts of the State. The average CDR of 2004 and 2005 has been used for the following discussion. The blocks such as Kallal, Manamadurai, Singampunari and S.Pudur had CDR more than the district figure. The Devakotai, Sakkotai and Kannangudi blocks have already reached the State's tenth plan target of CDR of 6 per thousand in 2007.

A more microscopic picture can be captured on CDR at the PHC level. Few PHCs say Kombukkarandal, M.Surakudi, Kandramanikam, etc., have recorded CDR more than 7 per thousand. The PHCs recorded with low and high CDR are listed below.

<b>Top Five PHCs with low CDR</b>		<b>Bottom Five PHCs with high CDR</b>	
Peerkalaikadu	4.57	Kombukkarandal	8.56
Sastharasankotai	4.70	Kandramanikam	8.29
Thiruvegampet	4.71	M.Surakudi	8.03
Arasanur	5.12	Sembanur	7.60
O Siruvayal	5.16	Paganerv	7.59

### **3.1.4 Demographic Transition**

The district has a low birth rate, a low death rate and a low growth rate of population. These are the characteristics of third stage of demographic transition. In addition to these demographic forces, other characters are also expected in this third stage. For instance, changes in the character of the economy from an agrarian to a partially industrialized one, increasing urbanization etc. In reality, the district is characterized with no take off in industrial sector and primitive in urbanization and in effect their influences on the demographic forces are minimal. It is observed that the district has a common feature of at least one male member per family have out migrated to foreign countries for earnings, majority being pull migration. This factor might have strongly influenced the demographic trend in this district really demands further research on this aspect.

### **Family Planning**

Significant decline in the districts CBR had been due to many socio-economic reasons as mentioned earlier. On the other hand due credit has to be given for the family planning programme in which different methods were introduced and successfully put into use. Malthus, pioneer in this field, collectively termed them as 'Preventive checks'. They can be categorized into Permanent Vs Temporary methods. Permanent methods (Sterilization) include vasectomy, tubectomy and laparoscopy and the temporary methods are I.U.D, O.P. and C.C.

In 2004-05, about 7497 persons had undergone sterilization and a majority (99.8 per cent) of them were women. They preferred tubectomy (6695) followed by laparoscopy (500). Only two males had undergone sterilization (Vasectomy) in the same period. This raises gender-related questions about the population policy. More participation of men in both temporary and permanent methods of contraception is needed. The number of persons who adopted temporary methods such as I.U.D, O.P. and C.C users from 2003-04 to 2004-05 were on the rise. To mention, IUD users have increased from 7408 to 8669, OP users from 3975 to 4496 and the number of CC users had raised from 4887 to 5440 in the same period. Still more number of eligible couples have to be persuaded to go in for sterilization. More over, the family planning staff can be more effective at the primary health centres in introducing couples to the use of contraceptives and discuss with them the effectiveness of the various contraceptive devices as also to get feedback from them about the problems faced by the users.

### **Sex Ratio**

Sex ratio is a widely used indicator of gender discrimination as it captures various facets of discrimination against women like lack of bargaining power, lack of education and health investment, lack of asset ownership, etc. Many studies have provided evidence that it is excessive female mortality before birth, in infancy, and in childhood, which mainly account for the imbalance in sex ratios. Given this, it is perhaps more apt a problem of missing girls than missing women, as popularized by Sen. Broad interrelated factors that create a situation where sons are preferred and daughters suffer discrimination and neglect are: Patrilineal patterns of inheritance, exogamous lineage system of women, existence of the dowry system, sons providing old age support to parents and not daughters, sons alone can perform the funeral rituals of the parents, increasing proportion of small families and raising cost of upbringing particularly that of education. By nature males exceed females in numbers at the time of birth and it is believed that somewhere around 943-952 female births take place per 1000 males, which is later offset by a naturally higher level of mortality for males. In regions which are



characterized by the lack of discrimination against women, the sex ratio is around 1050. But in most of the Asian countries it is less than 1000. Thus the most serious contemporary concern is the elevated female death rates due to gender discrimination, which offsets the natural lower mortality of females. Economic development does not necessarily solve this issue and in some cases the sex ratio had declined with the economic improvement. So in the following section, analysis of sex ratios is attempted for the district.

The sex ratio in Sivaganga district was 1035 females per 1000 male population as per the census 2001 data. The trend as well as the status of this indicator shows a positive feature to women gender as

- It is much higher than the State (985) as well as the national (927) averages
- Sivaganga stands one among the top three districts with the highest sex ratio i.e. Thoothukudy (1049), Thirunelveli (1042) and Sivaganga (1035)
- The trend in sex ratio shows that the district is consistently retaining its position in the top three districts for the last two decades.

The sex ratio of SC population is similar to that of the total population in the district. Thus, the difference between male and female was less in both SC as well as total population of the district. However, the effect of out migration on sex ratio of the district needs to be identified. As out migration is general feature in Sivagangai district due attention has to be given for a complete understanding on sex ratio of this district.

The block level sex ratio reveals most of the blocks have a favourable sex ratio with more than 1000 females per 1000 male population. Four blocks, say Sivagangai, Manamadurai, Thirupuvanam and Singampunari blocks had less than 1000 females per 1000 males. Kallal block had the highest sex ratio of 1095 and the lowest being Sivagangai with sex ratio of 982. It's worth reminding that higher sex ratios in the blocks can be generally taken as improvement of positions of women with respect to men, and the role of migration need to be identified. Migration might have played a big role for high sex ratio in the district as a whole.

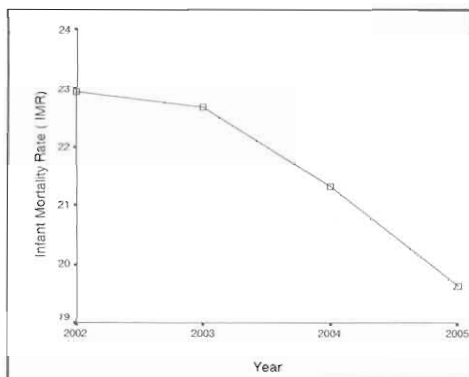
### **Juvenile Sex Ratio for 0 – 6 Age Group**

Although the sex ratio of the district is far above the state average, the juvenile sex ratio among 0-6 age population is 946 as per 2001 census and this is above the state average of 939. As it is found to be in the declining trend showing 958 during 1991 and 946 during 2001, it is a matter of concern. Moreover, it is hard to digest to observe a district like Sivaganga with high sex ratio, reduced gender disparity education and many such records in favour of female gender shows decline in juvenile sex ratio. This poses a challenge to the district administration to identify the real cause and to plan remedial measures.

### **Mortality**

Mortality is an important indicator of status of health in a region because it influences the life expectancy at birth. Trend in CBR is discussed in the earlier section. As maternal mortality and infant mortality are the major part of mortality and they reflect the socio-economic conditions.

Fig 3.3 Trend in Infant Mortality Rate (IMR) 2002 – 2005



### 3.1.5 Infant Mortality Rate (IMR)

IMR is one of the basic indicators of the human development. The lower the IMR, higher will be the quality of life. It reflects the general well being of a society by exposing the state of health, nutrition and care that is made accessible and available to the infants of below one year. The IMR of the district is 19.63 infant deaths per 1000 live birth in 2005. The district has gone well ahead of the State and the country IMRs of 41 and 58 in 2004, respectively.

In fact, the district has also achieved the target set by Tamil Nadu Government to reduce the IMR to 28 per 1000 live birth by March 2007.

Overall, the district has performed better in IMR by a declining trend of 23.51 in 2002 to 19.83 in 2005. Thanks to the concerted efforts taken by the district administration reinforced with State policies in support of the pro-poor health were found evident from the good performance of the district. Proper Ante Natal Care (ANC) for pregnant women and Post Natal Care (PNC) for delivered mother along with child immunization were the reasons behind the low IMR.

### Inter Block Differences in IMR

The inter block analysis on IMR reveals that no block in Sivaganga district is found to follow a definite trend over the last four years. However, when a comprehensive analysis is made by taking the average of the IMRs in each of the year from 2002 to 2005 to assess the performance of the blocks, it is found that Devakottai and Saakottai blocks scored the first two ranks with the lowest IMR of 12.46 & 15.52, respectively. Sivaganga and Singampunari blocks scored last two ranks with the highest IMR of 31.34 and 26.64, respectively. Also, it is important to note that the district exhibits significant interblock disparities in IMR by more than two fold. i.e. Devakottai – 13.38 and Sivaganga – 31.34.

Table 3.4 Block Wise Infant Mortality Rate (IMR) from 2002 to 2005

SI No	Block	2002	2003	2004	2005	AVG of IMR	Ranks
1	Sivaganga	35.48	35.53	29.03	25.32	31.34	12
2	Manamadurai	19.17	19.64	28.83	25.40	23.26	7
3	Kallayarkoil	21.39	20.42	18.57	23.04	20.86	4
4	Thirupuvanami	28.31	29.37	27.48	19.82	26.24	10
5	Ilayangudi	16.61	20.89	17.27	17.17	17.99	3
6	Devakottai	11.07	12.43	13.28	13.08	12.46	1
7	Sackottai	17.93	20.41	10.48	13.25	15.52	2
8	Thirupathur	24.43	27.54	20.68	15.40	22.01	6
9	Singampunari	32.83	22.99	27.50	23.24	26.64	11
10	Kannangudi	37.74	15.27	18.10	28.63	24.93	9
11	Kallai	23.54	25.56	20.18	15.56	21.21	5
12	S.Puclur	22.02	16.92	30.45	25.64	23.76	8
	<b>District</b>	<b>22.94</b>	<b>22.67</b>	<b>21.31</b>	<b>19.63</b>	<b>21.64</b>	
	<b>Tamil Nadu</b>	<b>44</b>	<b>43</b>	<b>41</b>	<b>37</b>		
	<b>All India</b>	<b>64</b>	<b>60</b>	<b>58</b>	<b>58</b>		

Note: 0 – denotes no event occurred; Source: Vital Events Report, Deputy Director of Health Services, Sivaganga

It is also observed that there are seven blocks namely Sivaganga, Thirupuvanam, Singampunari, Manamadurai, S.Pudur and Thirupathur whose IMR is above the district average, thereby warranting greater attention. All these blocks except S Pudur has an advantage of having the National Highway connecting to a city like Madurai and the district head quarter. Despite this, the district has the limitation of intra block accessibility due to poor road and transport facilities, which attribute to the above feature.

### Inter PHCs Differences in IMR

When the 44 Primary Health Centres (PHC) in the district were analyzed for its performance with respect to this indicator of IMR over the last four years from 2002 to 2005, one could visualize the differential performance of the PHCs within the block and also at different time period. For example, the Devakotai block which stood first with lowest IMR had one of the PHCs at Kulamangalam panchayat having the lowest IMR of 8.85 and the PHC at Velayudhapattinam with 21.14 infant deaths per 1000 live births occupying 21st rank.

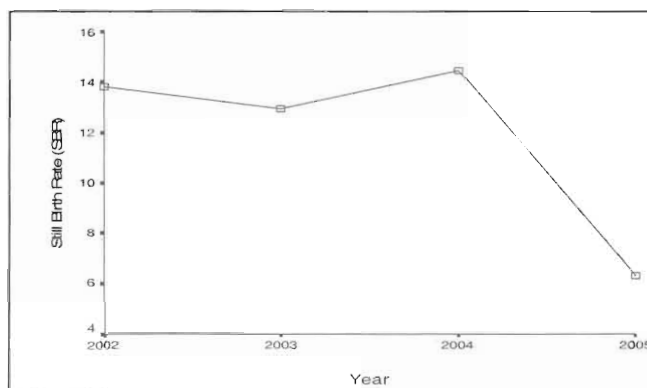
It is also noted that the IMR of the all the forty four PHCs ranged between 8.85 and 36.03 infant deaths per 1000 live births. Nearly half of the total PHCs have the IMR above the district average. When an attempt is made to rank the PHCs based on the average IMR for last four years presented below.

Top Five PHCs with low IMR	
Kulamangalam	8.85
Thiruveganpet	9.21
Shanmuganathapuram	10.04
Kalayarmangalam	12.31
Sastharasankottai	12.52

Bottom Five PHCs with high IMR	
Neerkuppai	36.03
Mallakottai	34.14
Arasanur	33.63
Thamarakki	32.64
Kombukkarandal	31.82

### 3.1.6 Still Birth Rate (SBR)

Fig 3.4 Trend in Still Birth Rate (SBR) 2002 - 2005



Still birth refers to a delivery of a foetus that has died before birth. It is being calculated for a number of such events occurred per 1000 live births. It is yet another indicator for assessing the status of women health as well as the extent of maternal health care delivered.



The district SBR was 6.33 per thousand live births in 2005 which is lesser than the State (11.89) as well as the national (8.70) SBRs. The average performance of the district for the last four years gives a different kind of picture. The average SBR was 11.89 per thousand live births that was higher than the State and national SBR.

**Table 3.5 Block-wise Still Birth: Rate (SBR) from 2002 to 2005**

Sl No	Block	2002	2003	2004	2005	Average	Rank
1	Sivaganga	15.27	16.24	14.60	5.86	15.06	11
2	Manamadurai	11.22	7.43	16.70	6.92	10.57	5
3	Kallayarkoil	16.53	17.95	17.65	6.00	14.53	9
4	Thirupuvanam	18.59	15.27	17.98	6.36	14.55	10
5	Ilayangudi	13.49	12.58	8.20	6.54	10.20	3
6	Devakottai	5.77	13.72	16.06	6.08	10.41	4
7	Sackottai	8.51	8.30	6.55	4.88	7.06	1
8	Thirupathur	11.21	7.91	9.00	6.50	8.66	2
9	Singampunari	11.14	11.80	21.13	6.71	12.70	7
10	Kannangudi	16.98	13.36	9.90	5.61	11.46	6
11	Kallal	15.89	15.16	14.78	7.96	13.45	8
12	S.Pudur	19.79	16.68	22.67	6.84	16.49	12
	<b>District</b>	<b>13.83</b>	<b>12.96</b>	<b>14.44</b>	<b>6.33</b>	<b>11.89</b>	
	<b>Tamil Nadu</b>	<b>14.0</b>	<b>11.0</b>	<b>NA</b>	<b>NA</b>		
	<b>All India</b>	<b>9.0</b>	<b>9.0</b>	<b>NA</b>	<b>NA</b>		

Note: 0 – denotes no event occurred

Source: Vital Events Report, Deputy Director of Health Services, Sivaganga

### Inter Block Differences in SBR

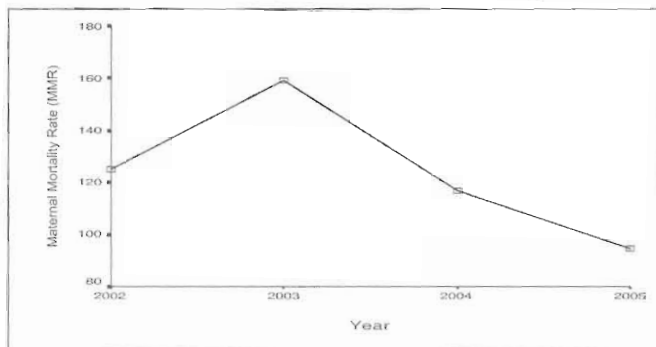
The Sakkotai, Thirupathur and Ilayangudi blocks reported low SBR, thereby occupying the first three ranks. It is found that S.Pudur, Sivaganga, Thirupuvanam, Kalayarkoil and Kallal have reported SBR greater than the State as well as the Nation. It is also to be noted that among these five blocks, three blocks namely S.Pudur, Sivaganga and Thirupuvanam have reported low performance in IMR too. Low Still birth rate is equally important as that of the low Infant mortality rate. It is to be noted that various factors attribute to the poor performance in these blocks such as anemic and poor health status of the women. The antenatal and postnatal care for both mother and the child need to be strengthened. Early identification of high risk mothers, raising their nutritional status along with periodical check ups plus proper immunization of the child bearing mother need to be taken care to avoid the loss of life of both mother and the foetus.

### 3.1.7 Maternal Mortality Rate (MMR)

MMR indicates the health status of the child bearing mother in particular and also the general health status of the women in the society. It also reflects on the status of medical care received by the pregnant women from the health service providers.

**Fig 3.5 Trend in Maternal Mortality Rate (IMR) 2002 - 2005**

Unlike the trend in IMR, the Maternal Mortality of the district is found to follow no particular



pattern. The MMR of the district is calculated to be 97.39 maternal deaths per one lakh live births in the year 2005. One of the official estimates show that the MMR of the State in 2004 is 110 maternal deaths per one lakh live births. On comparing with the State MMR in 2004, the district has performed well with lesser MMR in the year

2005. However, a closer look at the district average MMR (123.93) for the last 4 years from 2002-2005 is higher than the State average. This indicates the shoddy performance of the district in reducing the MMR level.

### Inter Block Differences in MMR

Block level analysis on MMR shows that except the three blocks, Sakkotai (38.33), Thirupathur (56.72) and S.Pudur (66.81), all others show higher MMR than the State average of 110 maternal deaths per one lakh live births. It is surprising to note that Sakkotai block has consistently reported no maternal death from 2003 onwards. Manamadurai, Thirupuvanam, Kalayarkoil, Kallal and Singampunari blocks were found to be very high MMR blocks than the State there by occupying the bottom five ranks.

**Table 3.6 Block-wise Maternal Mortality Rate (MMR) from 2002 to 2005**

Sl. No	Block	2002	2003	2004	2005	AVG of MMR	Rank
1	Sivaganga	43.86	185.51	222.50	81.32	133.30	6
2	Manamadurai	186.81	371.51	112.50	28.18	174.75	12
3	Kalayarkoil	180.31	53.08	248.33	152.79	158.63	8
4	Thirupuvanam	188.66	232.55	217.50	57.60	174.08	11
5	Ilayangudi	0.00	212.44	140.00	111.11	115.89	5
6	Devakotai	65.36	134.52	118.00	60.79	94.67	4
7	Sakkotai	153.32	0.00	0.00	0.00	38.33	1
8	Thirupathur	0.00	133.09	57.50	36.28	56.72	2
9	Singampunari	148.81	147.11	146.67	249.40	173.00	10
10	Kannangudi	377.36	190.84	0.00	0.00	142.05	7
11	Kallal	156.87	249.99	0.00	228.72	158.90	9
12	S.Pudur	0.00	0.00	140.00	127.23	66.81	3
	<b>District</b>	<b>125.11</b>	<b>159.22</b>	<b>116.92</b>	<b>94.45</b>	<b>123.93</b>	
	<b>Tamil Nadu*</b>	<b>1.3</b>	<b>1.1</b>	<b>1.1</b>	<b>0.9</b>		

Note: 0 – denotes no event occurred

Source: Vital Events Report, Deputy Director of Health Services, Sivaganga .  
Statistical Hand book of Tamil Nadu \* per 1000 live births

The status of MMR in most of the blocks within the district is not encouraging and inturn calls for remedial measures by the district administration to pay due attention on improving the maternal health status. MMR is a very important indicator because negligence to improve the MMR status will have a negative impact on other vital events like IMR. The district has to

critically look into the RCH programme implementation and its effect on the mother and the child.

**Inter PHC Differences in MMR**

The performance of the PHCs over the last four years reveals that half of the total number of PHCs in the district had reported a high MMR than the State average. There lies a wide range of MMR reported by the PHCs for different years. However, it is observed that there exists twenty nine out of forty four PHCs that have recorded zero maternal mortality in the year 2005. This indicates that the health system in the district has started to focus on reducing the maternal mortality.

The highly fluctuating trend in the MMR is analysed further by taking the average of the last four years and the top and bottom five PHCs in terms of MMR is presented below.

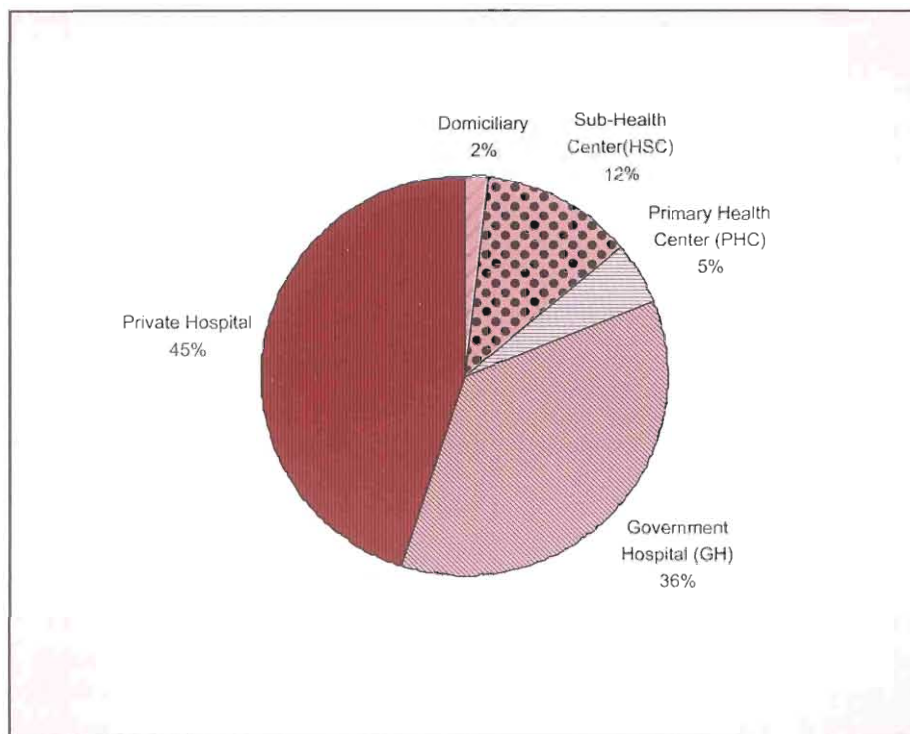
<b>Top Five PHCs with low MMR</b>		<b>Bottom Five PHCs with high MMR</b>	
Kottaiyur	0.00	Konthagai	347.48
Pulithipatti	0.00	Maravamangalam	320.00
Thirukostiyur	36.28	Kombukaranendal	305.82
Puduvayal	43.71	Muthanendal	247.66
Velayuthapattinam	45.00	M.Surakudi	225.46

**3.1.8 Place of Delivery**

Deliveries can be categorized as 'Domiciliary' Vs 'Institutional' and 'Safe' Vs 'Unsafe' deliveries. 'Safe' deliveries, and defined as all institutional deliveries plus all domiciliary deliveries attended by trained personnel.

In the Sivaganga district, the domiciliary delivery was 2.0 per cent of the total deliveries in 2004 which declined to 1.6 per cent in 2005 and further reduced to 0.7 per cent in 2006. The deliveries attended at Sub-Health Centre (HSC) had also gone down from 15.2 to 12.10 per cent between 2004 and 2006. These deliveries are administered by Village Health Nurses (VHNs). It is mandatory for the VHNs to reside within the service area of the HSC, because of which the pregnant women can have easy access to medi-care. Owing to poor transportation facilities, this factor becomes very critical when the distance is more to reach the nearby PHC or Govt hospital or Private hospital. It is much more decisive when it is first delivery, which involves considerable risk and really helps the people to get timely medical aid under emergency conditions.





**Fig 3.6 Place of Delivery - 2006**

The PHCs have recorded around five per cent of total delivery between 2004 and 2006. The percentage of deliveries attended at PHCs slowly rose from 4.6 to 5.2 in the same period. The Government hospitals have recorded more number of deliveries when compared to HSC and PHC. For instance, between 2004 and 2005 there were around 34 per cent of deliveries recorded in Govt. Hospitals with a slight increase to 36 per cent in 2006. Among institutional deliveries, private hospitals have shelters for more number of deliveries compared to HSC, PHC and Govt. Hospital. The private hospitals had taken care of 43.5 per cent deliveries in 2004 which increased to around 46 per cent in 2005 and 2006. Overall, the institutions account for 98 per cent of the total deliveries. Certainly, the district has made a tremendous progress in increasing the proportion of institutional deliveries. Yet, apart from health care per se other factors like infrastructure, particularly proper road and good transport facilities are essential prerequisites for an effective health care delivery.

At the block level, more number of domiciliary deliveries have taken place in S.Pudur (6.6) , Sivagangai (4.5) and Thirupuvanam (3.2) in 2004. In 2005, blocks such as Sivagangai (5.4), S.Pudur (2.85), Thirupuvanam (2.83), Devakotai (2.6) and Kallal (2.4) recorded more deliveries. In 2006, except Sivagangai (2.7) and Thirupuvanam (1.8) other blocks recorded less than one per cent domiciliary deliveries. Some of the blocks have recorded 'zero' domiciliary delivery, say in Ilayangudi block there were no events of domiciliary delivery between 2004 and 2005.

Domiciliary delivery at PHC level shows many of them have recorded 'zero' domiciliary delivery. To illustrate, 16 PHCs in 2004, 26 in 2005 and 24 in 2006 had 'zero' domiciliary deliveries. Very few PHCs recorded more than 5 per cent domiciliary deliveries between 2004 and 2006, say Sembanur (5.5), O.Siruvayal (6.6), Poovanthi (9.7), Keelapongudi (11.7) and Pulithipatti (18.6) PHCs. Surprisingly, all the PHCs recorded less than 5 per cent domiciliary deliveries in 2005. Domiciliary deliveries are attended by MPW (F) LHV, trained DAI and untrained DAIs. The

further clarification, whether the HSCs really entertained these many births or they simply accounted the domiciliary deliveries into HSC deliveries record. The general perception is that very few deliveries might take place in the HSCs. If the assumption is right, taking into account the HSC deliveries along with domiciliary it accounts for 17 per cent. In 1998-99, according to SRS data, the share of domiciliary deliveries to total deliveries in Tamil Nadu was around 20 per cent. In Sivaganga district, the percentage of domiciliary deliveries to total deliveries is less than the State figure. Surprisingly, the high cost in private hospitals compared to Govt. hospitals did not reduce the number of deliveries rather there was an increase in delivery attendance at private hospital between 2004 and 2006. The reason may be either high standard of living or poor health care in Govt. hospitals. It is appropriate to note that the Sivagangai is one of the backward districts of Tamil Nadu.

### **Morbidity**

Another important parameter of the health of the population is its morbidity status. Morbidity is an outcome of various factors like nutrition, sanitation, health awareness and pro-activeness of health machinery to address various illnesses. Besides conventional diseases, some non-conventional diseases (NCD) are also on the rise in the district mainly due to change in food habits and life style. In general, the current health system attaches more importance to killer diseases than crippling and disabling diseases. It is even likely that the prolonged social, economic and individual burdens imposed by the second kind of diseases may be heavier than those of the killing diseases. Burden of diseases is measured in units of disability adjusted life years. Due to lack of such data, only status of some of the major diseases in the district is dealt here.

#### **3.1.9 AIDS**

In today's world, HIV poses the greatest threat to the very existence of human being. Huge volume of money, time and effort are spent to cure this dreadful disease. Yet, it remains as the biggest challenge before the scientific fraternity. The problem is more severe in a developing country like India. Tamil Nadu is one among the states placed as hot spot in the alarming HIV map of India. The secondary data on HIV status of Sivagangai district is well evident to substantiate the above statement. It shows an increasing trend in the number of HIV patients every year. It is a matter of grave concern and requires immediate attention to prevent this menace than ever before.

In 2001, about 20 persons had been tested for HIV and one person was tested HIV positive. It did not stop there. In the subsequent years, the number of persons screened for HIV has increased from 348 to 1784 between 2002 and 2005. Regrettably, the number of HIV positive cases has also risen from 48 to 407 in this period with more number of male HIV cases compared to female HIV cases. To spell it in percentage terms, the HIV positive cases increased from 5 per cent in 2001 to 13.8 per cent in 2002. Further, a slight decline of 13.2 per cent in 2003 and a sudden rise to 16.4 per cent was recorded in 2004. In 2005, there was a steep decline in the percentage of HIV positive cases. The number of couples with a HIV positive condition increased from 10 to 17 between 2002 and 2005. Since 2002, 46 HIV positive cases died and the remaining 361 cases are alive and given treatment with special care.



**Table-3.7: HIV tests done and positive cases during 2001-2005**

Sl No.	Progress made (year wise)	2001	2002	2003	2004	2005
1	No. Tested	20	348	598	633	1784
2	HIV positive (in no.)	1	48	79	104	175
3	Percentage of HIV positive	5	13.8	13.2	16.4	9.8
4	No.of Couples with HIV Positive	0	10	11	21	17
5	No.of HIV Positive Cases Died	0	14	11	12	9

Source: Deputy Director of Health Services, Sivaganga

**Table-3.8: Age and sex wise HIV positive cases 2001 to 2005**

Sl. No.	Age group	2001		2002		2003		2004		2005		TOTAL		
		M	F	M	F	M	F	M	F	M	F	M	F	TOT
1	0 - 14	0	0	0	2	2	1	5	1	7	3	14	7	21
2	15 - 19	0	0	0	0	0	0	2	0	0	0	2	0	2
3	20 - 24	0	0	0	0	3	7	2	8	4	2	9	17	26
4	25 - 29	0	1	2	5	10	12	11	13	4	27	27	58	85
5	30 - 39	0	0	9	6	25	10	24	18	52	35	110	69	179
6	40 - 49	0	0	12	10	6	1	6	6	23	11	47	28	75
7	50 & Above	0	0	2	0	1	1	7	1	7	0	17	2	19
<b>District</b>		<b>0</b>	<b>1</b>	<b>25</b>	<b>23</b>	<b>47</b>	<b>32</b>	<b>57</b>	<b>47</b>	<b>97</b>	<b>78</b>	<b>226</b>	<b>181</b>	<b>407</b>

Source: Deputy Director of Health Services, Sivaganga .

In this regard, Voluntary Confidential Counseling and Testing Centre (VCCTC) play a crucial role in identifying the HIV patients. A counselor and lab technicians were appointed to carryout the task. The centres are located in Government Head Quarters Hospital (GHQH) Sivagangai and GH, Karaikudi. The number of persons volunteered for testing increased from 20 to 980 between 2001 and 2005. Number of persons tested with zero positive status increased from 1 to 96 in the same period. The centre also follows 'partner approach' for counseling and testing. In 2005, 103 partners were counseled and tested. Some NGOs and local referral centres such as Angel, IRCDS and TRUPA have links with these VCCTC and play a complementary role in toning down the social stigma attached to the affected persons. It is as important as that of the treatment itself.

### 3.1.10 Tuberculosis (TB)

In the Sivaganga district, there are totally three TB units located in different places namely Sivaganga, Kalayarkoil and Neerukuppai under Revised National TB Control Program (RNTCP). Directly Observed Treatment Short course (DOTS) is adopted to treat the TB cases. If a patient is suspected for TB, the first step is sputum examination. Later, positive cases were identified and the treatment is given the utmost care. The total number of new OPD treated ranged from 3.6 lakhs to 4.2 lakhs between 2001 and 2005. Accordingly, the number of cases referred for sputum examination, increased from 6,612 to 10,657 in the past five years. Out of which the positive cases ranged from 692 in 2001 and 1674 in 2005. The positive rate



increased from 5.16 to 6.83 in the same year. The positive cases were given proper treatment to recover from TB. The cure rate is appreciable and revolves around 86 per cent of the total TB cases in each year. The death rate is around 6 per cent and the remaining accounts for defaulted cases, which also is around 6 per cent of the total TB cases in each year.

### **3.1.11 Leprosy**

In 2003-04, the total number of leprosy cases detected and cured was 265 and 420 respectively. In the year 2004-05, the number of cases detected was 264 and about 333 leprosy cases were cured in the same year. The number of cases detected, cured in 2005-06 was 117 and 160, respectively which has come down to a great extent. This is a significant achievement from leprosy eradication program in the district. With some more focused efforts, the district can achieve the goals set by the National Health Policy 2002 for complete eradication of leprosy.

## **3.2 Nutritional Status and its Relationship to Health**

In many countries, including India, nutrient absorption and utilization by the body is less efficiently carried out because of the presence of frequent infectious episodes like diarrhoea and upper and lower respiratory infection. Infection causes nutrition status to deteriorate at the same time under nutrition decreases resistance to infection – a synergistic relationship. Thus, nutritional status is used to describe an outcome of several biomedical processes interacting over time.

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 of the importance of nutrition for their children. Given the fact that Tamil Nadu is known for effectiveness of its nutrition programmes, this district is also expected to perform similarly.

Under the ICDS programme, children below 3 years were given adequate nutrition at Angan Wadi Centres (AWC). The total number of children below 3 years in this district increased from 37,726 to 44,410 between 2001 and 2006. Accordingly, the total number of children weighed has also increased from 37,312 to 43,831 between 2001 and 2006 proves that most of the children under 3 years were weighed at Angan Wadi Centres (AWC). On the basis of weight, children were categorized into different grades.

The ICDS data for the year 2006 indicated that the district had made tremendous achievement in addressing malnourished children. To illustrate, 98 per cent of the children fall under normal and grade-I categories. Only 2 per cent of the children were found to be in moderately malnourished (Grade – II) category. Laudably, no children were found in the severely malnourished category (Grade III and IV) in this district. The above status is an indicative of more number of children had entered into normal and grade-I categories from the rest of the categories between 2001 and 2006. This can be ascribed to the increase in the number of Angan Wadi Centres (AWCs) from 570 to 904 in the same period. In fact, increase in the AWCs extend the scope of giving due attention to those children who fall under grade III and grade IV categories and in turn upgrade them to the higher nutritional status.

### **3.2.1 Noon Meal Programme**

The noon meal programme was originally started to combat hunger and to encourage parents to send their children to school. It had a very positive impact on school enrolment and attendance. Later, serious attempts were made by the Government of Tamil Nadu to combine provision of food with other services such as health care, immunization, growth monitoring, pre and post-natal care for women and care for old people. This has been done through programmes like ICDS and TINP. There has been significant shift in policy focus from hunger to nutrition in Tamil Nadu. This was reflected in the policy for Malnutrition Free Tamil Nadu brought by Tamil Nadu Government in 2002-03. The available data indicated that more than 1,42,451 children had been covered under the Noon Meal Programme (NMP) of ICDS in Sivagangai district during the year 2004. Though Old Age Pension beneficiaries and pregnant women were also supposed to be covered, their coverage was very meager.

### **3.2.2 The Public Distribution System**

Although PDS primarily aims at food security and price stability, its contribution to nutrition particularly to vulnerable sections cannot be overstated. It is discussed in detail in the previous chapter on Income, livelihood and poverty.

### **3.2.3 Provision of IFA tablets**

IFA tablets are given to pregnant women, adolescent girls and children of 1-5 years age to guard them against anemia. For pregnant women, at least a minimum of 100 tablets is essential. If not taken, the mother would run the risk of anemia which may affect her as well as her child's health. Tablet is given either as prophylactic or therapeutic. In Sivaganga district, pregnant women received 14,444 tablets as prophylactic and 3,182 tablets as therapeutic during 2005. This is a good sign where more number of tablets are taken as preventive than curative for anemia. The tablets were given in phases like initiated, continuing and completed. It happened at times where those women who received pills initially may not complete the full course due to short supply of tablets or non-compliance with the prescription.

At present a specific programme has been launched to address the anemia problem in adolescent girls. The poor nutritional status of adolescent girls, early child bearing, and reproductive health complications compound the difficulties of adolescent physical development. Anemia is one of the primary contributors to maternal mortality and is associated with compromised pubertal growth spurt and cognitive development among girls aged 10-19 years. In 2004, about 45,846 adolescent girls received IFA tablets in the Sivagangai district. The number rose to 50,059 in 2005 and 74,529 in 2006. Thus, strengthening the nutritional status of adolescent girls reduces the risk during pregnancy, child birth as well as infants at risk. Children in the age of 6-24 months are most vulnerable to anaemia and it can result in impaired cognitive performance, behavioural and motor development coordination, language development and scholastic achievement, besides increasing morbidity from infectious diseases. In order to avert anemic conditions of children at the age of 1-5 years they receive IFA tablets. In 2005, about 34,324 boys and 34,530 girls received the tablets. Comparing the three categories i.e. initiated, continuing and completed, the initiated category is high followed

by continuing and completed. This shows that more number of 1-5 years age children was covered under the programme.

### **3.3 Non-nutritional Factors and their Impact on Nutrition and Health**

There are many non-nutritional factors besides direct nutrient uptake that has significant influence on improving nutritional status. They are improved water supply, improved sanitation, reduction in infections, universal immunization etc. Decisions on nutrient uptake are with individual households and would vary depending on various factors. But many of the non-nutritional factors require very little effort on the part of individual household. Most of these factors are under the purview of the State and hence comparatively easier to control. Inter sectoral coordination between the departments dealing with water, hygiene, sanitation and health is crucial for the prevention of diseases, especially water borne diseases. The recent chikungunya out spread is a case in point. An analysis of the impact of health promoting factors on the health status of the population is presented here.

#### **3.3.1 Water and Sanitation**

Safe water and sanitation are fundamental to human development. When people are deprived in these areas, they face diminished opportunities to realize their potential as human beings. Unsafe water and inadequate sanitation are two great drivers of poverty and inequality. They claim lives, destroy livelihoods, compromise dignity and diminish prospects for economic growth.

Water and sanitation has significant impact on nutrition and provision of these basic facilities is also crucial for achieving the goal of health for all. Experience in mortality of the developed countries shows that over two third of the decline in mortality in these countries was achieved before modern medicine became available. This decline was mainly achieved because of improvements in the environmental sanitation and personal hygiene. These changes reduced the incidence of infectious and parasitic diseases, especially those that were caused by polluted water supply and food. It is observed that incidence of diarrhoea cases is less among those using own wells and piped water at home. Further 80 per cent of all diseases and sicknesses are water-borne and water-related. Hence, specific attention is given to assessing the availability and accessibility of drinking water and sanitation facilities. The data from 2001 Census is mostly relied upon.

#### **Water Supply**

Access to safe drinking water for the people is an essential prerequisite for a healthy life. Nature and source of drinking water plays a crucial role in determining the safety aspects of drinking water. In the Sivaganga district; tap water, hand pump, tube wells, ponds and lakes are the varied sources of drinking water. The district secondary data on drinking water shows about 53 per cent of the household depend on tap water followed by hand pumps (17.72 per cent), ponds and lakes (12.12 per cent), well (10.45 per cent) and tube well (4.93 per cent). The dependence on different sources varies between urban and rural areas. The major sources of



drinking water for urban areas are as follows, tap (65.9 per cent), well (14.97 per cent), hand pump (7.79 per cent), tube well (7.75 per cent) and ponds and lakes (2.66 per cent). Households in rural areas access drinking water through tap (48.4 per cent) followed by hand pump (21.2 per cent), pond and lakes (15.54 per cent), well (9.21 per cent) and tube well (3.94 per cent). Apart from these sources, river and canals are little importance as drinking water for the households in Sivagangai district.

The above facts show that a critical rural population (15.42 per cent) depends on lakes and ponds as important source of drinking water. This indicates the additional burden women were facing in the households by taking water far away from home. In addition to this, how far the water drawn from these sources for drinking purpose are purified and used has to be ascertained regularly.

## **Sanitation**

In the modern world, availability of bathroom, latrine and drainage facilities at household level are important aspects. Sanitation not only important for health and nutrition, it is also important to ensure dignity and privacy of rural women. Especially in urban areas, where the houses are built closely with very little open spaces emphasize the need for such facilities. Proper use of these facilities is equally important which has direct impact on the health of the localities whereas improper maintenance of these facilities harbors diseases. For example, water logging condition breeds mosquito population, which acts as vector for many diseases.

In the Sivaganga district, there were totally 2.8 lakh households, of which 2.0 lakh households dwell in rural areas and 0.72 lakh in urban areas. About 74.2 per cent of households do not have latrine facilities with a majority of them being rural households (88.12 per cent) and only 34.6 per cent being urban households. At the taluk level, 82.12 per cent households in Ilayangudi followed by 81.29 per cent in Thiruppathur, 80.06 per cent households in Manamadurai and 73.7 per cent in Sivaganga do not have latrine facilities. Particularly the rural households form the junk of them and one cannot overstate the embarrassing situation rural women face due to non-availability of toilets. As far as the urban households are concerned, 47.5 per cent in Thirupathur, 45.99 in Manamadurai, 35.8 per cent in Ilayangudi and 33.7 per cent in Karaikudi taluks do not have latrine facilities, more striking and worrying.

Drainage is another major aspect of sanitation. In the Sivaganga district, about 20.18 per cent of households do not have connectivity for disposing waste water. The majority of the rural households (81.61 per cent) do not have connection to drainage channels. Normally, rural households drain their waste water into the backyard or directly into the nearby field. Though the nature of settlement does not warrant such facilities in rural areas, the problem is more serious in urban places. For instance, 37.64 percent of households do not have connectivity for disposing the waste water. Among the households having drainage facility, most of them were open drainage (19.98 per cent) and only 9.84 per cent of households have closed drainage.

The above discussion makes it clear that facilitating good drainage system both at home and streets need to be taken up on a priority basis by the district administration. Providing proper underground sewerage system through public investment will also significantly improve the drainage system at home through private investment. Unlike other non nutritional factors

sanitation at home depends largely on awareness and preference. So education is the long term solution to ensure significant levels of toilet usage in the district. Utilization of toilets is a good indicator of sanitation situation than that of availability of toilets and that should be the basis for future data collection.

### **3.4 Immunization**

India suffers from a vast spectrum of diseases caused by infections and they cause poor health of children and in many instances leads to premature death of children. Medical science has identified six killer diseases of childhood and named them VIP DISEASES (Vaccine Preventable Diseases). These are tuberculosis, polio (poliomyelitis), measles, tetanus, diphtheria and pertusis (whooping cough). Fortunately, medical science has been able to prepare vaccines against all these diseases and take advantage of these vaccines. The secondary data on childhood immunization of Sivagangai district shows that about 23,105 children were fully immunized comprising 20,156 rural and 2,949 urban children. The district administration has to ensure 100 per cent immunization of children against the diseases.

### **3.5 Utilization of Government Health Care Services**

The total number of Out-Patients (OP) treated in Government hospitals of Sivaganga district has gradually increased from 17.6 lakhs to 19.6 lakhs between 2001 and 2005. Most of the government hospitals have recorded an increasing number of out-patients and few with little fluctuations between 2001 and 2005. In 2004-05, GH – Kandanur, Puliankurichi and GWCH-Puliankurichi have treated almost double the number of out-patients compared to 2001. On the other hand, in some of the hospitals say Taluk hospital – Devakottai, Manamadurai, GTBS-Somanathapuram, GWCH-Pallathur, Palavankudi and Kothamangalam recorded drastic reduction in the number of out-patients (OP) between 2001 and 2005.

Inpatient treatment is an important aspect of Government health care services. In this district, the total number of In-Patients (IP) treated has gone high from 1.57 lakhs to 1.71 lakhs between 2001 and 2005. Most of the hospitals have shown an increasing trend in the attendance of the number of inpatients from 2000-01 to 2004-05. Hospitals such as GH - Devakottai, Ilayankudi and GWCH - Sivangai, Pangeri, Pallathur and Palavankudi have witnessed a decline in the number of In-Patients (IP) in the same period.

The strength of a system is well manifested during the crisis hours. Certain prerequisites are essential for treating inpatients. The hospitals should be furnished with sufficient number of beds along with other medicare facilities for treating inpatients. In the Sivagangai district, the total number of beds available in the Government hospital is 706. It is surprising to note that the number remains constant between 2001 and 2005. There was no concurrent increase in the number of beds with the increase in inpatients. The average number of inpatients was well below the number of beds available in the Government hospital. But, this cannot hide the fact that during abnormal conditions like sudden outbreak of disease / an epidemic the patient inflow will be high. Under such circumstances, the number of beds available will be highly inadequate to meet the demand. Already, the mismatch is found in GH Thirupathur where the attendance of inpatients is more than the number of beds available. This requires immediate



attention on the part of Government functionaries. How it copes up and manages the crisis situation is the real challenge before the health care delivery system in the district.

In addition to regular treatments for outpatients and inpatients, lab tests are done on a large scale. The number of lab tests done has increased from 2,78,595 to 3,20,291 between 2001 and 2005. The number has almost doubled in hospitals such as GH- Devakottai, Karaikudi and Thiruppathur in the same period. GH and GWCH – Pulankurichi has started lab tests in 2004-05 and few hospitals say GWCH- Paganeri, Palavankudi and Kothamangalam do not perform lab tests. GHQH Sivaganga records more number of lab tests as well as X-rays taken. X – Rays are taken in eight government hospitals in the district. Thus, infrastructure facilities have to be strengthened in all the government hospitals through converting them into multi-specialty in character, catering to various needs of the people.

### 3.6 People's Voice

Overall, the health services in the district were quite appreciable and it also facilitates in enhancing human development processes. The services of Angan wadi (AWC) and Sub – Health centers (HSCs) were found to be satisfactory in terms of delivering health services. The above observations validate the secondary data analysis; the health related attainments in this district is better than State average. But the infrastructure and human resources in Primary Health Centers (PHCs) was felt insufficient and the gap needs to be filled to provide much better service. It was expressed that, in Government Hospitals, the infrastructure and human resource were quite satisfactory but the quality of service delivered was not so.

It was observed and reflected by the participants that the performance of Angan Wadi Centers (AWCs) were quite good in the district. These centers take care of maternal and post – maternal monitoring and nutrition supplements. The resource availability at the Sub Health Centre, Primary Health centre and Government Hospital in the district was average. The service may average because of poor infrastructure, lack of number of hospitals and time delay in getting treatment etc. The private hospitals in the district, though having good resources, deliver average services to the people but the cost of medical services is comparatively high in private hospitals.

### 3.7 Summary

The dictum 'Healthy mind in a healthy body' is more relevant from the human development perspective. Life expectancy is the indicator used for calculating HDI as it is expected to capture the overall health status of the population. In fact, fertility, morbidity and mortality have significant influence on life expectancy and on demographic trends of the population.

The total population of the Sivaganga district was 11.53 lakhs with a lowest density of 275 persons per sq.km. in the State. The growth rate of population was 4.32 per cent which placed the district as one among the top three districts in Tamil Nadu taking the record of past three decades. This is the result of low birth and death rates recorded in the district. In terms of CBR and CDR, the district has achieved the goals set for the year 2000 and almost nearing the 2007 targets set by National Health Policy. Thus, the district has achieved low birth rate, low death rate and low growth rate of population which characterizes the third stage of demographic



transition. But, with no take off in industrial development and primitive in urbanization, questions the very premises for placing the district in the third stage. Though it is difficult to find all the reasons for this transition, considerable increase in female literacy and consequent adoption of contraceptive measures could have played an important role. It is widely felt that huge out migration from the district would have strongly influenced the demographic trend in the district. Barring socio-economic factors, family planning measures were successfully put into use.

The district had a sex ratio of 1035 females per 1000 male population as per 2001 data. Sex ratio in SC social group almost matches with the district status. This indicates the better position of women with respect to men. However, the effect of out migration on the sex ratio of the district needs to be identified. In case of juvenile sex ratio there has been a decline from 958 to 946 between 1991 and 2001. This will have serious repercussions on the future trend in the sex ratio and the overall well being of the society.

Mortality levels in terms of IMR, SBR and MMR in the district showed a declining trend and the improvement is impressive. But the inter-block and PHC levels variations should be taken into account than merely sticking to the district averages. At the PHC level, some of them have recorded higher rates in the above vital events. So any target on these indicators should be set at PHC level and at the same must be treated as a unit for planning.

The district has recorded 98 per cent of institutional delivery also called 'safe delivery' comprising 13 per cent at HSC, 5 per cent at PHC, 36 per cent in Government hospitals and 46 per cent in private hospital. This could be the reason for low IMR, SBR and MMR in the district. Only 2 per cent of the deliveries were domiciliary in nature. But, high cost in private and questionable affordability of such costs by the people necessitates to look into the government health care services and further revamping the public health system becomes inevitable.

Diseases control is highly successful in this district particularly the functioning of TB units is worth mentioning. Counseling for AIDS patients through VCCTC was helpful in building confidence of the patients and toning down the social stigma attached to the dreaded disease. The incidence of leprosy cases has come down and the district is nearing closer to the goal of complete eradication in the near future.

Health infrastructure remains stagnant in the district. With the increase in the number of inpatients every year there is no concurrent increase in the number of beds in the government hospitals. Facilities for taking X-rays and to conduct lab tests were found only in a few government hospitals.

### **3.8 Way forward**

Most of the health and demographic issues arises from the disadvantaged position of women in the society subscribing to the view that health of the population is largely dependent on the health of the women. Even for significant improvements observed in the district, the improvements in women's position was very instrumental. So the long-term solutions for addressing the overall health status of the district lies in improving the position of women in the society. So, significant investment on female literacy and education and livelihood enhancement is essential to achieve the same.

In the medium term, thrust should be given on the following areas to make a significant positive impact on the health scenario of the district.

- Identify the health hot spots with PHCs as a basic unit along with geographical area, social group, age group and gender through decentralized participatory approach and addressing them in a targeted manner. Its time to go beyond average and district level indicators.
- It is also time to shift the focus from quantity of health services to quality and efficiency. Clear performance indicators and efficient monitoring system with incentives for better performance need to be put in place
- Promote self help approach in handling health problems particularly with respect to women. Self help programmes improve women's knowledge of their bodies and empowers them for gaining control over their bodies and their sexuality.
- Promote healthy food habits like including millets and non-cultivated food items like many greens, as change in food habit is one of the primary reasons for various illnesses witnessed now. This would considerably reduce anaemia and non-conventional diseases.
- Ensure community ownership of many health initiatives through various means so as to make health services demand driven in nature.
- Learn from success stories at micro and macro levels and take that learning to other areas.
- Increase health budget for the activities component in the district.
- Promote Indian system of medicines in a large scale.
- Bring in many private health institutions in a way that complements and supplements the government health efforts. This should go hand in hand with regulation of private practitioners through commonly accepted service and cost norms.

Other specific suggestions are as follows:

- Increase the share of institutional deliveries to 100 per cent at the earliest.
- Significant educational efforts need to be made to reduce the percentage of women marrying below the age of 18 years and to reduce higher order births. Adolescent girls should be targeted for these education efforts.
- Address the issue of anaemia in a comprehensive and effective manner. Coverage of target group for IFA tablets should be drastically increased. Here too, the recent initiative to use Indian system of medicine to address anaemia is a step in the right direction.
- Improve the participation of men in contraception through proper education and provision of services
- Identifying specific reasons for declining juvenile sex ratio and addressing the same on a priority basis. For this the Implementation of Preconception and Prenatal Diagnostics Techniques Act (PC & PNDT Act) need to be ensured.
- Ensure adequate man power by filling the vacancies in the health department.
- Give high priority to address HIV/AIDS in the district. In this respect, the recent initiative regarding convergence of HIV/AIDS with RCH Programme is a positive move.
- Give high priority to make available drinking water within premises and to facilitate good drainage system both at home and streets.

To understand the health situation in the district comprehensively there is a need to look at the conditions of all sections of people rather than judging the impact of development in health as averages. Averages most often mislead since they overlook distributive justice. While data on the education situation is available social group wise, most of the health and nutrition related indicators are available only at the aggregate level. The same inadequacy was also witnessed for data on water and sanitation situation in the district. Understanding of health situation of vulnerable groups like SC, ST is possible only if disaggregated data is available. The recent initiative to collect systematic information on MMR through verbal autopsy is to be appreciated. There is also inadequacy regarding data collection on disease incidence and so in calculating disease burden. So a system of independent, disaggregated data collection, analysis and flagging in the right forum on aspects regarding health, nutrition and sanitation should be put in place.

Exclusive study on the out migrants from the district is to be taken up regarding their destination, purpose and quality of well being in the migrated place. This information could throw light on the human development condition of a considerable percentage of population in the Sivaganga district.

Overall, the districts performance was better in health. Yet, further improvements have to be done to live up to the motto of 'Health for all' a reality, not rhetoric.



## IV. Literacy and Education

Education is one of the building blocks of human development. In terms of human development objectives, education is an end in itself, not just a means to an end. It is crucial for building human capabilities and for opening vistas of opportunities, thereby improving the freedom of choice of all human beings. It is not just a basic right, but a foundation for progress in other areas, including health, nutrition and the development of institutions and democracy. Thus, education is an indicator of the present human development as well as the means for greater human development in the future.

Education has always been accorded an honoured place in Indian Society. Tamil Nadu is one of the educationally advanced states with rates of literacy, enrolment and other indicators of education development above the national averages. The relative position of the state in terms of education development has been consistently high. Yet, inter as well as intra district disparities prevail in the state. Sivagangai is one of the districts performing below the state average on the educational front. In this context, an effort was made to identify and analyse various issues on the education development and to devise constructive way forward to address them.

### 4.1 Literacy

Rates of literacy among the population (aged seven years and older) have risen considerably in the Sivagangai district in the past ten years. The 2001 census recorded literacy rates of 66 per cent, up from 52 per cent in 1991; male literacy level grew even more from 64 per cent to 76 per cent in the same period. Equally encouraging was the phenomenal growth in the literacy rate for females, which went up from 41 per cent to 57 per cent between 1991 and 2001. Certainly, both the gender has contributed for the general rise in literacy rate, in which the rates of growth of females (16 per cent) outdo the male (12 per cent). The gap between the male and female rates has therefore narrowed from 23 per cent in 1991 to 19 per cent in 2001. Despite these accomplishments on the literary front, the district's performance is marginally ahead of nation but far behind the state. In other words, the district has 34 per cent of illiterate population, which is substantial and warrants careful analysis as well as appropriate strategies.

**Table-4.1: Overall literacy rate of Sivaganga district, Tamil Nadu and India as per 1991 and 2001 Census**

Dist/State	1991				2001			
	Male	Female	Total	GDI	Male	Female	Total	GDI
Sivaganga	64	41	52	0.55	76	57	66	0.35
Tamil Nadu	73	51	62	0.44	82	64	73	0.27
India	64	39	52	0.63	75	53	64	0.27

**Source:** Census of India cited in Tamil Nadu Human Development Report 2003, Government of Tamil Nadu.

#### 4.1.1 Literacy by Block, Gender and Social Group

Literacy level has grown significantly in all the blocks between 1991 and 2001. As many as nine out of twelve blocks have literacy rates above or on par with the district but none of them matched with the state in 2001. The Manamadurai and S.Pudur blocks had the lowest literacy rates in 1991; however, both emerged as successful blocks in 2001 and to some extent

changed the literacy scenario in this district. Kallal block has the highest number of illiterates (36 per cent) followed by S.Pudur and Thiruppuvanam, each one having 35 per cent illiterate population in the year 2001. The district has skillfully managed to decrease the variation between the blocks but yet to reduce the huge literacy gap with the state. The earlier experience shows reducing the gap is very much possible and feasible, proactive measures such as identifying the areas of concern and focusing on them without delay is of utmost important in addressing the larger issue of illiteracy.

**Table-4.2: Gender wise literacy rate and gender disparity index of literacy in different blocks as per 2001 Census**

Sl No	Block	2001				1991			
		Male	Female	Total	Gender Disparity Index of Literacy	Male	female	Total	Gender Disparity Index of Literacy
1	Sivaganga	75	57	66	0.32	67	41	54	0.65
2	Manamadurai	71	64	68	0.11	41	23	32	0.77
3	Kalayarkoil	74	62	68	0.19	64	39	51	0.66
4	Thiruppuvanam	71	59	65	0.2	64	38	51	0.70
5	Ilayangudi	75	57	66	0.32	63	40	52	0.58
6	Devakotai	77	60	69	0.28	71	50	60	0.43
7	Kannangudi	78	53	66	0.47	64	40	52	0.62
8	Kallal	76	52	64	0.46	68	45	56	0.51
9	Sakkotai	78	57	68	0.37	71	53	62	0.34
10	Thirupathur	79	53	66	0.49	66	44	55	0.50
11	Singampunari	77	54	66	0.43	65	41	53	0.58
12	S.Pudur	76	53	65	0.43	52	26	38	1.03
<b>District</b>		<b>76</b>	<b>57</b>	<b>66</b>	<b>0.33</b>	<b>64</b>	<b>41</b>	<b>52</b>	<b>0.55</b>
<b>Tamil Nadu</b>		<b>82.42</b>	<b>64.43</b>	<b>73.45</b>	<b>0.27</b>	<b>73.35</b>	<b>51.33</b>	<b>62.66</b>	<b>0.43</b>
<b>India</b>		<b>75.2</b>	<b>53.6</b>	<b>64.8</b>	<b>0.40</b>	<b>64.13</b>	<b>39.29</b>	<b>52.21</b>	<b>0.63</b>

Note: Gender disparity index of literacy = (Male literacy rate /female literacy rate)-1.

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga .

The district has a formidable increase in the female literacy in the last decade. The female literacy ranged from 52 per cent in Kallal to 64 per cent in Manamadurai between 1991 and 2001. To illustrate, The Manamadurai and S.Pudur blocks had the lowest female literacy rates of 23 per cent and 26 per cent respectively in 1991; subsequently in 2001 they registered unexceptionally high female literacy rates of 64 per cent and 53 per cent respectively. As a result, Manamadurai block has graduated from the lowest rung to the top of the ladder in 2001. Along with the rise in the female literacy, the gender gap has come down to a great extent in all the blocks except Sakkotai. The gender disparity in literacy has reduced drastically from 0.55 to 0.33 between 1991 and 2001. This seemingly rosy picture, however, must be taken with a grain of salt, because despite perceived positives, the female literacy of all the blocks is way behind the district as well as the state level. For instance, Thirupathur, Kannankudi, Kallal, Singampunari and S.Pudur blocks have registered very low female literacy accompanied with high gender disparity in literacy. Concrete efforts should be made to increase the female literacy, thereby changing the dull literacy map of the district into a glossy one.



Social group disparities still continue to be very large. As per the 2001 census, the SC social group has a strikingly lower literacy rate with 58 per cent comprising 63 per cent male and 53 per cent female literacy in the district. The variation among the SC literates – male, female and total for different blocks is marginal. In 2001, the gender disparity in literacy among the SC group is comparatively lower than the district. With the already low literacy prevailing in the SC group, few blocks say Ilayankudi, Thiruppathur, Sivaganga and Manamadurai have more gender disparity reveals the marginalization of SC women, which is a matter of grave concern. Out of 16 per cent of total SC population, 42 per cent remain illiterate, even more pitiable is 47 per cent of the females in this social group are illiterate. Disregarding the block, uniform and targeted attention is required in educating the children of this social group to bring any significant change in the future.

**Table-4.3: Gender wise literacy rate and gender disparity index of literacy among SCs in different blocks as per 2001 Census**

Block	Male	Female	Total	Gender Disparity Index of Literacy
Sivaganga	64	53	59	0.21
Manamadurai	63	52	58	0.21
Kalayarkoil	62	54	58	0.15
Thirupuvanam	64	55	60	0.16
Ilayangudi	65	51	58	0.27
Devakotai	62	52	57	0.19
Kannangudi	60	53	57	0.13
Kallai	64	54	59	0.19
Sakkotai	63	56	60	0.13
Thirupathur	65	52	59	0.25
Singampunari	61	54	58	0.13
S.pudur	62	55	59	0.13
<b>District</b>	<b>63</b>	<b>53</b>	<b>58</b>	<b>0.19</b>
<b>Tamil Nadu</b>	<b>64</b>	<b>46</b>	<b>55</b>	<b>0.39</b>
<b>India</b>	<b>67</b>	<b>42</b>	<b>55</b>	<b>0.60</b>

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga

To eradicate the evil of illiteracy a strong basic education assumes greatest significance accompanied with the drive to adult literacy. In other words, decrease in illiteracy is a direct outcome of increased primary education and adult literacy efforts in this district.

#### 4.2 Elementary Education

Elementary education lays foundation for the child to build up his or her career on the one hand and on the other it brings him or her under the literate category. Receiving good quality elementary education is particularly important as it often distinguishes the poor from the non-poor. Various statistical measures such as Gross Access Ratio (GAR), Gross Enrolment Ratio (GER), Net Enrolment Ratio (NER), Completion Rate (CR), Repetition Rate (RR) and Dropout Rate (DoR) give a rough indication of the level of elementary education in this district.



### 4.2.1 Gross Access Ratio (GAR)

In order to achieve universal access, schools should be located within easy reach of the children. The availability of schools in this district more than meets the required criteria of every 300 people having a primary school within a distance of 1 k.m. Thus, the district has achieved 100 per cent GAR at the primary level. In case of upper primary, as per SSA norms, 33 per cent of the eligible habitations do not have access within 3 k.m. Except Sakkotai block, all other blocks are short of this goal in upper primary section. Already the implications of the distance factor would have reflected in other indicators mainly the transition rate.

Owing to the geographical landscape and a typical sparse nucleated settlement pattern of the Sivagangai district particularly blocks like Kalayarkoil and S.Pudur (hilly in nature) necessitates revisiting and revising the SSA norms and to meet the special conditions. In fact, the declining birth rate in this district makes it necessary to undertake a rational assessment of the needs of a specific area before opening new schools.

### 4.2.2 Gross Enrolment Ratio (GER)

The district has made an outstanding achievement in enrolling all school age children into schools. The district GER for primary section is 104.1 in 2003, up from 99.5 per cent in 2002. This can be largely ascribed to the growth in the girl's enrolment from 97 to 103 in the same period. In 2002, few blocks in the district lagged in enrolling children but in the subsequent year, they successfully registered more than 100 per cent GER. The same is true at the Upper Primary level.

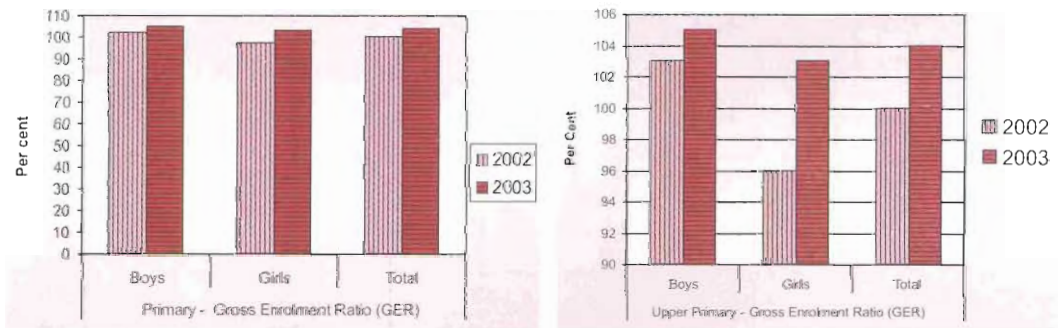
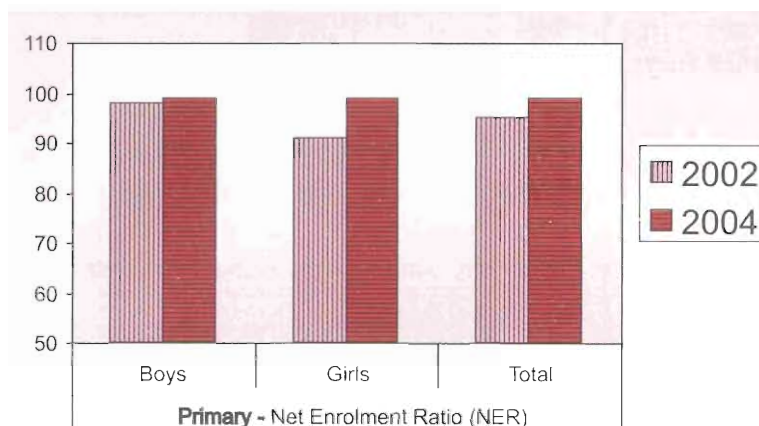


Fig 4.1 Primary and Upper primary Gross Enrolment Ratio (GER)

The district is on the way to achieve the long cherished goal of 100 per cent Net Enrolment Ratio (NER) in elementary education. Thanks to the government policies and programs initiated from time to time in helping to achieve Universal Elementary Education (UEE). Particularly, the focused and time bound initiatives like District Primary Education Program (DPEP) and Sarva Shiksha Abiyan (SSA) are worthy mentioning. Under SSA, the hunt for school dropout and never enrolled children are done successfully and it bettered the GER with more than 100 per cent. Note that GER can be higher than 100 per cent as a result of grade repetition and entry of younger and older ages than the typical grade levels age. At this stage, GER is in a transition phase and it may continue for few more years to sustain at 100 per cent.

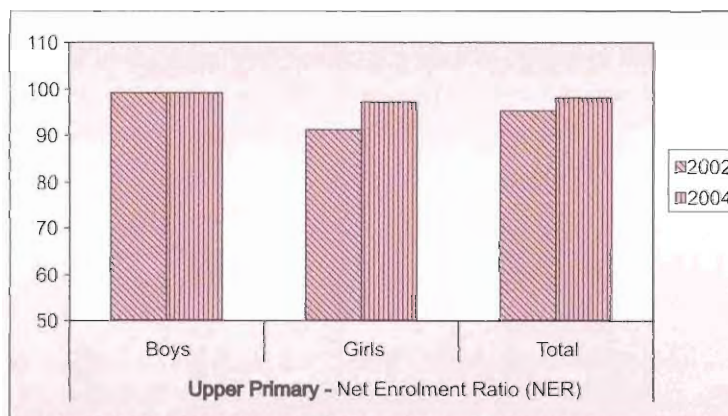
### 4.2.3 Net Enrolment Ratio (NER)

The GER and, more importantly, the Net Enrolment Ratio (NER) give perhaps better accounts of the actual progress made in elementary education.



**Fig. 4.2 Net Enrolment Ratio - Primary**

In the primary section, the district was able to register 99 per cent NER in 2004, an improvement over 95 per cent in 2002. NER of all the blocks narrowly ranges from 98 to 99 and none at block level achieved 100 per cent in 2004. Interestingly, the gender wise split record shows, Manamadurai, Thiruppuvanam, Devakotai and Kallal blocks for boys and Kalayarkoil and Kannankudi blocks for girls have attained 100 per cent NER in the same year. Most of the blocks progressed in a great deal particularly NER of girls (Annexure Table A4.2). For instance, S.Pudur block has improved its NER status from 80 to 98 and Sivaganga block from 85 to 97 per cent are praise worthy.



**Fig 4.3 Net Enrolment Ratio – Upper Primary**

The education attainment in the upper primary section is equally successful to that of the primary section. Gradual improvement over the years resulted in 98 per cent NER in 2004, rise from 95 per cent in 2002. Kallal and Sakkotai blocks emerged with 100 per cent NER, and rest of the blocks ranged between 94 in Devakotai and 99 per cent in few blocks. The enrolment gap in Devakotai is mainly due to decline in girls enrolment, particularly SC girls from 99 in 2002 to 88 in 2004 is unusual at a time when the general trend is marching forward. Gender wise, four blocks among boys and Sakkotai block for girls reached 100 per cent NER at the upper primary level. The NER among SC students in primary and upper primary section is 98



per cent that is almost similar to the over all district NER. There is no much difference between boys and girls in the SC group (Annexure Table A 4.3).

At present, GER is greater than NER that is above 100 per cent. In an ideal condition, NER should match GER of 100 per cent and the trend shows it is likely to reach in the next few years.

#### 4.2.4 Attendance Rate

Enrolment and attendance have been issues in achieving universalisation of elementary education. The attendance rate has improved over the years and remains more than 90 per cent across block, gender and social group with marginal differences in primary and upper primary level.

**Table 4.4 Attendance rate at elementary school in the Sivaganga District**

Stage of Education	Attendance- Overall						Attendance - SC					
	Boys		Girls		Total		Boys		Girls		Total	
	2002	2004	2002	2004	2002	2005	2002	2004	2002	2004	2002	2005
<b>Primary</b>	91	94	91	93	91	97	93	94	93	94	93	97
<b>Upper Primary</b>	93	94	93	94	93	97	94	91	88	90	91	92

Source: Annual Work Plan and Budget: 2005-06, Office of the CEO, Sivaganga

The SC student's attendance rate in upper primary is lesser than the primary section. Most of the blocks having a low attendance rate of the district match with the low attendance rate of SC children. Particularly, SC girls in Kalayarkoil block attend less than 70 per cent of the classes; the causes may be of social, economical and educational in nature. The ill effect of irregularity does not stand alone rather it breeds a poor completion rate.

#### 4.2.5 Completion Rate (CR)

The completion rate has improved in the primary section between the years 2003 and 2005. The completion rate ranged from 66 per cent in Thirupuvanum to 85 per cent in Sivagangai in 2005. All the blocks have improved in their completion rate, particularly Manamadurai moved from the low point of 42 per cent completion rate in 2003 to a moderate level of 69 per cent in 2004-2005. (Table 4.5)

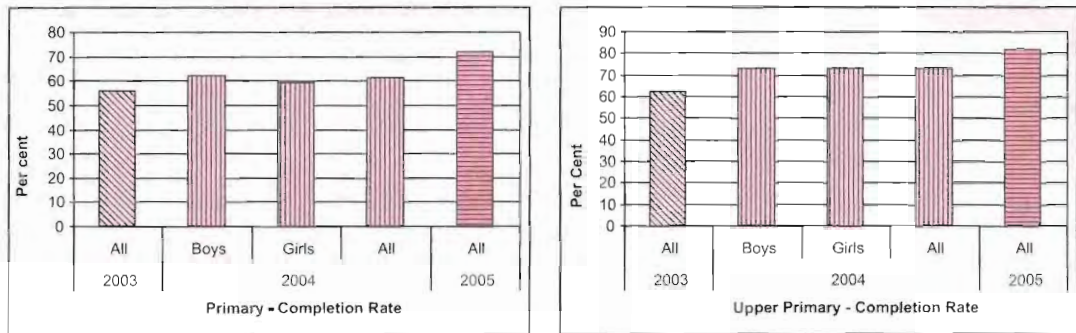
**Table-4.5: Completion rate in primary & upper primary schools from the year 2002-03 to 2004-05**

Sl No	Block	Primary									Upper Primary					
		Boys		Girls		Total			Boys		Girls		Total			
		2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2004-05	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2004-05	
1	Sivaganga	79	86	69	75	74	81	85	78	83	70	84	74	84	88	
2	Manamadurai	31	47	52	50	42	49	69	65	67	60	63	63	65	76	
3	Kalayarkoil	50	51	53	53	52	52	69	60	66	70	72	66	69	82	
4	Thirupuvanam	56	60	46	53	51	57	66	67	69	68	73	61	69	84	
5	Ilayangudi	59	63	63	62	61	63	70	66	73	75	84	76	80	83	
6	Devakotai	60	63	60	63	60	63	70	78	81	75	81	78	81	86	
7	Kannangudi	54	59	56	59	55	59	72	52	84	72	84	74	84	86	
8	Kallal	60	65	62	74	61	70	77	58	77	66	73	71	75	85	
9	Sakkotai	62	70	54	56	58	63	73	52	74	64	75	69	75	81	
10	Thirupathur	54	60	49	63	52	62	75	70	78	58	61	64	70	81	
11	Singampunari	55	61	42	56	49	59	71	52	66	46	64	58	65	80	
12	S.pudur	53	54	43	46	48	50	72	46	58	58	68	57	63	76	
<b>District:</b>		<b>56</b>	<b>62</b>	<b>54</b>	<b>59</b>	<b>55</b>	<b>61</b>	<b>72.43</b>	<b>62</b>	<b>73</b>	<b>65</b>	<b>73</b>	<b>67</b>	<b>73</b>	<b>82</b>	
<b>Tamil Nadu</b>						<b>64</b>	<b>69</b>	<b>75</b>					<b>88</b>	<b>91</b>	<b>93</b>	

Source: Annual Work Plan and Budget: 2004-05, 2005-06 Office of the Chief Education Officer, Sivaganga



At the upper primary level, the improvement level is much higher compared to the primary section and there is no much variation between the blocks. In both the levels, the girl's completion rate is more than that of the boys.



**Fig 4.4 Completion Rate (CR) Primary and Upper Primary**

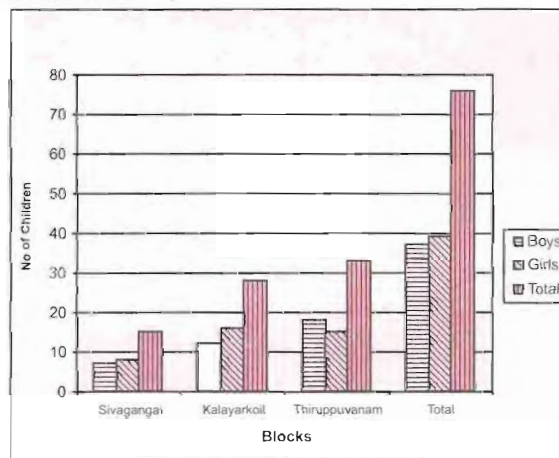
Though, the completion rate has improved over the years, still 28 and 18 per cent of primary and upper primary students respectively, either repeat or drop out of the school. Ultimately, the poor completion rate will upset the measures taken to retain all the children enrolled up to the completion of elementary education. Thus, serious efforts under varied dimensions should be taken to boost the completion rate and reduce stagnation and wastage.

#### 4.2.6 Out-of-School Children

Out-of-school children are those who are not enrolled in any educational institution or have dropped out between the ages of 6 and 14 years.

##### Never Enrolled Children

Education for all is still a myth in the Sivaganga district to an extent. It is disheartening to learn that a total number of 76 children between the age group of 6 and 14 have never entered the gates of education and remain deprived.



**Fig 4.5 Never Enrolled Children (6- 14 years) 2005-06**

Boys and girls equally bear the brunt and that none of them belong to SC and ST social group is surprising. Three blocks namely Thiruppuvanam (33), Kalayarkoil (28) and Sivaganga (15) have noted out-of-school children; remaining blocks are free from 'never enrolled children'.

At this juncture, never enrollment remains a barrier for the Sivaganga district to achieve 100 per cent Universal Elementary Education (UEE). The immediate thrust should be to bring all these children into the mainstream education through further refinement of the present procedures and intensification of the processes involved in elementary education to reach that extra mile.

### Drop out / Wastage

Having enrolled every child in a school, it is essential to see that he/she progresses regularly from year to year and does not leave the school till he/she completes the prescribed age or class. As it is well known, the extent of drop out rate in our system is very large. It is modest in the elementary education of this district.

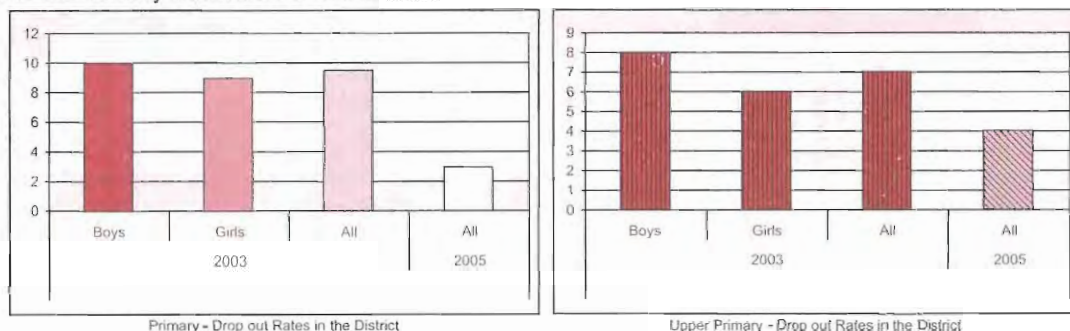


Fig 4.6 Drop out rate of Primary and Upper Primary Sections

The drop outs, those who otherwise end their education career very early at the primary and upper primary sections was 3 and 4 per cent respectively in 2005. A marginal decline from the already modest drop out rate had taken place among boys and girls between 2003 and 2005. Girls drop out rate is marginally lower than the boys. Similar pattern of illustration holds good at upper primary and all other levels: blocks, SC boys and girls. But the complete success comes only when the wastage is reduced to a sustainable zero on the one hand and more importantly bringing back those out of school children into regular school.

### 4.2.7 Repetition / Stagnation

Repetition and completion rates are just two sides of a coin. Repetition is the proportion of pupils enrolled in a given grade in a given school-year who study in the same grade the following school-year. The trend in repetition shows, a gradual decline in primary section and more promisingly in the upper primary section between 2003 and 2005. The data (2005) reveals that repeaters make up about 25 and 14 per cent of the enrolment in the primary and upper primary classes respectively

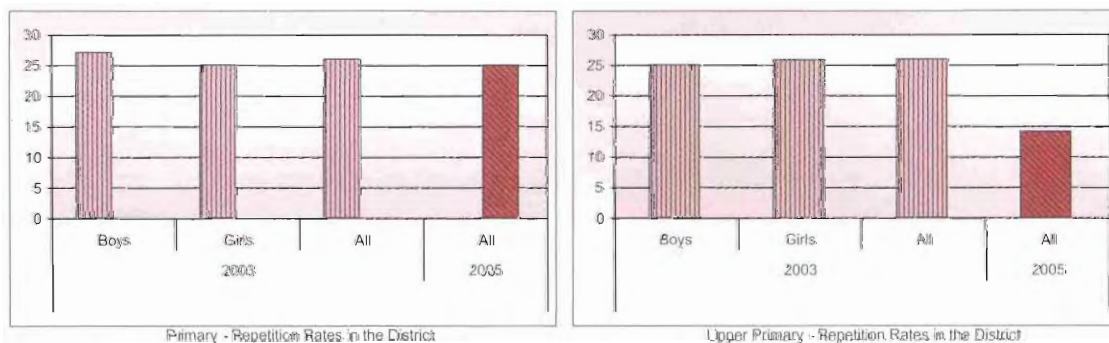


Fig. 4.7 Repetition Rate of Primary and Upper Primary

The overall efficiency of the school system is strongly influenced by this high level of repetition and better indicators can be developed to monitor and improve the level of education imparted.

#### 4.2.8 Transition Rate

The transition rate explains the number of pupils admitted to the first grade of the next level of education, say from primary to upper primary in a given year, expressed as a percentage of the number of pupils enrolled in the final grade of primary education in the previous year. The recent record (2004) shows, the district has achieved 99 per cent transition rate, stepped up from 91 per cent in 2002. Improvement over the years made a few blocks to reach 100 per cent transition rate and the rest follows suit. Perhaps, this narrowed the variations among the blocks and gender. The relatively high transition rate ascertains the availability of schools in the neighbourhood and the distance becomes less overriding factor.

**Table-4.6: Gender wise Transition rate from primary to upper primary in different blocks from the year 2002- 03 to 2004-05**

Block	Boys			Girls			Total		
	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05
Sivaganga	84	99	98	86	98	96	85	99	97
Manamadurai	80	100	99	91	100	99	86	100	99
Kalayarkoil	80	100	100	91	100	100	86	100	100
Thirupuvanam	92	98	99	92	97	99	92	98	99
Ilayangudi	92	97	98	95	90	92	94	94	95
Devakotai	90	92	98	90	92	96	90	92	97
kannangudi	99	100	100	98	100	100	99	100	100
Kallal	90	95	98	88	97	98	89	96	98
Sakkotai	94	100	100	98	100	100	96	100	100
Thirupathur	81	99	99	92	100	99	87	96	99
Singapunari	96	98	98	94	97	98	95	99	98
S.pudur	92	100	100	92	100	100	92	100	100
<b>District</b>	<b>89</b>	<b>99</b>	<b>99</b>	<b>92</b>	<b>98</b>	<b>98</b>	<b>91</b>	<b>98</b>	<b>98.5</b>
<b>Tamil Nadu</b>	<b>90</b>	<b>94</b>	<b>97</b>	<b>90</b>	<b>94</b>	<b>97</b>	<b>90</b>	<b>93</b>	<b>97</b>

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga

Interestingly, the tremendous progress made in transition rate among the SC boys and girls that increased from 84 per cent to 99 per cent between 2002 and 2004 is a positive sign.

The parents of the SC children realized the importance of education and admitted them in the upper primary school. This change in mindset and along with the SSA's drive to educate all has really made the difference.

Some trends are clear. Parents, disregarding their socio-economic background began to realize the importance of education. In a way, education has won the minds of the people and has become a felt need. To catch hold of the situation and enhance the educational status of the district, high standards have to be maintained at all the levels.



**Result analysis**

In fact, the pass percentage partially reflects the present quality of education given in the schools. The result analysis of results for grade V and VIII discloses nearly 60 per cent of students in primary and 62 per cent in upper primary got less than 60 marks. The share of boys and girls is almost equal in both the levels. Though elementary education has achieved a greater enrolment rate, it has miserably failed in terms of standards, evident unsatisfactory pass percentage. What ails this? It requires deeper investigation into the functioning of the current education system. Therefore, identifying the loop holes and formulating corrective measures to plug them at the earliest possible have to be done. At the least, corrective steps should ensure essential minimum level of learning competencies to all children. The confidence won among the masses are not to be lost but should be build upon it through raising the present standards and this is the extreme need of the hour.

**Table-4.7: Result analysis of Grade-V and VIII in the district**

Sl.No	Details	Grade V			Grade VIII		
		Boys	Girls	All	Boys	Girls	All
1	Number of Children appeared	17338	16676	34014	12748	12572	25320
2	Number of Children Passed	17211	16542	33753	12459	12359	24818
3	Percentage of Pass	99.27	99.2	99.23	97.73	98.31	989.02
4	Number of Children passed with less than 60%	10605	9243	19848	7776	7651	15427
5	% of pass with less than 60%	61.62	55.88	58.8	62.41	61.91	62.16
6	Number of Children passed more than 60%	6606	7299	13905	4683	4708	9391
7	% of pass with more than 60%	38.38	44.12	41.2	37.59	38.09	37.84

**Source:** Annual Work Plan and Budget, 2005-06, Sarva Siksha Abiyan District Elementary Education Plan, Sivaganga district, Office of the Chief Education Officer, Sivaganga

To conclude, all these statistical measures above discussed are interrelated and interdependent and as an outcome indicator, they just help us to bring the issues to the surface.

**4.2.9 Elementary Education by Management**

In Tamil Nadu, there are large numbers of private schools. Of the total number of primary and upper primary schools, the private sector accounts for nearly 20 per cent. In the Sivaganga district, private participation in elementary education is marginal. The participation by different players is as follows; 82 per cent government, 12 per cent private aided and a meager 6 per cent unaided private schools. The participation of private (aided plus unaided) institution is high in the Sakkotai (42 per cent) and Sivagangai (29 per cent) blocks and other blocks have less than 20 per cent private participation. Few blocks such as Illayangudi, Kannankudi and S.Pudur do not have private schools in this district. In case of upper primary school, the private participation is around 29 per cent and S.Pudur block stands alone without their participation.

**Table-4.8: Percentage distribution of primary and upper primary schools on the basis of management during 2004-05**

Block	Primary Schools (In %) (Stds. I-V)				Upper Primary Schools with UP Sections (In %)			
	Govt	Aided	Unaided	Total	Govt	Aided	Unaided	Total
Sivaganga	71.43	11.11	17.46	100.00 (126)	61.67	20	18.33	100.00 (60)
Manamadurai	80.72	16.87	2.41	100.00 (83)	71.43	17.86	10.71	100.00 (28)
Kalayarkoil	85.95	10.74	3.31	100.00 (121)	67.57	27.03	5.41	100.00 (37)
Thiruppuvanam	92.59	2.47	4.94	100.00 (81)	73.68	7.89	18.42	100.00 (38)
Ilayangudi	77	23	-	100.00	40	45.71	14.29	100.00
Devakottai	80	11.43	8.57	100.00 (70)	41.67	50	8.33	100.00 (36)
Kannangudi	100	-	-	100.00 (30)	84.62	15.38	0	100.00 (13)
Kallal	84	14.67	1.33	100.00 (75)	45.71	45.71	8.57	100.00 (35)
Sakkottai	58.24	24.18	17.58	100.00 (91)	48.44	26.56	25	100.00 (64)
Thiruppathur	86.21	12.64	1.15	100.00 (87)	74.07	25.93	0	100.00 (27)
Singampunari	92.31	1.54	6.15	100.00 (65)	76.19	14.29	9.52	100.00 (21)
S.Pudur	100	-	-	100.00 (48)	100	0	0	100.00 (14)
<b>Total</b>	<b>81.68</b>	<b>12.18</b>	<b>6.14</b>	<b>100.00</b> <b>(977)</b>	<b>60.54</b>	<b>26.72</b>	<b>12.75</b>	<b>100.00</b> <b>(408)</b>
<b>Tamil Nadu</b>	<b>75.80</b>	<b>15.37</b>	<b>8.83</b>	<b>100</b> <b>(24950)</b>	<b>72.16</b>	<b>20.78</b>	<b>7.06</b>	<b>100</b> <b>(7900)</b>

Note: Figures in brackets show the respective total number of schools

Of course, the government has taken a significantly greater initiative than the private sector in providing school facilities. But in respect of the number of teachers per school, the student-teacher ratio and number of rooms per school, government schools presented a relatively worse picture compared to private schools.

In government primary schools, there were only 2 teachers per school compared to 6 and 4 in private aided and unaided schools respectively. It is even worse in S.Pudur block, which has less than 2 teachers per school. The same condition prevails at upper primary level as well. The government schools have 4 teachers per school compared to 7 and 9 in aided and unaided

schools respectively. The Ilayangudi and Kannangudi blocks have three or less than three teachers per school and this portrays the poor shape of the government run schools.

The status of average teacher per school clearly brings another important issue that majority of the schools are run with either single or double teachers in both primary and upper primary to the fore. In fact, SSA norms clearly spells there must be at least two teachers in a primary school and one teacher for every class at upper primary level. In terms of number, 16 per cent of primary schools are handled by a single teacher; double teachers handle 63 per cent of the schools. The S.Pudur block has the highest percentage (40) of single teacher schools followed by the Singampunari (31) and Kannandudi (27) blocks. In addition to this about 10 per cent of the upper primary schools have either single teacher or double teacher ; this situation does not comply with the norms.

**Table-4.9: Single teacher and double teacher schools at primary and UP levels in different blocks during 2004 05**

Blocks	Primary					Upper primary				
	Total no. of primary schools	No. of single teacher schools	No. of double teacher schools	% of single teacher schools	% of double teacher schools	Total no. of upper primary schools	No. of single teacher schools	No. of double teacher schools	% of single teacher schools	% of double teacher schools
Sivaganga	126	7	77	5.56	61.11	60	2	1	3.33	1.67
Manamadurai	83	13	48	15.66	57.83	28	-	-	-	-
Kalayarkoil	121	16	87	13.22	71.90	37	1	4	2.70	10.81
Thiruppuvanam	81	16	47	19.75	58.02	38	1	6	2.63	15.79
Ilayangudi	100	23	62	23.00	62.00	35	1	1	2.86	2.86
Devakottai	70	5	56	7.14	80.00	36	-	3	-	8.33
Kannangudi	30	8	20	26.67	66.67	13	1	3	7.69	23.08
Kallal	75	4	60	5.33	80.00	35	-	1	-	2.86
Sakkottai	91	7	44	7.69	48.35	64	-	2	-	3.13
Thiruppathur	87	16	55	18.39	63.22	27	2	3	7.41	11.11
Singampunari	65	20	30	30.77	46.15	21	1	3	4.76	14.29
S.Pudur	48	19	25	39.58	52.08	14	1	4	7.14	28.57
<b>Total</b>	<b>977</b>	<b>154</b>	<b>611</b>	<b>15.76</b>	<b>62.54</b>	<b>408</b>	<b>10</b>	<b>31</b>	<b>2.45</b>	<b>7.60</b>
<b>Tamil Nadu</b>	<b>24950</b>	<b>3742</b>	<b>16372</b>	<b>14.99</b>	<b>65.61</b>					

Source: DISE: 2004-05. Office of the Chief Education Officer, Sivaganga .

The above condition freezes the choices and forces the teachers to passively accommodate all the students irrespective of grades under one roof. Multi-grade teaching without doubt will have negative implications on the quality of education given to the children. More importantly, teachers absenteeism will have an adverse impact on the elementary education especially when the school has only one or two teachers. In other words, schools may be closed under such circumstances. It is largely felt that the poor quality of government schools has paved the way for the mushrooming of costly private schools which have the capacity to deliver quality education and woo the students.



#### 4.2.10 Pupil-to-Teacher Ratio

The Pupil-to-Teacher Ratio is one of the main indicators of the adequacy of learning process, though not the outcome. The district overall pupil to teacher ratio conforms to the SSA norms; one teacher for every 40 children (1:40) in primary as well as in upper primary section. Disaggregated block level data (2004) demonstrates that a high pupil to teacher ratio exists in both the sections. For example, four blocks have registered more than the prescribed norm such as S.Pudur (50), Sakkotai (50), Thirupuvanam (46) and Singampunari (45) in primary section and S.Pudur (44) in upper primary level.

**Table-4.10: Pupil-teacher ratio and pupil-school ratio at primary school and UP school levels during 2004-05**

Sl. No.	Block	Primary Schools		UP Schools	
		Pupil-teacher ratio	Pupil-school ratio	Pupil-teacher ratio	Pupil-school ratio
1	Sivaganga	38	124	31	158
2	Manamadurai	39	120	29	212
3	Kalayarkoil	33	87	28	167
4	Thiruppuvanam	46	139	28	156
5	Ilayangudi	40	106	27	162
6	Devakottai	40	131	27	181
7	Kannangudi	25	71	34	90
8	Kallal	30	94	28	128
9	Sakkottai	50	242	30	199
10	Thiruppathur	39	105	32	191
11	Singampunari	45	113	36	195
12	S.Pudur	50	89	44	185
Total		40	122	30	171
State		34.56		35.94	

**Source:** Annual Work Plan and Budget:2005-06,Office of the Chief Education Officer, Sivaganga  
Calculated from previous tables

Further, a substantial number of sanctioned posts remain vacant because of non-recruitment of new teachers. The details on vacancy position give a clear picture for a high pupil to teacher ratio. About 15 per cent of the sanctioned posts are vacant in government primary school and 8 per cent in private aided schools. In case of upper primary, 19 per cent of the sanctioned posts are vacant in government and 9 per cent in private aided schools. Thus, filling up of the vacancies has to be completed as early as possible to create better learning conditions.

Surprisingly, Ilayangudi (- 15.94), Kannangudi (-15.30) and Thiruppathur (-5.15) blocks have surplus teachers at upper primary section on the one hand and these blocks combinely have four single and seven double teacher schools at upper primary level on the other. Filling up of vacancies alone may not change the climate of high pupil to teacher ratio. This imbalance requires greater teacher management skills, together with devising appropriate transfer policies, especially in the remote areas. Incentives have to be designed to reward teachers who perform well, and headmasters need to play a more positive role in teaching as well as in administration.

#### 4.2.11 Genderwise Teachers (No. of Teachers based on the Gender)

The background of teachers has positive influences on the enrolment and retention of girls. As per the sixth All- India Educational Survey (AIES), the proportion of female teachers was approximately 20 per cent of the total primary school teachers. Primary schools in the Sivagangai district have 67 per cent female teachers in government school, and 70 and 92 per cent in aided and unaided schools respectively are engaged in teaching. At upper primary level, there is 65 per cent of female teachers in government schools, 68 per cent in aided and 89 per cent in unaided schools.

#### 4.2.12 Trained teachers

Quality of education is ensured only when the trained teachers are engaged in teaching. In primary school, 91 per cent of the total teachers are trained and the rest 9 per cent are untrained teachers. At upper primary level, the percentage of trained teachers to total teachers is 67 per cent and the remaining 33 per cent of the teachers are untrained. Nearly 50 per cent of the teachers in Sakkotai and Thiruppuvanam blocks are untrained teachers in upper primary schools. Empowering the teachers through training by explorative, creative, interactive and technology-based methods will enhance the quality of elementary education from the present level.

#### 4.2.13 Infrastructure

The number of classrooms in each school is an indicator reflecting the facility available to accommodate different grade students in different classes. The district has a total number of 1037 primary and upper primary schools during 2004-05. About 65 per cent of schools have either two or less than two classrooms. At the block level, 100 per cent of elementary schools in the Kallal block have either two or less than two class rooms. Under these circumstances, many classes take place under the shades of trees and this is disturbing particularly when the weather conditions are bad. More than 80 per cent of schools in Ilayangudi (85), Singampunari (82) and Devakottai (80) have poor number of class room facilities. Around 16 per cent of the elementary schools have only 3 class rooms per school. Only 19 per cent of the elementary schools have more than 3 class rooms in their classes. A majority of the elementary schools have two or less than two classrooms in the district. Thus, multi-grade teaching becomes inevitable and ultimately deteriorates the quality of education.

**Table-4.11: Distribution of schools (both primary and upper primary) on the basis of no. of classrooms in different blocks during-2004 05**

S. No.	Block/Urban units	Total Govt Schools (I-VIII)	No. of schools with 2 classrooms	% of schools with 2 classrooms	No. of schools with 3 classrooms	% of schools with 3 classrooms	No. of schools with >3 classrooms	% of schools with >3 classrooms
1	Sivaganga	121	42	34.71	38	31.40	41	33.88
2	Manamadurai	87	53	60.92	9	10.34	25	28.74
3	Kalayarkoil	128	72	56.25	49	38.28	7	5.47
4	Thiruppuvanam	103	66	64.08	9	8.74	28	27.18
5	Ilayangudi	91	77	84.62	-	-	14	15.38
6	Devakottai	70	56	80.00	8	11.43	6	8.57
7	Kannangudi	41	28	68.29	13	31.71	-	-
8	Kallal	79	79	100.00	-	-	-	-
9	Sakkottai	83	26	31.33	32	38.55	25	30.12
10	Thiruppathur	96	69	71.88	1	1.04	26	27.08
11	Singampunari	76	62	81.58	3	3.95	11	14.47
12	S.Pudur	62	46	74.19	7	11.29	9	14.52
	<b>Total</b>	<b>1037</b>	<b>676</b>	<b>65.19</b>	<b>169</b>	<b>16.30</b>	<b>192</b>	<b>18.51</b>

Source: DISE: 2004-05, Office of the Chief Education Officer, Sivaganga .

#### 4.2.14 Conditions of classroom

A classroom with good condition is an essential criterion to create a conducive environment for initiating the teaching and learning process. There were totally 2,704 classrooms in elementary schools of this district. Of which, 73 per cent are in good condition, 22 and 5 per cents require minor and major repair work respectively (Table 4.12). Renovation work has to be carried out from time to time without any further delay.

**Table-4.12: Percentage distribution of classrooms of government schools (class I-VIII) on the basis of condition in different blocks during 2004-05**

Sl No	Block	Condition of class rooms			
		Good	required Minor Repair	Required Major Repair	Total class room based on condition
1	Sivaganga	73.36	21.73	4.91	100.00 (428)
2	Kalayarkoil	67.29	23.31	9.40	100.00 (266)
3	Manamadurai	72.60	24.66	2.74	100.00 (219)
4	Thirupuvanam	58.01	32.47	9.52	100.00 (231)
5	Ilayangudi	74.12	20.61	5.26	100.00 (228)
6	Devakotai	74.17	23.18	2.65	100.00 (151)
7	Kannangudi	54.90	41.18	3.92	100.00 (51)
8	Sakkotai	83.63	14.97	1.40	100.00 (501)
9	Thirupathur	74.18	21.60	4.23	100.00 (213)
10	Singampunari	71.64	22.39	5.97	100.00 (201)
11	S.pudur	67.05	30.68	2.27	100.00 (88)
12	Kallal	87.40	11.81	0.79	100.00 (127)
	<b>Total</b>	<b>73.45</b>	<b>22.00</b>	<b>4.55</b>	<b>100.00 (2704)</b>

Note: Figures in parentheses show the respective total numbers.

Source: *Annual Work Plan and Budget: 2005-06*, Office of the Chief Education Officer, Sivaganga.

#### 4.2.15 Basic Amenities

To have a school without minimum basic amenities is unjust. Availability of good drinking water, toilet facility especially for girl children and teachers, playground, electricity and boundary wall are essential features of a school. Sadly, certain elementary schools are deprived of these basic facilities in this district. Nearly 3 per cent of the elementary school children have to search for good drinking water and this condition is more severe in Ilayangudi where 10 per cent of the school children are very much in need of good drinking water. About 10 per cent of the elementary school girls are affected without toilet facilities even worse is the case of teachers. Playing is an important activity particularly in childhood days. Around 32 per cent of elementary school children go home without enjoying the play. Electricity has not reached as much as 39 per cent of the schools and they remain dim schools. More than half of the schools are not well protected rather exposed without boundary wall. Computers are no more a luxury; rather it is a common and essential feature everywhere. Yet, only 19 per cent of the schools have access to computer facility. These stark realities bite.

Deprivation of these minimum facilities not merely disturbs the children but the lack deeply drills into the bright minds especially when they see their fellow age students enjoy all sorts of comforts in private schools. This is too hard to digest especially for the young minds who form



100 per cent future of this country. Waking up to the reality and improving the basic amenities should be the immediate task.

### 4.3 Higher Secondary Education (HSE)

The district has performed well in higher secondary examination held in March, 2006. Nearly 9,354 students appeared for the exam, of which 6,905 students passed out. The pass percentage of 73.87 helped it to attain 17th rank out of 30 districts in Tamil Nadu.

#### 4.3.1 Higher Education

Higher education is considered the apex stage of formal education. It is a part of the larger socio-economic system and hence the university has a dynamic role to play in changing the society. Dr. Alagappa University has laid a strong foundation in the field of higher education. Nearly 945 students including 449 boys plus 496 girls and 93 teachers are engaged in teaching and learning activities.

The district has nine professional colleges located in five blocks grooming 6700 future technocrats comprising 4712 boys and 1988 girls in various fields say education, engineering, information technology and nursing in 2004. Apart from this there are 4 poly techniques and 12 ITI's imparting skills to 4487 students covering 4310 boys and 768 girls in this district. Except Kannankudi and S.Pudur blocks other blocks have computer training centers totaling 61 for the district.

In the field of arts and sciences, there are 14 colleges consisting of four government colleges, five aided and five self financed colleges imparting education to 10,901 in 2004-05. However, Kalayarkoil, Kannankudi, Kallal, Singampunari and S.Pudur blocks do not have any such college.

The enrolment of girls students are on par with their male counterpart in the colleges for general education, their presence is very poor in the technical education section. Considering the fact that the major proportion of students going out of the district for education particularly for professional education are male, the overall presence of females in higher education is quite low in this district. This would have an adverse influence over the aspects of well being.

Table-4.13: The percentage distribution of schools both primary and upper primary schools without the basic amenities during the year 2004-05

S. No	Block/Urban units	Schools									
		Total no. of schools	Without toilet	Without Girls toilet	Without electricity	Without Boundary wall	Without playground	Without drinking water	Without ramps	Without Computers	
1	Sivaganga	186	37.10	39.78	39.78	47.85	44.62	2.69	74.73	66.13	
2	Manamadurai	111	43.24	102.70	56.76	79.28	27.03	-	88.29	89.19	
3	Kalayarkoil	158	49.37	30.38	49.37	62.03	44.30	1.90	85.44	88.61	
4	Thiruppuvanam	119	52.10	77.31	73.95	70.59	69.75	0.84	80.67	78.15	
5	Ilayangudi	135	49.63	45.93	34.07	57.78	14.81	9.63	61.48	60.74	
6	Devakottai	106	48.11	51.89	57.55	17.92	9.43	4.72	81.13	90.57	
7	Kannangudi	43	76.74	72.09	4.65	74.42	9.30	-	90.70	88.37	
8	Kallal	110	40.00	54.55	-	49.09	16.36	2.73	96.36	90.00	
9	Sakkottai	155	38.71	21.29	9.68	27.10	18.06	-	61.29	65.16	
10	Thiruppathur	114	56.14	51.75	58.77	77.19	50.88	5.26	93.86	97.37	
11	Singampunari	86	60.47	63.95	11.63	37.21	38.37	4.65	93.02	94.19	
12	S.Pudur	62	43.55	72.58	69.35	51.61	24.19	-	83.87	98.39	
	<b>Total</b>	<b>1385</b>	<b>47.29</b>	<b>52.56</b>	<b>39.49</b>	<b>53.14</b>	<b>32.64</b>	<b>2.89</b>	<b>80.58</b>	<b>81.16</b>	

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga.

**Table-4.14: Block wise numbers of colleges and student capacity in Sivaganga district 2004-05**

Block	Arts and Science College		Medicine		Engineering and Technology		Teacher Training College		Polytechnic		Adult Education Centre		Others(ITI)	
	No	Students	No	Students	No	Students	No	Students	No	Students	No	Students	No	Students
Sivaganga	2	1663	-	-	2	1250	-	-	1	284	-	-	1	164
Manamadurai	2	561	-	-	1	93	-	-	1	685			3	330
Kalayarkoil	-	-	-	-	1	425	-	-	-	-	-	-	3	149
Thirupuvanam	1	257	-	-	3	3538	-	-	-	-	-	-	1	214
Illayangudi	1	978	-	-	-	-	-	-	-	-	-	-	-	-
Devakotai	2	1451	-	-	-	-	-	-	-	-	-	-	1	63
Kannangudi	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kallal	-	-	-	-	-	-	-	-	-	-	-	-	-	142
Sakkotai	4	3795	-	-	1	1626	-	-	2	2046	-	-	2	238
Thirupathur	2	2001	-	-	-	-	-	-	-	-	-	-	1	89
Singapunari	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S.pudur	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>District</b>	<b>14</b>	<b>10706</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>6932</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>3015</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>1389</b>

Source: Block Hand Books, Various Issues, 2004-05

#### **4.4 Efforts for improving the Educational Status of the District**

All round efforts are on to address the various facets of issues related to education in the district by various actors including district administration and civil society group.

##### **4.4.1 Sarva Shiksha Abiyan (SSA)**

SSA is a historic stride towards achieving the long cherished goal of Universal Elementary Education (UEE) by the year 2010. The scheme was launched in the Sivaganga district during the year 2001- 02 to enrich all the children in age group of 6 - 14 years through a provision of community owned quality education in a mission mode.



### **Goals of SSA**

- All children in school, Education Guarantee Center, Alternative School, 'Back to School' camp by 2003.
- All children complete five years of primary schooling by 2007.
- All children complete eight years of schooling by 2008.
- Focus on quality primary education with emphasis on education for life.
- Bridge social and gender gaps in primary education by 2007 and in elementary education by 2010.
- Universal retention by 2010.

The program focuses on enrolment and retention in primary and upper primary education and creation of necessary manpower and infrastructure. Village Education Committees (VECs) play a crucial role in the successful implementation of the program. There are 1273 VECs functioning in this district. The Sivaganga block has the highest number of VECs with 153 and Kannankudi and S.Pudur with 43 and 62 respectively have the lowest number of VECs. Further, focus on improving human resources was given through on the job training under various setups like Cluster Resource Centre (CRC) and Block Resource Centre (BRC). There are nearly 109 clusters which are the backbone for the effective implementation of the SSA activities in this district. The Kannankudi block has only 3 CRCs, least among the blocks. BRCs play a vital role in empowering teachers as well as continuous monitoring of quality management is also ensured by these institutional arrangements. The major improvements in elementary education can be attributed to them. Further, they have special targeted activities, as well.

#### **4.4.2 Action Research (BRTE)**

Research Evaluation and Monitoring is considered as an important component of the education development. The Action Research is a rapid plan of action for identifying the problems faced by students and teachers and provides solutions to the same. Out of 1249 studies, 420 studies are approved and in progress. The problems identified so far are listed below;

- Need for improving Second Language Teaching (SLT)
- Subject oriented problem: Topics identified are map work, drawing diagrams in science and solving fraction problems in maths.
- Increasing the number of periods for value education, increasing parent's involvement in follow-up work completion, improving the education of the special focus group, solving the problems of late coming of the students.

#### **4.4.3 Early Childhood Care and Education**

ECCE is provided for children in the age group of 3+ and 4+ to make the children ready for schools through 904 ICDS / TINP centers in 2004-05. Around 16,986 children are covered by these centers. In the same year, about 670 upgraded centers cover a population of 16,361 children in this district. Centers are given play material and kit material such as mirror, talcum powder, comb, etc, for the children.

#### **4.4.4 Special Coaching for SC/ST Children**

Another innovative method to impart quality education to the deprived section of the students is done through special coaching classes. There are 13,822 SC students in primary and 13,831 in upper primary schools in the district and extra coaching were given after their school hours to improve their standard.

#### 4.4.5 Noon Meal Scheme

Tamil Nadu has been a pioneer in the introduction of various incentives to enhance the enrolment of school children. Noon Meal Scheme is one of the most popular initiatives on this line. In Sivaganga district, noon meal centers cater to the food and nutrition requirements of the government schools students.

Further, 'Education Guarantee Scheme (EGS) centers', 'bridge course' and 'back to school camps' and 'residential camps' were conducted to bring back out of school children into the mainstream educational system.

#### 4.4.6 Integrated Education for the Disabled

Integrated education for the disabled is given for 197 children in the age group of 0 – 5 years for 1697 children in the age group of 6 – 18 years in this district.

#### 4.4.7 Scholarships

Financial support is given to students belonging to SC, ST, MBC and BC. During 2004-05, scholarships benefited 21,443 SC/ST students, 16,404 Students of Denotified Communities / Most backward Classes and 13,350 students of Backward Classes.

#### 4.4.8 Hostel Facilities

In addition to scholarships, hostel facilities are provided for the students of various communities in this district. Scheduled Caste (SC) children enjoy 35 hostels (10 for girls and 25 for boys), 11 hostels for Most Backward Class (MBC) and Denotified Community (DC) including three for girl students and 23 hostels for Backward Class students comprising 11 for boys and 12 for girls.

#### 4.5 Ranking of Blocks According to Performance

The blocks have been ranked according to their performances with respect to over all literacy rate, net enrolment rate and drop out rates in upper primary levels. Lower the rate of drop out better would be the performance. As a first step, the blocks were ranked based on their relative performance and then these ranks were multiplied with their assigned weights. Maximum of 0.50 weights have been assigned to literacy rate, 0.25 to NER and another 0.25 to drop out rate. All the weighted ranks have been added up to obtain the final score and the blocks were ranked based on this final score.

**Table 4.15 Ranking blocks based on performance in literacy and Education**

Block / Urban	Ranks on the basis of Indicators			Weighted Ranks			Total weighted Rank	Overall Rank
	Literacy Rate, 2001	NER in Upper Primary, 2005	DR in Upper Primary, 2005	Literacy Rate	NER	DR		
Sivaganga	5 (66)	8 (98)	4 (3)	2.5	2.0	1.0	5.5	6
Manamadurai	2 (68)	2 (99)	11 (6)	1.0	0.5	2.8	4.3	5
Kalayarkoil	2 (68)	2 (99)	7 (4)	1.0	0.5	1.8	3.3	2
Thirupuvanam	10 (65)	2 (99)	12 (9)	5.0	0.5	3.0	5.8	9
Ilayangudi	5 (66)	8 (98)	4 (3)	2.5	2.0	1.0	5.5	6
<b>Block / Urban</b>	<b>Ranks on the basis of Indicators</b>			<b>Weighted Ranks</b>			<b>Total</b>	<b>Overall</b>

	Literacy Rate, 2001	NER in Upper Primary, 2005	DR in Upper Primary, 2005	Literacy Rate	NER	DR	weighted Rank	Rank
Devakotai	1 (69)	12 (94)	2 (2)	0.5	3.0	0.5	4.0	4
Kannangudi	5 (66)	2 (99)	1 (0)	2.5	0.5	0.3	3.3	2
Kallal	12 (64)	1 (100)	2 (2)	6.0	0.3	0.5	6.8	11
Sakkotai	2 (68)	1 (100)	7 (4)	1.0	0.3	1.8	3.1	1
Thirupathur	5 (66)	8 (98)	7 (4)	2.5	2.0	1.8	6.3	10
Singampunari	5 (66)	2 (99)	10 (5)	2.5	0.5	2.5	5.5	6
S.Pudur	10 (65)	8 (98)	4 (3)	5.0	2.0	1.0	8.0	12

Figures in the parenthesis represent the rate

Source: Calculated.

The overall assigned weight for all the blocks in the district on literacy and education ranges between 3.1 and 8.0. Sakkotai block has emerged as the best performer followed by Kalayarkoil and Kannangudi blocks. In spite of least average teacher per school (2.55) in upper primary section of Kannangudi block, able to emerge second successful block in terms of performance. The reason may be ascribed to having more than 100 per cent trained teacher (129 per cent) in upper primary schools; ascertains the immense value of training for the teachers. The trained teachers may be able to handle multi-grade teaching under such circumstances where it becomes unavoidable. This happens when the total strength is low or does not meet the requirements to get more or extra teachers. The blocks down the order of performance are S.Pudur (12), Kallal (11), Thirupathur (10) and Thiruppuvanam.

#### 4.6 Issues in Education Development of Sivaganga District

Focused Group Discussion (FGD) with parents and the school teachers helped to unearth various issues involved in the education development in the district. Perceptions captured are sorted and presented below.

##### 4.6.1 Parent's Perception

- lack of adequate accommodation in schools
- quality of education imparted not satisfactory
- non-availability of upper primary schools in the neighbourhood
- non-suitability of school timings
- quality of education in higher education and higher secondary education needs to be improved

##### 4.6.2 Teacher's Perception

- poverty, illiteracy, orthodoxy of parents
- economic need for the child to work in the field
- poor participation of the community (VEC)
- poor basic amenities in schools
- lack of incentives for the teachers
- reluctance of parents either to educate their daughter further (or) to send them to mixed schools



## 4.7 Summary

Education development in Sivaganga district manifests significant progress on some fronts but dismal failure in other areas.

The literacy rate of the district has been increasing progressively over the years. The 2001 census recorded literacy rate of 66 per cent, up from 52 per cent in 1991. Male literacy grew from 64 to 76 per cent and female literacy from 41 to 57 per cent in the same year. As a result, pertinent reduction in the gender gap has taken place. Yet, the district has to educate 34 per cent illiterates to acclaim any significant achievement in literacy.

The district has improved Gross Enrolment Rate (GER) and Net Enrolment Rate (NER) through effectively bringing the children into school. Already the GER has surpassed 100 per cent in both primary and upper primary sections. It is on the way to achieve the long cherished goal of 100 per cent Universal Elementary Education (UEE). Government policies and programs initiated from time to time particularly Sarva Shiksha Abiyan (SSA) have made significant quantitative changes in elementary education. Elementary education has succeeded to achieve greater enrolment rate for boys and girls but need to achieve higher and sustainable completion rate.

The input factors like pupil-to-teacher ratio, number of trained teachers, single and double teacher schools have direct relation with the outcome of education. Many teachers post remain vacant in elementary schools have lead to high pupil-to-teacher ratio and many schools have single teachers. This has reflected in poor pass percentage of students. The perception of parents and teachers in the district has brought many issues to the surface that needs to be addressed. For instance, people perceive that the quality of education is unsatisfactory and the basic amenities are poor in the district. Where as, from teacher's point of view; poverty, illiteracy and orthodoxy of parents and poor participation of the community are the issues that need immediate attention. Undeniably, both the view points influence the quality of education imparted to the children. The message is clear. Unless these issues are addressed, they will have serious repercussions on the level of confidence and competence of the children.

The higher secondary pass percentage is formidable in the district. In case of higher education, the district is endowed with arts, sciences and technical education. Low participation of female in higher education needs special focus to achieve a society of higher order.

## 4.8 Way Forward

The concept of 'Human Development' revolves around the quality of life of the people. Education has two dimensions viz. quantity education and quality education. The former has made significant stride in the district and the later is way behind and yet to take off. Now the focus is on quality education. Concrete steps and series of initiatives have to be taken to provide quality education. For instance, improving the basic amenities in schools, improving and enriching the syllabus, imparting education to all students, improving the professional skills of teachers handling different subjects, training them by explorative, creative, interactive and technology based methods etc., are various dimensions of it.

Communities and parents also have a vital role to perform in the education of children. A multi-pronged strategy needs to be introduced where parents, through participation in the education of their children, realize the value of educating both boys and girls for the economic and social benefits of the family. Other important policies could include the lowering of the opportunity costs of girls' education, providing free education to the economically and socially backward communities, creating more scholarships for girls, making the curricula more gender sensitive, recruiting more women teacher and involving the community in the development and planning of education for the youth. This would narrow the gender gap and enhance female education, both important indices for human development. Vocational training should be structured so as to enable students to find gainful employment, while tertiary education should be updated to prepare the youth for the demands of the market.

The strategies to be adopted at different levels of education in the district is given below

- **Elementary education:** Twin strategies of a) sustaining the quantitative improvements and b) giving fresh focus on quality parameters need to be followed.
- **Secondary and higher secondary education:** Both quantitative and qualitative parameters need to be focused more.
- **Collegiate education:** Creation of necessary infrastructure and ensuring enrollment of girls need to be given focus.

Over all investment in education has to be increased particularly in infrastructure in the district especially S.Pudur, Kallal and Thirupuvanam blocks. In doing so, they become on par with the rest of the blocks.

It is time to change the gear, from quantity education to quality education along with decentralization of educational management through effective community participation for a meaningful human development in the district.



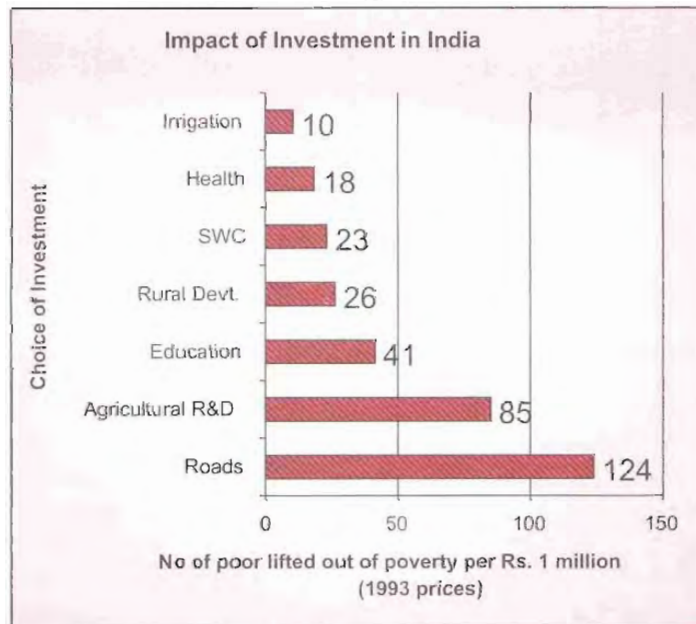


## V. Infrastructure

Infrastructure development is critical for sustaining economic growth and for rapid human development. It is an umbrella term for several activities. These include public works and public utilities such as road, electricity, telecommunication, etc besides other social utilities like bank, SHG and insurance. Under human development perspective, the term infrastructure is further widened in terms of social overhead capital to include facilities pertaining to health, education, skill formation, etc. These activities are of the nature of facilitating the working of an economy. Broadly, the nature of infrastructural installations is that these do not directly produce output, rather they facilitate direct productive activities.

The impact of investment on different kinds of infrastructure varies widely. It is important for the policy makers to make an optimal choice as the resources are limited. As the figure given below indicates the impact of investment on roads for poverty reduction was much higher than conventionally known investment priorities like health, education and irrigation in India. As the infrastructure has such an impact on human development, it is important to understand the current level of infrastructure in the district.

Fig.5.1



Source: International Food Policy Research Institute, 2002  
SWC – Soil and Water Conservation

### 5.1 Road

Road transport is quicker, more convenient and more flexible. It is particularly good for short distance travel as well as for movement of goods. Road transport is of particular advantage to the farmers. Good roads help the farmers to send their produce, particularly the perishable products like vegetable, quickly to the *mandis* and towns. Since the district's economy is still largely an agrarian in character and the settlement pattern is rural oriented, roads constitute a critical element of the transportation infrastructure.

Table 5.1 Percentage of distribution of total road length in different blocks

SI No	Block	Percentage of Total Road Length					Total	Average road per 100 sq.km
		Mud Road	Saralai Road	Metal Road	B.T Road	Concrete Road		
1	Sivaganga	19.16	16.31	9.70	54.84	-	100.00 (249.54)	55.88
2	Manamadurai	2.84	27.29	8.75	61.11	-	100.00 (223.70)	50.34
3	Kalayarkoil	13.96	8.83	14.82	62.12	0.27	100.00 (489.12)	83.95
4	Thirupuvanam	14.32	24.78	-	60.91	-	100.00 (189.30)	57.84
5	Ilayangudi	10.10	45.72	12.12	32.07	-	100.00 (208.00)	46.57
6	Devakotai	20.74	36.18	24.29	18.24	0.55	100.00 (428.12)	125.95
7	Kannangudi	26.86	15.94	15.66	41.54	-	100.00 (323.12)	145.81
8	Kallal	15.78	13.13	12.71	58.38	-	100.00 (287.10)	71.58
9	Sakkotai	5.08	26.81	11.33	56.78	-	100.00 (188.90)	53.62
10	Thirupathur	2.74	7.93	6.48	81.74	1.12	100.00 (179.05)	52.68
11	Singampunari	-	-	43.41	43.64	12.95	100.00 (34.37)	15.21
12	S.pudur	8.89	22.84	15.52	51.57	1.18	100.00 (114.70)	71.60
	<b>Total</b>	<b>14.47</b>	<b>21.24</b>	<b>13.75</b>	<b>50.15</b>	<b>0.40</b>	<b>100.00 (2915.02)</b>	<b>68.37</b>

Source: Block Statistical Handbook 2004-05

The length of roads, the basic requirement of road transportation is an assessment tool on road infrastructure. The total road length of the district is 2915.02 Km. Kalayarkoil has the longest road length with 489.12 Km followed by Devakotai (438.12 Km.) and Kannangudi (323.12 Km). On the other front, S.Pudur (114.70 Km) has the shortest road length followed by Thirupathur (188.90 Km) and Thirupuvanam (189.30 Km) blocks. This illustrates, total road length varies from block to block.

Better roads also achieve fuel economy and improve the overall productivity of the road transport sector. In Sivaganga, 50 per cent of the roads are B.T. roads and 21.24 per cent being Saralai, 14.47 per cent as mud road and 13.75 per cent in the form of metal road. At block level, only Ilayangudi (55.82) and Devakotai (56.82) blocks have more than 50 per cent of the combined mud and saralai roads. Rest of the blocks have more than 50 per cent metal, B.T. and concrete roads.

Area wise, road length works out to be 68.37 Km for every 100 Sq.km. of the geographical area. For instance, Kannangudi (145.87) and Devakotai (125.95) blocks have high average road length per 100 sq.km. in the district. In case of Ilayankudi (46.57), Thirupathur (52.68),

Sakkotai (53.62) and Thiruppuvanam (57.84) blocks the average road length was less. A lot more, however, need to be done to improve the road system in the district.

In this connection, it is important to recognize the road system, which brings the villagers into contact with the towns and new ideas and the new system, which emanate from the towns. In fact, road construction and maintenance generate sizable employment opportunities, a factor that has assumed considerable importance with demographic expansion and the growth of the labour force.

## 5.2 Electricity

Electricity has reached all the revenue villages and hamlets in Sivaganga, and the district claims 100 per cent electrified (Table 5.2). This condition conceals the fact regarding the number of households that do not have electricity connections. Identification of those households and the reasons for not having electricity connections have to be sorted out at the earliest possible. It is very important that all the households have access to electricity that will enhance the productivity at household level. This is an important indicator from human development perspective for ensuring education of the children.

**Table-5.2: The status of rural electrification in Sivaganga district**

Block	Rural Electrification			Population Covered	No of Street Lights
	Revenue Villages	Hamlets	Towns		
Sivaganga	51.00	219.00	-	94130.00	3212.00
Manamadurai	43.00	162.00	1.00	95535.00	2114.00
Kalayarkoil	70.00	369.00	-	96325.00	4057.00
Thiruppuvanam	46.00	177.00	1.00	102260.00	2928.00
Ilayangudi	55.00	234.00	1.00	83605.00	3949.00
Devakotai	66.00	343.00	1.00	106505.00	3875.00
Kannangudi	25.00	-	-	29872.00	1300.00
Kallal	44.00	207.00	82137.00	4086.00	137.00
Sakkotai	38.00	263.00	1.00	55776.00	2880.00
Thirupathur	42.00	108.00	2.00	97779.00	3322.00
Singampunari	NA	68.00	1.00	70787.00	2021.00
S.pudur	16.00	108.00	-	39802.00	137.00
<b>Total</b>	<b>496.00</b>	<b>2258.00</b>	<b>82145.00</b>	<b>876462.00</b>	<b>29932.00</b>

Source: Block Statistical Hand Book 2004-05

## 5.3 Communication System

The communication system comprises posts and telegraphs, telecommunication systems, etc. It provides necessary information on time. Ultimately, this results in accelerating the growth of the economy. Accordingly, the modern communication system has become an integral part of human development.



## 5.4 Postal System

The long-term objective of the Department of Postal Service of the Govt. of India is to locate a post office within 3 kms. radius of every village and to make available letter boxes in every village with a population of over 500.

The district has a total of 310 post offices spread in twelve blocks. Each post office serves a population of 3731 on an average. At present, it is estimated that there are approximately 135 gram Panchayat villages without post office. These villages are served by post offices from nearby gram Panchayats. Block level data reveals the shortage of post offices, particularly in Singampunari block where only 7 post offices were located but each one of them serves more than 10,000 populations on an average.

**Table 5.3 Access to postal services in different blocks**

S.N o.	Block	No. of post offices	Population served per Post office	No. of Telegraph offices	Populn served per Telegraph office	No. of letter boxes	Populn served per Letter box
1	Sivaganga	32	4261	5	27270	478	285
2	Manamadurai	45	2123	18	5308	35	2730
3	Kalayarkoil	27	3596	1	97085	115	844
4	Thirupuvanam	27	3787	3	34087	103	993
5	Ilayangudi	31	3314	13	7902	65	1580
6	Devakotai	19	5606	3	35502	38	2803
7	Sakkotai	44	4445	11	17780	134	1460
8	Thirupathur	21	4656	3	32593	80	1222
9	Singampunari	7	10112	2	35394	29	2441
10	Kannangudi	7	4267	0	29872	74	404
11	Kallal	37	2220	2	41069	139	591
12	S.pudur	13	3069	0	39892	22	1813
	<b>Total</b>	<b>310</b>	<b>3731</b>	<b>61</b>	<b>18959</b>	<b>1312</b>	<b>881</b>

Source: Block Statistical Handbook 2004-05

The total number of letter boxes account for 1,312 in the district. Each letter box serves a population of 881. The number of post boxes is very less in the blocks of Singampunari (29), Manamadurai (35) and Devakotai (38) which in turn exhibits higher the number of persons served per post box. Each post box in Devakotai serves 2,803 persons and in Manamadurai the population served was about 2730. No other blocks except Sivaganga (285 persons / post box) and Kannangudi (404 persons / post box) blocks conform to the prescribed norm of post box facility in every village with a population of over 500.

## 5.5 Telegraph

There were totally 61 telegraph offices in the district during 2004. Each telegraph office serves a population of 18,959. S.Pudur and Kannangudi blocks do not have separate telegraph wing.

In addition to regular postal activities, post offices in these blocks perform telegraph function as well.

Courier services have come up on a large scale and communicating through telephone has also become cheaper in the recent years. Further, the financial services of post offices have become more prominent than that of letter and telegraph services. So, it is the time to review the role played by post offices in connecting people and take necessary measures to modernise them to make more relevant and useful. As postal network has wide presence in the district that can be made to function as multi service points in collaboration with other entities.

## 5.6 Telecommunication

Earlier, home telephone was considered as a house hold amenity of the affluent section. Now, the scenario has changed a lot and it has attained a status of essential tool even among low income groups. Easy access to basic telephone services particularly mobile phones at affordable prices is the reason for such penetration even in rural areas. Thanks to the unforeseen growth in communication technology that has brought people closer than ever before. Telephones that way, do not stop with serving merely as communication devices, rather they go beyond by serving many other purposes like a tool for promoting livelihood activity. As data was not available for mobile telephone penetration, data pertaining to the fixed phone services is used for analysis.

**Table 5.4 Access to Telecommunication facilities in different blocks**

S. No.	Block	No. of exchanges	Avg popln served by an exchange	No. of PCOs	Average population served by a PCO	No. of Landline telephone connections	Average no. of HH with telephone connection
1	Sivaganga	35	3,896	239	571	6,925	4
2	Manamadurai	1	95,535	154	620	2,315	10
3	Kalayarkoil	6	16,181	49	1,981	2,820	9
4	Thirupuvanam	2	51,130	40	2,557	1,807	11
5	Ilayangudi	3	34,240	69	1,489	5,148	4
6	Devakotai	1	1,06,505	118	903	7,248	3
7	Sakkotai	6	32,597	250	782	22,120	2
8	Thirupathur	18	5,432	0	NA	5,236	4
9	Singampunari	5	14,157	253	280	3,102	5
10	Kannangudi	1	29,872	17	1,757	415	17
11	Kallal	5	16,427	22	3,734	1,405	15
12	S.pudur	1	39,892	38	1,050	715	12
	Total	84	13,768	1249	926	59,256	4

Source: Block statistical handbook 2004-05

Sivaganga has a network comprising of over 84 telephone exchanges with nearly 59,256 working connections. The block level disaggregated data on tele-density gives insight on the spread of telecommunication network in the district. Tele-density is highest in Sakkotai block at the rate of one connection for every two households followed by Devakotai with one connection for every three households. The tele-density of Sivaganga, Ilayangudi and S.Pudur blocks



match with the overall district tele-density of one connection for every four households. On the other side, tele-density is lowest in Kannangudi (17), Kallal (15) and S.Pudur (12) blocks, indicative of poor connectivity of the blocks when compared to the rest of the blocks.

A wide variation in terms of availability of PCOs was observed among the blocks of Sivagangai district. There was a Public Call Office (PCO) for every 926 persons in the district. The highest concentration of PCOs was in Singampunari with a single PCO serving an average population of 280 followed by Sivaganga with 571 and Manamadurai block with 620 population served per PCO. But the concentrations of PCOs were very less in Kallal (more than 3,000 persons covered per PCO). It is also lower in blocks like Thirupuvanam (2,557 persons covered by a PCO), Kalayarkoil (1981), Kannankudi (1,757) and Ilayangudi (1,489).

### 5.7 Commercial Banks and Co-operative Societies

The Banking sector plays a crucial role in terms of financial assistance for promoting economic and financial activities in the district. The major players are nationalized banks and private banks. There were totally 144 branches spread over the district. The bank with more number of branches was Sivaganga District Central Co-operative bank. It has 28 branches, followed by ICICI bank with 26 branches and Pandian Grama Bank has 25 branches. Utilisation of the available banking facilities is of utmost important because it safeguards the people from usurious money lender.

Apart from regular banking, the district has 118 co-operatives societies, 119 primary agricultural co-operative banks and 6 land development banks. But, how far they are running successfully by benefiting the person is more important.

**Table-5.5: Co-operative Societies in Sivaganga (2003 -2004)**

Sl. No.	Type of Societies	No. of Societies	Membership	Share Capital/ Working Capital	Loans Advanced (Outstanding and Overdue)	No. of Employees
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Co-op Milk Society	118	-	-	-	-
2	Co-op Housing Society	-	-	-	-	-
3	Land Development Bank	6	34707	295.16 / 4888.57	4022.23	78
4	PACB	119	272870	1179.85 / 20825.33	10169.75	1001
5	Farmer Co-op Society	1	8937	2053 / 291.50	226.99	31
6	Urban Banks	2	20181	105.06 / 5024.90	1959.43	41
7	Employees Co-op Society	70	14524	2455.22 / 4695.64	4467.87	88
8	Primary & Students Co-op Store	101	4132	1.45 / 6.20	-	-
9	Labour Contract Society	8	1199	0.77 / 1.27	-	6
10	Barber Co-op Society	1	216	0.68/-	-	-
11	A.D Co-op Thrift Society	1	4314	1.63 / 15.00	9.00	2
12	Central Co-op Bank	1	365	1144.22 / 32799.03	21471.50	104
13	District Whole Sale Store	1	1913	37.35 / 92.26	10.00	164



Sl. No.	Type of Societies	No. of Societies	Membership	Share Capital/ Working Capital	Loans Advanced (Outstanding and Overdue)	No. of Employees
14	District Co-op Union	1	-	-	-	2
15	Marketing Societies	2	8710	12.45 / 145.37	124.35	18
16	Co-op PA&RD Bank	6	34707	295.16 / 4888.57	4022.23	78
17	Co-op Printing Press	1	380	0.51/-	-	13
18	Urban Co-op Store	8	9234	3.08 / 201.60	-	28
19	DCPP	-	-	-	-	-
20	PCS	-	-	-	-	-
21	APMCS	-	-	-	-	-
22	CO-OP STORE	-	-	-	-	-

Source: Concerned Co-operative Society.

## 5.8 Insurance

Insurance, an important social security measure is a protection against financial loss arising on the happening of an unexpected event. It provides continuity to livelihood in a secured manner. It is an instrument that any individual or business house can use strategically to protect themselves in a proactive manner. In Sivagangai, the penetration had been poor as depicted by the data given below.

**Table 5.6 Insurance Penetration in Sivaganga in 2003-04**

Name of the Insurance	No of branches	Policies Issued	Sum Assured (in Lakhs)	No of beneficiaries	Amount paid as compensation (in Lakhs)
LIC	4	43588	31290.26	10281	1512.11
PLI	41	355	259.40	-	-
RPLI	184	2833	1533.50	-	-
General Insurance	4	34180	135	26539	590.55

Source: District Statistical Handbook, 2003-04

The coverage is far from the expected level. As the demand was low the number of branches was minimal. Thus, insurance education is very much essential to boost the penetration of various insurance products.

## 5.9 People's Voice

People in the district receive average service from the transport corporation. The telephone department and postal department in the district are performing well. But the electricity board's service to the people in the district is average with very poor infrastructure and human resources. Most of the villages in the district are receiving proper street light though the villages are not having enough people to put on the street light. So, necessary action should be taken to fill up the vacancy as it is not advisable to operate the street light by the people themselves.

## 5.10 Summary

On infrastructural front the district fared well in case of roads, electrification of villages and communication facilities. The district administration needs to be appreciated for improvement in the above mentioned public infrastructure. The recent effort to identify infrastructural needs as well as planning for the same at the village level through various schemes is a very positive move. Attempts towards community ownership of the assets created and maintenance by the community are highly appreciated.

## 5.11 Way Forward

Despite achievements, areas of concern remain. As far as road infrastructure is concerned it is time to look beyond availability of roads. Poor quality of roads is a wide spread problem and it requires continuous monitoring and timely action to rectify it. In that case, local bodies can be given responsibility for this task of maintaining the village roads. In case of electricity reach, household level enumeration and primacy must be given to reach all these houses that do not have electricity in the district.

It is time to review the role played by post offices in connecting people and take necessary measures to make them more relevant. As postal network has wide presence in the district they can be made to function as multi-service points in collaboration with other entities. Necessary learning need to be taken from various experiments conducted in other parts of the country and pilots to be tried for the same.

The penetration of banking services and insurances are moderate in this district. Under insurance, much has to be done to make it serve as an important instrument of social protection in various spheres of life and thereby making it significantly contributing to human development. Intensive insurance education need to be given with specific focus to rural areas along with designing suitable insurance products for various sectors of the population. The banks should take necessary steps to reach the unreached. Initiatives are needed in two directions, one is making available financial products that are attractive to large section of the population and the other is institutional change for delivering banking service.

## VI. Social Vulnerability

Social vulnerability is often the result of very complex processes. Over the years, government agencies and NGOs have developed long and detailed check lists of potential vulnerable groups and individuals. Vulnerabilities broadly possess, social, demographic and economic characteristics, such as gender, age, health status and disability, caste and socio-economic status. These characteristics are the focus of attention. The level of vulnerability of a households or individuals is determined by how weak or strong their livelihoods are, what occupational activities they are engaged in, how good their access is to a range of assets that provide the basis for their social capital and different social institutions are in providing social protection. Protection against the vulnerabilities associated with child labour, disability, caste and gender-based discrimination and aged persons are one of the keys to human development. This chapter deals with such disabilities and the data from census and concerned departments were mostly relied upon.

### 6.1 Child Labour

Children are an end and means of progress. They are the most important asset of any nation as they are the future citizens. The destination of a country depends directly on how well its children are looked after. According to UNICEF's report, the two tests of civilization are, how well it protects its vulnerable masses and how well it safeguards its future; children are vulnerable while at the same time they are the country's future.

Child labour is not new for our country; it has existed in different forms in the history of our nation. What is new, however, is the way it be now being perceived as a social problem, it being a matter of social concern. It emerges out of the prevalent socio-economic condition. But, whatsoever might be the reasons for engaging children in employment, it is apparent that these tender beings generally work under conditions that are detrimental to their health, welfare and development.

The Sivaganga district was registered as a child labour-free district in 2006. However, there were a number of out-of-school children in the district as indicated by the chapter on education. This fact really questions the premise on which the district has been under the status of child labour free district. Pointing to the close links between child labour and education, the proponents of this view point further argue that all children who are out of school should be considered as child labourers. An out-of-school child is inevitably drawn into supplementing family labour, whether on a full time basis, to help in the family occupation or manage family assets or simply engage in different 'adult-releasing' activities. Hence, any out-of-school child is a potential child worker.

Child labour emanates from the right-based approach towards development, which is considered being out-of-school as denial of the child's right to education. This dictates inclusion of all children into the schooling system, irrespective of whether they work in agriculture, in industry, or at home. Child labour in the district is more of a rural phenomenon since children are involved in agricultural and allied activities in the villages.

The elimination of child labour is not an impossible task. All that is required is appropriate action in the right direction. Multi-pronged approach is needed to address the child labour issue. Direct interventions could be policy changes to make child labour unattractive for



employers, effective enforcement of the legal provisions against child labour, media-based efforts for educating parents and employers and proactive action to bring child labourers into the education system. Indirect intervention could be ensuring livelihood security in the pockets where child labour is rampant. There are two major problems with the education system that leads to the increase in the number of child labourers. They are unattractive teaching methods and not ensuring minimum learning standards. Enhancement of quality of education system on these aspects would go a long way in reducing child labour in future. Government, community and NGOs should join hands and work together for the eradication of this social evil.

## 6.2 Disability

Disability is both a health and a social problem. Many studies indicate that there is evidence of the impact of disability on multiple dimensions of poverty. Disability affects indicators of material well being (such as income, employment and consumption), access to and effective use of services (such as education and health), and social and psychological status (such as marriage prospects and decision-making power). These different aspects are closely interlinked, and characteristics such as gender and urban or rural location have an important effect on the disability-poverty relationship. The major problem the persons with disability (PWD) face throughout their life is being looked down upon by others. So any rehabilitation effort should also try to change the attitude of the rest of the society on PWDs. Disability survey conducted in the district in 2002 indicated that there was a total of 9,792 PWDs in the district.

**Table 6.1 Disabled Population in the District During 2002**

Categories	Male	Female	Total
Ortho	3274	1954	5228
Blind	570	499	1069
Deaf and Dumb	967	918	1885
Mentally Retarded and Cerebral Palsy	779	605	1384
Leprosy	153	73	226
<b>District</b>	<b>5743</b>	<b>4049</b>	<b>9792</b>

Source: District Disabled Rehabilitation Officer, Sivaganga

Classification of disabled population by different categories of disabilities shows that the proportion of people with movement disability is highest among disabled followed by deaf and dumb. Gender-wise categorization shows a higher rate of prevalence of disabilities among males as compared to females, especially in the cases of mobility, mental health and leprosy (Table 6.1). The reasons for this kind of trend need to be studied.

Persons with disabilities should be empowered with the right to demand an enabling environment wherein they can enjoy the protection of rights, equal opportunities and fully participate in various developmental activities of the country so as to be a self-reliant and a productive member of the society. Education is very important for all, especially for the disabled. Sufficient educational facilities such as special schools and special teachers for the mentally challenged have to be established. Education provides opportunities for employment and advancement.

The major barrier to employment by the people with disabilities in our society continues to be attitudinal barriers, stereotypical thinking and assumption about people with disabilities can and can't do. The truth is that, the range of abilities of persons within any disabilities group is

enormous. We need to get rid of stereotypical images and view each 'individual' as just that - "an individual".

### 6.3 Crime and Domestic Violence Against Women

In the Sivaganga district, 2736 cognizable crimes under IPC were committed in 2003-04. In one year, the police grappled with 331 thefts, 66 burglaries and 46 riots and 2202 other criminal offences. Disturbingly, 24 murders, 6 rapes and 26 kidnapping and abduction cases have been reported in the same period. The guilty must not go unpunished. In presenting these facts and figures, the idea is to point out the weakening nature of the motives for conformity to social norms and the disruption of social relationships and social bonds. Thus, studying the underlying motives for such criminal records assumes utmost importance in order to establish a new social order, a crime free society.

**Table-6.2: Cognizable offences under Indian Penal Code in Sivaganga (2003-04)**

Sl. No.	Item	Number of Cases Reported
1	Murder	24
2	Culpable Homicide Not amounting to Murder	01
3	Rape	6
4	Kidnapping and Abduction	26
5	Dacoity	0
6	Robbery	3
7	Burglary	66
8	Thefts	331
9	Riots	46
10	Criminal Breach of Trust	5
11	Cheating	26
12	Counterfeiting	--
13	Miscellaneous	2202
<b>Total Cognizable Crime Under I.P.C.</b>		<b>2736</b>

Source: Superintendent of Police, Sivaganga .

The problem of violence against women is not new. The Sivagangai district is no exception; women are beaten, kidnapped, raped, burnt and murdered. In 2003-04, 44 cases were registered against women harassment and dowry. In spite of the legislative measures adopted in favour of women in our society after independence, and the spread of education and women's gradual economic independence, countless women still continue to be the victims of violence. Looking forward, in a scenario with high economic growth and a rapid demographic transition, the problems still persist.

**Table-6.3: No. of cases registered against women harassment and dowry in Sivaganga district year (2003 – 2004)**

Sl. No	Name of the Station	No. of Cases Registered against Women Harassment and Dowry
1	Manamadurai	1
2	Devakottai Taluk	3
3	SIPCOT	1
4	AWPS-Sivaganga	18
5	AWPS-Karaikudi	5
6	AWPS-Manamadurai	7
7	AWPS-Thirupathur	8
8	AWPS-Devakottai	1
	<b>Total</b>	<b>44</b>

Source: Superintendent of Police, Sivaganga .



The State has been trying to address these issues through a three-pronged approach. One is to give targeted support through various government schemes regarding health and education. The second is to create legal provisions to address the atrocities against them. The third is to ensure the presence of women in governance by creating reserved constituencies. There are also positive trends like improvement in literacy, school enrolment and pass percentage, organizing themselves into SHGs, participation in local elections, etc. But there is a long way to go to reach acceptable levels of gender status. The on-going discussion indicates the need for more targeted action along the three lines mentioned above.

Going beyond the home and taking various other roles through employment and participation in social activities through education and other opportunities and being a bread winner could help a lot in improving the status of women. The long-term solution lies in acquiring bargaining power within the home and within the society through organizing themselves, changing the existing patriarchal culture and the attitudinal change of men.

### **The Mahatma Gandhi Charitable Trust**

Sivagangai is a backward district. It is one of the dry and poor regions of the State. But it is a peculiar district in terms of its loyalty to the royal family, which once ruled this region. Till date people give '*Muthai Mariyathai*' a special honor offered to the Royal family. It is difficult to explain in words the depth of relationship the kings of Sivagangai had with their subjects during their reign. The people maintain respect and loyalty till date and this is a result of the loyal service rendered by the kings during their rule. Even today, the royal families do public services to the maximum extent possible. The Mahatma Gandhi home of helpless girls is one such example.

The Mahatma Gandhi home for helpless girls is located within the Mahatma Gandhi Park in the heart of the Sivaganga City. This home has been established to serve the destitute girl children. The royal family had been the pioneers in establishing this home. Here, 30 girl children are currently being nurtured and their education, food and shelter are being taken care of. The children enrolled here are admitted to the 'Miller girl's school' and educated up to the 12<sup>th</sup> standard. After which they are sent back to their guardians' home. The food expense for each child cared here is Rs.300/- per month.

To run the home efficiently with accountability, the Mahatma Gandhi charitable trust has been established. It is headed by a member of the royal family and guided by a committee comprising of leading personalities from various fields such as education, law, and trade. To run the activities of this trust and home, a trade complex consisting of 36 shops has been constructed as part of revenue generation.

Although the Sivaganga district is backward in development, it is rich in culture. This is exhibited by their caring for the helpless girls through a trust named after our father of Nation Mahatma Gandhiji. This home adds pride to the name of Sivaganga .



## 6.4 Dependency of Aged persons

The proportion of persons aged 60 and above to persons aged 15-59 years in the total population was 8.2 per cent during 1991. During 1991-2001 the proportion of aged population increased from 7.45 per cent to 8.82 per cent in the State, indicating that the district had more proportion of aged population. The proportion of aged population is expected to increase in the coming years due to demographic transition, which is a consequence of social development. So the investment and focus to address the needs of the aged population should also increase. Aged dependency ratio was 13.5 per cent during 1991. Considering that more than 70 per cent of the workers are dependent on agriculture, at least that proportion of aged would hail from cultivators and agricultural labourers. There are no social security mechanisms to this category of aged persons except support by their sons. As the joint family system is undergoing significant change in favour of small families even in rural areas, the social and economic vulnerability of the aged persons is on the increase. The various mechanisms in place in developed countries to address this issue are yet to percolate into our country. Currently, this issue is addressed through the Old Age Pension scheme jointly implemented by the State and Central Government. The old age persons enrolled in the scheme receive Rs. 400 per month along with a free supply of 10 kgs. of rice and provision of meals through the noon meal programme. The present coverage of even these minimum social security measures was very low. While these interventions are very much essential, they are far from the level of social security required to address the issue. Old age pension beneficiaries' coverage ratio was just 16.33 per cent for the period 1991 to 2000. In the same way, the number of aged persons getting meals under the noon meal programme was also meager in number. So, there is a larger need to increase the coverage of aged persons under the existing schemes.

## 6.5 Schemes Run by the District Social Welfare Office

The vulnerability of aged persons, deserted wives, widows etc. to socio-economic shocks can be reduced through the implementation of social welfare programmes. Under these programmes, financial assistances were given to destitute women, inter caste marriages, marriages of daughters of widow, marriage of widows, education of the children of widows etc. The Old Age Pension Scheme (OAP) scheme has been implemented to cater to the well-being of older persons under different categories in the district.

**Table 6.4 Number of Beneficiaries Under the Old Age Pension Scheme During 2004**

Categories	Aged	Physically Handicapped	Widows	Agricultural Laboureres	Deserted Wives	Total
District	8430	7575	1830	1088	1345	20268

Apart from the above-mentioned welfare measures, free houses and house sites has been distributed to various communities. Numerically, 548 houses for S.C., 1352 for BC, 451 for D.C and M.B.C, 43 for others were built during the year 2004.

## 6.6 Summary

Protection against the vulnerabilities associated with the child labour, disability, caste and gender-based discrimination and discrimination against aged persons are the keys to human development. The Sivaganga district has been registered as a child labour free district. However, there the number of out-of-school children in the district was on the higher side.

Taking into consideration, the close links that exist between child labour and education, all children who are out of school should be considered as child labour. Child labour in the district is more of a rural phenomenon with more number of children engaged in agricultural and allied activities in the villages.

Disability is another form of social vulnerability. The Disability survey conducted in the district in 2002 indicated that there were a total of 9,792 persons with disability (PWDs) in the district. Different categories of disabilities show that the proportion of people with movement disability is highest among the disabled followed by the deaf and dumb.

Domestic violence perpetrated against women is an evidence of the poor standard of living. The problem of violence against women is not new. Sivaganga is no exception, they are beaten, kidnapped, raped, burnt and murdered. In 2003-04, 44 cases were registered against women harassment and dowry. In spite of legislative measures adopted in favour of women in our society after independence, the spread of education and women's gradual economic independence, countless women still continue to be victims of violence.

The aged dependency ratio is an important aspect in the Sivaganga district. Considering that more than 70 percent of the workers are dependent on agriculture, at least that proportion of aged would hail from the cultivators and agricultural labour categories. There are no social security mechanisms to this category of aged persons except support by their sons. In addition to this, the Old Age Pension (OAP) beneficiaries' coverage ratio was just 16.33 per cent for the period 1991 to 2000. While these interventions are very much essential, they are far from the level of social security required to address the issue.

### The Spirit of Kundrakudi

Kundrakudi, a small town located in the Sivagangai District is famous for its Murugan temple. It is considered as one of the most divine locations in Tamil Nadu. It has a special history of being called with different names like Mayuravagaram, Arasavanam, Kannapuram, Mayil Malai, Mayura Kiri etc, and praised by Vedanta Subramanipillai in the scripture '*Mayuragiri puranam*' and by Arunagiri Nathar.

A *madam* is located here especially to take up religious work but off late this *madam* has crossed religious barriers and performs social service. Social service is being done from the period of his holiness Kundrakudi Adigalar. He perceived that social service unlike religious work will reach all the people. He initiated social service through the *madam* since 1970's and the service continues.

Kundrakudi Adigalar had a clear ideology that people should have high values and purity of mind for any development to take place. By this ideology, he motivated the people of this town with the co-operation of the Panchayat against alcoholism. His sincere and concentrated efforts converted Kundrakudi into a special town.

In 1984, our honorable Prime Minister, the late Mrs. Indra Gandhi announced Kundrakudi as an ideal town. After Kundrakudi Adigalar, the noble works are carried out through the *madam* and his disciple 'Ponambala Adigalar'. His holiness 'Ponambala Adigalar' spearheaded various social activities including AIDS awareness, women welfare, against alcoholism, education, medicine, art and culture. His speeches brought clarity of thought and promoted harmony among the people.

Furthermore, people have the thought that 'one should earn his life in a dutiful manner' with this philosophy the '*madam*' has been providing livelihood oriented trainings with a low fee structure. It includes various trainings, such as tailoring, wardrobe preparation, embroidery, computer operations, electrical curing and repairing, etc. Such training helps to get a favourable job for the

trainee and also develops human resource in the society. Such development oriented work is an excellent example for others to follow suit.

Apart from this, the 'madam' organizes seminars on various aspects like technical training health, yoga, women welfare, humanity, etc. The madam does services, which enable individuals and the society to develop in a holistic manner. Kundrakudi is a town with cleanliness, good health, clear mind and beauty. It does not have wine shops and communal disputes. People living here have a high degree of humanity and earn their life in a dutiful manner. 'A society with peace and harmony' was the vision of his holiness 'Kundrakudi Adigalar' and such a situation exists in Kundrakudi now. Truly, Kundrakudi is a model town for others to imbibe the values and spirit of the madam.

## 6.7 Way Forward

The elimination of child labour is not an impossible task. Multi-pronged approach through direct and indirect interventions can address the issue. Direct interventions could be policy changes to make child labour unattractive for employers, effective enforcement of the legal provisions against child labour, media based efforts for educating parents and employees and proactive action to bring child labourers into education system. Indirect intervention could be ensuring livelihood security in the pockets where child labourers are rampant.

Empowering persons with disabilities through education is very important. The society has to get rid of stereotypical thinking and assumptions about people with disabilities can and can't do. The truth is that, the range of abilities of persons within any disabilities group is enormous. To reach acceptable levels of gender status, the State has formulated a three-pronged approach. One is to give targeted support through various government schemes regarding health and education. The second is creating legal provisions to address the atrocities against them. The third is ensuring the presence of women in governance by creating reserved constituencies.

Mandating announcement of gender policy by each department and organization and the allocation of necessary funds for implementing the same would help a lot in mainstreaming gender concerns. Further, a system of collecting disaggregated data based on gender, age and social group on all aspects related to human development need to be instituted to get a clear picture of the status and for monitoring the progress.

In case of aged persons, increasing the coverage of aged persons under the existing schemes and introducing various new schemes benefiting them.



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## VII. Local Governance

Local governance is a fundamental human development initiative. Inspiring governance at grassroot level will thoroughly trigger the human development process. Village Panchayats are the nearest governmental institutions to relate and demand for people's need. The 73rd constitutional amendment generated great expectations through re-activating decentralized democracy in India. It was considered as radical in nature, for it promised institutionalization of a third stratum of government at the local level. With this leap step, all over India the leadership base got expanded from 4700 MLAs and MPs to 3.2 million Panchayat representatives. Tamil Nadu is one of the few states in India, which facilitates and nurtures local government institutions as more powerful development strategy at grassroots level. The chapter has been divided into two heads as covering the workshop reflections and community participation in Grama Sabha meeting both form part of Local Governance.

### 7.1 Workshop Reflections

The commitment and competency of any village Panchayat can be observed from the fulfillment of village needs, which act as catalyst for human development. In order to achieve that all the village Panchayats need to act as SMART Panchayats (Self – sustainable in economy, Practicing Mutuality, Accountable to community, Responsible for social justice, Transparent in nature). Building such SMART characters in Panchayat system needs initiative governance and inspirational leadership. Being the scope for contributing to human development by governance is so high; it is more relevant to snapshot the status quo of the performance of governance and leadership in the district. For this purpose, as a part of Sivagangai District Human Development Report (DHDR) preparation, a workshop on Human Development and Governance was conducted with the participation of Panchayat presidents. As a result, 40 Panchayat presidents representing all the twelve blocks of the districts participated and shared their experiences. The outcome of the workshop was grouped into leads and issues, and presented in this chapter on local governance (Also see Annexure Table A 7.1, A7.2, A7.3 & A7.4).

1. It was commonly appreciated that as the Panchayat presidents reside within the locality of the Panchayats, they were easily approachable by the local community. In a way the presidents could feel the problem in first hand and address the basic needs raised by the local people. So, the relevance of involving Panchayat representatives in human development initiatives can be the key for a successful outcome.
2. In the process, several activities were shared in the forum, for instance, voluntary efforts taken by the Panchayat systems related to ensuring enrolment of every child in school for better education and monitoring the performance of Sub Health Centers (HSCs) and Primary Health Centres (PHCs) for better health attainments.
3. Under the Tamil Nadu Panchayat act, (1994) the Panchayats primarily focussed on maintenance function and implementation of development and welfare schemes of the government. The proper execution of such activities were guided and monitored by district administration. The participants expressed their satisfaction on this mechanism and appreciated the mutual understanding as very positive to cater the needs of the community.

4. The Working Committees were formed in all Panchayats but its function and involvement in development seems to be very marginal. Of all the Working Committees, the Development Committee has greater scope of performing towards Human Development in their respective Panchayats. Strengthening and orienting these institutions need to be seriously considered by the district administration.
5. Participation of community in development initiatives is seen as an indicator of empowerment. It ultimately builds the capabilities of the community for widening their choices. At the Village Panchayat level, Grama Sabha is the stage set for the people to practice direct democratic principles. Panchayat and District administrations organize regular Grama Sabha meetings but the quality of community participation is poor. The reason being given was that the resolutions passed in the Grama Sabha meeting are not properly followed up as expected by the community. Thus, mechanisms can be established to valuing resolution and keeping follow-up on the passed resolution and ensuring its implementation on time.
6. Institutions are bigger than individuals ("Thangam seiyadhadai Sangam seiyum"). SHGs are functioning in almost all the villages. They can be considered as organized social capital and need to be integrated with Panchayat administration for taking up integrated Human Development initiatives with Panchayat system. For instance, in several Panchayats the sanitary complex maintenance is taken by the local SHG. The act also ensures community stake in common assets.
7. The district administration can initiate the process of creating 'model Panchayats' which integrates activities with services for triggering Human Development process. At District levels – some of the sample Panchayats can be chosen in the First Phase and the district administration can intensively work in these Panchayats to develop into 'model Panchayats'.
8. Like District Human Development Report (DHDR), Panchayat level Human Development Report (PHDR) can be prepared and it can set short, medium and long term goal that can be an effective guide before the Panchayat council.
9. Most of the Panchayats are running short of fund – mainly due to electricity charges. This puts most of the Panchayats under debt and results in poor service quality to local community.
10. To the Panchayat system, development means only the infrastructure creation. Beyond that, contribution of Panchayat system related to livelihood security, health and education development are marginal.
11. The Panchayat system in all the three tiers needs to be free from political biasness and work as a neutral institute.

As a whole, it was felt by all the participants that the functions of Panchayat institutions are directly related with human development. In present conditions, even though the services and developments are taking place but it lacks wholesome integration. Being a microcosm unit of Indian democracy, the scope for operation with integration is relevant for scaling up the Human Development initiatives. The bottom line, Panchayats can be treated as nodal points for Human



Development Initiatives and the human development concepts have to mushroom and flow from Panchayats as the base to other levels of governance.

## 7.2 Community Participation in Grama Sabha

The Proposed methodology for DHDR preparation insisted the participation and involvement of the community by way of introducing the concepts of Human Development (HD) and also capturing community aspiration on HD. In order to achieve this purpose, the Grama Sabha meeting on 15<sup>th</sup> August, 2006 gave an opportunity to disseminate the HD concepts to a wider audience and to record their views on the achievement front through Panchayats. Moreover observing the participation of community in Grama Sabha will provide greater insights in terms of political participation as an indicator for measuring human development. Documenting the real process of Grama Sabha meeting in sample is expected to reflect political awareness of local community – which is a crucial aspect of political empowerment. So, the DHDR team decided to capitalize this occasion and hence went for a feasible design considering the time and resource available. The following presentation is an attempt to consolidate the outcomes of the effort made.

**Table 7.1 Participation in the Grama Sabha meeting held on 15th August, 2006.**

No	Block	President	Name of Panchayat	Total Voters	Total no of Participants			
					Male	Female	Total	Youth
1	Sivaganga	Ramanathan	Nallukottai	1200	60	150	210	5
2	Kallayarkoil	K.R.Bose	Kallayarkoil	4500	126	300	426	15
3	Manamadurai	Mrs. Sasikala	Idaikattu	2988	121	105	226	50
4	Thirupuvanam	Mariselvam	Kaloorani	1600	72	90	172	10
5	Illyankudy	V.Murugan	Perumpacheri	1850	80	67	147	45
6	Devakottai	Mrs. Karpagam	Thirumanavayal	2200	30	190	220	0
7	Kallal	P.R.Murugappan	Thallakavur	2400	116	150	264	
8	Thirupathur	M.Manikam	Thirukosthiyur	1400	70	80	150	10
9	Sakottai	Karruppaiya	Amaravathy pudur	2300	81	162	243	0
10	S.Pudur	Mrs.K.Shyamala	Ulagampatti	2000	118	93	211	0
<b>GrandTotal</b>				<b>22438</b>	<b>874</b>	<b>1387</b>	<b>2269</b>	<b>135</b>

### 7.21 Observations

- In general, the women participation (both in number and quality) was found to be more than their counterparts in all the places. In numerical terms, they were about 61 per cent of the total participants. This was found to be positive where women are legitimately putting their voices in Grama Sabha forums. The space provided by the community to women is welcoming and it also helps to reduce gender disparity on the one hand and empowers women on the other.
- Of concern is the participation of youth in the Grama Sabha meeting being negligible and even nil in certain Panchayats. On an average they were about 6 per cent of the total participants. This might be due to poor awareness among the youth on their role in the Grama Sabha. On the other hand, it seems the village elders do not give any particular role for youth to participate in Panchayat activities. In any case, such a trend

should not be encouraged which might have ill effect on the long run political course. Because initiating and sustaining human development attainments can only possible if young minds get involved in the process as they are the future leaders. The missing participation of youth group need to be studied and also the Panchayats should plan for ensuring youth participation.

- Though the number of youth were less, they actively participated in the meeting. They were curious to know about more aspects on the working of the Panchayats during the discussion. Particularly the recent generations with better education attainments are quick in grasping the content of discussion and more open to changes. So, marketing human development concepts and perspectives to youth will be a great investment for sustaining any development initiative.
- The 33 per cent (not less than) reservation of women in PRI, is a revolutionary in terms of leashing out the leadership qualities of women in development front. In most of the Panchayats, with the help of district administration, women leaders were performing their role independently with a high level of confidence and perfection. This is the real empowerment of women in the political sphere. However, in our sample observations at Grama Sabha meeting, the Panchayats headed by the women president, the meeting was facilitated either by their husband or by their relative. It was unfortunate that the same condition prevailed even in the Panchayats reserved for women. Even though the state and district administrations are not encouraging such practices, it is seen as an open secret in practice. The real political participation of women can be ensured through awareness generation in exercising their right as well as educating them.
- As per Panchayat act of the state government, the quorum for a Grama Sabha meeting is 10 per cent of eligible voters' participation. In our observation, the average percentage of total participation to total voters ranged between 9 and 12 per cent. Though the attendance was poor, most of the Grama Sabha meetings were qualified in legal terms.
- Though the participation qualifies the legal aspects of Grama Sabha meeting, in most of the cases, formal procedures for conducting Grama Sabha meeting, such as agenda generation with people, facilitating enough discussion, making decision in consensus and consolidating the resolution were not properly followed. This may be because of the absence of proper orientation to the leaders on Grama Sabha meeting. District administration can take initiative in this regard because Panchayats being nearest institution to the community, it has to demonstrate value-based systems and procedures. At the same time, in Nalukottai Panchayat (Sivaganga Block) the procedure was consciously practiced by the president and this needs to be appreciated.

### **Nalukottai – Model Panchayat**

Winning awards is an achievement. Repeating it is a rare feat. 'Nalukottai' Panchayat has done astonishing achievements of continuously winning awards. It is located in Sivagangai district and one must admire the achievements done by this village. The hero behind the screen is its admirable president.

## **Overview**

It is a Panchayat located 15 k.m away from Sivagnagai comprising of Thiru -Narayanapuram, Indra Nagar, Radhakrishnan Nagar and Ram Nagar hamlets. It has a population of 3024 people with 1543 males and 1481 females. It has 460 houses with 1742 voters and it is the first Panchayat to do its operations using computer. Since 1965, its president had been Mr. Ramanathan. For the past few elections, he has been selected as the president without competition.

## **Drinking water facilities**

It has two overhead tanks which supply 60,000 litres of water. It has four electric pumps and one small electric pump and two oorani's (Ponds) fulfill the drinking water purpose. Hence, the village has ample drinking water facilities.

## **Toilet facilities**

This Panchayat has one sanitary complex, two common toilets and all the 460 houses have individual toilet facilities. Apart from this, it is the only village which produces electricity from human sewage which is used for lighting purposes. Further the garbage produced is categorized into decomposable and non decomposable and vermin compost is produced from it.

## **Educational facilities**

The village has one middle school, one private school, one old age people school and a playground.

## **Women Self Help Groups**

This village has nine Self Help Groups (SHGs) and it is the only village that is having ration shop being run by SHG. Through this collaboration the service rendered by the ration shop has been very apt and prompt.

## **Telecommunication**

The Panchayat has a post office along with telegram facilities. It has one public telephone booth, 100 household telephone connections and 26 cellular phone connections.

## **Special Features**

The Panchayat has an asset of more than 2 crores, it maintains 10 acres of social forest and 1250 km length tamarind plantations. It is the only panchayat having a common graveyard for all religions.

The Panchayat has 100 street lights, 8 photo electronic bulbs, 2 mercury lamps and it is the only Panchayat without huts. Tax collection is 100 per cent and there are no defaulters.

## **Awards**

The Panchayat has earned many awards which add fame to its name. The awards include the Best Panchayat award in 1998-99 and also in 1999-2000. It received a special award for common religion burial ground in 2000-01. Clean village award in 2004 and Nirmal gram Puraskar award in 2004.

## **The 'President's achievement**

The 'President of India' invited Nalukottai Panchayat president Mr. Ramanathan as his special guest for the 2004 Republic day celebrations. Further, this village was included in the travel plan of our honorable President for South India.

Mr. Ramanathan's achievements are not only admirable but also scientific and professional. Through his work, he has earned himself and his village a permanent place in history of our nation, which has to be written in golden letters. He had lived his life by the Kural.

*"Be born, if you must, for fame: or else  
better not to be born at all"*

And made himself a perfect example for the same.



**Table 7.2 People's Voice on Panchayats - Achievements, Issues and Future thrust**

Block	Panchayat	Changes (achievements )	Issues	Sectors requiring focus
<b>Sivaganga</b>	Nallukottai	<ul style="list-style-type: none"> <li>• Transportation facilities have improved.</li> <li>• Rs. 2 crores assets were made</li> <li>• Push Migration completely stopped.</li> </ul>	<ul style="list-style-type: none"> <li>• As it is Rainfed agriculture- irrigation facilities needed attention ( percolation tank, Bore well , Tank rehabilitation )</li> <li>• Alternative employment need to be generated</li> <li>• Access to banking facility is not there.</li> </ul>	<ul style="list-style-type: none"> <li>• Agriculture Dept.</li> <li>• DIC &amp; DRDA for employment</li> <li>• Transport Dept. – for Bus facility</li> </ul>
<b>Kallayarkoil</b>	Kallayarkoil	<ul style="list-style-type: none"> <li>• SHGs , Education – new building has been constructed</li> <li>• Panchayat administration has improved</li> </ul>	Fund constraints	<ul style="list-style-type: none"> <li>• Health and Education Dept.</li> </ul>
<b>Manamadurai</b>	Idaikattu	<ul style="list-style-type: none"> <li>• Common Toilet- 3 No. constructed</li> <li>• Cement road has made environment neat and clean</li> <li>• Overhead tank -2 No. is present and satisfies the drinking water need.</li> </ul>	<ul style="list-style-type: none"> <li>• No service from VAO.</li> <li>• Threat of ground water depletion due to large no of bore well along the riverbed.</li> <li>• Sand mining.</li> <li>• Bus facility needed.</li> <li>• Line man needed from electricity dept.</li> </ul>	<ul style="list-style-type: none"> <li>• Education- Higher secondary school needed</li> <li>• Health- PHC and VHN required</li> <li>• Transportation- Bus service required.</li> </ul>
<b>Thirupuvanam</b>	Kaloorani	<ul style="list-style-type: none"> <li>• General Health has improved</li> <li>• Total sanitation has improved</li> <li>• Roads have been laid</li> <li>• Common graveyard for all caste people</li> </ul>	<ul style="list-style-type: none"> <li>• Encroachment</li> <li>• less Govt. waste land</li> </ul>	<ul style="list-style-type: none"> <li>• Health and Welfare dept.</li> <li>• Education dept.</li> <li>• Drinking water and water resources dept.</li> </ul>
<b>Ilayankudy</b>	Perumpacheri	<ul style="list-style-type: none"> <li>• Road has been built</li> <li>• Safe drinking water provision made</li> <li>• Primary education ensured for all</li> <li>• Electricity facility ensured</li> <li>• Transportation improved</li> </ul>	<ul style="list-style-type: none"> <li>• Problem in PDS ration shop distribution of goods in right quantity.</li> <li>• No drainage facility</li> <li>• Service of VHN not received by Naganathapuram and colony people.</li> </ul>	<ul style="list-style-type: none"> <li>• Primary school has to convert to middle school.</li> <li>• Library needed. Anganvadi needed.</li> <li>• Health – PHC needed, Common Toilet facility needed</li> <li>• Infrastructure- Street light, Cement road, Drainage facility and</li> </ul>

				Road for Vellaisamy Nagar <ul style="list-style-type: none"> <li>• SHGs - building, training centre required</li> </ul>
<b>Devakottai</b>	Thirumanavayal	Drinking water ensured <ul style="list-style-type: none"> <li>• Roads needed at hamlet level</li> <li>• Permanent Drinking water sources required</li> <li>• Maintenance of HSC.</li> </ul>	<ul style="list-style-type: none"> <li>• Safe Drinking water</li> <li>• Education</li> <li>• PWD and DRDA – Road.</li> </ul>	
<b>Kallal</b>	Thallakavur	Roads were constructed <ul style="list-style-type: none"> <li>• Education- school has been built</li> <li>• Drinking water facility ensured</li> <li>• Common Kalanjiam – for extending support to orphans and poor.</li> </ul>	<ul style="list-style-type: none"> <li>• Ground water restoration needed. Inadequate ground water, employment opportunities need to be provided. Govt schemes have not reached landless people.</li> </ul>	<ul style="list-style-type: none"> <li>*Employment opportunity need to be created</li> <li>*Education Dept.- High school</li> <li>*Health Dept.- Drinking water and Sanitation facility</li> </ul>
<b>Thirupathur</b>	Thirukosthiyur	<ul style="list-style-type: none"> <li>• Drinking water facility (Desilting of oorani) got improved</li> <li>• Toilet facilities made</li> <li>• Road- partly done</li> <li>• *Rs.10 lakhs worth of building constructed for PHC</li> </ul>	<ul style="list-style-type: none"> <li>• Drinking water facility is lacking for Keezha theru and Therkutheru ( overhead tank is not there )</li> <li>• In spite of efforts, high school is not connected into higher secondary school</li> <li>• Socian oorani survey no.42 has to be brought under the Panchayat.</li> </ul>	<ul style="list-style-type: none"> <li>• Agriculture Department – For community well</li> <li>• Health Dept.- Drainage facility, sanitation etc</li> <li>• Education Dept.- Higher secondary school needed.</li> </ul>
<b>Sakottai</b>	Amaravathy pudur	<ul style="list-style-type: none"> <li>• Education – complete enrolment</li> <li>• Transportation,</li> <li>• Drinking water has been ensured</li> </ul>	<ul style="list-style-type: none"> <li>• No facility for Higher secondary school – hence problem exists in continuing education by girl children</li> <li>• Health- Sub Health centre is there. But require Hospital facility for Accident cases</li> <li>• Naduoorani renovation needed in periyar nagar</li> <li>• Bus stop facility required in Rajeswari nagar</li> </ul>	<ul style="list-style-type: none"> <li>• Agriculture Dept</li> <li>• Agri. development bad for ground water recharge</li> <li>• Alternative employment generation needed</li> <li>• Education Dept - no higher secondary school</li> <li>• Electricity Dept - placing of line man</li> </ul>

<p><b>S.Pudur</b></p>	<p>Ulagampatti</p>	<ul style="list-style-type: none"> <li>• Education- completes enrolment. Middle school has become High school</li> <li>• Sanitation – Toilets has been constructed</li> <li>• Water – Drinking water facility made</li> <li>• SHGs development work done</li> </ul>	<ul style="list-style-type: none"> <li>• No Transport facility (bus ) – Pudhuvadi and Padaminji</li> <li>• Roads are 15yrs old and needs repairing</li> <li>• Health- 3 km walk needed to get first aid service</li> <li>• No Electricity connection for Group House</li> </ul>	<ul style="list-style-type: none"> <li>• Road and Transportation Dept., Electricity Dept and Welfare dept.</li> </ul>
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### 7.3 Summary

Local governance is a fundamental human development initiative. Inspiring governance will thoroughly trigger the human development process. Village Panchayats are the nearest governmental institutions to relate and demand for people’s need. The Panchayat leaders were easily approachable by the local community because they reside within the locality. Panchayat system perform voluntary functions related to ensuring enrolment of every child in school for better education and monitoring the performance of Sub-Health Centres (HSCs) and Primary Health Centres (PHCs) for better health attainments. The proper execution of various development and welfare schemes, guided and monitored by the district administration was appreciated. However, the functioning of working committees and its involvement in development seems to be very marginal. Even it was felt that the quality of community participation in Grama Sabha meeting was poor. The reason being the resolution passed in Grama Sabha meeting had poor follow up. Women’s participation in grama sabha meeting was better and legitimately rising their voices in such forum is a positive sign. However, all the more worrying feature was in women headed Panchayats the meeting was facilitated either by her husband or by her relatives. Additionally, poor participation of youth is a discouraging phenomenon because they are supposed to remain as the back bone of human development initiatives and their sustenance. Most of the Panchayats were facing financial crunch.

### 7.4 Way Forward

Involving Panchayat representatives in human development initiatives can be the key for a successful outcome. Strengthening and orienting the working committees need to be seriously considered by the district administration. In addition, mechanisms should be established to value the resolution and further follow-up on the passed resolution and ensure its implementation in time. Other village institutions like Self Help Groups (SHGs) can be considered as organized social capital and need to be integrated with Panchayat administration for taking up integrated human development initiatives with Panchayat system. This act also ensures community stake in common assets. The missing participation of youth in Grama Sabha meeting needs to be studied and proper plan has to be evolved for ensuring their participation. And the real political participation of women can be done through awareness generation in exercising their right through educating them. At district level, some of the Panchayats can be chosen as model Panchayats and intensive work in these Panchayat will trigger the human development process on the one hand and will become a set example for other Panchayats to follow suit. Broadening the tax base for revenue generation is another important challenge before Panchayats and it is possible only by gaining confidence through



their good work. Panchayat system has to venture beyond infrastructure development like livelihood security, health and education in the Panchayats. Like DHDR, Panchayat Human Development Report (PHDR) can be prepared with short, medium and long term goal that can be an effective guide before the Panchayat council. Furthermore, Panchayats can be treated as nodal points for any Human Development Initiatives and the human development concepts have to mushroom and flow from Panchayats as the base to other levels of governance.



## VIII. Summary and Way Forward

The preceding chapters of this DHDR have attempted to summarize the human development gains on various aspects in the district. It became clear from these discussions that the district is on the fast lane on the social development path with considerable gains in human development. But the improvement in terms of economic development has been limited particularly considering the distributive aspect. The district still remains industrially backward and huge out migration from the district for earnings has become a common feature. Even regarding social development, while there had been overall improvement in aspects like nutritional status of children, there was considerable inequality in certain other aspects within the district like female literacy. So the social development focus given so far needs to be sustained based on their impact on human development and it needs to bring in comprehensive human development in the district. The following chapter summarizes the achievement made in various sectors and other development aspects in the district and also suggests ways for overcoming the current challenges.

### Income, Livelihood and Poverty

Human development is the end – economic growth is the means. Evidences of growth over the years at the state and national level disclose the fact that there is no automatic link between economic growth and human development. For instance, human development requires greater attention to be paid to the problems of employment, poverty reduction, empowerment of the weaker society, greater participation of the people in the process of growth and long term sustainability.

District income statistics present a glimpse of the districts' entire economy. The annual growth of the Sivagangai district income was of the order of 5.36 per cent and occupied a relative 27<sup>th</sup> position among 30 districts in the state. The per capita income of the district was Rs. 9139 and the growth was 4.32 per cent, below the state level in 2001-02. This clearly illustrates the widening of the gap in per capita income between Sivaganga and other districts of the state.

Under Sectoral contribution, the share of primary sector is declining and reversely a rapid increase in the tertiary sector has taken place. The share of manufacturing sector has shown a marginal fall of no significance. The nature of transformation of the economy directly from agriculture to services while bypassing industrial sector clearly indicates the neglect of industrial development in the district. The changing structure of the district income needs further enhancement through industrial development, for accelerating the growth process in agriculture, industrialization of the economy with emphasis on agro-based industries and industries supplying input to agriculture is *sin quo non*.

The work force in Sivaganga has three distinct features say low work participation rate, lower ratio of females in the workforce and casualisation of work participation with increasing marginal workers. The proportion of working population engaged in agriculture was 62.25 per cent in 2001. This is a clear indication of the prevalence of large scale disguised employment in agriculture. Diversion of labour from agriculture to other sectors is of utmost important to turn into a productive economy.

Sivaganga is largely an agrarian economy. The cropping intensity is 100 per cent. This indicates that only one crop is raised in a year and the second crop is not followed. The



paradox is that the district has vast waste land, untapped groundwater and a large number of traditional storage structures of small and big tanks under poor maintenance. The condition has to be reversed, and proper utilization of irrigation facilities should make double cropping possible. Along with agriculture, animal husbandry is an important income generating activity but the district lacks effective milk co-operatives. Most of them were reported defunct. Reviving and regulating them is a necessary step to ensure their income.

Poverty in the district is a problem with grave dimension. It is, quantitatively a big problem as there are as many as 45,890 families living below poverty line (BPL), who are resource-poor in terms of assets, skills and credit availability, making their earnings abysmally low. This requires employment generating schemes, especially for the unemployed and for the casual labours whose incomes are erratic.

Agriculture continues to be the primary source of bulk employment, disguised in nature. Agricultural share in income declined over the period, whereas the share of income from the tertiary sector improved and stagnated in secondary sector. In per capita terms, this means that the average output per worker in the primary sector increased only marginally compared to the other sectors. This has wider implications of distribution of income and consumption.

Remedial measures in the agriculture sector are, therefore, necessary in both physical and monetary terms. Diversification of agriculture with emphasis on high value crops and allied activities to increase the productivity per unit of capital with proper forward and backward linkages would greatly mitigate the problem. The increase in workforce could be effectively utilized in more self-employment ventures such as animal husbandry, food processing and horticulture. Small scale industries producing items of mass consumption and other non-farm occupations need to be encouraged.

To achieve success in these policies, for the self-employment is a necessary requirement, so appropriate measures and training for such ventures need to be formulated. Institutional arrangements together with some marketing facilities for income generation have to be put in place. More importantly, specific policies on tourism development have to be formulated exclusively for Sivaganga. All these efforts should converge to convert Sivaganga from developing to developed economy.

## **Health**

The dictum 'Healthy mind in a healthy body' is more relevant from the human development perspective. Life expectancy is the indicator used for calculating HDI as it is expected to capture the overall health status of the population. In fact, fertility, morbidity and mortality have significant influence on life expectancy and on demographic trends of the population.

The total population of the Sivaganga district was 11.53 lakhs with lowest density of 275 persons per sq.km. in the state. The growth rate of population was 4.32 per cent which placed the district in one among the top three districts in Tamil Nadu taking the record of past three decades. This is the result of low birth and death rates recorded in the district. In terms of CBR and CDR the district has achieved the goals set for the year 2000 and almost nearing the 2007 targets set by National Health Policy. Thus, the district has achieved low birth rate, low death rate and low growth rate of population which characterizes third stage of demographic transition. But, with no take off in industrial development and primitive in urbanization questions

the very premises for placing the district in the third stage. Though it is difficult to find all the reasons for this transition, considerable increase in female literacy and consequent adoption of contraceptive measures could have played an important role. It is widely felt that huge out migration from the district would have strongly influenced the demographic trend in the district. Barring socio-economic factors, family planning measures were successfully put into use.

The district had a sex ratio of 1035 females per 1000 male population as per 2001 data. Sex ratio in SC social group almost matches with the district status. This indicates the better position of women with respect to men. However, the effect of out migration on the sex ratio of the district needs to be identified. In case of juvenile sex ratio, there has been decline from 958 to 946 between 1991 and 2001. This will have serious repercussions on the future trend in the sex ratio and the overall well being of the society.

Mortality levels in terms of IMR, SBR and MMR in the district showed a declining trend and the improvement is impressive. But the inter-block and PHC levels variations should be taken into account than merely sticking to the district averages. At PHC level, some of them have recorded higher rates in the above vital events. So any target on these indicators should be set at PHC level and at the same must be treated as a unit for planning.

The district has recorded 98 per cent of institutional delivery also called 'safe delivery' comprising 13 per cent at HSC, 5 per cent at PHC, 36 per cent in Government hospitals and 46 per cent in private hospital. This could be the reason for low IMR, SBR and MMR in the district. Only 2 per cent of the deliveries were domiciliary in nature. But, high cost in private and questionable affordability of such costs by the people necessitates looking for the government health care services and further revamping the public health system becomes inevitable.

Diseases control is highly successful in this district particularly the functioning of TB units is worth mentioning. Counseling for AIDS patients through VCCTC was helpful in building confidence of the patients and toning down the social stigma attached to the dreaded disease. The incidence of leprosy cases has come down and the district is nearing closer to the goal of complete eradication in the near future.

Health infrastructure remains stagnant in the district. With the increase in the number of inpatients every year there is no concurrent increase in the number of beds in the government hospitals. Facilities for taking X-rays and to conduct lab tests were found only in few government hospitals.

Most of the health and demographic issues arises from the disadvantaged position of women in the society subscribing to the view that health of the population is largely dependent on the health of the women. Even for significant improvements observed in the district, the improvements in women's position was very instrumental. So the long-term solutions for addressing the overall health status of the district lies in improving the position of women in the society. So, significant investment on female literacy and education and livelihood enhancement is essential to achieve the same.

In the medium term, thrust should be given on the following areas to make significant positive impact on the health scenario of the district.

- Identifying the health hot spots with PHCs as a basic unit along with geographical area, social group, age group and gender through the decentralized participatory approach and addressing them in a targeted manner. Its time to go beyond average and district level indicators.
- It is also time to shift the focus from quantity of health services to quality and efficiency. Clear performance indicators and efficient monitoring system with incentives for better performance need to be put in place.
- Promoting self-help approach in handling health problems particularly with respect to women. Self-help programmes improve women's knowledge of their bodies and empowers them for gaining control over their bodies and their sexuality.
- Promoting healthy food habits like including millets and non-cultivated food items like many green in the diet, because change in food habit is one of the primary reasons for various illnesses witnessed now. This would considerably reduce anaemia and non-conventional diseases.
- Ensuring community ownership of many health initiatives through various means so as to make health services demand driven in nature.
- Learning from success stories at micro and macro levels and taking that learning to other areas.
- Increasing health budget for the activities component in the district.
- Promoting Indian system of medicines on a large scale.
- Bringing in many private health institutions in a way that complements and supplements the government health efforts. This should go hand in hand with regulation of private practitioners through commonly accepted service and cost norms.

Other specific suggestions are,

- Increasing the share of institutional deliveries to 100 per cent at the earliest.
- Significant educational efforts need to be made to reduce the share of women marrying below the age of 18 and to reduce higher order births. Adolescent girls should be targeted for these education efforts.
- Addressing the issue of anaemia in a comprehensive and effective manner. Coverage of target group for IFA tablets should be drastically increased. Here too the recent initiative to use the Indian system of medicine to address anaemia is a step in the right direction.
- Improving the participation of men in contraception through proper education and provision of services
- Identifying specific reasons for declining the juvenile sex ratio and addressing the same on a priority basis. For this, implementation of the Preconception and Prenatal Diagnostics Techniques Act (PC & PNDT Act) need to be ensured.



- Ensuring adequate man power by filling the vacancies in the health department.
- Giving high priority to address HIV/AIDS in the district. In this respect the recent initiative regarding convergence of HIV /AIDS with RCH Programme is a positive move.
- Giving high priority to provide drinking water within premises and to facilitate good drainage system both at home and streets.

To understand the health situation in the district comprehensively there is a need to look at the conditions of all sections of people rather than judging the impact of development in health as averages. Averages most often mislead since they overlook distributive justice. While data on the education situation is available social group wise, most of the health and nutrition-related indicators are available only at the aggregate level. The same inadequacy was also witnessed for data on water and sanitation situation in the district. Understanding the health situation of vulnerable groups like SC, ST is possible only if disaggregated data is available. The recent initiative to collect systematic information on MMR through verbal autopsy is to be appreciated. There is also inadequacy regarding data collection on disease incidence and so in calculating disease burden. So a system of independent, disaggregated data collection, analysis and flagging in the right forum on aspects regarding health, nutrition and sanitation should be put in place.

Exclusive study on the out migrants from the district is to be taken up regarding their destination, purpose and quality of well being in the migrated place. This information could throw light on the human development condition of considerable share of population in the Sivaganga district.

Overall the districts' performance was better in health. Yet, further improvements have to be done to live up to the motto of 'Health for all'.

## **Education**

Education development in the Sivaganga district manifests significant progress on some fronts but dismal failure in other areas.

The literacy rate of the district has been increasing progressively over the years. The 2001 census recorded a literacy rate of 66 per cent, up from 52 per cent in 1991. Male literacy grew from 64 to 76 per cent and female literacy from 41 to 57 per cent in the same year. As a result, pertinent reduction in the gender gap has taken place. Yet, the district has to educate 34 per cent illiterates to acclaim any significant achievement in literacy.

The district has improved Gross Enrolment Rate (GER) and Net Enrolment Rate (NER) through effectively bringing the children into school. Already the GER has surpassed 100 per cent in both primary and upper primary sections. It is in the process of achieving the long cherished goal of 100 per cent Universal Elementary Education (UEE). Government policies and programs initiated from time to time particularly Sarva Shiksha Abiyan (SSA) have made significant quantitative changes in elementary education. Elementary education has succeeded to achieve a greater enrolment rate for boys and girls but need to achieve higher and sustainable completion rate.

The input factors like pupil-to-teacher ratio, number of trained teachers, single and double teacher schools have direct relation with the outcome of education. Many teachers' post remain vacant in elementary schools has lead to high pupil-to-teacher ratio and many schools have single teachers. This has reflected in the poor pass percentage of students. The perception of parents and teachers in the district has brought many issues to the surface that needs to be addressed. For instance, people perceive that the quality of education is unsatisfactory and the basic amenities are poor in the district. Whereas, from teacher's point of view; poverty, illiteracy and orthodoxy of parents and poor participation of the community are the issues that need immediate attention. Undeniably, both the viewpoints influence the quality of education imparted to the children. The message is clear. Unless these issues are addressed, they will have serious repercussions on the level of confidence and competence of the children.

The higher secondary pass percentage is formidable in the district. In case of higher education the district is endowed with arts, sciences and technical education. Low participation of female in higher education needs special focus to achieve a society of higher order.

The concept of 'Human Development' revolves around the quality of life of the people. Education has two dimensions viz. quantity education and quality education. The former has made significant stride in the district and the later is way behind and yet to take off. Now the focus is on quality education. Concrete steps and a series of initiatives have to be taken to provide quality education. For instance, improving the basic amenities in schools, improving and enriching the syllabus, imparting education to all students, improving the professional skills of teachers handling different subjects, training them by explorative, creative, interactive and technology based methods etc., are various dimensions of it.

Communities and parents also have a vital role to perform in the education of children. A multi-pronged strategy needs to be introduced where parents, through participation in the education of their children, realize the value of educating both boys and girls for the economic and social benefits of the family. Other important policies could include the lowering of the opportunity costs of girls' education, providing free education to the economically and socially backward communities, creating more scholarships for girls, making the curricula more gender sensitive, recruiting more women teacher and involving the community in the development and planning of education for the youth. This would narrow the gender gap and enhance female education, both important indices for human development. Vocational training should be structured so as to enable students to find gainful employment, while tertiary education should be updated to prepare the youth for the demands of the market.

The strategies to be adopted at different levels of education in the district is given below:

- **Elementary education:** Twin strategies of a) sustaining the quantitative improvements and b) giving fresh focus on quality parameters need to be followed.
- **Secondary and higher secondary education:** Both quantitative and qualitative parameters need to be focused more.
- **Collegiate education:** Creation of necessary infrastructure and ensuring enrollment of girls need to be given focus.

Overall investment in education has to be increased particularly in infrastructure in the district especially S.Pudur, Kallal and Thirupuvanam blocks. In doing so, they become on par with the rest of the blocks.

It is time to change the gear, from quantity education to quality education along with decentralization of educational management through effective community participation for a meaningful human development in the district.

## **Infrastructure**

On the infrastructural front, the district fared well in case of roads, electrification of villages and communication facilities. The district administration needs to be appreciated for improvement in the above mentioned public infrastructure. The recent effort to identify infrastructural needs as well as planning for the same at the village level through various schemes is a very positive move. Attempts towards community ownership of the assets created and maintenance by the community are highly appreciated

Despite achievements, areas of concern remain. As far as road infrastructure is concerned it is time to look beyond the availability of roads. Poor quality of roads is a wide-spread problem and it requires continuous monitoring and timely action to rectify it. In this case, local bodies can be given the responsibility of maintaining the village roads. In case of electricity reach, household level enumeration and primacy must be given to reach all these houses that do not have electricity in the district.

It is time to review the role played by post offices in connecting people and take necessary measures to make them more relevant. As postal network has wide presence in the district they can be made to function as multi-service points in collaboration with other entities. Necessary learning need to be taken from various experiments conducted in other parts of the country and pilots to be tried for the same.

The penetration of banking services and insurances are moderate in this district. Under insurance, much has to be done to make it serve as an important instrument of social protection in various spheres of life, thereby making it significantly contributing to human development. Intensive insurance education need to be given with specific focus to rural areas along with designing suitable insurance products for various sectors of the population. The banks should take necessary steps to reach the unreached. Initiatives are needed in two directions, one in making available financial products that are attractive to large section of the population and the other in institutional change for delivering banking service.

## **Social Vulnerabilities**

Protection against the vulnerabilities associated with child labour, disability, caste and gender-based discrimination and aged persons is one of the keys to human development. The Sivaganga district has been registered as a child-labour free district. However, there was prevalence of number of out-of-school children in the district. Pointing to the close links between child labour and education, all children who are out of school should be considered as child labour. Child labour in the district is more of a rural phenomenon where children are engaged in agricultural and allied activities in the villages.

Disability is another form of social vulnerability. Disability survey conducted in the district in 2002 indicated that there were a total of 9,792 persons with disability (PWDs) in the district. Different categories of disabilities show that the proportion of people with movement disability is highest among disabled followed by the deaf and dumb.



Domestic violence perpetrated against women is an evidence for poor standard of living. The problem of violence against women is not new. Sivagangai is no exception; they are beaten, kidnapped, raped, burnt and murdered. In 2003-04, 44 cases were registered against women harassment and dowry. In spite of the legislative measures adopted in favour of women in our society after independence, the spread of education and women's gradual economic independence, countless women still continue to be victims of violence.

The aged dependency ratio is an important aspect in the Sivaganga district. Considering that more than 70 percent of the workers are dependent on agriculture, atleast that proportion of the aged would hail from cultivators and agricultural labours. There are no social security mechanisms to this category of aged persons except support by their sons. In addition to this, the Old Age Pension (OAP) beneficiaries' coverage ratio was just 16.33 per cent for the period 1991 to 2000. While these interventions are very much essential they are far from the level of social security required to address the issue.

The elimination of child labour is not an impossible task. Multi pronged approach through direct and indirect interventions can address the issue. Direct interventions could be policy changes to make child labour unattractive for employers, effective enforcement of the legal provisions against child labour, media based efforts for educating parents and employees and proactive action to bring child labourers into the education system. Indirect intervention could be ensuring livelihood security in the pockets where child labour is rampant.

Empowering persons with disabilities through education is very important. The society has to get rid of stereotypical thinking and assumptions about what people with disabilities can and can't do. The truth is that, the range of abilities of persons within any disabilities group is enormous.

To reach acceptable levels of gender status, the state has formulated three pronged approaches. One is to give targeted support through various government schemes regarding health and education. The second is crating legal provisions to address the atrocities against them. The third is ensuring the presence of women in governance by creating reserved constituencies.

Mandating announcement of gender policy by each department and organization and the allocation of necessary funds for implementing the same would help a lot in mainstreaming gender concerns. Further a system of collecting disaggregated data based on gender, age and social group on all aspects related to human development need to be instituted to get a clear picture of the status and for monitoring the progress.

In case of aged persons, increasing their coverage under the existing schemes and introducing various new schemes benefiting them are important steps.

### **Local Governance**

Local governance is a fundamental human development initiative. Inspiring governance will thoroughly trigger the human development process. Village Panchayats are the nearest governmental institutions to relate to demands of the people's. The Panchayat leaders were easily approachable by the local community because they reside within the locality. Panchayat system perform voluntary functions related to ensuring enrolment of every child in school for better education and monitoring the performance of Sub-Health Centres (HSCs) and Primary

Health Centres (PHCs) for better health attainments. The proper execution of various development and welfare schemes, guided and monitored by the district administration was appreciated. However, the functioning of working committees and its involvement in development seems to be very marginal. Even it was felt that the quality of community participation in Grama Sabha meeting was poor. The reason being the resolution passed in Grama Sabha meeting had poor follow up. Women's participation in grama sabha meeting was better and legitimately raising their voices in such forum is a positive sign. However, the worrying feature was that in women headed Panchayats, the meeting was facilitated either by her husband or by her relatives. In addition, poor participation of youth is a discouraging phenomenon because they are supposed to remain as the back bone of human development initiatives and their sustenance. Most of the Panchayats were facing a financial crunch.

Involving Panchayat representatives in human development initiatives can be the key for a successful outcome. Strengthening and orienting the working committees need to be seriously considered by the district administration. In addition to this mechanisms should be established to valuing the resolution and further follow-up on the passed resolution and ensuring its implementation in time. Other village institutions like Self Help Groups (SHGs) can be considered as organized social capital and need to be integrated with Panchayat administration for taking up integrated human development initiatives with Panchayat system. This act also ensures community stake in common assets. The missing participation of youth in Grama Sabha meeting needs to be studied and proper plan has to be devised for ensuring their participation. And the real political participation of women can be done through awareness generation in exercising their right through educating them. At the district level some of the Panchayats can be chosen as model Panchayats and intensive work in these Panchayats will trigger the human development process and will become a set example for other Panchayats to follow suit. Broadening the tax base for revenue generation is another important challenge before Panchayats and it is possible only by gaining confidence through their good work. Panchayat system has to venture beyond infrastructure development to livelihood security, health and education in the Panchayats. Like DHDR, Panchayat Human Development Report (PHDR) can be prepared with short, medium and long term goal that can be an effective guide before the Panchayat council. Furthermore, Panchayats can be treated as nodal points for any Human Development Initiatives and the human development concepts have to mushroom and flow from Panchayats as the base to other levels of governance.

### **Common Strategies for Impacting Human Development in the District**

It can be observed that some strategies suggested to address sectoral issues are common. Broader strategies needed for significant improvement in the human development situation of the district are given below.

- **Investing only on sectors and development interventions that have high impact on human development in the district.** Sectoral analysis done in the preceding chapters indicates that the inter-sectoral linkages were very strong in bringing about or hindering the overall human development in the district. It was also found that there can be a wide difference in the impact of investments made in various sectors. Given the situation of limited resources, it is important for the district administration to identify

and put the funds on the sound choices for development investment in the district, through rigorous analysis of the impact of investments made in the past<sup>3</sup>.

- Attempting targeting in two ways.  
One is **targeting lagging blocks**. The analysis in the earlier chapters of the report identified the few blocks in the district in terms of education and poverty. They need to be targeted well in terms of finding block- specific reasons and block- specific plans. They need to be given priority in the allocation of district funds.

The second is **targeting hot spots** regarding various social and economic issues. For this hot spots at the micro level like villages need to be identified through proper participatory process. Then intervention should be done on a case by case basis. This method of targeting will be useful in the case of indicators in which the district has achieved significant achievements and could not achieve 100 per cent. Moreover, it will be useful to address issues not thrown up by quantitative parameters.

- Learning from success stories regarding various socio-economic developments in the district and taking the learning to other parts of the district areas.
- Proactively responding to urbanization which is happening at a fast pace by creating necessary infrastructure and services.
- Shifting from supply- based approach to demand-based and incentive based approach to various development services. The performance-based development funding to village panchayats in Namadhu Gramam scheme is a case in point. Community ownership attempted in various schemes need to be made a reality to strengthen demand based approach.
- Building strong accountability in the system to improve efficiency of service delivery. This also goes along with the strategy of shifting focus from quantity to quality, as the district has created significant levels of basic infrastructure regarding many government services like health and education. Establishing outcome-based performance indicators and code of ethics for all departments would go a long way in improving accountability.
- Monitoring the various dimensions of human development in the district on a continuous basis. The parameters to be monitored have to be identified and an exclusive system of surveillance, analysis and flagging in right forums need to be instituted.
- Increasing the participation and investment from private sector with necessary regulation wherever there is possibility for a win-win situation in the district. This would help in increasing resource flow in the district as well as the technical know how and good management practices.

Specific studies are needed on the following topics to understand the casual reasons behind many changes related to human development in the district.

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<sup>3</sup> Instead of thinly spreading the limited funds on a very high number of schemes, the district can identify just ten interventions that can have very high impact on human development and can put all the funds in them.



- Study of impact of various development investments in lifting the poor out of poverty, similar to the study done by IFPRI.
- Sub-district explorative study to understand the causes behind changes in population and to give input to population policy at district level.
- Exclusive study on the out migrants from the district regarding their destination, purpose and quality of well being in the migrated place. This information could throw light on the human development condition of considerable share of population in the Sivaganga district.
- An exclusive study on tertiary sector in the district to understand the reasons for its remarkable growth and to explore ways for making it pro-poor.

To facilitate improvement in effectiveness, the district administration need to be given the privilege and autonomy to improvise the operational rules of the state and central government development projects, based on the local context.

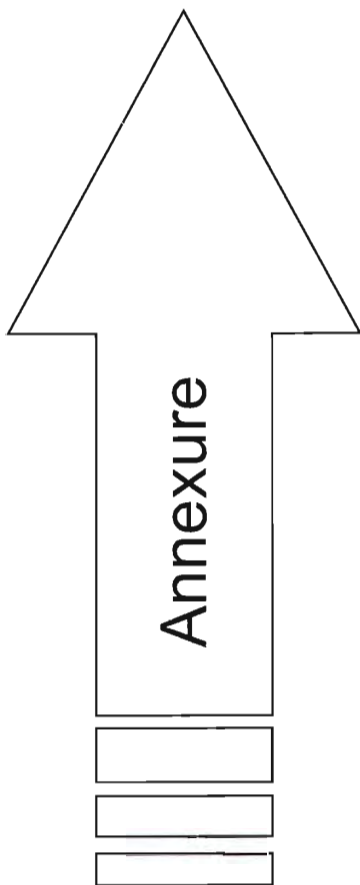
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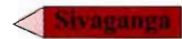


**Table-A2.1: District wise per capita net domestic product at constant (1993-94) prices from 1993-94 to 2001-02 (In Rs.)**

District	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	Growth Rate*	R <sup>2</sup> Value
Perambalur	8752	9418	9870	11776	11482	9921	11219	11072	10888	2.44	0.4268
The Nilgiris	9226	9075	9717	10524	11268	10684	11493	11401	11578	3.29	0.8533
Villupuram	5453	6234	6028	6148	6136	6975	7023	7218	7287	3.44	0.8643
Thiruvarur	6370	7629	7190	6549	11288	7722	8064	9346	8374	3.56	0.2918
Thoothukudi	10572	11923	11261	11720	11608	12924	13333	14350	14368	3.77	0.8748
<b>Thiruvannamalai</b>	<b>5885</b>	<b>6537</b>	<b>6441</b>	<b>6662</b>	<b>7811</b>	<b>7682</b>	<b>7389</b>	<b>7862</b>	<b>8067</b>	<b>3.79</b>	<b>0.8373</b>
Caddalore	6619	7018	7345	6682	7912	7843	8342	8933	8900	3.95	0.8621
Vellore	8135	8913	9992	9879	10223	10887	11029	11426	11217	3.95	0.8771
Thirunelveli	8872	9887	9748	9720	10654	10936	11568	12104	12160	3.96	0.9404
Dharmapuri	6678	7347	7701	7412	7425	8697	8701	9198	9153	3.98	0.8741
Kanniyakumari	8175	8676	8955	8877	9511	10068	10341	11364	10865	4.01	0.9417
Karur	8358	9017	9494	9900	10845	10467	10805	12072	11225	4.03	0.8812
Namakkal	10797	11183	12106	11468	14825	12924	14555	14939	14270	4.21	0.7513
Nagapattinam	8718	10361	9781	9575	11373	10869	11889	12879	12124	4.24	0.8059
<b>Sivaganga</b>	<b>6897</b>	<b>7577</b>	<b>6342</b>	<b>7178</b>	<b>8002</b>	<b>8635</b>	<b>8551</b>	<b>9344</b>	<b>9139</b>	<b>4.32</b>	<b>0.7590</b>
Virudhunagar	12512	13591	14041	14125	15459	14505	15463	18782	18037	4.52	0.8500
Thanjavur	6311	7448	7164	7150	8858	8320	8690	9506	9020	4.60	0.8141
Salem	9002	9638	10407	10754	12329	11793	12812	13094	12517	4.68	0.8753
Ramanathapuram	6875	7290	6597	7509	8210	9082	8548	9643	9310	4.71	0.8383
Dindigul	8530	9491	9322	9718	9595	11140	11807	12575	11871	4.73	0.8853
Thiruvallur	8567	9397	10081	10231	11029	11356	12031	12622	12317	4.77	0.9520
Theni	7828	8805	8489	9276	11124	10606	10676	11188	11491	4.86	0.8558
Erode	9888	11145	11336	11926	11231	13099	13821	14829	14395	4.86	0.8990
Tiruchirapalli	7763	8408	8924	8950	8753	10167	10713	11510	11082	4.88	0.9113
Pudukkottai	6455	7211	6789	7305	7391	8379	8753	9362	9347	4.97	0.9228
Chennai	13920	15423	16225	17086	19120	19246	20611	20867	20528	5.23	0.9227
Coimbatore	12581	14754	14717	15764	15053	16590	17791	19831	19539	5.26	0.9119
Kancheepuram	13688	15035	16162	16550	17634	17779	18987	21557	21089	5.48	0.9612
Madurai	9157	10231	10343	11353	11919	13095	13441	14204	13752	5.61	0.9464
<b>TAMILNADU</b>	<b>8955</b>	<b>9932</b>	<b>10147</b>	<b>10451</b>	<b>11260</b>	<b>11592</b>	<b>12181</b>	<b>13017</b>	<b>12717</b>	<b>4.57</b>	<b>0.9628</b>

Note: Exponential growth rate

Source: Directorate of Economics and Statistics, Government of Tamil Nadu, Chennai



**Table-A2.2: Sector wise contribution to net domestic product at constant (1993-94) prices from 1993-94 to 2001-02 in Sivaganga district and Tamil Nadu (In %)**

Year	Sivaganga				Tamil Nadu			
	Primary	Secondary	Tertiary	Total	Primary	Secondary	Tertiary	Total
1993-94	35.66	22.32	42.01	100.00	26.24	32.16	41.60	100.00
1994-95	34.57	23.52	41.90	100.00	26.10	32.73	41.17	100.00
1995-96	17.49	28.50	54.01	100.00	21.90	34.85	43.25	100.00
1996-97	20.60	26.96	52.44	100.00	20.81	33.24	45.95	100.00
1997-98	20.29	25.98	53.73	100.00	20.82	31.14	48.04	100.00
1998-99	23.64	23.67	52.69	100.00	21.89	29.19	48.92	100.00
1999-00	17.00	26.43	56.57	100.00	19.52	30.69	49.79	100.00
2000-01	19.72	24.12	56.16	100.00	18.96	30.83	50.21	100.00
2001-02	19.49	21.76	58.75	100.00	19.57	27.68	52.75	100.00

Source: Directorate of Economics and Statistics, Government of Tamil Nadu, Chennai.

**Table-A2.3: Number of Mining and Quarrying units in different blocks during the year 2004-05**

Sl. No.	Blocks	Mining units	Quarrying units
1	Sivaganga	4	14
2	Manamadurai	-	8
3	Kalayarkoil	-	6
4	Thirupuvanam	3	26
5	Ilayangudi	-	7
6	Devakotai	-	2
7	kannangudi	-	-
8	Kallal	-	2
9	Sakkotai	-	5
10	Thirupathur	-	29
11	Singampunari	-	10
12	S.pudur	1	-
	<b>Total</b>	<b>8</b>	<b>109</b>

Source: Block Statistical Hand books 2004, Sivaganga District, Sivaganga.

**Table-A2.4: Production of minerals in Sivaganga district during the year 2004-05**

Sl. No.	Minerals	Production(in tones)
1	Sand	408,796.00
2	Gravel	153,675.00
3	Rough Stone	37,115.00
4	Bricks Earth	68,060.00
5	Kankar	112.00
6	Multi colored granite	710.00
	<b>Total</b>	<b>668,468.00</b>

Source: Block Statistical Hand books 2004, Sivaganga district, Sivaganga.

**Table-A2.5: Category wise Industrial units in Sivaganga District 2004-05**

Sl. No.	Industries	Units (in nos.)
1	Small Scale Industries	9434
2	Cottage Industries	4195
3	Handicraft Industries	3054
4	Large Scale Industries	34
	<b>Total</b>	<b>16717</b>

Source: Block Statistical Hand books 2004, Sivaganga district, Sivaganga.

**Table-A2.6: Gender wise work participation rate in different blocks of Sivaganga district as per 1991 and 2001 Census**

Blocks	Total male Workers		Total female Workers		Male WPR		Female WPR		% of main workers to total workers			
	1991	2001	1991	2001	1991	2001	1991	2001	Male		Female	
									1991	2001	1991	2001
Sivaganga	25948	36092	21800	21977	57.58	52.46	47.85	32.54	98.13	81.83	78.23	63.41
Manamadurai	25888	20428	19545	10803	54.98	42.53	41.78	22.74	99.17	56.93	62.58	73.99
Kalayarkoil	26865	26270	24875	20404	55.61	56.66	47.72	40.84	98.86	87.12	65.15	68.52
Thirupuvanam	29095	29408	22426	16970	56.77	57.23	44.18	33.36	99.70	86.73	45.33	67.35
Ilayangudi	28348	28207	22279	22620	55.29	57.08	41.91	42.44	98.82	87.09	60.66	71.76
Devakotai	12683	21545	10151	24890	57.52	42.09	42.36	45.00	98.19	80.19	74.87	91.66
Sakkotai	23900	53259	11973	17840	53.24	54.56	26.58	18.21	99.04	89.53	76.23	69.95
Thirupathur	24694	26637	16466	15536	53.88	55.88	33.80	31.00	98.91	81.91	69.53	65.62
Singampunari	18152	NC	14929	NC	55.07	NC	43.71	NC	98.73	NC	66.97	NC
kannangudi	8620	8940	7388	8568	58.95	62.59	48.52	54.97	98.64	95.63	72.98	88.54
Kallal	21122	22364	18655	16494	56.26	57.04	45.02	38.42	98.67	76.58	76.72	55.60
S.pudur	10554	11404	9547	9832	59.84	58.18	49.40	48.45	98.10	84.48	40.96	73.07
<b>Total</b>	<b>255869</b>	<b>284554</b>	<b>200034</b>	<b>185934</b>	<b>55.80</b>	<b>53.33</b>	<b>42.00</b>	<b>33.72</b>	<b>98.83</b>	<b>83.01</b>	<b>65.47</b>	<b>71.53</b>

Note: Singampunari block data for 2001 Census is not included as it was not available

Sources: 1. Census of India 1991, District Census Handbook, Part XII-A&B, Series 23, Directorate of Census Operations, Tamil Nadu.  
2. Census of India 2001 cited in Block Statistical Handbook of different Blocks 2004-05, Sivaganga district, Sivaganga.



**Table-A2.7: Gender wise percentage distribution of main workers in to different sub-categories in different blocks as per 1991 and 2001 Census**

Blocks	Cultivators				Agri Labourers				Agri Workers				HH Indu., manufac, process, & repair process, & repair				Other workers			
	Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
Sivaganga	47.46	32.29	37.76	40.44	32.76	16.83	53.38	33.47	80.22	49.12	91.14	73.92	5.62	2.00	0.74	4.13	14.15	48.88	8.12	21.95
Manamadurai	45.69	49.28	33.69	68.99	19.57	46.99	50.65	26.06	65.27	96.27	84.34	95.05	12.15	3.73	5.48	4.95	22.58		10.18	
Kalayarkoil	63.18	59.05	49.65	64.67	17.60	15.32	43.33	24.90	80.78	74.38	92.98	89.57	5.36	1.55	0.78	1.48	13.86	24.07	6.24	8.95
Thirupuvanam	43.44	33.28	25.34	32.04	33.05	24.29	58.02	41.17	76.49	57.57	83.36	73.21	7.28	1.32	5.64	2.17	16.23	41.11	11.00	24.62
Ilayangudi	67.12	53.82	57.66	64.76	14.05	14.78	36.02	24.05	81.17	68.60	93.68	88.81	3.89	2.06	1.20	2.64	14.94	29.34	5.12	8.55
Devakotai	67.82	64.07	62.03	36.12	17.59	21.27	32.89	13.67	85.41	85.34	94.92	49.79	5.28	1.78	1.45	1.47	9.31	12.88	3.63	48.74
Sakkotai	36.15	10.97	35.05	19.66	20.38	5.80	40.86	15.79	56.52	16.77	75.91	35.45	12.75	2.25	5.54	6.38	30.73	80.98	18.55	58.17
Thirupathur	39.43	36.69	30.79	47.30	25.48	13.93	51.14	25.24	64.90	50.62	81.94	72.54	5.90	1.76	2.65	3.17	29.20	47.61	15.42	24.29
Singampunari	44.76	NC	38.67	NC	29.41	NC	50.12		74.17	NC	88.79		8.20	NC	3.96		17.63	NC	7.25	NC
Kannangudi	77.61	75.35	66.62	77.84	15.74	13.99	24.81	17.73	93.34	89.34	91.43	95.57	1.55	0.55	0.09	1.73	5.10	10.11	8.48	2.70
Kallal	50.98	36.96	48.46	48.72	25.73	17.35	43.33	28.85	76.70	54.32	91.78	77.58	6.42	2.17	2.08	3.02	16.88	43.52	6.13	19.40
S.pudur	46.30	49.02	11.76	44.74	42.98	30.38	79.85	44.57	89.28	79.41	91.61	89.31	2.33	1.73	1.36	2.67	8.39	18.86	7.03	8.02
<b>Total</b>	<b>50.88</b>	<b>39.07</b>	<b>42.20</b>	<b>47.72</b>	<b>24.21</b>	<b>17.08</b>	<b>46.46</b>	<b>25.33</b>	<b>75.09</b>	<b>56.15</b>	<b>88.66</b>	<b>73.05</b>	<b>6.91</b>	<b>1.94</b>	<b>2.54</b>	<b>2.94</b>	<b>18.00</b>	<b>41.91</b>	<b>8.80</b>	<b>24.01</b>

Note: Singampunari block data for 2001 Census is not included as it was not available

Sources: 1. Census of India 1991, District Census Handbook, Part XII-A&B, Series 23, Directorate of Census Operations, Tamil Nadu.  
2. Census of India 2001, cited in Block Statistical Handbook of different Blocks 2004-05, Sivaganga district, Sivaganga.

**Table-A2.8: Employment in public and Private Sector**

Sl. No.	Sector	Employees (in nos.)
1	Central Government	976
2	Central Qyasi	1898
3	State Government	16879
4	State Government Quasi	8049
5	Local Body	1128
6	Private Act	6540
<b>Total</b>		<b>35470</b>

Source: Block Statistical Year Books 2004-05, Sivaganga district, Sivaganga

**Table-A2.9: Job Seekers of Sivaganga district in the Employment Sector**

Sl. No.	Type	Number
1	Skilled	9366
2	Semi Skilled	52041
3	Un Skilled	4679
<b>Total</b>		<b>66086</b>

Source: Block Statistical Year Books 2004-05, Sivaganga district, Sivaganga

**Table-A2.10: Social group and monthly family income wise distribution of BPL families in different blocks as per 2003 BPL Survey**

Blocks	SC				OBC				Others				All						
	<Rs 250	>Rs250-<Rs500	>Rs500-<Rs1500	Others	Sub Total	<Rs 250	>Rs250-<Rs500	>Rs500-<Rs1500	Others	Sub-total	<Rs 250	>Rs250-<Rs500	>Rs500-<Rs1500	Others	Sub Total	<Rs 250	>Rs250-<Rs500	>Rs500-<Rs1500	Total
Sivaganga	33.72	41.13	23.98	1.17	100.00 (1201)	35.13	45.74	17.76	1.38	100.00 (3553)	35.86	45.75	15.84	2.55	100.00 (1294)	35.00	44.82	18.58	100.00 (6048)
Manamadurai	27.20	54.95	15.80	2.04	100.00 (1272)	30.43	54.21	13.88	1.48	100.00 (2695)	29.64	15.02	13.04	42.29	100.00 (253)	29.41	52.09	14.41	100.00 (4220)
Kalayarkoil	55.52	35.99	7.64	0.85	100.00 (2120)	48.14	42.33	8.83	0.70	100.00 (3839)	38.95	29.81	4.57	26.67	100.00 (1050)	48.99	38.54	7.83	100.00 (7009)
Thiruvananthapuram	19.36	53.48	23.70	3.45	100.00 (1679)	28.43	42.87	25.57	3.13	100.00 (3000)	18.36	38.90	15.89	26.85	100.00 (365)	24.68	46.11	24.25	100.00 (5044)
Ilayangudi	37.87	37.78	23.63	0.72	100.00 (2353)	45.22	39.92	14.08	0.78	100.00 (3224)	41.18	34.93	20.77	3.13	100.00 (544)	42.04	38.65	18.35	100.00 (6121)
Devakotai	37.66	38.93	19.39	4.02	100.00 (1418)	33.61	43.09	17.88	5.42	100.00 (2511)	30.30	16.67	10.61	42.42	100.00 (330)	34.70	39.66	17.82	100.00 (4239)
Sakkotai	9.90	71.27	17.60	1.22	100.00 (818)	17.62	39.66	38.61	4.11	100.00 (948)	30.23	28.84	19.07	21.86	100.00 (215)	15.80	51.54	27.81	100.00 (1981)
Thirupathur	48.26	27.41	22.39	1.93	100.00 (259)	35.27	40.95	20.54	3.24	100.00 (740)	22.37	14.47	21.05	42.11	100.00 (76)	37.49	35.81	21.02	100.00 (1075)
Singampunari	17.15	37.96	39.05	5.84	100.00 (548)	11.75	57.20	26.49	4.56	100.00 (3005)	16.78	20.55	18.49	44.18	100.00 (292)	12.90	51.68	27.67	100.00 (3845)
kannangudi	47.41	35.94	10.58	6.06	100.00 (907)	35.20	46.77	13.56	4.48	100.00 (804)	26.13	21.60	8.36	43.90	100.00 (287)	39.44	38.24	11.46	100.00 (1998)
Kallal	38.33	49.15	10.44	2.09	100.00 (527)	33.22	45.96	18.86	1.96	100.00 (2041)	43.64	34.87	13.82	7.68	100.00 (456)	35.68	44.84	16.63	100.00 (3024)
S.pudur	26.43	39.29	30.71	3.57	100.00 (280)	22.29	43.22	29.55	4.94	100.00 (951)	22.86	25.71	8.57	42.86	100.00 (35)	23.22	41.86	29.23	100.00 (1266)
District	35.00	43.73	18.93	2.34	100.00 (13382)	33.05	45.73	18.68	2.54	100.00 (27311)	33.71	32.58	13.33	20.38	100.00 (5197)	33.69	43.66	18.15	100.00 (45890)

Note: Figures in brackets show the percentage to grand total.  
 Figures in square brackets show the respective absolute numbers.  
 Source: NIC, Sivaganga.



**Table-A.2.11: Distribution of BPL families on the basis of social group and nature of the family head in different blocks**

Blocks	SC			OBC			Others			All		
	M	F	T	M	F	T	M	F	T	M	F	T
Sivaganga	80.43	19.57	100.00 (1201)	78.05	21.95	100.00	76.12	23.88	100.00	78.11	21.89	100.00 (6048)
Manamadurai	83.57	16.43	100.00 (1272)	81.60	18.40	100.00	83.40	16.60	100.00	82.30	17.70	100.00 (4220)
Kalayarkoil	84.25	15.75	100.00 (2120)	80.83	19.17	100.00	80.57	19.43	100.00	81.82	18.18	100.00 (7009)
Thirupuvanam	81.60	18.40	100.00 (1679)	81.37	18.63	100.00	80.27	19.73	100.00	81.36	18.64	100.00 (5044)
Ilayangudi	84.74	15.26	100.00 (2353)	80.46	19.54	100.00	77.21	22.79	100.00	81.82	18.18	100.00 (6121)
Devakotai	83.07	16.93	100.00 (1418)	82.20	17.80	100.00	80.30	19.70	100.00	82.34	17.66	100.00 (4259)
Sakkotai	89.73	10.27	100.00 (818)	82.49	17.51	100.00	75.35	24.65	100.00	84.70	15.30	100.00 (1981)
Thirupathur	77.99	22.01	100.00 (259)	76.89	23.11	100.00	82.89	17.11	100.00	77.58	22.42	100.00 (1075)
Singampunari	68.61	31.39	100.00 (548)	75.64	24.36	100.00	71.58	28.42	100.00	74.33	25.67	100.00 (3845)
kannangudi	82.47	17.53	100.00	80.72	19.28	100.00	81.53	18.47	100.00	81.63	18.37	100.00 (1998)
Kallal	70.97	29.03	100.00	77.32	22.68	100.00	67.11	32.89	100.00	74.67	25.33	100.00 (3024)
S.pudur	65.36	34.64	100.00	70.87	29.13	100.00	60.00	40.00	100.00	69.35	30.65	100.00 (1266)
<b>District</b>	82.01	17.99	100.00	79.45	20.55	100.00	77.26	22.74	100.00	79.95	20.05	100.00 (45890)

Note: Figures in brackets show the percentage to grand total.  
 Figures in square brackets show the respective absolute numbers.  
 Source: NIC, Sivaganga

**Table-A2.12: Block wise land utilization pattern in Sivaganga district during the year 2000-01 to 2004-05 (Area in hectare)**

Block	Area	Forest					Cultivable waste					Net area sown				
		2000-01	2001-02	2002-03	2003-04	2004-05	2000-01	2001-02	2002-03	2003-04	2004-05	2000-01	2001-02	2002-03	2003-04	2004-05
Sivaganga	44660	638.00	1182	1396	1396	638	1309	1309	1132	1132	499	7198	6923	6845	5420	7845
Kalayarkoil	57735	2341.00	2341	2341	2341	2341	2311	2311	2311	2311	16486	14848	16215	13898	15642	
Manamadurai	34949	1019	1037	1037	1037	1019	1077	1077	1077	907	6753	7363	7896	6640	8155	
Tiruppuvanam	32736	9	9	9	9	9	276	276	276	276	11008	8450	8828	8237	8964	
Ilayangudi	44831	-	-	-	-	-	1590	1590	1590	1552	18393	19963	19816	21114	20124	
Devakottai	33993	671	671	671	671	671	2594	2594	2594	3275	13416	13249	12533	12899	12421	
Kannangudi	22116	1873	-	1873	1873	1873	486	-	695	695	7014	7115	6910	7281	7306	
Kallal	40110	5287	5287	5287	5287	5287	1821	1821	1821	1821	7685	9847	7871	8215	8723	
Sakkottai	35236	5405	5405	5405	5405	5405	4137	4137	4137	4137	7911	7492	7852	9947	10500	
Thiruppathur	34522	650	630	650	650	650	1435	1435	1435	1435	7516	7516	7227	7136	6047	
Singampunari	22652	1333	1333	1333	1333	1333	120	120	120	120	6719	5246	6287	5544	7171	
S. Pudur	16023	1893	1893	1893	1893	1893	173	173	173	173	3382	3016	3074	3998	4992	
<b>Total</b>	<b>419563</b>	<b>21119</b>	<b>19788</b>	<b>21895</b>	<b>21895</b>	<b>21119</b>	<b>16843</b>	<b>17361</b>	<b>17742</b>	<b>17201</b>	<b>113481</b>	<b>111028</b>	<b>111354</b>	<b>110329</b>	<b>117890</b>	

Source: District Statistical Hand Book, 2004-05.

Table-A2.12: Block wise land utilization pattern in Sivaganga district during the year 2000-01 to 2004-05 (Area in hectare)

Block	Area	Forest					Cultivable waste					Net area sown				
		2000-01	2001-02	2002-03	2003-04	2004-05	2000-01	2001-02	2002-03	2003-04	2004-05	2000-01	2001-02	2002-03	2003-04	2004-05
Sivaganga	44660	638.00	1182	1396	1396	638	1309	1132	1132	499	7198	6923	6845	5420	7845	
Kalayarkoil	57735	2341.00	2341	2341	2341	2341	2311	2311	2311	2311	16486	14848	16215	13898	15642	
Manamadurai	34949	1019	1037	1037	1037	1019	1077	1077	1077	907	6753	7363	7896	6640	8155	
Tniruppuvanam	32736	9	9	9	9	9	276	276	276	276	11008	8450	8828	8237	8964	
Ilayangudi	44831	-	-	-	-	-	1590	1590	1590	1552	18393	19963	19816	21114	20124	
Devakottai	33993	671	671	671	671	671	2594	2594	2975	3275	13416	13249	12533	12899	12421	
Kannangudi	22116	1873	-	1873	1873	1873	486	-	695	695	7014	7115	6910	7281	7306	
Kallal	40110	5287	5287	5287	5287	5287	1821	1821	1821	1821	7685	9847	7871	8215	8723	
Sakkottai	35236	5405	5405	5405	5405	5405	4137	4137	4137	4137	7911	7492	7852	9947	10500	
Thiruppathur	34522	650	630	650	650	650	1435	1435	1435	1435	7516	7516	7227	7136	6047	
Singampunari	22652	1333	1333	1333	1333	1333	120	120	120	120	6719	5246	6287	5544	7171	
S. Pudur	16023	1893	1893	1893	1893	1893	173	173	173	173	3382	3016	3074	3998	4992	
<b>Total</b>	<b>419563</b>	<b>21119</b>	<b>19788</b>	<b>21895</b>	<b>21895</b>	<b>21119</b>	<b>16843</b>	<b>17361</b>	<b>17742</b>	<b>17201</b>	<b>113481</b>	<b>111028</b>	<b>111354</b>	<b>110329</b>	<b>117890</b>	

Source: District Statistical Hand Book, 2004-05.



**Table-A2.13: Block wise land utilization pattern in Sivaganga district during the year2000-01 to 2004-05**

Block	Total Geographical Area (in hectare)	% of forest area to total geographical area					% of cultivable waste to total geographical area					% of net area sown to total geographical area				
		2000-01	2001-02	2002-03	2003-04	2004-05	2000-01	2001-02	2002-03	2003-04	2004-05	2000-01	2001-02	2002-03	2003-04	2004-05
Sivaganga	44660	1.43	2.65	3.13	3.13	1.43	2.93	2.93	2.53	2.53	1.12	16.12	15.50	15.33	12.14	17.57
Kalayarkoil	57735	4.05	4.05	4.05	4.05	4.05	4.00	4.00	4.00	4.00	4.00	28.55	25.72	28.09	24.07	27.09
Manamadurai	34949	2.92	2.97	2.97	2.97	2.92	3.08	3.08	3.08	2.60	19.32	21.07	22.59	19.00	23.33	
Tniruppuvanam	32736	0.03	0.03	0.03	0.03	0.03	0.84	0.84	0.84	0.84	0.84	33.63	25.81	26.97	25.16	27.38
Ilayangudi	44831	-	-	-	-	-	3.55	3.55	3.55	3.46	41.03	44.53	44.20	47.10	44.89	
Devakottai	33993	1.97	1.97	1.97	1.97	1.97	7.63	7.63	7.63	9.63	39.47	38.98	36.87	37.95	36.54	
Kannangudi	22116	8.47		8.47	8.47	8.47	2.20	3.14	3.14	3.14	31.71	32.17	31.24	32.92	33.03	
Kallal	40110	13.18	13.18	13.18	13.18	13.18	4.54	4.54	4.54	4.54	19.16	24.55	19.62	20.48	21.75	
Sakkottai	35236	15.34	15.34	15.34	15.34	15.34	11.74	11.74	11.74	11.74	22.45	21.26	22.28	28.23	29.80	
Thiruppathur	34522	1.88	1.82	1.88	1.88	1.88	4.16	4.16	4.16	4.16	21.77	21.77	20.93	20.67	17.52	
Singampunari	22652	5.88	5.88	5.88	5.88	5.88	0.53	0.53	0.53	0.53	29.66	23.16	27.75	24.47	31.66	
S. Pudur	16023	11.81	11.81	11.81	11.81	11.81	1.08	1.08	1.08	1.08	21.11	18.82	19.18	24.95	31.16	
<b>Total</b>	<b>419563</b>	<b>5.03</b>	<b>4.72</b>	<b>5.22</b>	<b>5.22</b>	<b>5.03</b>	<b>4.13</b>	<b>4.01</b>	<b>4.14</b>	<b>4.10</b>	<b>27.05</b>	<b>30.04</b>	<b>26.54</b>	<b>26.30</b>	<b>28.10</b>	

Source: District Statistical handbook, Sivaganga 2004-05.

**Table-A2.14: Percentage distribution of operational land holdings on the basis of different categories of farmers in different block as per 1990 Agricultural Census**

SI No.	Blocks	SC						All					
		Marginal	Small	Semi medium	Medium	Large	Total	Marginal	Small	Semi medium	Medium	Large	Total
1	Sivaganga	88.57	8.86	2.42	0.16	0.00	100.00 (1242)	81.61	13.23	4.17	0.88	0.12	100.00 (29457)
2	Manamadurai	86.95	9.71	2.74	0.61	0.00	100.00 (3471)	82.42	11.90	4.28	1.22	0.18	100.00 (25928)
3	Kalayarkoil	87.83	9.45	2.50	0.22	0.00	100.00 (4519)	82.59	11.87	4.40	1.01	0.13	100.00 (39393)
4	Thirupuvanam	93.21	5.58	1.07	0.14	0.00	100.00 (1399)	81.50	12.56	4.50	1.28	0.16	100.00 (22802)
5	Ilayangudi	82.16	13.34	3.84	0.61	0.05	100.00 (3779)	69.99	18.07	8.85	2.87	0.21	100.00 (30007)
6	Devakotai	88.40	9.07	2.20	0.33	0.00	100.00 (4542)	79.85	12.87	5.46	1.69	0.12	100.00 (24014)
7	Sakkotai	92.59	6.40	0.90	0.11	0.00	100.00 (1782)	88.52	7.76	2.65	1.02	0.04	100.00 (17003)
8	Thirupathur	93.21	5.58	1.07	0.14	0.00	100.00 (1399)	81.50	12.56	4.50	1.28	0.16	100.00 (22802)
9	Singampunari	99.07	0.93	0.00	0.00	0.00	100.00 (753)	80.95	11.86	5.22	1.71	0.25	100.00 (25664)
	<b>Sub-total (I)</b>	<b>88.31</b>	<b>9.03</b>	<b>2.31</b>	<b>0.34</b>	<b>0.01</b>	<b>100.00 22886)</b>	<b>80.62</b>	<b>12.77</b>	<b>5.01</b>	<b>1.45</b>	<b>0.16</b>	<b>100.00 (237070)</b>
10	Kannangudi	89.73	8.50	1.66	0.10	0.00	100.00 (2883)	78.78	13.88	5.77	1.44	0.13	100.00 (11552)
11	Kallal	92.70	5.83	1.37	0.11	0.00	100.00 (1904)	87.85	8.46	2.77	0.81	0.10	100.00 (21131)
12	S.pudur	87.28	10.86	1.86	0.00	0.00	100.00 (967)	81.45	12.99	4.51	0.95	0.11	100.00 (13691)
	<b>Total</b>	<b>88.71</b>	<b>8.83</b>	<b>2.17</b>	<b>0.29</b>	<b>0.01</b>	<b>100.00 (28640)</b>	<b>81.12</b>	<b>12.50</b>	<b>4.85</b>	<b>1.38</b>	<b>0.15</b>	<b>100.00 (283444)</b>

Note: Figures in the parenthesis show the respective total number of operational land holdings.  
Source: Agricultural Census 1990 cited in Block Statistical Hand Books 2004-05 for different years.

**Table-A2.15: Percentage distribution of area (ha.) of operational landholding in different categories of farmers and social groups as per 1990 Agricultural Census**

SI No.	Block	SC						All					
		Marginal	Small	Semi- medium	Medium	Large	Total	Marginal	Small	Semi- medium	Medium	Large	Total
1	Sivaganga	34.72	14.91	49.44	0.93	0.00	100.00 (927.15)	43.37	27.44	19.11	7.47	2.61	100.00(19188.57)
2	Manamadurai	51.86	30.57	11.77	5.80	0.00	100.00 (2023.87)	43.58	25.47	16.94	9.98	4.03	100.00 (17496.28)
3	Kalayarkoil	60.18	25.50	12.21	2.11	0.00	100.00 (2201)	44.08	25.24	18.31	8.82	3.54	100.00 (25224.22)
4	Thirupuvanam	59.46	24.34	10.62	3.19	2.39	100.00 (1047.48)	45.55	25.40	14.28	9.13	5.64	100.00 (15038.01)
5	Ilayangudi	49.41	29.20	15.07	4.84	1.48	100.00 (2431.53)	29.77	26.72	25.01	15.59	2.91	1000.00 (29531.43)
6	Devakotai	58.54	26.18	11.82	3.47	0.00	100.00 (2146.13)	45.35	22.10	18.42	11.72	2.42	100.00 (19375.75)
7	Sakkotai	67.96	24.38	6.28	1.38	0.00	100.00 (631.80)	47.88	21.84	14.62	12.31	3.35	100.00 (8262.72)
8	Thirupathur	72.82	18.72	6.40	2.06	0.00	100.00 (600.37)	41.01	25.38	18.10	10.82	4.69	100.0 (15611.83)
9	Singampunari	68.14	31.86	0.00	0.00	0.00	100.00 (286.85)	38.09	26.28	20.75	10.57	4.30	100.00 (22548.38)
	Sub-total (I)	55.54	26.01	14.56	3.40	0.49	100.00 (12341.73)	40.89	25.41	19.19	10.88	3.63	100.00 (172277.18)
10	Kannangudi	63.24	26.30	9.36	1.09	0.00	100.00 (1264.08)	38.60	27.19	21.06	10.76	2.40	100.00 (8511.46)
11	Kallal	69.08	20.95	8.75	1.22	0.00	100.00 (748.10)	50.99	22.39	13.85	8.65	4.12	100.00 (11323.68)
12	S.pudur	60.23	30.51	9.26	0.00	0.00	100.00 (477.01)	40.60	28.17	19.42	9.05	2.77	100.00 (8542.19)
	<b>Total</b>	<b>57.03</b>	<b>25.92</b>	<b>13.65</b>	<b>2.98</b>	<b>0.41</b>	<b>100.00 (14830.92)</b>	<b>41.35</b>	<b>25.43</b>	<b>18.98</b>	<b>10.67</b>	<b>3.57</b>	<b>100.200654.51)</b>

Note: Figures in the parenthesis show the respective total number of operational land holdings.  
Source: Agricultural census 1990 cited in block statistical hand books 2004-05 for different years.



Table-A2.16: Source wise number and area under irrigation in different block of Sivaganga district as per 2004-05

Block	No. and net area	Surface Water			Ground water						Total
		Large Tanks	Small Tanks	Public tube wells	Private Tube Wells	Dug Wells	Dug Wells With Pump set and Electricity	Dug Wells With Pump set Diesel	Dug Wells Without Pump set		
Sivaganga	Number	-	10.30	0.02	0.21	-	57.74	31.73	-	100.00 (4711)	
	Net	-	52.47	0.10	0.35	-	40.60	6.47	-	100.00 (5763)	
Manamadurai	Number	4.77	7.88	-	-	2.58	84.78	-	-	100.00 (1511)	
	Net	52.18	23.10	-	-	2.51	22.21	-	-	100.00 (16403)	
Kalayarkoil	Number	2.66	14.32	0.05	0.93	82.05	-	-	-	100.00 (3988)	
	Net	34.29	48.88	0.15	0.65	16.04	-	-	-	100.00 (14181)	
Thirupuvanam	Number	5.98	7.48	0.09	-	86.46	-	-	-	100.00 (1137)	
	Net	19.82	23.51	0.12	-	56.55	-	-	-	100.00 (8552)	
Ilayangudi	Number	10.51	25.29	1.64	39.57	22.99	-	-	-	100.00 (609)	
	Net	73.92	19.84	0.19	4.55	1.50	-	-	-	100.00 (8816)	
Devakotai	Number	0.88	11.39	1.53	9.97	-	16.87	50.16	9.20	100.00 (913)	
	Net	6.08	89.47	-	-	-	2.64	1.82	-	100.00 (8193)	
Kannangudi	Number	-	66.86	1.74	6.98	-	18.90	5.52	-	100.00 (344)	
	Net	-	97.41	0.10	1.25	-	1.25	-	-	100.00 (4896)	
Kallal	Number	4.28	42.39	0.64	52.69	-	-	-	-	100.00 (1097)	
	Net	12.04	81.49	0.17	6.29	-	-	-	-	100.00 (6933)	
Sakkotai	Number	5.29	50.26	-	11.82	-	32.63	-	-	100.00 (567)	
	Net	-	99.08	-	0.62	-	0.29	-	-	100.00 (5127)	
Thiruppathur	Number	1.98	26.83	-	1.41	-	63.16	6.63	-	100.00 (2986)	
	Net	22.95	66.12	-	0.86	-	9.26	0.82	-	100.00 (4903)	
Singampunari	Number	6.42	93.58	-	-	-	-	-	-	100.00 (452)	
	Net	30.10	69.90	-	-	-	-	-	-	100.00 (2625)	
S.Pudur	Number	0.22	11.20	0.22	0.61	-	49.24	35.21	3.31	100.00 (2778)	
	Net	4.89	20.55	-	-	-	-	74.56	-	100.00 (1411)	

Note: The number in parenthesis shows the absolute figure.

Source: District Statistical Hand Book, different blocks.

**Table-A2.17: Block wise live stock population in Sivaganga district or the year 2004-05**

Block	Cattle	Baffalos	Sheeps	Goats	Horses & Ponies	Pigs	Don keys	Others	Totals
Sivaganga	21915	3370	35778	19812	0	164	0	65582	146621
Manamadurai	8948	3805	15224	10060	0	797	122	2110	41066
Kalayarkoil	20470	4634	30817	6289	0	157	0	6087	68454
Thirupuvanam	20697	4685	11525	11317	0	310	0	3188	51722
Ilayangudi	30148	2586	128927	34205	0	0	0	4816	200682
Devakotai	15678	546	6574	7897	77	192	0	3416	34380
kannangudi	29818	7838	15080	8370	0	720	0	4524	66350
Kallal	21104	1731	18276	8902	0	439	0	5762	56214
Sakkotai	29818	7838	15080	8370	0	720	0		61826
Thirupathur	29131	1460	23018	6429	0	506	0	5549	66093
Singampunari	23210	23918	16361	3331	0	867	0	1677	69364
S.pudur	14985	NA	NA	NA	NA	NA	NA	NA	NA
<b>District</b>	<b>265922</b>	<b>62411</b>	<b>316660</b>	<b>124982</b>	<b>77</b>	<b>4872</b>	<b>122</b>	<b>102711</b>	<b>862772</b>

Source: Block Statistical Year Books 2004-05.

**Table-A3.1: PHC wise Crude Birth Rate (CBR) and its rank order for 2002-2005**

Sl. No.	PHC	2002	2003	2004	2005	Avg	Rank
1	Keelapongudi	20.40	19.38	19.60	17.12	19.13	32
2	Idayamelur	20.07	18.66	17.50	15.79	18.01	19
3	Arasanur	19.20	19.06	17.60	15.79	17.91	18
4	Thamarakki	18.84	20.20	20.30	14.36	18.43	25
5	Muthanendal	20.73	19.88	19.60	18.72	19.73	38
6	Periyakottai	18.55	13.95	15.90	15.52	15.98	4
7	Thanjakkore	20.93	23.93	16.90	15.89	19.41	33
8	Kombukkaranendal	17.30	17.51	17.10	15.88	16.95	9
9	Kallayarkoil	14.60	15.01	14.50	14.31	14.61	1
10	Maravamangalam	17.68	14.17	15.90	15.64	15.85	2
11	Sastharasankottai	15.44	29.20	12.30	12.96	17.47	12
12	Nattarasankottai	18.87	18.18	18.20	17.68	18.23	22
13	Kalayarmangalam	18.67	18.85	15.50	14.37	16.85	7
14	Panganery	19.82	19.09	16.50	17.04	18.11	21
15	Poovanthi	21.45	20.41	18.80	17.98	19.66	37
16	Palayanur	21.37	21.20	19.70	20.25	20.63	40
17	Thiruppuvanam	19.51	19.45	17.40	17.87	18.56	28
18	Konthagai	21.35	21.27	21.10	20.81	21.13	43
19	Salaigramam	18.18	17.79	16.20	16.38	17.14	10
20	Thayamangalam	17.46	17.87	17.40	14.86	16.90	8
21	Sooranam	23.41	18.50	17.10	15.22	18.56	27
22	Thiruveganpet	20.98	17.75	19.60	19.87	19.55	36
23	Velayuthapattinam	18.15	18.31	18.20	17.76	18.11	20
24	ShanmuganathaPuram	18.50	19.38	19.10	19.27	19.06	31
25	Kulamangalam	21.61	20.37	19.80	22.06	20.96	42
26	Monni Karmangudi	16.06	15.40	15.20	16.91	15.89	3
27	Puduvayal	18.28	17.34	17.80	17.14	17.64	15
28	Peerkalaikadu	21.05	21.17	21.50	19.26	20.74	41
29	Kottaiyur	18.39	14.67	17.50	16.29	16.71	6
30	O Siruvayal	14.12	16.32	17.40	16.91	16.19	5
31	Neerkuppai	19.52	17.94	17.10	16.88	17.86	17
32	Keelaselvalpatti	20.89	20.33	17.90	19.04	19.54	35
33	Thirukostiyur	17.68	18.37	19.30	19.04	18.60	29
34	Sevanipatti	18.88	16.78	19.40	18.85	18.48	26
35	Piranmalai	18.01	18.65	17.10	17.19	17.74	16
36	Mallakottai	18.87	17.82	18.70	13.93	17.33	11
37	M. Surakudi	18.52	17.51	17.40	16.73	17.54	14
38	Kannangudi	17.45	17.55	17.10	17.92	17.51	13
39	Sembanur	19.54	19.32	19.70	19.12	19.42	34
40	Kandramanickam	19.09	18.29	18.30	17.46	18.29	23
41	Maruthangudi	18.87	18.27	17.90	18.29	18.33	24
42	Kundrakudi	19.15	18.32	18.90	18.65	18.76	30
43	V Pudur	21.09	18.79	19.40	20.49	19.94	39
44	Pulithipatti	19.99	32.59	19.40	18.21	22.55	44
	<b>District</b>	<b>19.06</b>	<b>18.97</b>	<b>17.93</b>	<b>17.31</b>	<b>18.32</b>	

**Note:** 0 – denotes no event occurred

**Source:** Vital Events Report, Deputy Director of Health Services, Sivaganga .



**Table-A3.2: PHC wise Crude Death Rate (CDR) and its rank order for 2003-2005**

Sl. No.	PHC	2004	2005	Avg	Rank
1	Keelapongudi	7.00	6.23	6.61	32
2	Idayamelur	7.20	5.80	6.50	28
3	Arasanur	5.70	4.55	5.12	4
4	Thamarakki	5.50	6.86	6.18	21
5	Muthanendal	5.90	5.70	5.80	18
6	Periyakottai	5.70	6.32	6.01	19
7	Thanjakkore	5.70	7.43	6.57	30
8	Kombukkaranendal	8.90	8.23	8.56	44
9	Kallayarkoil	7.30	6.33	6.81	35
10	Maravamangalam	5.30	5.94	5.62	15
11	Sastharasankottai	4.90	4.49	4.70	2
12	Nattarasankottai	6.20	6.91	6.56	29
13	Kalayarmangalam	6.50	4.83	5.67	17
14	Panganery	7.70	7.47	7.59	40
15	Poovanthi	6.00	6.64	6.32	25
16	Palayanur	6.20	6.61	6.41	27
17	Thiruppuvanam	5.50	5.45	5.47	11
18	Konthagai	5.70	6.76	6.23	22
19	Thiruveganpet	4.80	4.62	4.71	3
20	Velayuthapattinam	6.60	5.89	6.25	24
21	ShanmuganathaPuram	5.90	7.47	6.69	33
22	Kulamangalam	6.20	6.26	6.23	23
23	Monni Karmangudi	4.20	6.14	5.17	6
24	Salaigramam	6.20	5.83	6.02	20
25	Thayamangalam	4.70	6.16	5.43	10
26	Sooranam	6.00	7.61	6.80	34
27	Puduvayal	5.70	4.95	5.32	7
28	Peerkalaikadu	5.40	3.74	4.57	1
29	Kottaiyur	5.50	5.54	5.52	12
30	O Siruvayal	5.00	5.32	5.16	5
31	Neerkuppai	7.30	7.55	7.42	39
32	Keelaselvalpatti	4.80	5.89	5.35	8
33	Thirukostiyur	5.70	5.49	5.60	14
34	Sevanipatti	5.70	7.08	6.39	26
35	Piranmalai	4.70	6.07	5.38	9
36	Mallakottai	6.70	6.50	6.60	31
37	M. Surakudi	8.50	7.55	8.03	42
38	Kannangudi	<b>5.70</b>	<b>5.61</b>	<b>5.65</b>	16
39	V Pudur	5.50	5.68	5.59	13
40	Pulithipatti	6.70	7.28	6.99	37
41	Sembanur	7.70	7.51	7.60	41
42	Kandramanickam	7.20	9.39	8.29	43
43	Maruthangudi	6.50	7.91	7.20	38
44	Kundrakudi	6.60	7.05	6.82	36
	<b>District</b>	<b>6.10</b>	<b>6.33</b>	<b>6.22</b>	

Note: 0 – denotes no event occurred

Source: Vital Events Report, Deputy Director of Health Services, Sivaganga .

**Table-A3.3: PHC wise Infant Mortality Rate (IMR) and its rank order of Sivaganga district for the year 2002 to 2005**

Sl. No.	BLOCK	2002	2003	2004	2005	Avg	Rank
1	Keelapongudi	27.78	29.01	22.30	30.46	27.39	35
2	Idayamelur	36.96	26.20	34.60	28.99	31.69	39
3	Arasanur	42.08	38.25	27.30	26.90	33.63	42
4	Thamarakki	35.09	48.65	31.90	14.93	32.64	41
5	Muthanendal	12.06	15.35	20.00	18.33	16.43	13
6	Periyakottai	23.48	15.58	25.00	21.33	21.35	22
7	Thanjakkore	4.08	14.08	30.10	45.45	23.43	28
8	Kombukkaranendal	37.04	33.54	40.20	16.50	31.82	40
9	Kallayarkoil	23.31	26.75	23.10	18.67	22.96	27
10	Maravamangalam	19.70	20.23	29.10	35.52	26.14	32
11	Sastharasankottai	20.83	15.79	6.80	6.67	12.52	5
12	Nattarasankottai	18.46	35.03	22.10	39.09	28.67	36
13	Kalayarmangalam	19.61	13.25	0.00	16.39	12.31	4
14	Panganery	26.42	11.49	30.30	21.93	22.53	25
15	Poovanthi	25.20	29.17	33.20	20.30	26.97	34
16	Palayanur	25.34	36.82	31.20	12.17	26.38	33
17	Thiruppuvanam	25.04	18.71	22.10	23.30	22.29	24
18	Konthagai	37.65	32.79	23.40	23.53	29.34	37
19	Salaigramam	16.03	23.90	24.20	16.72	20.21	18
20	Thayamangalam	20.11	14.01	11.60	16.72	15.61	11
21	Sooranam	13.70	24.75	16.00	18.07	18.13	15
22	Thiruveganpet	11.76	4.57	4.20	16.33	9.21	2
23	Velayuthapattinam	24.63	14.93	24.60	20.41	21.14	21
24	ShanmuganathaPuram	9.23	9.32	9.30	12.31	10.04	3
25	Kulamangalam	6.54	10.31	14.90	3.64	8.85	1
26	Monni Karmangudi	3.16	23.03	13.40	12.74	13.08	8
27	Puduvayal	22.73	8.91	15.70	16.04	15.85	12
28	Peerkalaikadu	29.28	29.15	6.60	19.42	21.11	20
29	Kottaiyur	9.07	19.61	9.30	12.22	12.55	6
30	O Siruvayal	10.66	23.99	10.30	5.33	12.57	7
31	Neerkuppai	53.53	42.25	33.60	14.74	36.03	44
32	Keelaselvalpatti	14.52	36.25	16.20	8.97	18.98	17
33	Thirukostiyur	19.08	13.80	10.10	17.57	15.14	10
34	Sevanipatti	10.58	17.86	22.80	20.30	17.89	14
35	Piranmalai	25.30	25.39	24.60	21.12	24.10	29
36	Mallakottai	47.62	28.57	33.70	26.67	34.14	43
37	M. Surakudi	25.57	15.02	24.20	21.94	21.68	23
38	Kannangudi	37.74	15.27	18.10	28.63	24.93	31
39	Sembanur	14.44	18.02	26.20	14.55	18.30	16
40	Kandramanickam	40.82	39.01	21.30	22.56	30.92	38
41	Maruthangudi	33.16	18.18	21.60	10.61	20.89	19
42	Kundrakudi	5.75	27.03	11.60	14.53	14.73	9
43	.V Pudur	17.90	11.46	44.20	17.95	22.88	26
44	Pulithipatti	26.13	22.39	16.70	33.33	24.64	30
	<b>District</b>	<b>22.94</b>	<b>22.67</b>	<b>21.31</b>	<b>19.63</b>	<b>21.64</b>	

Source: Vital Events Report, Deputy Director of Health Services, Sivaganga .

**Table-A3.4: PHC wise Still Birth Rate (SBR) and its rank order for 2003-2005**

SI. No.	PHC	2002	2003	2004	2005	Average	Rank
1	Keelapongudi	23.4	13.7	13.2	6.2	14.1	31
2	Idayamelur	24.6	24.0	15.9	5.8	17.6	38
3	Arasanur	16.8	16.4	8.5	4.5	11.6	25
4	Thamarakki	29.2	10.8	20.8	6.9	16.9	34
5	Muthanendal	21.9	21.9	21.7	5.7	17.8	40
6	Periyakottai	13.7	7.8	9	6.3	9.2	14
7	Thanjakkore	0.0	0	11.9	7.4	4.8	3
8	Kombukkaranendal	9.3	0	24.2	8.2	10.4	18
9	Kallayarkoil	6.4	12.3	12.4	6.3	9.4	15
10	Maravamangalam	27.1	17.3	18.2	5.9	17.1	36
11	Sastharasankottai	15.6	5.3	45.2	4.5	17.6	39
12	Nattarasankottai	15.4	41.4	6.3	6.9	17.5	37
13	Kalayarmangalam	19.6	19.9	15.2	4.8	14.9	32
14	Panganery	15.1	11.5	8.6	7.5	10.7	19
15	Poovanthi	12.6	8.1	25.6	6.6	13.2	28
16	Palayanur	21.4	17.4	22.4	6.6	17.0	35
17	Thiruppuvanam	5.0	5.1	5.5	5.4	5.3	4
18	Konthagai	35.3	30.4	18.4	6.8	22.7	43
19	Thiruveganpet	0.0	13.7	20.5	4.6	9.7	16
20	Velayuthapattinam	9.9	24.9	19.3	5.9	15.0	33
21	ShanmuganathaPuram	6.2	3.1	12.2	7.5	7.2	9
22	Kulamangalam	6.5	13.7	18.3	6.3	11.2	22
23	Monni Karmangudi	6.3	13.2	10	6.1	8.9	12
24	Salaigramam	15.3	17.0	14	5.8	13.0	27
25	Thayamangalam	11.5	8.4	0	6.2	6.5	8
26	Sooranam	13.7	12.4	10.6	7.6	11.1	21
27	Neerkuppai	17.1	9.4	21.1	7.5	13.8	30
28	Keelaselvalpatti	16.6	19.2	9.2	5.9	12.7	26
29	Thirukostiyur	11.1	3.1	5.7	5.5	6.3	6
30	Sevanipatti	0.0	0	0	7.1	1.8	1
31	Puduvayal	7.0	3.6	10.3	4.9	6.5	7
32	Peerkalaikadu	27.0	4.5	4.4	3.7	9.9	17
33	Kottaiyur	0.0	19.6	11.5	5.5	9.2	13
34	O Siruvayal	0.0	5.5	0	5.3	2.7	2
35	Piranmalai	4.5	4.2	15.1	6.1	7.47	10
36	Mallakottai	3.4	7.1	13.3	6.5	7.59	11
37	M. Surakudi	25.57	24.02	35.00	7.55	23.04	44
38	Kannangudi	17.0	13.4	9.9	5.6	11.5	24
39	V Pudur	7.7	8.6	2.8	5.7	6.2	5
40	Pulithipatti	26.1	17.4	30.2	7.3	20.3	42
41	Sembanur	14.4	9.0	12.1	7.5	10.8	20
42	Kandramanickam	20.4	10.6	14	9.4	13.6	29
43	Maruthangudi	23.0	26.0	15.9	7.9	18.2	41
44	Kundrakudi	5.7	15.0	17.1	7.0	11.2	23

Source: Vital Events Report, Deputy Director of Health Services, Sivaganga



Table-A3.5: PHC wise Maternal Mortality Rate (MMR) and its rank order for 2002 to 2005

Sl. No.	Block	2002	2003	2004	2004	AVG IMR	Rank
1	Keelapongudi	0	305.34	0	168	118	26
2	Idayamelur	0	436.68	230	0	167	30
3	Arasanur	0	0.00	140	157	74	14
4	Thamarakki	175	0.00	520	0	174	33
5	Muthanendal	439	219.30	220	113	248	41
6	Periyakottai	0	0.00	230	0	58	9
7	Thanjakkore	0	352.11	0	0	88	20
8	Kombukkarandendal	309	914.63	0	0	306	42
9	Kallayarkoil	212	0.00	210	0	105	24
10	Maravamangalam	493	0.00	520	267	320	43
11	Sastharasankottai	0	0.00	0	649	162	29
12	Nattarasankottai	0	318.47	0	0	80	17
13	Kalayarmangalam	0	0.00	760	0	190	36
14	Panganery	377	0.00	0	0	94	21
15	Poovanthi	157	162.07	0	0	80	18
16	Palayanur	195	193.80	0	0	97	22
17	Thiruppuvanam	167	340.14	180	0	172	32
18	Konthagai	235	234.19	690	230	347	44
19	Salaigramam	0	77.10	160	0	59	12
20	Thayamangalam	0	560.22	0	333	223	39
21	Sooranam	0	0.00	260	0	65	13
22	Thiruveganpet	0	0.00	410	0	103	23
23	Velayuthapattinam	0	0.00	180	0	45	5
24	ShanmuganathaPuram	0	0.00	0	304	76	16
25	Kulamangalam	327	343.64	0	0	168	31
26	Monni Karmangudi	0	328.95	0	0	82	19
27	Puduvayal	175	0.00	0	0	44	4
28	Peerkalaikadu	225	0.00	0	0	56	8
29	Kottaiyur	0	0.00	0	0	0	1
30	O Siruvayal	213	0.00	0	0	53	7
31	Neerkuppai	0	234.74	0	0	59	11
32	Keelaselvalpatti	0	0.00	230	0	58	9
33	Thirukostiyur	0	0.00	0	145	36	3
34	Sevanipatti	0	297.62	0	0	74	15
35	Piranmalai	446	141.04	150	0	184	35
36	Mallakottai	0	0.00	0	437	109	25
37	M. Surakudi	0	300.30	290	312	225	40
38	Kannangudi	377	190.84	0	0	142	28
39	Puduvayal	175	0.00	0	0	44	4
40	Peerkalaikadu	225	0.00	0	0	56	8
41	Kottaiyur	0	0.00	0	0	0	1
42	O Siruvayal	213	0.00	0	0	53	7
43	V Pudur	0	0.00	280	254	134	27
44	Pulithipatti	0	0.00	0	0	0	1

Source: Vital Events Report, Deputy Director of Health Services, Sivaganga .

**Table-A3.6: Place of delivery during the year 2004 to 2006**

SI No	BLOCK	DOMI			HSC			PHC			GH		
		2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
1	Sivaganga	4.9	5.4	3.2	14.4	9.8	9.4	3.1	4.5	3.9	45.0	46.2	49.2
2	Manamadurai	0.4	0.4	0.1	22.4	13.1	9.2	4.1	5.1	4.8	33.4	35.6	33.6
3	Kallayarkoil	0.7	0.0	0.1	11.4	9.3	19.6	6.8	8.9	13.0	43.5	40.7	41.7
4	Thirupuvanam	3.5	2.8	1.9	15.1	13.5	11.3	6.1	6.7	6.1	35.7	39.5	40.8
5	Ilayangudi	0.0	0.0	0.0	13.8	8.8	12.6	2.7	2.8	3.7	26.1	27.8	22.7
6	Devakottai	0.5	2.2	0.2	11.8	4.7	4.8	4.2	3.7	3.1	34.3	36.0	32.7
7	Sackottai	2.0	1.1	0.1	15.3	16.1	15.7	2.1	2.2	3.9	32.6	33.2	39.5
8	Thirupathur	0.1	0.0	0.1	16.0	13.8	11.8	7.3	7.7	6.1	32.5	33.8	36.3
9	Singampunari	1.7	0.8	0.2	13.9	11.2	8.6	3.7	2.8	2.6	34.8	38.4	38.1
10	Kannangudi	1.1	1.3	0.6	4.3	7.2	0.4	7.6	6.4	6.7	38.6	30.2	31.4
11	Kallal	2.3	2.4	1.1	12.4	9.9	10.5	5.9	6.5	4.6	30.4	30.1	34.2
12	S.Pudur	9.8	3.0	1.0	31.0	35.9	32.0	2.1	1.6	3.8	16.9	15.5	20.3
	<b>District</b>	<b>2.0</b>	<b>1.6</b>	<b>0.7</b>	<b>15.2</b>	<b>12.1</b>	<b>12.1</b>	<b>4.6</b>	<b>5.0</b>	<b>5.2</b>	<b>34.1</b>	<b>35.1</b>	<b>36.0</b>

Note: 0 – denotes no event occurred

Source: Vital Events Report, Deputy Director of Health Services, Sivaganga

Contd.....

GH TOT			PVT HOSP			INST TOTAL			Total		
2004	2005	2006	2004	2005	2006	2004	2005	2006	2004	2005	2006
62.46	60.50	62.49	32.6	34.1	34.3	95.1	94.6	96.8	2062	2028	1853
59.83	53.85	47.54	39.8	45.8	52.4	99.6	99.6	99.9	2029	1963	1912
61.62	59.00	74.35	37.7	41.0	25.6	99.3	100.0	99.9	1803	1788	1731
56.82	59.68	58.17	39.7	37.5	39.9	96.5	97.2	98.1	2184	2155	2111
42.61	39.46	39.00	57.4	60.5	61.0	100.0	100.0	100.0	2218	2215	1977
50.35	44.31	40.56	49.2	53.5	59.2	99.5	97.8	99.8	1416	1424	1430
50.02	51.58	59.03	48.0	47.4	40.9	98.0	98.9	99.9	2035	2094	1948
55.84	55.34	54.21	44.0	44.7	45.7	99.9	100.0	99.9	2013	1986	1946
52.40	52.40	49.26	45.9	46.8	50.6	98.3	99.2	99.8	1313	1334	1283
50.56	43.77	38.51	48.3	54.9	60.9	98.9	98.7	99.4	536	530	522
48.66	46.44	49.27	49.0	51.1	49.6	97.7	97.6	98.9	1607	1602	1577
50.00	52.95	56.01	40.2	44.0	43.0	90.2	97.0	99.0	826	763	823
53.93	52.25	53.41	44.1	46.2	45.9	98.0	98.4	99.3	20042	19882	19113

Note: 0 – denotes no event occurred

Source: Vital Events Report, Deputy Director of Health Services, Sivaganga .



**Table-A3.7: VCCTC services in Sivaganga**

Place of VCCTC Centre in Sivaganga District	Govt. Hd. Qrs. Hospital, Sivaganga.				Govt. Hospital, Karaikudi			
Date of Establishment	NOVEMBER-2001				MAY- 2005			
Performance of VCCTC (Year wise)	NOVEMBER-2001				GH- .Devakottai, Thiruppathur, Manamadurai, Singampunari :DEC'05			
Details	2001	2002	2003	2004	2005	2003	2004	2005
No. of persons volunteered for testing	20	184	249	317	980	249	317	980
No. of tested with sero positive status	1	24	28	46	96	28	46	96
No. of partners counselled and tested	2	37	73	92	103	73	92	103
Availability and Quality of test kits	Sufficeint	Sufficeint	Sufficeint	Sufficeint	Sufficeint	Sufficeint	Sufficeint	Sufficeint
Adequacy of Staff and their efficiency	Counsellor-1 & Lab .Technician-1	Counsellor-1 & Lab .Technician-1	Counsellor-1 & Lab .Technician-1	Counsellor-1 & Lab .Technician-1	Counsellor-1 & Lab .Technician-1	Counsellor-1 & Lab .Technician-1	Counsellor-1 & Lab .Technician-1	Counsellor-1 & Lab .Technician-1
VCCTC links with local referral centres / NGOs	Angel	Angel	Angel & IRCDS	Angel, IRCDS & TRUPA	Angel, IRCDS & TRUPA	Angel & IRCDS	Angel, IRCDS & TRUPA	Angel, IRCDS & TRUPA

**Source:** Deputy Director of Health Services, Sivaganga

**Table-A3.8: TB Unit wise cases detected and cure rate, 2001 – 2005**

Year	TB Unit	Total no of new OPD attended	Total no. of Sputum Examined	Sputum examined (%)	Total no. of positive Cases Detected	Treatment Outcome (NSP Cases Registered before 12 months)					
						Cured		Death		Defaulted	
						No	Rate	No	Rate	No	Rate
2001	Sivaganga	181557	3311	1.82	240	DNA	DNA	DNA	DNA	DNA	DNA
	Kallayarkoil	131000	1767	1.35	242	DNA	DNA	DNA	DNA	DNA	DNA
	Nerukuppai	86582	1534	1.77	210	DNA	DNA	DNA	DNA	DNA	DNA
	<b>Total</b>	<b>399139</b>	<b>6612</b>	<b>1.66</b>	<b>692</b>	-	-	-	-	-	-
2002	Sivaganga	148338	3107	2.09	480	89	81.7	10	9.2	9	8.3
	Kallayarkoil	118307	2537	2.14	432	63	87.5	3	4.2	5	6.9
	Nerukuppai	107158	3244	3.03	522	66	86.8	3	3.9	3	3.9
	<b>Total</b>	<b>373803</b>	<b>8888</b>	<b>2.38</b>	<b>1434</b>	<b>218</b>	<b>84.8</b>	<b>16</b>	<b>6.2</b>	<b>17</b>	<b>6.6</b>
2003	Sivaganga	96478	2116	2.19	563	167	87.9	15	7.9	6	3.2
	Kallayarkoil	133088	3613	2.77	468	112	84.8	8	6.1	2	1.5
	Nerukuppai	126436	3251	2.57	606	147	96.7	7	4.6	2	1.3
	<b>Total</b>	<b>356002</b>	<b>9060</b>	<b>2.54</b>	<b>1637</b>	<b>426</b>	<b>89.9</b>	<b>30</b>	<b>6.3</b>	<b>10</b>	<b>2.1</b>
2004	Sivaganga	112213	2865	2.55	602	182	85	19	8.9	13	6.1
	Kallayarkoil	101261	2618	2.59	553	157	88.7	6	3.4	11	6.2
	Nerukuppai	154584	3664	2.37	637	183	86.7	8	3.8	17	8.1
	<b>Total</b>	<b>368058</b>	<b>9147</b>	<b>2.49</b>	<b>1792</b>	<b>522</b>	<b>86.7</b>	<b>33</b>	<b>5.5</b>	<b>41</b>	<b>6.8</b>
2005	Sivaganga	167860	4328	2.58	562	206	86.9	15	6.3	12	5.1
	Kallayarkoil	108878	2817	2.59	536	200	86.6	9	3.9	18	7.8
	Nerukuppai	149965	3512	2.34	576	199	84.7	8	3.4	9	3.8
	<b>Total</b>	<b>426703</b>	<b>10657</b>	<b>2.5</b>	<b>1674</b>	<b>605</b>	<b>86.1</b>	<b>32</b>	<b>4.6</b>	<b>39</b>	<b>5.5</b>
	<b>Grand total</b>	<b>1,923,705</b>	<b>44,364</b>	<b>2.31</b>	<b>7229</b>	<b>1771</b>	<b>87</b>	<b>111</b>	<b>5.5</b>	<b>107</b>	<b>5.3</b>

Source: District TB Centre Sivaganga

**Table-A3.9: Taluk wise rural and urban percent distribution of households by availability of bathroom, latrine and drainage facilities. ( Census, 2001)**

SI No	Taluk	Area	House holds	Bathroom facility with the house				Type of connectivity for waste water outlet			
				Pit latrine	Water closet	Other latrine	No latrine	Closed drainage	Open drainage	No drainage	
1	Tirupathur	Total	60494	3.17 (1918)	12.65 (7652)	2.89 (1748)	81.29 (49176)	16.64 (10066)	5.21 (3152)	21.95 (13278)	72.85 (44070)
		Rural	50171	2.5 (1254)	7.27 (3647)	1.97 (988)	88.25 (44276)	10.52 (5278)	3.37 (1691)	17.87 (8966)	78.75 (39510)
		Urban	10323	6.39 (660)	38.8 (4005)	7.36 (760)	47.45 (4898)	46.39 (4789)	14.11 (1457)	41.74 (4309)	44.14 (4557)
		Total	57072	9.39 (5359)	30.9 (17635)	3.52 (2009)	56.19 (32069)	39.52 (22555)	16.64 (9497)	20.68 (11802)	62.68 (35773)
		Rural	28560	5.62 (3755)	13.24 (3781)	2.59 (740)	78.55 (22434)	18.02 (1751)	6.13 (2839)	9.94 (23970)	83.93 (23970)
		Urban	28512	13.17 (3755)	48.6 (1269)	4.45 (1269)	33.78 (9631)	61.05 (17407)	27.18 (7750)	31.43 (8961)	41.39 (11801)
3	Karaikkudi	Total	31671	5 (1584)	17.73 (5615)	3.5 (1108)	73.77 (23364)	22.86 (7240)	7 (2217)	20.87 (6610)	72.12 (22841)
		Rural	23039	1.93 (445)	4.29 (988)	1.19 (274)	92.59 (21332)	5.33 (1228)	1.82 (419)	13.69 (3154)	84.49 (19466)
		Urban	8632	13.18 (1138)	53.59 (4626)	9.66 (834)	23.56 (2034)	69.62 (6010)	20.84 (1799)	40.04 (3456)	39.12 (3377)
		Total	63045	2.89 (1822)	15.81 (9967)	4.41 (2780)	76.88 (48469)	20.82 (13126)	13.3 (8385)	14.02 (8839)	72.67 (45815)
		Rural	52798	2.85 (1505)	5.25 (2772)	4.16 (2196)	87.74 (46325)	11.29 (5961)	3.75 (1980)	13.28 (7012)	82.97 (43807)
		Urban	10247	3.09 (317)	70.22 (7195)	5.74 (588)	20.95 (2147)	69.91 (7164)	62.53 (6407)	17.89 (1833)	19.59 (2007)
5	Sivaganga	Total	44056	4.61 (2031)	11.21 (4939)	4.12 (1815)	80.06 (35271)	19.08 (8406)	6.77 (2983)	24.39 (10745)	68.84 (30328)
		Rural	33055	2.61 (863)	3.56 (1177)	2.43 (803)	91.4 (30212)	7.59 (2509)	2.4 (793)	18.97 (6271)	78.63 (25991)
		Urban	11001	10.62 (1168)	34.21 (3763)	9.19 (111)	45.99 (5059)	53.6 (5897)	19.93 (2192)	40.68 (4475)	39.4 (4334)
		Total	24269	4.15 (1007)	10.82 (2626)	2.86 (694)	82.17 (19942)	15.02 (3645)	5.64 (4788)	19.73 (4788)	74.63 (18112)
		Rural	20069	2.75 (552)	3.6 (722)	1.78 (357)	91.87 (18437)	5.7 (1144)	2.44 (490)	14.14 (2838)	83.43 (16744)
		Urban	4200	10.86 (456)	45.31 (1903)	8 (336)	35.83 (2501)	59.55 (2501)	20.93 (1951)	46.45 (1370)	32.62 (1370)
6	Ilayangudi	Total	280607	4.89 (13772)	17.26 (48433)	3.62 (10158)	74.23 (208295)	23.18 (65045)	9.84 (27612)	19.98 (56065)	70.18 (196930)
		Rural	207692	3 (6231)	6.3 (13085)	2.58 (5358)	88.12 (183018)	10.24 (21268)	3.43 (7124)	14.96 (31071)	81.61 (169497)
		Urban	72915	10.28 (7496)	48.48 (35349)	6.58 (4798)	34.66 (25272)	60.03 (43771)	28.09 (20482)	34.27 (24988)	37.64 (27445)
		Total	280607	4.89 (13772)	17.26 (48433)	3.62 (10158)	74.23 (208295)	23.18 (65045)	9.84 (27612)	19.98 (56065)	70.18 (196930)
		Rural	207692	3 (6231)	6.3 (13085)	2.58 (5358)	88.12 (183018)	10.24 (21268)	3.43 (7124)	14.96 (31071)	81.61 (169497)
		Urban	72915	10.28 (7496)	48.48 (35349)	6.58 (4798)	34.66 (25272)	60.03 (43771)	28.09 (20482)	34.27 (24988)	37.64 (27445)



Table-A3.10: Utilization of government health care services – Out patients (2001-2005)

S.NO	NAME OF INSTITUTIONS	2001-02		2002-03		2003-04		2004-05	
		Tot OP	Avg-OP/d	Tot OP	Avg-OP/d	Tot OP	Avg-OP/d	Tot OP	Avg-OP/d
	<b>DIST.Hd.Qrs.Hospital</b>								
1	GHQ.H.Sivaganga	379166	1039	462808	1268	490360	1343	461139	1263
	<b>TALUK HOSPITAL</b>								
2	GH.Devakottai	186068	510	159694	438	151037	414	171037	469
3	GH.Karaikudi	286731	786	304426	834	300695	824	297841	816
4	GH.Tiruppathur	116393	319	148597	407	171989	471	164434	451
5	GH.Manamadurai	238002	652	259954	712	164539	451	173946	477
6	GH.Ilayankudi	175228	480	175683	481	174524	478	162056	444
	<b>NON TALUK HOSPITAL</b>								
7	GH.Kanadukathan	81548	223	79905	219	80125	220	80130	220
8	GH.Singampunari	188208	516	203468	567	203560	558	212341	582
9	GH.Kandanur	31460	86	28846	79	47704	131	70282	193
10	GH.Pulankurichi	6712	18	8898	24	11226	31	13401	37
	<b>TB.SANATORIUM</b>								
11	GTBS.Somanathapuram	12562	34	11604	32	11797	32	11070	30
	<b>WOMEN&amp;CHILDREN HOSPITAL</b>								
12	GWCH.Pulankurichi	12683	35	13783	38	20180	55	25196	69
13	GWCH.Sivaganga	47539	130	50233	138	50158	137	49366	135
14	GWCH.Paganeri	17037	47	16597	45	19905	55	17070	47
15	GWCH.Pallathur	23310	64	28042	77	26134	72	17669	48
16	GWCH.Palavankudi	12619	35	14269	39	15876	43	12327	34
17	GWCH.Kothamangalam	24117	66	20997	58	19337	53	21102	58
	<b>TOTAL</b>	<b>1839383</b>	<b>5040</b>	<b>1987804</b>	<b>5456</b>	<b>1959146</b>	<b>5368</b>	<b>1960407</b>	<b>5373</b>

Source: Deputy Director of Health Services, Sivaganga (Tot OP - Total Out patients treated)

Table-A3.11: Utilization of government health care services - IP 2001-2005

S.NO	NAME OF INSTITUTIONS	NO OF BEDS	2001-02		2002-03		2003-04		2004-05	
			Tot IP	Avg IP/d	Tot IP	Avg IP/d	Tot IP	Avg IP/d	Tot IP	Avg IP/d
1	<b>DIST.Hd.Qrs.Hospital</b> GHQ.H.Sivaganga	226	57110	156	58902	161	66826	183	63864	175
	<b>TALUK HOSPITAL</b>									
2	GH.Devakottai	62	20155	55	18261	50	19569	54	17186	47
3	GH.Karaikudi	86	27003	74	24480	67	27775	76	23276	64
4	GH.Tiruppathur	44	12073	33	15418	42	14247	39	17220	47
5	GH.Manamadurai	34	10069	28	9547	26	10015	27	9261	25
6	GH.Ilayankudi	38	6465	18	7095	19	5569	15	4751	13
	<b>NON TALUK HOSPITAL</b>									
7	GH.Kanadukathan	52	7461	20	6621	18	5445	15	7942	22
8	GH.Singampunari	32	9188	25	10272	28	9339	26	9810	27
9	GH.Kandanur	18	684	2	939	3	1235	3	1494	4
10	GH.Pulankurichi	6	12	0	0	0	0	0	97	0
	<b>TB-SANATORIUM</b>									
11	GTBS.Somanathapuram	50	12610	35	14583	40	13098	36	14909	41
	<b>WOMEN&amp;CHILDREN HOSPITAL</b>									
12	GWCH.Pulankurichi	12	64	0	78	0	132	0	107	0
13	GWCH.Sivaganga	16	895	2	1003	3	691	2	759	2
14	GWCH.Paganeri	10	511	1	465	1	272	1	137	0
15	GWCH.Pallathur	8	1006	3	862	2	507	1	459	1
16	GWCH.Palavankudi	4	112	0	193	1	48	0	44	0
17	GWCH.Kothamangalam	8	162	0	72	0	24	0	132	0
<b>TOTAL</b>		<b>706</b>	<b>2E+05</b>	<b>452</b>	<b>2E+05</b>	<b>461</b>	<b>2E+05</b>	<b>478</b>	<b>171448</b>	<b>468</b>

Source: Deputy Director of Health Services, Sivaganga  
 Note: Avg-IP/d - Average In Patients treated Per day  
 Tot IP - Total Inpatients treated

Table-A3.12 : Investigations and services performed in Govt hospitals - Lab tests and X-Rays done, 2001-05

S.NO	NAME OF THE INSTITUTIONS	2000-01		2001-02		2002-03		2003-04		2004-05	
		Lab Tests	X-rays	Lab Tests	X-rays	Lab Tests	X-rays	Lab Tests	X-rays	Lab Tests	X-rays
<b>DIST.Hd.Qrs.Hospital</b>											
1	GHQH.Sivaganga	124292	6169	121563	6729	118773	6274	104734	6760	102045	6712
<b>TALUK HOSPITAL</b>											
2	GH.Devakottai	16402	1465	12003	1165	18474	1103	25155	1282	30649	1037
3	GH.Karaiikudi	33082	2046	36491	1882	43147	1730	62730	1792	61248	1905
4	GH.Tiruppathur	15762	1145	22540	994	24096	1327	21082	1575	35242	661
5	GH.Manamadurai	23600	603	29062	538	31277	483	29184	366	25586	332
6	GH.Ilayankudi	12505	798	18744	501	18574	379	19316	168	16389	567
<b>NON TALUK HOSPITAL</b>											
7	GH.Kanadukathan	13359		15843	0	15327		10952	0	12877	
8	GH.Singampunari	17940	578	19025	526	18882	794	16078	531	19397	504
9	GH.Kandanur	7891		9771	0	4117		2825		6863	
10	GH.Pulankurichi			0	0	0		0		135	
<b>TB.SANATORIUM</b>											
11	GTBS.Somanathapuram	5485	1594	7178	1674	10792	1110	11222	1128	7243	976
<b>WOMEN&amp;CHILDREN HOSPITAL</b>											
12	GWCH.Pulankurichi			0		0		0		122	
13	GWCH.Sivaganga	8277		7320		5882		9686		1634	
14	GWCH.Paganeri			0		0		0		0	
15	GWCH.Pallathur			92		759		733		861	
16	GWCH.Palavankudi			0		0		0		0	
17	GWCH.Kothamangalam			0		0		0		0	
<b>TOTAL</b>		<b>278595</b>	<b>14398</b>	<b>299632</b>	<b>14009</b>	<b>310100</b>	<b>13200</b>	<b>313697</b>	<b>13602</b>	<b>320291</b>	<b>12694</b>



**Table-A3.13: Investigations and services performed in Govt. Hospitals - Postmortem, 2001-05**

S.NO	NAME OF THE INSTITUTIONS	2000-01	2001-02	2002-03	2003-04	2004-05
	<b>DIST.Hd.Qrs.Hospital</b>					
1	GHQH.Sivaganga	113	112	107	118	88
	<b>TALUK HOSPITAL</b>					
2	GH.Devakottai	33	34	26	24	38
3	GH.Karaikudi	105	86	87	57	71
4	GH.Tiruppathur	29	41	50	51	37
5	GH.Manamadurai	38	25	39	51	41
6	GH.Ilayankudi	19	22	21	14	3
	<b>NON TALUK HOSPITAL</b>					
7	GH.Kanadukathan	4	5	5	7	3
8	GH.Singampunari	8	12	12	12	22
	<b>TOTAL</b>	<b>349</b>	<b>337</b>	<b>347</b>	<b>334</b>	<b>303</b>

**Source:** Deputy Director of Health Services, Sivaganga

**Table-A3.14: Investigations and services performed in Govt hospitals - Accident cases, 2001-05**

S.No.	NAME OF THE INSTITUTIONS	2000-01	2001-02	2002-03	2003-04	2004-05
	<b>DIST.Hd.Qrs.Hospital</b>					
1	GHQH.Sivaganga	387	364	391	414	353
	<b>TALUK HOSPITAL</b>					
2	GH.Devakottai	275	580	190	82	215
3	GH.Karaikudi	163	163	212	197	259
4	GH.Tiruppathur	157	194	148	174	163
5	GH.Manamadurai	102	179	75	126	74
6	GH.Ilayankudi	36	57	13	13	0
	<b>NON TALUK HOSPITAL</b>					
7	GH.Kanadukathan	28	9	16	23	2
8	GH.Singampunari	56	106	13	5	26
9	GH.Kandanur	3	16	6	8	0
	<b>TOTAL</b>	<b>1208</b>	<b>1668</b>	<b>1064</b>	<b>1042</b>	<b>1092</b>

**Source:** Deputy Director of Health Services, Sivaganga

Table-A3.15: Adoption of family planning methods by residence, 2003-2005

S.No	Family Planning Methods	2003-04		2004-05	
		Target	Achievement	Target	Achievement
1	Sterlization	8500	7579	8000	7497
	<i>a. Vasectomy</i>		2		2
	<i>b. Tubectomy</i>		7044		6695
	<i>c.Laprosopic</i>		533		500
2	I.U.D	8000	7408	8000	8669
3	O.P. Users	6000	3975	4800	4496
4	C.C. Users	6000	4887	6500	5440

**Source:** Deputy Director of Health Services, Sivaganga

**Table-A3.16: Medical Termination of Pregnancy**

<b>Medical Termination of pregnancy</b>	<b>2003-2004</b>	<b>2004-05</b>
Number of institutions approve/functioning	24	26
Number of institutions actually performing MTP approve/functioning	14	17
<b>Total MTPs done</b>	<b>826</b>	<b>904</b>
<b>Break up by duration</b>		
a. upto eight weeks	466	583
b. 8 to 12 weeks	309	264
c. 12 to 20 weeks	51	59
<b>Total</b>	<b>826</b>	<b>906</b>
<b>Break up by age group</b>		
a. less than 15 years	0	0
b. 15 to 19	93	17
c. 20 to 24	180	209
d. 25 to 29	336	399
e. 30 to 34	158	181
f. 35 to 39	53	84
g. 40 to 44	6	16
h. 45 and above	0	0
<b>Total</b>	<b>826</b>	<b>906</b>
<b>Termination with acceptance</b>		
a. Vasectomy	0	0
b. Tubectomy	317	297
c. Laproscopy	56	38
Total	373	335
d. IUD	4	5
e. Oralpills	4	5
f. Nirodh	0	5
g. Plain MTP	445	556
<b>TOTAL</b>	<b>826</b>	<b>906</b>



**Table-A4.1: Block wise and gender wise gross enrolment ratio in the primary upper primary schools during the year 2002-03 and 2003-04**

Block	Primary						Upper primary					
	Boys		Girls		Total		Boys		Girls		Total	
	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04
Sivaganga	120	109	82	105	101	102	108	109	84	105	101	107
Manamadurai	98	104	96	100	97	105	96	104	94	100	97	102
Kalayarkoil	94	108	96	104	95	107	96	108	94	104	95	106
Thirupuvanam	108	107	100	103	104	105	102	107	104	103	104	105
Ilayangudi	108	102	92	103	100	101	108	102	82	103	100	103
Devakotai	110	106	103	102	107	105	119	106	106	102	107	104
Kannangudi	98	106	96	102	97	102	89	106	86	102	97	104
Kallal	96	101	90	101	93	100	92	101	89	101	93	101
Sakkotai	104	104	102	102	103	104	114	104	118	102	103	103
Thirupathur	98	104	96	108	97	116	96	104	94	108	97	106
Singampunari	92	105	117	101	104	105	114	105	116	101	104	103
S.Pudur	96	105	96	101	96	102	98	105	90	101	96	103
<b>District</b>	<b>102</b>	<b>105</b>	<b>97</b>	<b>103</b>	<b>99.5</b>	<b>104.5</b>	<b>102.7</b>	<b>105</b>	<b>96</b>	<b>103</b>	<b>100</b>	<b>104</b>

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga .

**Table-A4.2: Gender wise net enrolment ratio in primary and upper primary schools of different blocks from 2002-03 to 2004-05**

Blocks	Primary						Upper primary						Total								
	Boys		Girls		Total		Boys		Girls		Total		Boys		Girls		Total				
	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05			
Sivaganga	98	92	99	85	88	97	92	90	98	98	97	98	95	96	97	82	85	88	90	90	98
Manamadurai	98	99	100	94	96	99	96	98	99	99	98	99	96	98	98	94	98	99	97	97	99
Kalayarkoil	95	98	99	92	98	100	94	98	99	99	100	99	99	100	99	90	97	98	95	98	99
Thirupuvanam	98	99	100	91	97	98	95	98	99	99	100	99	96	100	92	94	98	96	96	95	99
Ilayangudi	99	98	99	92	98	99	96	98	99	99	98	99	94	98	85	85	96	97	92	95	98
Devakottai	99	99	100	95	97	98	97	98	99	99	99	98	88	99	99	99	84	88	99	86	94
Kannangudi	98	98	99	91	99	100	95	99	99	99	99	99	98	99	85	85	99	99	92	99	99
Kallal	99	99	100	91	98	99	95	99	99	99	100	99	99	100	87	98	99	93	99	99	100
Sakkottai	99	98	99	93	98	99	96	98	99	99	100	99	99	100	95	97	100	97	98	98	100
Thiruppathur	96	97	98	96	97	98	96	97	98	98	99	98	98	99	95	95	96	97	97	97	98
Singampunari	96	97	98	96	97	98	96	97	98	98	99	98	98	99	88	88	97	98	94	98	99
S.Pudur	98	97	98	80	93	98	89	95	98	99	99	97	99	99	94	93	96	97	95	95	98
<b>Total</b>	<b>98</b>	<b>98</b>	<b>99</b>	<b>91</b>	<b>96</b>	<b>99</b>	<b>95</b>	<b>97</b>	<b>99</b>	<b>99</b>	<b>99</b>	<b>96</b>	<b>99</b>	<b>99</b>	<b>91</b>	<b>95</b>	<b>97</b>	<b>97</b>	<b>95</b>	<b>95</b>	<b>98</b>

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga

**Table-A4.3: Gender wise net enrolment ratio among SCs in Primary schools of different blocks from 2002-03 to 2004-05**

Block	Primary						Upper primary											
	Boys			Girls			Total			Boys			Girls			Total		
	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05
Sivaganga	92	99	100	84	99	100	88	99	100	95	97	82	85	98	90	90	98	
Manamadurai	94	98	99	94	98	99	94	98	99	96	98	94	98	99	97	97	99	
Kalayarkoil	91	97	98	93	96	97	92	97	97	99	100	90	97	98	95	98	99	
Thiruppuvanam	92	98	99	90	97	98	91	98	98	96	100	92	94	98	96	95	99	
Ilayangudi	93	99	100	92	99	100	93	99	100	94	98	85	96	97	92	95	98	
Devakottai	96	96	97	93	98	99	95	97	98	88	99	99	84	88	99	86	94	
Kannangudi	93	99	100	93	99	100	93	99	100	98	99	99	85	99	92	99	99	
Kallal	92	98	99	87	97	98	90	98	98	99	100	87	98	99	93	99	100	
Sakkottai	94	99	100	92	98	99	93	99	99	99	100	95	97	100	97	98	100	
Thiruppathur	94	96	97	93	99	100	94	98	98	98	99	95	96	97	97	97	98	
Singampunari	95	96	98	93	96	97	94	96	97	98	99	88	97	98	94	98	99	
S.Pudur	83	98	99	80	98	99	82	98	99	97	99	94	93	96	97	95	98	
<b>Total</b>	<b>92</b>	<b>98</b>	<b>98</b>	<b>90</b>	<b>98</b>	<b>98</b>	<b>91</b>	<b>98</b>	<b>98</b>	<b>96</b>	<b>99</b>	<b>91</b>	<b>95</b>	<b>97</b>	<b>95</b>	<b>95</b>	<b>98</b>	

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga.



Table-A4.4: Gender wise attendance rate in primary and upper primary schools in different blocks from 2002-03 and 2004-05

SI No	Block	Primary						Upper primary								
		Boys		Girls		Total		Boys		Girls		Total				
		2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2004-05		
1	Sivaganga	96	98	92	95	94	97	99	99	96	98	97	96	97	98	97
2	Manamadurai	90	93	98	99	94	96	97	97	96	97	96	95	96	97	97
3	Kalayarkoil	86	92	88	90	87	91	96	96	80	82	78	80	79	81	97
4	Thirupuvanam	98	98	99	99	99	99	99	99	96	97	95	97	96	97	98
5	Ilayangudi	98	98	95	96	97	97	98	98	99	99	97	97	98	98	97
6	Devakotai	82	90	85	87	84	89	89	89	87	90	91	92	89	91	94
7	Kannangudi	80	88	70	75	75	82	98	98	85	87	90	93	88	90	97
8	Kallai	93	95	88	91	91	93	98	98	95	96	91	92	93	94	99
9	Sakkotai	94	96	93	95	94	96	96	96	97	99	94	96	96	98	99
10	Thirupathur	93	95	95	96	94	96	98	98	93	95	97	98	95	97	96
11	Singampunari	85	91	84	90	85	91	96	96	90	93	91	94	91	94	97
12	S.pudur	98	98	99	99	99	99	94	94	96	96	95	96	96	96	92
	<b>District</b>	<b>91</b>	<b>94</b>	<b>91</b>	<b>93</b>	<b>91</b>	<b>94</b>	<b>97</b>	<b>97</b>	<b>93</b>	<b>94</b>	<b>93</b>	<b>94</b>	<b>93</b>	<b>93</b>	<b>97</b>

Source: Annual Work Plan and Budget: 2004-05, 2005-06, Office of the Chief Education Officer, Sivaganga.

**Table-A4.5: Gender wise attendance rate among SCs in primary and upper primary schools from 2002-03 and 2004-05**

SI No	Block	Primary						Upper primary						
		Boys		Girls		Total		Boys		Girls		Total		
		2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	
1	Sivaganga	96	98	96	97	96	98	97	96	94	96	92	96	94
2	Manamadurai	96	97	95	96	96	97	97	96	93	95	94	96	98
3	Kalayarkoil	80	82	78	80	79	81	97	65	62	65	56	65	74
4	Thirupuvanam	96	97	95	97	96	97	98	94	94	95	94	96	94
5	Ilayangudi	99	99	97	97	98	98	97	96	92	93	94	95	97
6	Devakotai	87	90	91	92	89	91	94	84	80	86	82	87	92
7	Kannangudi	85	87	90	93	88	90	97	80	92	93	86	91	96
8	Kallai	95	96	91	92	93	94	99	87	85	88	86	89	96
9	Sakkotai	97	99	94	96	96	98	99	90	86	89	88	91	95
10	Thirupathur	93	95	97	98	95	97	96	91	95	96	93	96	92
11	Singampunari	90	93	91	94	91	94	97	91	88	90	90	92	91
12	S.Pudur	96	96	95	96	96	96	92	94	95	95	94	95	90
	<b>District</b>	<b>93</b>	<b>94</b>	<b>93</b>	<b>94</b>	<b>93</b>	<b>93</b>	<b>97</b>	<b>94</b>	<b>88</b>	<b>90</b>	<b>91</b>	<b>91</b>	<b>92</b>

Source: Annual Work Plan and Budget:2004-05,2005-06,Office of the Chief Education Officer., Sivaganga .

**Table-A4.6: Block wise never enrolled children (6-14) in the district during the year 2005-06**

SI No	Blocks	Boys	Girls	Total
1	Sivaganga	7	8	15
2	Kalayarkoil	12	16	28
3	Thiruppuvanam	18	15	33
4	<b>Total</b>	<b>37</b>	<b>39</b>	<b>76</b>

Source: Annual Work Plan and Budget;,2005-06,Sarva Siksha Abiyan District Elementary Education Plan, Sivagangai district, Office of the Chief Education Officer., Sivaganga

**Table-A4.7: Social group and gender wise percentage of dropout students in different blocks during 2005-06**

S. No.	Block/Urban units	ALL			SC		
		Boys	Girls	Total	Boys	Girls	Total
1	Sivaganga	56.59	43.41	100.00 (387)	56.84	43.16	100.00 (95)
2	Manamadurai	55.39	44.61	100.00 (334)	52.13	47.87	100.00 (94)
3	Kalayarkoil	53.05	46.95	100.00 (311)	50.00	50.00	100.00 (170)
4	Thiruppuvanam	48.30	51.70	100.00 (323)	72.88	27.12	100.00 (59)
5	Ilayangudi	55.17	44.83	100.00 (348)	62.71	37.29	100.00 (59)
6	Devakottai	49.40	50.60	100.00 (334)	66.67	33.33	100.00 (48)
7	Kannangudi	50.22	49.78	100.00 (227)	55.88	44.12	100.00 (34)
8	Kallal	48.92	51.08	100.00 (278)	52.63	47.37	100.00 (19)
9	Sakkottai	57.49	42.51	100.00 (494)	66.67	33.33	100.00 (36)
10	Thiruppathur	61.68	38.32	100.00 (321)	63.33	36.67	100.00 (30)
11	Singampunari	62.33	37.67	100.00 (300)	57.14	42.86	100.00 (42)
12	S.Pudur	56.44	43.56	100.00 (225)	66.67	33.33	100.00 (15)
	<b>Total</b>	<b>54.82</b>	<b>45.18</b>	<b>100.00 (3882)</b>	<b>57.92</b>	<b>42.08</b>	<b>100.00 (701)</b>

Note: Figures in parentheses show the percentage of respected total absolute no. of dropouts.

Source: Annual Work Plan and Budget;,2005-06,Sarva Siksha Abiyan District Elementary Education Plan, Sivaganga district, Office of the Chief Education Officer, Sivaganga



Table-A4.8: Gender-wise dropout rates of students in primary and upper primary schools in different blocks from 2002-03 to 2004-05

Block	Primary						Upper primary							
	Boys		Girls		Total		Boys		Girls		Total			
	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2004-05	
Sivaganga	9	5	6	1	8	3	2	15	6	15	3	15	5	3
Manamadurai	20	18	19	20	20	19	4	9	7	7	9	8	8	6
Kalayarkoil	22	20	24	16	23	18	4	6	6	6	6	6	6	4
Thirupuvanam	13	9	11	8	12	9	5	6	13	11	9	14	11	9
Ilayangidy	11	5	10	5	11	5	1.5	6	4	5	4	6	4	3
Devakottai	4	3	3	5	7	4	3	5	4	3	2	4	3	2
Kannangudi	3	-	5	-	4	-	2	2	1	2	1	2	1	0
Kallal	4	2	3	2	4	2	0.5	6	5	4	3	5	4	2
Sakkottai	8	5	8	5	8	5	2	8	7	4	3	6	5	4
Thirupathur	6	7	5	7	11	7	2	7	5	5	5	6	5	4
Singamampuri	13	11	14	11	14	11	2	8	7	4	6	6	7	5
S.Pudur	2	-	2	-	4	-	3	5	4	3	4	4	4	3
<b>District</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>11</b>	<b>7</b>	<b>2.53</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>7</b>	<b>6</b>	<b>4</b>

Source: Annual Work Plan and Budget:2004-05 (p- 46),2005-06(p- 32),Office of the Chief Education Officer, Sivaganga

**Table-A4.9: Gender-wise dropout rates of students among SC children in primary and upper primary schools in different blocks from the year 2002-03 to 2004-05**

Block	Primary				Upper primary					
	Boys		Girls		Total		Boys	Girls		Total
	2003-04	2003-04	2003-04	2004-05	2003-04	2003-04	2002-03	2003-04	2004-05	
Sivaganga	5	3	4	2	8	6	10	7	2	
Manamadurai	22	23	23	3	20	21	25	21	6	
kalayaroil	23	27	25	4	15	14	18	14	6	
Thirupuvanam	10	11	11	4	22	20	24	21	9	
Ilayangudi	7	6	7	5.2	9	10	13	10	8	
Devakottai	5	7	6	1	8	6	12	7	6	
Kannangudi	10	10	10	5	1	1	3	1	2	
Kallal	2	2	2	1	4	2	5	3	1	
Sakottai	4	4	4	0.5	5	6	8	6	2	
Thiruppathur	7	7	7	4	8	5	9	7	4	
Singampunari	13	14	14	6	12	13	16	13	6	
S.Pudur	4	3	4	6.6	11	12	14	12	4	
District	9	9	10	3.5	10.25	9.7	13	10	4.53	

Source: Annual Work Plan and Budget: 2004-05, 2005-06, Office of the Chief Education Officer, Sivaganga .

**Table-A4.10: Gender wise repetition rate in primary and upper primary schools in different blocks from the year 2002-03 to 2004-05**

SI No.	Block	Primary							Upper primary						
		Boys		Girls		Total			Boys		Girls		Total		
		2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2004-05	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2004-05
1	Sivaganga	18	17	17	14	18	16	13	14	13	8	9	11	11	9
2	Manamadurai	38	29	37	34	38	32	27	29	27	28	26	29	27	18
3	Kalayarkoil	27	30	23	29	25	30	27	25	21	31	29	28	25	14
4	Thirupuvanam	39	34	34	33	37	34	30	29	22	21	18	25	10	7
5	illayangudi	29	32	27	31	28	32	28	19	17	17	15	18	16	14
6	Devakotai	16	30	17	35	33	33	27	18	16	18	15	18	16	12
7	kannangudi	20	40	21	45	41	43	26	22	15	26	14	24	15	14
8	Kallal	34	28	36	24	35	26	23	25	21	23	20	24	21	13
9	Sakkotai	19	30	15	33	34	32	26	24	21	26	18	25	20	15
10	Thirupathur	19	33	18	30	37	31	23	29	26	31	23	30	25	15
11	Singampunari	38	30	36	30	37	30	27	33	26	39	30	36	28	15
12	S.pudur	25	54	23	46	48	50	25	36	32	42	34	39	33	21
	<b>District</b>	<b>27</b>	<b>32</b>	<b>25</b>	<b>32</b>	<b>34</b>	<b>32</b>	<b>25.04</b>	<b>25</b>	<b>21</b>	<b>26</b>	<b>21</b>	<b>26</b>	<b>21</b>	<b>14</b>

Source: Annual Work Plan and Budget: 2004-05, 2005-06, Office of the Chief Education Officer, Sivaganga

**Table-A4.11: Gender wise transition rate from primary to upper primary among SCs in different blocks from the year 2002- 03 to 2004-05**

Block	Boys			Girls			Total		
	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05
Sivaganga	78	97	97	86	99	97	82	98	97
Manamadurai	68	100	99	72	100	99	70	100	99
Kalayarkoil	68	100	100	72	100	100	70	100	100
Thirupuvanam	96	96	98	76	98	98	86	97	98
Ilayangudi	91	97	95	93	93	99	92	95	96
Devakotai	84	93	98	88	91	98	86	92	98
kannangudi	97	100	100	98	100	100	98	100	100
Kallal	83	98	100	81	94	98	82	96	99
Sakkotai	86	100	100	94	100	100	90	100	100
Thirupathur	69	100	99	73	100	99	71	100	99
Singapunari	80	100	98	88	100	98	84	100	98
S.pudur	80	100	100	100	100	100	90	100	100
<b>District</b>	<b>82</b>	<b>98</b>	<b>99</b>	<b>85</b>	<b>98</b>	<b>99</b>	<b>84</b>	<b>98</b>	<b>99</b>

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga .

**Table-A4.12: Average number of teachers per primary and upper primary schools by management during the year 2004-05**

Blocks	Primary					Upper primary				
	Govt.	Aided	Unaided	Others	Total	Govt.	Aided	Unaided	Others	Total
Sivaganga	2.58	4.43	4.14	-	3.06	3.78	8.58	5.91	-	5.13
Manamadurai	2.48	5.79	4.00	-	3.07	4.85	13.80	13.33	-	7.36
Kalayarkoil	2.29	4.31	6.00	-	2.63	4.44	7.50	16.50	-	5.92
Thirupuvanam	2.84	4.50	5.00	-	2.99	5.36	5.00	6.86	-	5.61
Ilayangudi	2.05	4.65	-	-	2.65	3.07	8.06	6.20	-	5.80
Devakottai	2.20	9.75	4.60	5.00	3.27	4.13	7.94	12.00	-	6.69
Kannangudi	2.63	-	-	-	2.83	2.55	3.00	-	-	2.62
Kallal	2.40	7.73	-	-	3.15	4.00	4.13	10.67	-	4.63
Sakkottai	2.92	9.09	4.19	-	4.64	5.48	6.59	6.80	12.00	6.19
Thirupathur	2.35	5.18	-	-	2.68	4.55	7.00	-	-	6.04
Singampunari	2.20	2.00	7.50	-	2.52	4.88	1.67	16.00	-	5.48
S.Pudur	1.77	-	-	-	1.77	4.21	-	-	-	4.21
<b>Total</b>	<b>2.39</b>	<b>6.24</b>	<b>4.46</b>	<b>5.00</b>	<b>2.99</b>	<b>4.43</b>	<b>7.08</b>	<b>8.67</b>	<b>12.00</b>	<b>5.68</b>

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga Calculated From previous Tables



**Table-A4.13: Percentage distribution of teachers in different categories of primary and upper primary schools during 2004-05**

Block	Primary				Upper Primary			
	Govt.	Aided	Unaided	Total	Govt.	Aided	Unaided	Total
Sivaganga	60.26	16.1	23.64	100.00 (385)	45.45	33.44	21.1	100.00 (308)
Manamadurai	65.1	31.76	3.14	100.00 (255)	47.09	33.5	19.42	100.00 (206)
Kalayarkoil	74.84	17.61	7.55	100.00 (318)	50.68	34.25	15.07	100.00 (219)
Thiruppuvanam	88.02	3.72	8.26	100.00 (242)	70.42	7.04	22.54	100.00 (213)
Ilayangudi	59.62	40.38	-	100.00 (265)	21.18	63.55	15.27	100.00 (203)
Devakottai	53.71	34.06	12.22	100.00 (229)	25.73	59.34	14.94	100.00 (241)
Kannangudi	92.94	7.06	-	100.00 (85)	82.35	17.65	-	100.00 (34)
Kallal	63.98	36.02	-	100.00 (236)	39.51	40.74	19.75	100.00 (162)
Sakkottai	36.73	47.39	15.88	100.00 (422)	42.93	28.28	28.79	100.00 (396)
Thiruppathur	75.54	24.46	-	100.00 (233)	55.83	30.06	14.11	100.00 (163)
Singampunari	80.49	1.22	18.29	100.00 (164)	67.83	4.35	27.83	100.00 (115)
S.Pudur	100.00	-	-	100.00 (85)	100.00	-	-	100.00 (59)
<b>Total</b>	<b>65.36</b>	<b>25.45</b>	<b>9.18</b>	<b>100.00 (2919)</b>	<b>47.13</b>	<b>33.29</b>	<b>19.58</b>	<b>100.00 (2319)</b>

**Note:** Figures in brackets shows the respective total number of teachers.

**Source:** Annual Work Plan and Budget:2005-06,Office of the Chief Education Officer, Sivaganga

Table-A4.14: Teacher posts sanctioned, in position and vacant in different categories of primary schools during the year 2004-05

Block	Government				Private aided				Total			
	Sanctioned	In Position	Vacant	% of Vacancy	Sanctioned	In Position	Vacant	% of Vacancy	Sanctioned	In Position	Vacant	% of Vacancy
Sivaganga	197	165	32	16.24	125	115	10	8.00	322	280	42	13.04
Kalayarkoil	194	175	19	9.79	35	31	4	11.43	229	206	23	10.04
Manamadurai	155	135	20	12.90	42	39	3	7.14	197	174	23	11.68
Thirupuvanam	164	144	20	12.20	25	21	4	16.00	189	165	24	12.70
Ilayangudi	143	118	25	17.48	35	32	3	8.57	178	150	28	15.73
Devakotai	155	125	30	19.35	95	90	5	5.26	250	215	35	14.00
Kannangudi	85	70	15	17.65	7	5	2	28.57	92	75	17	18.48
Sakkotai	285	245	40	14.04	115	110	5	4.35	400	355	45	11.25
Thirupathur	145	115	30	20.69	5	2	3	60.00	150	117	33	22.00
Singampunari	166	145	21	12.65	4	3	1	25.00	170	148	22	12.94
S.pudur	135	115	20	14.81			0		135	115	20	14.81
Kallal	135	114	21	15.56	74	71	3	4.05	209	185	24	11.48
<b>Total</b>	<b>1959</b>	<b>1666</b>	<b>293</b>	<b>14.96</b>	<b>562</b>	<b>519</b>	<b>43</b>	<b>7.65</b>	<b>2521</b>	<b>2185</b>	<b>336</b>	<b>13.33</b>

Source: DISE: 2004-05, Office of the Chief Education Officer, Sivaganga

**Table-A4.15: Teacher posts sanctioned, in position and vacant in different categories of upper primary schools 2004-05**

Sl No	Block	Government				Private aided				Total			
		Sanctioned	In Position	Vacant	% of Vacancy	Sanctioned	In Position	Vacant	% of Vacancy	Sanctioned	In Position	Vacant	% of Vacancy
1	Sivaganga	194	185	9	4.64	88	78	10	11.36	282	263	19	6.74
2	Kalayarkoil	171	98	73	42.69	103	102	1	0.97	274	200	74	27.01
3	Manamadurai	156	138	18	11.54	113	110	3	2.65	269	248	21	7.81
4	Thirupuvanam	248	217	31	12.50	7	5	2	28.57	255	222	33	12.94
5	Ilayangudi	69	80	-11	-15.94	223	211	12	5.38	292	291	1	0.34
6	Devakotai	96	76	20	20.83	171	133	38	22.22	267	209	58	21.72
7	Kannangudi	26	30	-4	-15.38	5	7	-2	-40.00	31	37	-6	-19.35
8	Sakkotai	300	253	47	15.67	179	164	15	8.38	479	417	62	12.94
9	Thirupathur	136	143	-7	-5.15	115	106	9	7.83	251	249	2	0.80
10	Singampunari	107	34	73	68.22	5	4	1	20.00	112	38	74	66.07
11	S.pudur	81	60	21	25.93	0	0	0	0	81	60	21	25.93
12	Kallai	68	21	47	69.12	87	79	8	9.20	155	100	55	35.48
	<b>Total</b>	<b>1652</b>	<b>1335</b>	<b>317</b>	<b>19.19</b>	<b>1096</b>	<b>999</b>	<b>97</b>	<b>8.85</b>	<b>2748</b>	<b>2334</b>	<b>414</b>	<b>15.07</b>

Source: DISE: 2004-05, Office of the Chief Education Officer, Sivaganga

**Table-A4.16: Gender wise percentage distribution of teachers in different categories of primary schools during 2004-05**

Block	Primary School Teachers (In %)																									
	Govt.						Aided						Unaided						Others						Total	
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T					
Sivaganga	23.71	76.29 (232)	100.00 (62)	33.87	66.13	100.00 (91)	12.09	87.91	100.00 (8)	-	-	-	-	-	-	-	-	-	22.60	77.40	100.00 (385)					
Manamadurai	39.76	60.24 (166)	100.00 (81)	30.86	69.14	100.00 (56)	0.00	100.00	100.00 (24)	-	-	-	-	-	-	-	-	-	35.69	64.31	100.00 (255)					
Kalayarkoil	42.86	57.14 (238)	100.00 (9)	46.43	53.57	100.00 (107)	16.67	83.33	100.00 (20)	-	-	-	-	-	-	-	-	-	41.51	58.49	100.00 (318)					
Thiruppuvanam	35.21	64.79 (213)	100.00 (78)	55.56	44.44	100.00 (6)	5.00	95.00	100.00 (23)	-	-	-	-	-	-	-	-	-	33.47	66.53	100.00 (242)					
Ilayangudi	42.41	57.59 (158)	100.00 (85)	29.91	70.09	100.00 (200)	29.91	70.09	100.00 (57)	-	-	-	-	-	-	-	-	-	37.36	62.64	100.00 (265)					
Devakottai	35.77	64.23 (123)	100.00 (79)	32.05	67.95	100.00 (85)	32.05	67.95	100.00 (151)	-	-	-	-	-	-	-	-	-	30.57	69.43	100.00 (229)					
Kannangudi	34.18	65.82 (79)	100.00 (176)	33.33	66.67	100.00 (176)	33.33	66.67	100.00 (155)	-	-	-	-	-	-	-	-	-	34.12	65.88	100.00 (85)					
Kallal	28.48	71.52 (151)	100.00 (155)	36.47	63.53	100.00 (176)	36.47	63.53	100.00 (155)	-	-	-	-	-	-	-	-	-	31.36	68.64	100.00 (236)					
Sakkottai	35.48	64.52 (155)	100.00 (176)	18.00	82.00	100.00 (57)	18.00	82.00	100.00 (132)	-	-	-	-	-	-	-	-	-	22.04	77.96	100.00 (422)					
Thiruppathur	23.86	76.14 (176)	100.00 (132)	29.82	70.18	100.00 (85)	29.82	70.18	100.00 (155)	-	-	-	-	-	-	-	-	-	25.32	74.68	100.00 (233)					
Singampunari	25.76	74.24 (132)	100.00 (85)	50.00	50.00	100.00 (2)	50.00	50.00	100.00 (132)	-	-	-	-	-	-	-	-	-	23.17	76.83	100.00 (164)					
S.Pudur	45.88	54.12 (85)	100.00 (1908)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45.88	54.12	100.00 (85)					
District	34.01	65.99 (1908)	100.00 (743)	29.74	70.26	100.00 (743)	29.74	70.26	100.00 (263)	20.00	80.00	100.00 (5)	20.00	80.00	100.00 (5)	20.00	80.00	100.00 (5)	30.56	69.44	100.00 (2919)					

Note: Figures in brackets shows the respective total number of teachers.

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga



**Table-A4.17: Gender wise percentage distribution of teachers in different categories of UP schools during 2004-05**

Block	Upper Primary Teachers																						
	Govt.					Aided					Unaided					Others					Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T		
Sivaganga	37.14	62.86	100.00 (140)	20.39	79.61	100.00 (103)	6.15	93.85	100.00 (65)	-	-	-	-	-	-	25.00	75.00	100.00 (308)					
Manamadurai	34.02	65.98	100.00 (97)	26.09	73.91	100.00 (69)	12.50	87.50	100.00 (40)	-	-	-	-	-	-	27.18	72.82	100.00 (206)					
Kalayarkoil	49.55	50.45	100.00 (111)	36.00	64.00	100.00 (75)	18.18	81.82	100.00 (33)	-	-	-	-	-	-	40.18	59.82	100.00 (219)					
Thiruppuvanam	34.00	66.00	100.00 (150)	40.00	60.00	100.00 (15)	8.33	91.67	100.00 (48)	-	-	-	-	-	-	28.64	71.36	100.00 (213)					
Ilayangudi	51.16	48.84	100.00 (43)	50.39	49.61	100.00 (129)	12.90	87.10	100.00 (31)	-	-	-	-	-	-	44.83	55.17	100.00 (203)					
Devakottai	33.87	66.13	100.00 (62)	33.57	66.43	100.00 (143)	11.11	88.89	100.00 (36)	-	-	-	-	-	-	30.29	69.71	100.00 (241)					
Kannangudi	42.86	57.14	100.00 (28)	33.33	66.67	100.00 (6)	-	-	-	-	-	-	-	-	-	41.18	58.82	100.00 (34)					
Kallal	26.56	73.44	100.00 (64)	37.88	62.12	100.00 (66)	12.50	87.50	100.00 (32)	-	-	-	-	-	-	28.40	71.60	100.00 (162)					
Sakkottai	21.18	78.82	100.00 (170)	26.79	73.21	100.00 (112)	12.75	87.25	100.00 (102)	50.00	50.00	100.00 (12)	-	-	-	21.46	78.54	100.00 (396)					
Thiruppathur	35.16	64.84	100.00 (91)	40.82	59.18	100.00 (49)	13.04	86.96	100.00 (23)	-	-	-	-	-	-	33.74	66.26	100.00 (163)					
Singampunari	30.77	69.23	100.00 (78)	80.00	20.00	100.00 (5)	3.13	96.88	100.00 (32)	-	-	-	-	-	-	25.22	74.78	100.00 (115)					
S.Pudur	45.76	54.24	100.00 (59)	-	-	-	-	-	-	-	-	-	-	-	-	45.76	54.24	100.00 (59)					
<b>Total</b>	<b>34.95</b>	<b>65.05</b>	<b>100.00</b> <b>(1093)</b>	<b>34.46</b>	<b>65.54</b>	<b>100.00</b> <b>(772)</b>	<b>10.86</b>	<b>89.14</b>	<b>100.00</b> <b>(442)</b>	<b>50.00</b>	<b>50.00</b>	<b>100.00</b> <b>(12)</b>	<b>50.00</b>	<b>50.00</b>	<b>100.00</b> <b>(442)</b>	<b>30.27</b>	<b>69.73</b>	<b>100.00</b> <b>(2319)</b>					

Note: Figures in brackets shows the respective total number of teachers.

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga.

Table-A4.18 &amp; 19: Percentage of trained teachers to total teachers at primary and UP school levels during 2004-05

Block	Primary school			Upper Primary school		
	Total No. of Teacher	No. of trained teachers	% of trained teachers	Total No. of Teacher	No. of trained teachers	% of trained teachers
Sivaganga	410	250	60.98	308	254	82.47
Manamadurai	255	256	100.39	206	129	62.62
Kalayarkoil	318	328	103.14	219	124	56.62
Thirupuvanam	242	253	104.55	213	105	49.30
ilayangudi	265	292	110.19	207	140	67.63
Devakotai	229	147	64.19	245	251	102.45
kannangudi	85	66	77.65	34	44	129.41
Kallal	236	234	99.15	162	99	61.11
Sakkotai	437	345	78.95	428	191	44.63
Thirupathur	233	240	103.00	163	106	65.03
Singampunari	164	166	101.22	115	79	68.70
S.pudur	85	109	128.24	59	50	84.75
<b>District</b>	<b>2959</b>	<b>2686</b>	<b>90.77</b>	<b>2359</b>	<b>1572</b>	<b>66.64</b>

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga.

**Table-A4.20: Percentage distributions of teachers in primary and upper primary schools on the basis of number of days training received for the year 2004-05**

Block	Primary							Upper Primary						
	Total Teachers	Number of training days					Total Teachers	Number of training days						
		1 - 5 day	6 - 10day	11-15day	16 -19day	20 days		1 - 20days	1 - 5 day	6 - 10day	11-15day	16 -19 day	20 days	1 - 20 days
Sivaganga	250	2	8	10.4	20.4	59.2	100	129	0.78	6.98	24.81	33.33	34.11	100
Manamadurai	256	1.95	9.38	8.59	21.09	58.98	100	124	1.61	6.45	22.58	29.03	40.32	100
Kalaiyarkoil	328	2.44	10.98	15.85	29.88	40.85	100	105	1.9	6.67	23.81	30.48	37.14	100
Thiruppuvanam	253	1.98	9.09	8.7	21.74	58.5	100	140	0.71	5.71	22.14	22.86	48.57	100
Ilayangudi	292	2.4	11.99	9.93	21.23	54.45	100	251	1.99	11.16	17.53	31.08	38.25	100
Devakottai	147	4.08	14.97	14.29	28.57	38.1	100	44	4.55	6.82	11.36	22.73	54.55	100
Kannangudi	66	0	12.12	30.3	34.85	22.73	100	99	1.01	5.05	23.23	44.44	26.26	100
Kallal	234	2.56	14.1	17.95	23.08	42.31	100	191	2.09	10.99	16.75	40.84	29.32	100
Sakkotai	345	1.74	10.43	17.68	17.97	52.17	100	106	2.83	4.72	19.81	27.36	45.28	100
Thiruppathur	240	1.67	8.75	9.58	20	60	100	79	1.27	7.59	25.32	32.91	32.91	100
Singampunari	166	1.81	12.65	13.25	26.51	45.78	100	50	4	6	10	22	58	100
S.Pudur	109	1.83	20.18	19.27	20.18	38.53	100	1572	1.84	8.21	19.59	32.32	38.04	100

Source: Annual Work Plan and Budget: 2005-06, Office of the Chief Education Officer, Sivaganga.

Table-A4.21: Colleges for professional education in Sivaganga district in 2004-05

Sl. No.	NAME OF THE INSTITUTION	NO.OF INSTITUTION	STUDENTS			TEACHERS
			BOYS	GIRLS	TOTAL	
1	Centre for education (Centri.B) Karaikudi	1	116	28	144	76
2	Alagappa Chettiyar Colloege of Engineering and Tech Karaikudi	1	1117	509	1626	166
3	K L N Colege of Engineering, Pottapalayam	1	1666	534	2200	198
4	K L N Colege of Information Technology, Pottapalayam	1	598	329	927	96
5	St.Michele Engineering College and Tech, Kaliyarkoil	1	321	104	425	83
6	Pandian Saraswathi Engineering College, Arsasnur	1	510	175	685	52
7	Vicram College of Engineering, Thirumansolai	1	324	88	412	44
8	Matha College of Nursing, Vanpuram	1	50	161	211	10
9	Annai Naveetha College, Sivaganga	1	10	60	70	10
	Total	9	4712	1988	6700	735

Source: District Statistical Handbook, 2005



Table-A4.22: Block wise numbers of colleges and student capacity in Sivaganga district, 2004-05

Block	Arts and Science College		Engineering and Technology		Polytechnic		Others(ITI)	
	No	Students	No	Students	No	Students	No	Students
Sivaganga	2	1663	2	1250	1	284	1	164
Manamadurai	2	561	1	93	1	685	3	330
Kalayarkoil	-	-	1	425	-	-	3	149
Thirupuvanam	1	257	3	3538	-	-	1	214
Ilayangudi	1	978	-	-	-	-	-	-
Devakotai	2	1451	-	-	-	-	1	63
Kannangudi	-	-	-	-	-	-	-	-
Kallal	-	-	-	-	-	-	-	142
Sakkotai	4	3795	1	1626	2	2046	2	238
Thiruppathur	2	2001	-	-	-	-	1	89
Singampunari	-	-	-	-	-	-	-	-
S.Pudur	-	-	-	-	-	-	-	-
<b>District</b>	<b>14</b>	<b>10706</b>	<b>8</b>	<b>6932</b>	<b>4</b>	<b>3015</b>	<b>12</b>	<b>1389</b>

Source: Block Statistical Hand Books, Various Issues, 2004-05.

**Table-A4.23: Schools for other professional education, Students and Teachers, 2003-04**

Name of the Institution	No. of the Institution	Students			teachers
		Boys	Girls	Total	
Polytechnic	4	3240	112	3352	127
ITI	12	1070	656	1135	106
<b>Total</b>	<b>16</b>	<b>4310</b>	<b>768</b>	<b>4487</b>	<b>233</b>

Source: District Statistical Handbook, 2005

**Table-A4.24: Computer Training Centres, 2004-05**

Sl.No	Block	Units
1	Sivaganga	15
2	Manamadurai	3
3	Kalayarkoil	2
4	Thirupuvanam	1
5	Illayangudi	2
6	Devakotai	5
7	Kannangudi	-
8	Kallal	1
9	Sakkotai	22
10	Thirupathur	7
11	Singapunari	3
12	S.pudur	-
	<b>District</b>	<b>61</b>

Source: District Statistical Handbook, 2005

**Table-A5.1: Number of Commercial banks in Sivaganga (2003-04)**

Sl. No.	Item	No. of Br.	Deposits (In Rs. "000")	Advances (In Rs. "000")	Credit Deposit Ratio	Sector wise Credit Details
1	2	3	4	5	6	7
A	GOVT. BANK – STATE BANK OF INDIA	9	1870924	882166	47	1452935
B	NATIONALISED BANK					
1	CANARA BANK	3	662457	286290	43	148022
2	BANK OF BARODA	2	173040	106059	61	77885
3	BANK OF INDIA	2	45001	40536	90	652181
4	CENTRAL BANK OF INDIA	1	109282	42689	39	74505
5	INDIAN BANK	13	2222928	454021	20	1271960
6	INDIAN OVERSEAS BANK	15	1989168	906236	46	1716938
7	PUJAB NATIONAL BANK	2	89691	65271	73	113465
8	SYNDICATE BANK	2	218389	148953	68	214587
9	UCO BANK	2	274373	104724	38	134079
10	UNION BANK OF INDIA	1	222796	109851	49	168552
11	VIJAYA BANK	1	33307	14847	45	19593
C.1	PRIVATE BANK ICICI BANK	26	2086950	640224	31	1613455
2	CITY UNION BANK	1	340100	73797	22	22943
3	KARUR VYSYA BANK	1	176152	64325	37	133854
4	LAKSHMI VILAS BANK	1	94108	37633	40	65894
5	TAMILNADU MERCANTILE BANK	2	324064	200811	0	301881
D	SIVAGANGA DT. CENTL. CO-OP BANK	28	1490688	2170601	146	5959545
E	PANDIAN GRAMA BANK	25	873389	862975	99	2679396
F	OTHERS 0 TNCSARD (Tamil Nadu Co-op. State Agri. & Rural Dev. Bank Ltd.)	6	1306	391425	-	1119840
G	TIIC	1	5842	98519	-	201750
<b>DISTRICT TOTAL</b>		<b>144</b>	<b>13303955</b>	<b>7701953</b>	<b>58</b>	<b>16690325</b>

Source: Manager, Lead Bank, I.O.B, Sivaganga .

**Table-A6.1: Financial assistance in education of the children of widows**

Sl. No.	Block Name	2001-02	2002-03	2003-04	2004-05	2005-06
1	Sivaganga	14	35	12	20	21
2	Manamadurai	22	30	10	24	47
3	Thirupuvanam	31	20	20	20	20
4	Illayangudi	42	40	21	20	49
5	Kalayarkoil	10	15	27	32	32
6	Devakotai	30	15	25	20	25
7	Kallal	10	13	26	13	30
8	Kannangudi	5	20	26	26	15
9	Sakkotai	10	-	20	20	30
10	Thirupathur	10	20	25	20	38
11	Singapunari	10	23	20	31	33
12	S.pudur	9	5	4	-	16
<b>District</b>		<b>203</b>	<b>236</b>	<b>236</b>	<b>246</b>	<b>356</b>

Source: Block statistical hand book 2004-05, Sivaganga .

**Table-A6.2: Financial assistance to buy sewing machine**

Sl. No.	Block Name	2001-02	2002-03	2003-04	2004-05
1	Sivaganga	44	40	42	20
2	Manamadurai	15	15	20	34
3	Thirupuvanam	20	12	11	13
4	Illayangudi	7	8	10	14
5	Kalayarkoil	2	14	19	21
6	Devakotai	2	2	7	7
7	Kallal	5	6	9	10
8	Kannangudi	1	-	1	4
9	Sakkotai	7	7	10	11
10	Thirupathur	10	12	11	7
11	Singapunari	20	20	25	5
12	S.pudur	1	1	2	4
<b>District</b>		<b>134</b>	<b>137</b>	<b>167</b>	<b>150</b>

Source: Block statistical hand book 2004-05, Sivaganga .



**Table-A7.1: Ranking in sub – groups on performance of institutions related with economic development**

No	Aspect	Agriculture office	Market				Animal Husbandry	Dairy	Credit		Non farm activities
			Input		Subsidies				Bank	Informal system	
			Govt	Private	Govt	Private					
1	Infrastructure	4	3	4	1	4	2	1	4	4	1
2	Human resource	3	2	5	1	5	3	1	4	5	1
	Supply total	3.5	2.5	4.5	1	4.5	2.5	1	4	4.5	1
3	Quality of services	2	1	4	1	2	1	2	3	4	1
	<b>Net</b>	<b>-1.5</b>	<b>-1.5</b>	<b>-0.5</b>	<b>0</b>	<b>-2.5</b>	<b>-1.5</b>	<b>1</b>	<b>-1</b>	<b>-0.5</b>	<b>0</b>

**Table-A7.2: Ranking in sub – groups on performance of institutions related with welfare activities**

No	Aspect	Drinking Water	PDS	Transport	Communication	Electricity	Drainage system	Street light
1	Infrastructure	4	3	3	5	1	2	4
2	Human resource	4	4	3	4	1	2	2
	Supply total	<b>4</b>	<b>3.5</b>	<b>3</b>	<b>4.5</b>	<b>1</b>	<b>2</b>	<b>3</b>
3	Quality of services	4	2	3	4	3	4	4
	<b>Total</b>	<b>0</b>	<b>-1.5</b>	<b>0</b>	<b>-0.5</b>	<b>2</b>	<b>2</b>	<b>1</b>

**Table-A7.3: Ranking in sub – groups on performance of institutions related with health**

No	Aspect	Anganwadi	Sub Health Centre	Primary Health Centre	Govt. Hospital	Private Hospital
1	Infrastructure	4	2	2.5	3	4
2	Human resource	4	3	3	4	4
	Supply total	4	2.5	2.25	3.5	4
3	Quality of services	4	3	3	3	3
	<b>Total</b>	<b>0</b>	<b>0.5</b>	<b>0.75</b>	<b>-0.5</b>	<b>-1</b>

**Table-A7.4: Ranking in sub – groups on performance of institutions related with education**

No	Aspect	Balwadi	Government schools				Private Schools			
			Primary	Middle	High school	Higher Secondary	Primary	Middle	High school	Higher Secondary
1	Infrastructure	4	3	3	2.5	2.5	4	4	4	4
2	Human resource	4	2	2	3	3	4	3	3	4.5
	Supply total	4	2.5	2.5	2.75	2.75	4	3.5	3.5	4.25
3	Quality of services	4	3	3	3.5	3	4.5	4	4	4.5
	<b>Total</b>	<b>0</b>					<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	

## Human Development Fact Sheet of Sivaganga District

Sl. No.	Indicators	Sivaganga	Tamil Nadu
<b>Demography</b>			
1	Total Population - 2001	1153747	62405679
2	Sex Ratio – 2001	1035	987
3	Sex Ratio of Children 0-6 years - 2001	946	939
4	Density	275	478
5	Decadal popln growth (%)	4.32	11.19
<b>Income</b>			
6	Per Capita Net Domestic Product, 2001-02 at constant prices (1993-94), in Rs.	9139	12717
<b>Literacy &amp; Education</b>			
7	Literacy Rate – 2001 (%)	66	73.50
8	Female Literacy Rate – 2001	57	64.60
9	Net Enrolment Ratio – Primary, 2004-05	98	
10	Net Enrolment Ratio – Upper Primary, 2004-05	98	
11	Girls Net Enrolment Ratio – Primary, 2004-05	98	
12	Pupil-Teacher Ratio (Primary School) – 2004-05	1:40	
<b>Health &amp; Nutrition</b>			
13	Infant Mortality Rate, 2005	19.63	30.1
14	Maternal Mortality Rate, 2005 (per 1000 live births)	9.445	1.4

### Data Source

1. Demography and Basic Amenities – Census of India, 2001
2. Income
  - Per Capita Net Domestic Product & Poverty – DoES, Tamil Nadu
3. Education
  - Literacy Rate – Census of India
  - Net Enrolment Ratio & Pupil-Teacher Ratio – DISE cited in SSA Report, Sivagangai
4. Health
  - District Statistical Handbook
  - ICDS III
  - DLHS-RCH 2002.

## Abbreviations

AEC	Alternative Education Centres
ANC	Ante Natal Care
BPL	Below Poverty Line
CBR	Crude Birth Rate
CDR	Crude Death Rate
CPR	Couple Protection Rate
CR	Completion Rate
CV	Coefficient of Variation
DDHS	Deputy Director of Health Services
DLHS	District Level House hold Survey
DoES	Department of Economics and Statistics
DPEP	District Primary Education Program
DR	Drop out Rate
ECCE	Early Childhood Care Education
GAR	Gross Access Ratio
HSC	Health Sub Centre
HUD	Health Unit District
ICDS	Integrated Child Development Scheme
IED	Integrated Education for the Disabled
IFA	Iron & Folic Acid
IFPRI	International Food Policy Research Institute
IMR	Infant Mortality Rate
IP	In Patient
ITI	Industrial Training Institute
LBW	Low birth Weight
LIC	Life Insurance Corporation of India
MMR	Maternal Mortality Ratio
MPCE	Monthly per Capita Consumption Expenditure

NDP	Net Domestic Product
NER	Net Enrolment Ratio
NGO	Non Government Organization
NMP	Noon Meal Programme
NSA	Net Sown Area
OP	Out Patient
PCO	Public Call Office
PDS	Public Distribution System
PHC	Primary Health Centre
PTR	Pupil-Teacher Ratio
PWD	Person With Disability
RCH	Reproductive and Child Health
SBR	Still Birth Rate
SHG	Self Help Group
SSA	Sarva Shiksha Abhiyan
TINP	Tamil Nadu Integrated Nutrition Project
TR	Transition Rate
VES	Vital Event Survey
WPR	Work Participation Rate



# Glossary

## **Abortion**

Termination of pregnancy (expulsion or extraction of embryo/fetus) before 22 weeks of gestation or fetus weighs less than 500g. Abortion may be spontaneous (due to natural causes, such as miscarriage) or induced.

## **Old Age Dependency ratio**

The ratio of persons aged 60 and above to persons aged 15 to 59.

## **Antenatal Period**

The period from conception until the onset of labor, approximately 40 weeks.

## **Attendance Rate**

The percentage of students attending classes to the enrolled students.

## **Completion Rate (CR)**

The percentage of the students completing their education in the primary standards may be defined as the completion rate in the primary standards.

## **Cropping Intensity**

Percentage of gross cropped area to net cropped area in a year.

## **Crude Birth Rate (CBR)**

CBR is number of live births in per 1000 of mid year population.

## **Crude Death Rate (CDR)**

CDR is number of deaths in per 1000 population.

## **Drop out Rate (DR)**

The percentage of students leaving school system without completing the class.

## **Early Neonatal Death**

Death of a child under seven days of age.

## **Gross Access Ratio (GAR)**

The in primary schools means per cent of total habitations are having the schools with a walkable distance of within the radius of 1 km from the habitation. Gross Access Ratio in the upper primary section means the per cent of schools situated within the radius of 3 Km of the habitation.

## **Gross Enrolment Rate**

GER is a statistical measure used in the education sector. The GER gives a rough indication of the level of education – primary, secondary and or tertiary among residents in a given jurisdiction. The GER is calculated by dividing the total number of students enrolled at each level (regardless of age) by the population of the age group that should be enrolled at that level at the start of the academic year.

## **Infant Mortality Rate (IMR)**

The number of deaths of infants under age 1 per 1,000 live births in a given year.

## **Irrigation Intensity:**

Percentage of gross irrigated area to net irrigated area.

**Life Expectancy at Birth (LEB)**

LEB is the average number of years a new born child would be expected to live if the child is subject to the age pattern of mortality prevailing at the time of its birth.

**Low Birth Weight (LBW)**

The weight at birth is less than 2500 g.

**Main workers**

Are those who had worked for the major part of the year i.e. 6 months (183 days) or more.

**Marginal workers**

Are those who had not worked for a major part of the year i.e. less than 6 months (183 days).

**Maternal Mortality Ratio (MMR)**

The ratio reflects the risk women face of dying once pregnant. The number of women who die during pregnancy or during the first 42 days after delivery per 1000 live births in a given year from any cause related to or aggravated by pregnancy, but not from accidental or incidental causes.

**Neonatal Death**

The number of deaths in the first 28 days of life per in a given year.

**Net Enrolment Rate**

Number of pupils in the official age group for a given level of education enrolled in that level expressed as a percentage of the total population in that age group.

**Operational holding**

Defined as "all land which is used wholly or partly for agricultural production and operated as one technical unit by one person alone or with others without regard to the title, legal form, size (or) location.

**Perinatal Mortality Rate**

This rate avoids the difficulty of defining a live birth and combines late fetal and early neonatal deaths.

**Post Neonatal Death**

Death of a child between the ages of 28 days and less than one year.

**Post Partum Haemorrhage (PPH)**

Usually after delivery there is some bleeding and it stops when the uterus contracts. Sometimes the uterus does not contract and the bleeding can continue resulting in death. This is an indication of inadequate blood banking facilities, and the probability that a large number of deliveries occur at home and the delay caused in reaching blood transfusion facilities.

**Pregnancy Induced Hypertension (PIH)**

This is a condition where the blood pressure of a pregnant woman increases. If this increased pressure is not identified and controlled during pregnancy then it can lead to severe complications ending up convulsions or fits called eclampsia of pregnancy leading to death. At other times it can cause kidney failure and death. Death due to PIH is an indication of poor antenatal care.

**Prenatal Period**

The period between conception and birth.

**Pupil Teacher Ratio (PTR)**

This ratio means the average numbers of pupils per teacher. This ratio should be kept as low as possible to impart quality education.

**Repetition Rate**

Repetition rate is the proportion of pupils enrolled in a given grade in a given school-year who study in the same grade the following school-year.

**Stillbirth**

The death of a fetus weighing at least 500 g (or when birth weight is unavailable, after 22 completed weeks of gestation or with a crown-heel length of 25 cm or more), before the complete expulsion or extraction from its mother.

The technical unit was defined as “that unit which is under the same management and has same means of production, such as, labour force, machinery and animals”.

**Total Fertility Rate**

The number of live births per 1,000 women of reproductive age, usually taken as 15-44 years, in a given year.

**Transition Rate**

The transition rate in primary standard is expressed as the percentage of the students taking admission in VI standard of total students passed in the V standard.