Chapter - 1
INTRODUCTION



1.1 Introduction



"The basic purpose of development is to enlarge people's choices. In principle, these choices can be infinite and can change over time. The objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives." Dr. **Mahbub ul Haq** , Founder of the Human Development Report.

Human Development is a development paradigm that is about much more than the rise or fall of national incomes. It is about creating an environment in which people can develop their full potential and lead productive, creative lives in accordance with their needs and interests. People are the real wealth of nations. Development is thus about expanding the choices people have to lead lives that they value. And it is thus about much more than economic growth, which is only a means of very important one —of enlarging people's choices.



"Human development, as an approach, is concerned with what I take to be the basic development idea: namely, advancing the richness of human life, rather than the richness of the economy in which human beings live, which is only a part of it." **Prof. Amartya Sen** (Co-founder of Human Development Report, Professor of Economics, Harvard University, Nobel Laureate in Economics, 1998)

In principle the basic purpose of development is to enlarge people's choices. These choices can be infinite and can change over time. They include greater access to knowledge, better nutrition and health services, more secured livelihoods, security against crime and physical violence, satisfying leisure hours, political and cultural freedoms and sense of participation in community activities. The objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives (Mahbub ul Haq). This was the original vision and it has guided nearly 25 years of Global Human Development Reports, more than 600 National HDRs and a good number of regionally focused reports.

Fundamental to enlarging these choices is building human capabilities —the range of things that people can do or be in life. The most basic capabilities for human development are to lead long and healthy lives, to be knowledgeable, to have access to the resources needed for a decent standard of living and to be able to participate in the life of the community. Without these, many choices are simply not available, and many opportunities in life remain inaccessible.

Human Development approach is evolutionary in nature; it has been contextualised against the background of the changing conditions, priorities and finding newer ways to improve people's well being. Therefore there are modifications in the analytical tools, concepts and measures. Yet the core of the human development approach has remained the same and is even more relevant today than what it was thought about at its inception.

1.1.1 Origins of the Human Development Approach

The Human Development approach arose in part as a result of growing criticism to the leading development approach of the 1980s, which presumed a close link between national economic growth and the expansion of individual human choices. Many of its key principles, however, can be found in the writings of scholars and philosophers from past eras and across many societies. Many, such as Dr. Mahbub ul Haq, the Pakistani economist who played a key role in formulating the human development paradigm, came to recognize the need for an alternative development model due to many factors, including:

- Growing evidence that did not support the then prevailing belief in the "trickle down" power of market forces to spread economic benefits and end poverty;
- The human costs of Structural Adjustment Programmes became more apparent;
- Social ills (crime, weakening of social fabric, HIV / AIDS, pollution, etc.) were still spreading even in cases of strong and consistent economic growth;
- A wave of democratization in the early 90s raised hopes for people-centred models.

As of 1990, the human development concept was applied to a systematic study of global themes, as published in the yearly global Human Development Reports under the auspice of the UNDP. The work of Amartya Sen and others provided the conceptual foundation for an alternative and broader human development approach defined as a process of enlarging people's choices and enhancing human capabilities (the range of things people can be and do) and freedoms, enabling them to: live a long and healthy life, have access to knowledge and a decent standard of living and participate in the life of their community and decisions influencing their lives.

Human development has always been flexible and "open-ended" with respect to more specific definitions. There can be as many human development dimensions as there are ways of enlarging people's choices. The key or priority parameters of human development can evolve over time and vary both across and within countries.

1.2 Factors Contributing to Human Development

Some of the determinants and factors currently considered most central to human development include:

- **Social progress** - greater access to knowledge, better nutrition and health services.
- **Economic growth**– the importance of economic growth as a means to reduce inequality and improve the levels of human development by increasing the possibilities.
- **Efficiency** in terms of resource use and availability-human development is pro-growth and productivity oriented as long as such growth directly benefits the poor, women and other marginalized groups.

- **Equity** - in terms of economic growth and other human development parameters.
- **Participation and freedom** - particularly empowerment, democratic governance, gender equality, civil and political rights and cultural liberty, particularly for marginalized groups defined by urban-rural, sex, age, religion, ethnicity, physical/mental parameters, etc.
- **Sustainability** - for future generations in ecological, economic and social terms.
- **Human security** - security in daily life against such chronic threats and vulnerabilities as hunger and abrupt disruptions including joblessness, famine, conflict, etc.
- **Human Governance** -for sustainable human development.

1.2.1 Human Development Reports: Tools to Analyse Human Development Status

The first Human Development Report in 1990 opened with the premise that has guided all subsequent reports i.e., "People are the real wealth of a Nation". By backing up this assertion with an abundance of empirical data and a new way of thinking about and measuring development, the human development reports continue to have profound impact on public policies around the world.

The human development report is an annual report published by the Human Development Report Office of the UNDP. The report was first launched in 1990 by the Pakistani economist Mahbub ul Haq and Indian Nobel laureate Amartya Sen. The UN General Assembly has formally recognised the report as an independent intellectual exercise about human development around the world. Since 1990 more than 140 countries have published some 600 national Human Development Reports with UNDP support. There are also a good number of regional reports which have made worthy contributions to the global dialogue on paradigms of development, democracy, women's rights, inequality, poverty eradication and other critical issues.

Each report has its own focus drawn from contemporary debates. Several new indices have been introduced over the years in different reports. However, the main drivers of human development are income, health and education. All the reports have proved that there is no automatic and linear link between economic growth and human progress.

The Human Development Reports attempt to measure the performance of the government in those priority areas that influence the living conditions of the poor and vulnerable, in areas such as education and literacy, nutrition and healthcare, protected water supply and sanitation, housing and infrastructure, income and livelihood.

From the beginning, the report has been a pioneer of methodological innovation and development thinking. The reports are developing new indices, suggesting improvements in the methodology and techniques to capture different dimensions of development and more importantly capturing the differences with differences across the regions, socio-economic groups and stratas.

1.2.2 Human Development Index

The Human Development Index has been developed by the Human Development Report. The first Human Development Report (1990) introduced a new way of measuring development by combining indicators of life expectancy, educational attainment and income into a composite human development index, the HDI. The breakthrough for the HDI was the creation of a single statistic which was to serve as a frame of reference for both social and economic development. The HDI sets a minimum and a maximum for each dimension, called goalposts, and then shows where each country stands in relation to these goalposts, expressed as a value between 0 and 1.

1.2.3 General Objectives of the Report

- Testing the impact of policies and programmes by developing baseline data.
- To provide a comprehensive analysis of human development goals and outcomes, especially for the most vulnerable populations.
- To capture the achievements and failures in terms of human development outcomes in each region.
- Factoring good governance, efficient service delivery, people participation making human development participatory, democratic and accessible.
- Identifying the gaps, disparities and deprivation.
- To suggest how the state can mobilise resources for human development and how resources can be re-ordered more effectively both inter-sectorally and intra-sectorally.
- To ensure that people are always at the centre of the development process in the state.
- To use the report as a useful policy tool that furthers the process of human development.

1.2.4 National and Regional Human Development Reports

UNDP is also supporting the publication of national and regional Human Development Reports. They focus on national and regional approach to human development. National reports place human development at the forefront of the national agenda. These reports are tools for policy analysis reflecting people's priorities, strengthening national capacities, engaging national partners, identifying inequities and measuring progress. They can be viewed as instruments for measuring human progress and triggering action for change. In this capacity they can promote regional partnerships for influencing change and addressing region specific human development approaches to human rights, poverty, education, health, reforms and so on. Time and again they are considered as policy advocacy documents and these reports have been successful in introducing the human development concept into national policy dialogues. It is being done through the country specific process of consultation, research and report writing. Therefore, it is quite natural that they can appeal to a wide audience, spur public debates and mobilise support for action and change. They have helped to articulate

people's perceptions and priorities and have served as a source of alternate policy opinion for development planning across varied themes. Therefore all possible efforts are being made to produce higher quality and more influential regional, national and sub-national human development reports.

One important by-product of the Global Human Development Reports is more than 600 National Human Development Reports produced in a large number of countries. These NDHRs have become important catalysts for national policies and strategies. They have also served as repositories of innovative data and as crucial advocacy tools. All the quantitative information about human development and its various indicators constitute what may be termed as human development accounting. Further, human development and human rights are mutually reinforcing and they have a common denominator i.e., human freedom, a new dimension of human development. With new dimensions and concepts, there is a case for broadening the context of the report.

1.2.5 Human Development Reports in India

Given the Indian Government's commitment to inclusive growth and decentralised democratic governance, its developmental path has strong synergies with and opportunities for the human development approach. The human development paradigm introduced in the early 1990s sought to shift the focus from national income as the only indicator of development to expanding the choices people have.

India has pioneered the practice of preparing independent state level Human Development Reports that translate human development approach to practical and actionable strategies in the planning process at the state and district levels. As a result of the efforts of the Planning Commission and UNDP, India has the largest body of work on human development reports. In some states there is strengthening of political commitment towards human development.

Amartya Sen's ideas constitute the core principles of development approach that has evolved in India's Human Development Reports. This approach is a paradigm based on the concept of well being that can help define public policy, but does not embody a set of prescriptions. The movement from an age of development planning to an age of globalisation has meant an increasing attention to agency aspects of development. The earlier Human Development Reports emphasised measures such as the provision of public services, however the recent ones have focused more on people's political empowerment. There is a gradual shift in emphasis. Gender analysis has become the core of the new agency driven paradigm and gender equity as a core concern.

1.2.6 Impact of Human Development Reports

The Human Development Reports hitherto have considered a series of key issues as their themes. All these reports with their analysis, data and policy discussions have had a significant impact on development thinking and practice. The reports have

- Initiated new policy debates and dialogues at the national level and influenced policy makers to come up with new policy strategies.

- Encouraged disaggregation of various human development indicators in terms of gender, regions, ethnic groups etc. Such data indicated disparities and inequalities have induced Government to direct necessary resources to formulate required policies.
- Development activists, NGOs and institutions of civil society have used the reports as advocacy document.
- Significant academic research has been undertaken to expand the frontiers of human development in terms of analytical frameworks, indices and statistical work and policy recommendations.
- Human Development Reports are being used as reference materials in universities and academic institutions.

1.2.7 Broadening the context

Human freedom is a multidimensional concept, extending far beyond the basic dimensions measured by the Human Development Index. Leading a long and healthy life and being knowledgeable may be universal goals, but people may make additional choices and have additional aspirations that may be society and culture specific. The human development concept encompasses additional choices and goals, process and outcomes that are highly valued by people, ranging from political, economic and social freedom to opportunities for being creative and productive and enjoying personal self-respect and guaranteed human rights. The notion of human development emphasises enlargement of choices in these areas as well. At the beginning of the third millennium, knowledge constitutes the road to development and liberation, especially in a world of intensive globalisation.

It has now become a well accepted axiom that addressing and ensuring human rights and human freedom depend critically on institutional context. The same applies to dynamic knowledge acquisition. Therefore, choice of an appropriate institutional framework is critical. Respect for human rights and effective participation of the people in social and political activities must be fundamental ingredients of the institutional context of human development. It is important to recognise the centrality of both individual freedom and the role of institutional and social arrangements in the extent and reach of freedom and to visualise individual freedom as a social commitment. Institutions are absolutely necessary to integrate human, social, intellectual and cultural capital. This is supported by systems that organise people in institutions.

This type of capital determines the nature of societal activity and its impact more importantly on the level of human well being. The combined social capital and human capital has profound impact on human development. All these new developments require continuous innovation in definition and measurement of human development. Refinements are surely possible in the areas of definition of indicators, measurement of indicators and construction of composite indices.

1.3 Human Development Reports in Karnataka

Karnataka published its first Human Development Report in 1999 and became the second Indian state to release state level report. The Report provided comprehensive scenario of human development in Karnataka. It focused on three key components i.e., human development analysis, advocacy and action. The Report led to the introduction of a variety of pro-active interventions. In 2005, Karnataka released its second report. This report was based on background papers contributed by experts in the Government and also external resource persons. It led to institutionalisation of human development approach at all levels and refinements in plan formulation and implementation. Further, it provided a road map for furthering the process of human development.

1.4 Human Development Focus: District Level

To capture the scenario of Human Development at micro level, the preparation of DHDR has become a vital exercise. The DHDR addresses the issue of strategy formulation to bring about Human Development at district and taluka level and marks the beginning of the process of Human Development. Human Development at district level focuses mainly on social sector in terms of schemes and programmes and also creating institutions for effective service delivery. It is an effort to integrate Human Development with the district planning process.

The Government has felt the need for sub-district analysis in terms of attainments and disparities. Government endeavoured to explore in greater details the issues posed by the State Human Development Report. This led to the preparation of four district Human Development Reports. The four districts namely, Vijayapura, Kalaburagi, Mysuru and Udupi published the district human development reports in 2008 under Strengthening State Plans for Human Development Project. These reports led to drastic changes in plan formulation, prioritisation, resource allocation and delivery systems. They also provided insight to the issues to be addressed at grass root level through decentralised planning and governance. Now the Government of Karnataka is preparing the District Human Development Reports for all the 30 districts and it is sure that it will herald a new chapter of human development at sub-district level in the State.

1.4.1 Objectives of District Human Development Reports

It is expected that the District Human Development Reports being prepared in Karnataka will help in:

- ✓ Mainstreaming human development and values of human development in district plans and sub-district plans.
- ✓ Re-prioritising financial allocations in accordance with the requirements and expected outcomes.
- ✓ Capturing the achievements or failures in terms of human development of each taluk in the district.
- ✓ Providing better understanding of the factors and issues to be addressed at grassroots level.

- ✓ Understanding the situation at the district level and help to identify the drivers of development.
- ✓ Creating a base of information and developing data collection system.
- ✓ Promoting institutional networking for sustainable human development and pooling the skilled manpower at district level to analyse and approach the issues.

1.4.2 Preparation of DHDR

DHDRs are prepared by participatory process at district and sub-district level in affiliation with officials and academic institutions to identify problems and project the status of Human Development at micro level. It is realized that economic and fiscal measures alone would not result in addressing the problem. Hence, the Government is preparing DHDR to set off the task of integrating Human Development in policy documents. The methodology has placed a special impetus on capacity building by providing training to not only the line departments of the government, but also to professionals outside the system. Repeated sensitization and advocacy has been stressed through a participatory process.

1.4.3 Methodology of District Human Development Report

UNDP has developed a comprehensive methodology for Human Development Reports. On this basis, global, national, regional and state human development reports are prepared. However, the methodology for district human development reports is still evolving. There are some conceptual problems and constraints in establishing the same as the data base for micro level analysis is scanty. Despite the constraints, there are initiatives and efforts from different states for district human development report by applying alternative methodology. The initiatives in Karnataka, Kerala, West Bengal, Rajasthan in particular deserve special mention as they have evolved acceptable and appropriate methodologies.

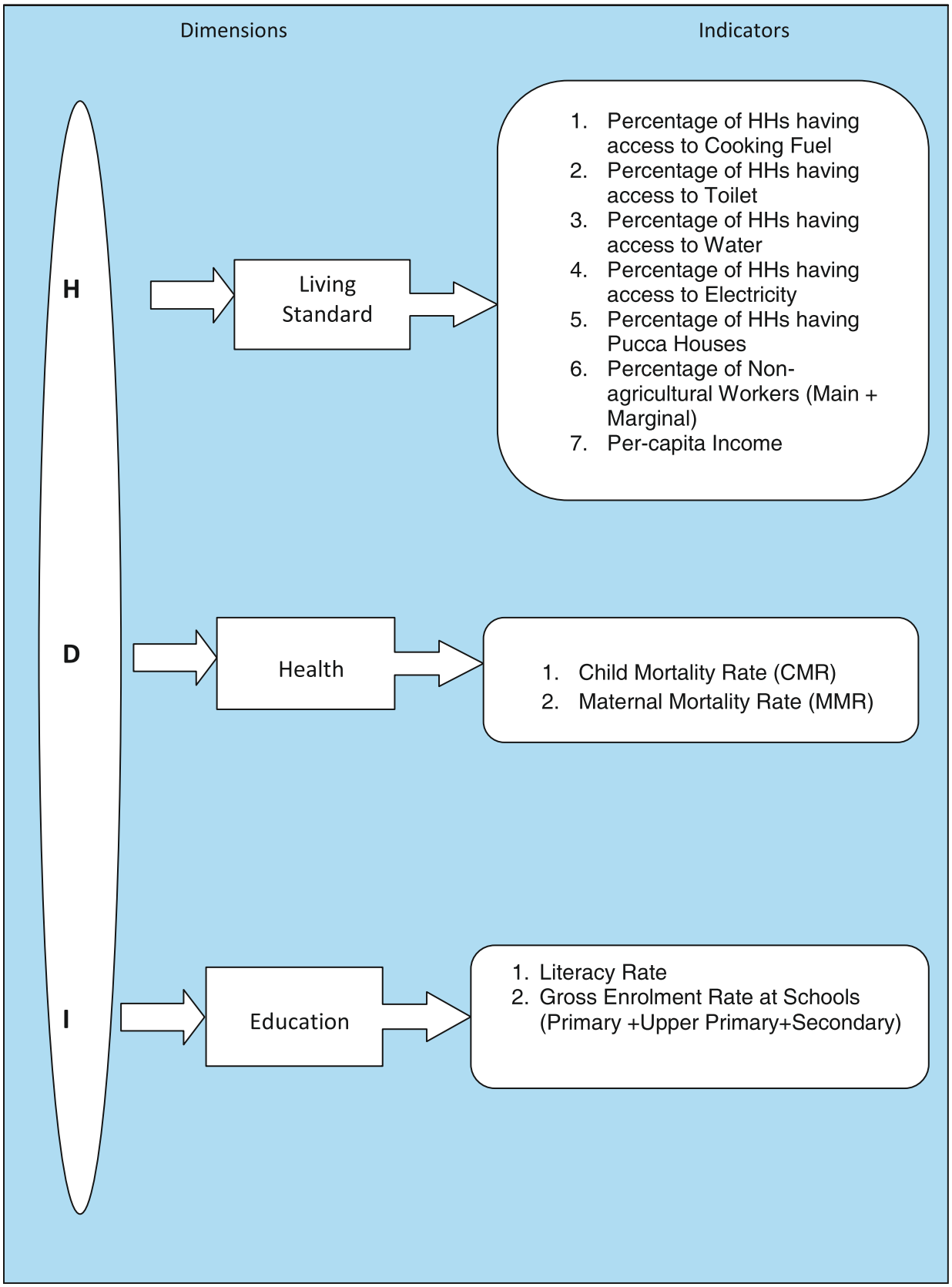
Karnataka has made a good beginning in the preparation of the district human development reports. On an experimental basis district human development reports for four district were prepared in 2008. Now for all the 30 districts human development reports are being prepared. Planning Department, Government of Karnataka has made very elaborate arrangements for the same. At the state level, a Human Development Division has been created in the Planning Department, and the respective Zilla Panchayat has been identified as the nodal agency for the preparation of district human development report.

This report is an attempt to capture and compare the level of Human Development at taluk level. To measure human development in its totality at sub district level the Report has used six indices. They are

- Human Development Index
- Gender Inequality Index
- Child Development Index
- Food Security Index
- Composite Taluk Development Index
- Urban Development Index

Human Development Index is supported by eleven indicators representing the three dimensions as indicated below.

Human Development Index (HDI)



1.4.4 Method of Estimating HDI

This composite index is supported by eleven indicators representing three dimensions. Minimum and Maximum values have been set for each of the above 11 indicators to transform them into indices lying between zero and one. For this purpose, the observed minimum and maximum figures for each of the indicators is taken. In the case of a positive indicator, the minimum value is taken as 10 per cent less than the observed minimum value in the Taluk and in the case of a negative indicator, the maximum value is taken as 10 per cent more than the observed maximum value.

The index value of a positive indicator is calculated using the formula-

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

The index value of a negative indicator is calculated by using the formula -

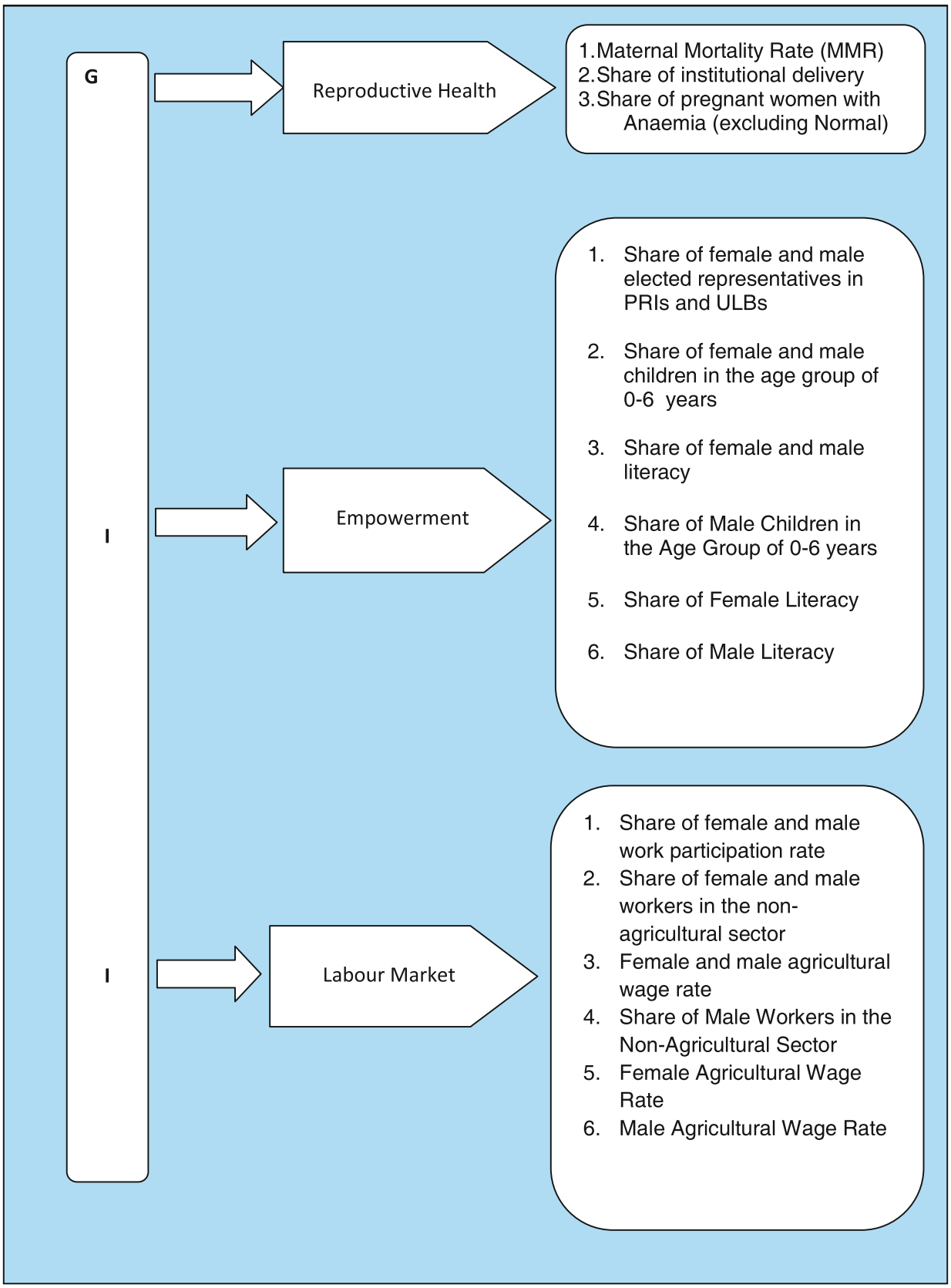
Index Value = (Max. Value – Actual Value) / (Max.Value – Min.Value)

For per capita income, the minimum and maximum per capita incomes have been converted into natural log values before converting it into the index. Using UNDP methodology, geometric mean is used for computing sectoral indices. On the basis of the three sectoral indices the composite HDI is calculated. HDI ranking is based on the index value i.e., the higher the value, the higher the ranking and vice versa.

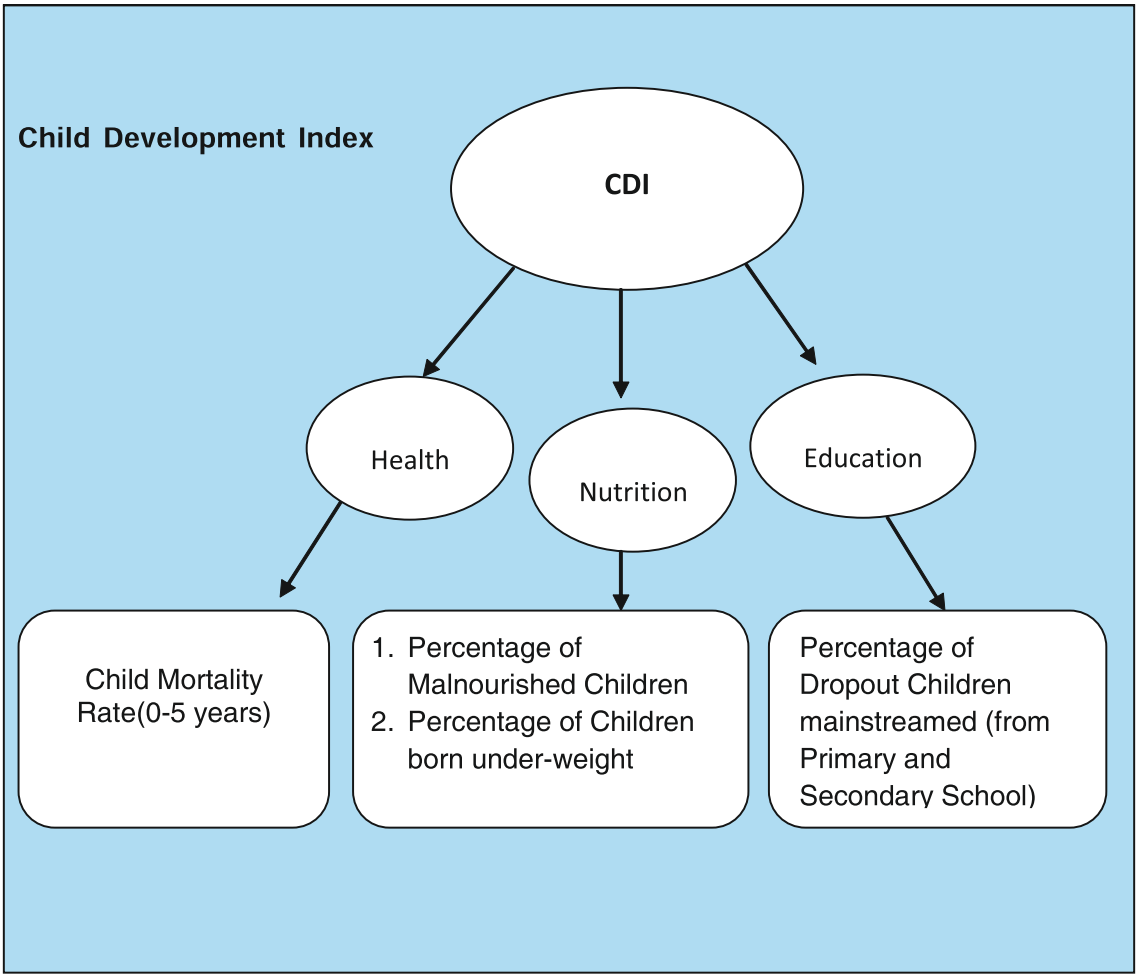
1.4.5 Construction of Gender Inequality Index (GII) for DHDR

The UNDP methodology has been slightly modified to suit the context and circumstances. Indicators considered for measuring GII at Taluk Level are as follows,

Gender Inequality Index



1.4.6 Indicators of Child Development Index in the DHDR



In the preparation of District Human Development Reports in Karnataka, the above four indicators are used to construct the CDI.

1.4.7 Computation of Child Development Index

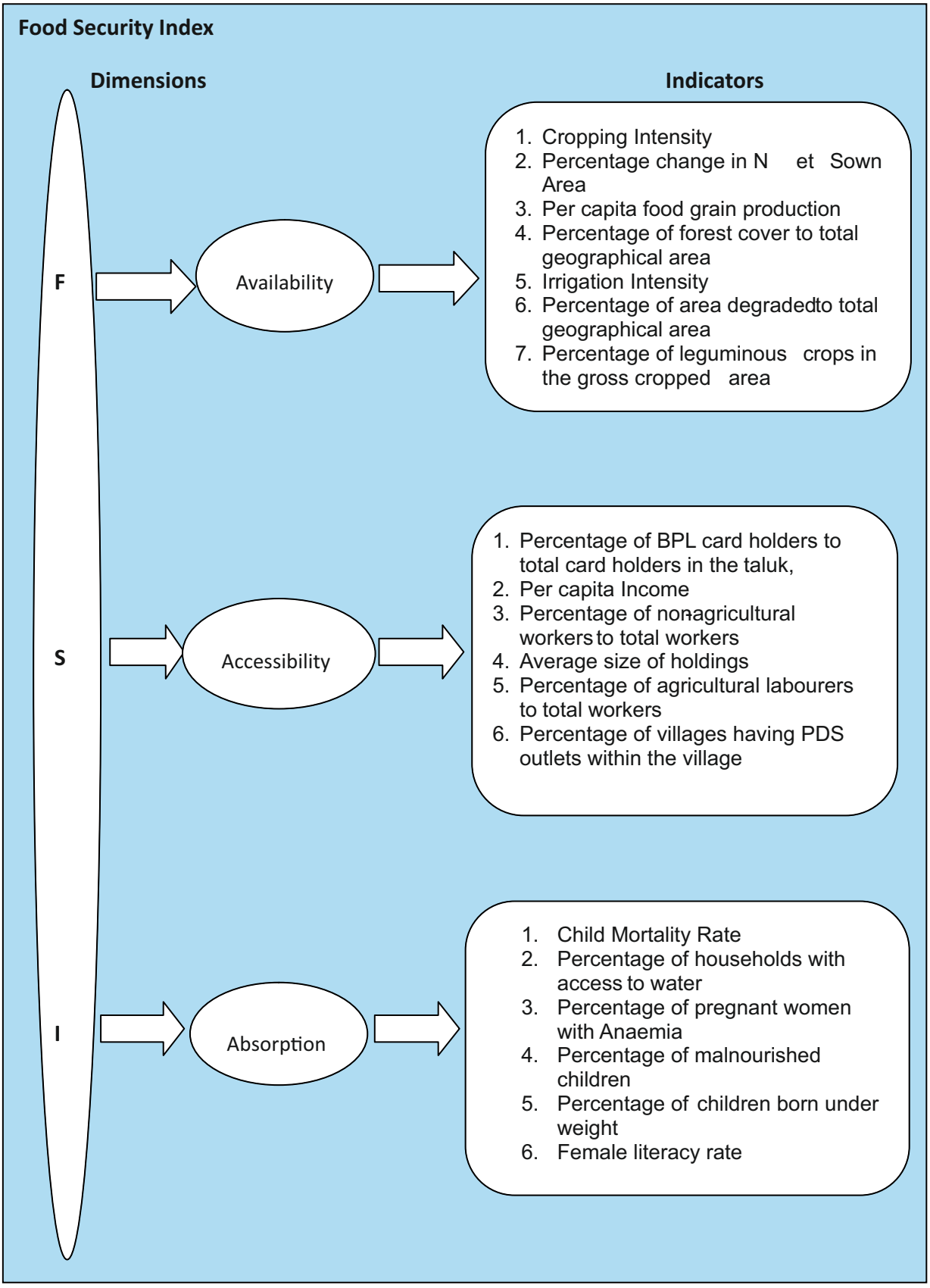
- The index value for each of the indicators is calculated by using the following formula.

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

- The index values for each of the indicators would range between 0 and 1, 0 indicating the lowest ranking for the Taluk and 1 indicating highest ranking of the Taluk.

1.4.8 Food Security Indicators

The indicators used for computing the Food Security Index (FSI) in the DHDR are based on the three major dimensions namely, Availability, Accessibility and Absorption indicators. The list of indicators is as follows

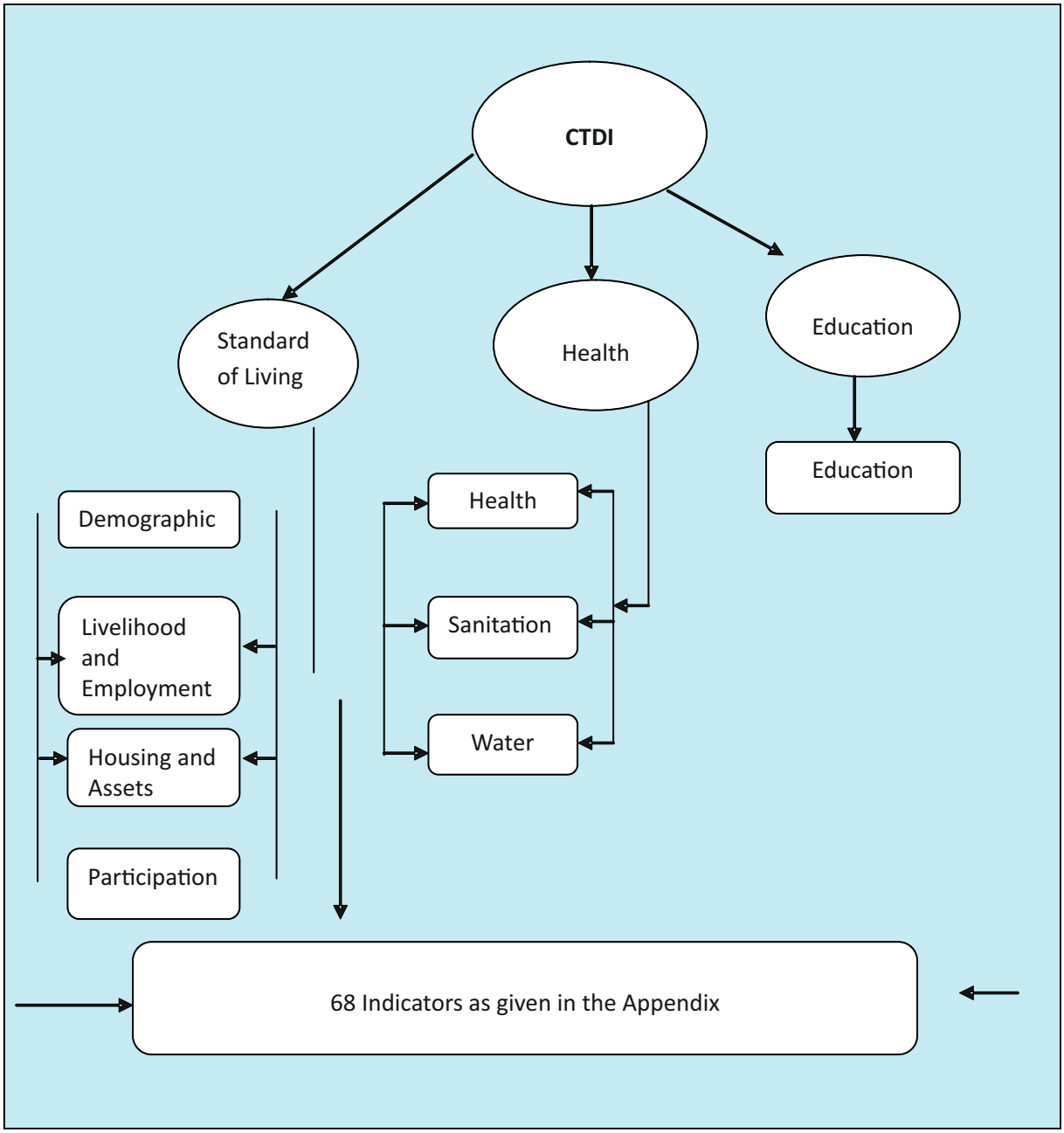

Food Security Index
Dimensions
Indicators
F
Availability
1. Cropping Intensity
2. Percentage change in N et Sown Area
3. Per capita food grain production
4. Percentage of forest cover to total geographical area
5. Irrigation Intensity
6. Percentage of area degradedto total geographical area
7. Percentage of leguminous crops in the gross cropped area
S
Accessibility
1. Percentage of BPL card holders to total card holders in the taluk,
2. Per capita Income
3. Percentage of nonagricultural workers to total workers
4. Average size of holdings
5. Percentage of agricultural labourers to total workers
6. Percentage of villages having PDS outlets within the village
I
Absorption
1. Child Mortality Rate
2. Percentage of households with access to water
3. Percentage of pregnant women with Anaemia
4. Percentage of malnourished children
5. Percentage of children born under weight
6. Female literacy rate

Computation of Food Security Index

- The data collected for the above indicators have been used for calculating the index values.
- The consolidated index for each of the dimension is the average index value of all the indicators.
- The composite index is the average of the indicators of all the three parameters- availability, accessibility and absorption - this is used to assign the ranks for the taluks within the district.

1.4.9. Composite Taluk Development Index

It has been constructed using 68 indicators representing different dimensions of development at micro level.



1.4.10 Urban Development Index

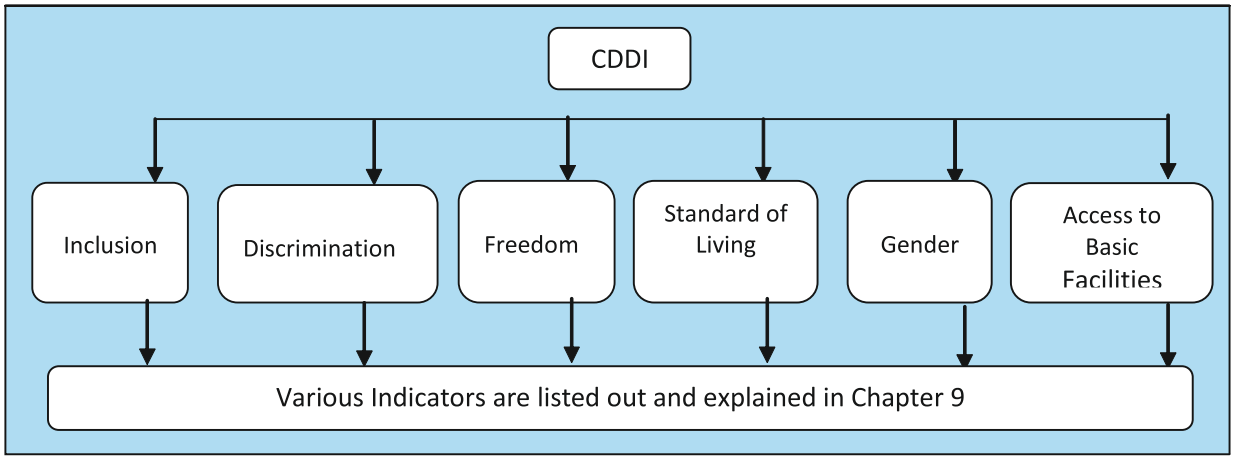
The indicators used for the UDI in this report are as follows:

- Percentage of ULB population to total population in the taluk
- Percentage of households without own houses
- Percentage of slum population to total ULB population
- Water Supply-Percentage of HHs with tap water connection
- Sewerage/ Drainage-Percentage of HHs with sewerage and drainage
- No. of Hospital Beds per 1000 population in urban area
- Percentage of own resources mobilisation to total receipts
- Per capita expenditure on development works
- Length of roads in Kms per sq.km of geographical area
- Crime Rate per 10000 population
- Road accidents per 10000 population

1.4.11 Computation of Urban Development Index

- The data collected for the above indicators have been used for calculating the index values. The index values are calculated after identifying whether the indicators are positive or negative. This is done to make the index values unidirectional.
- The index values for each of the indicators have varied between **0 and 1,** 0 indicating the lowest ranking for the urban area and 1 indicating the highest ranking of the urban area.
- The Composite Urban Development Index is the average of the index values of all indicators and this is to be used to assign the ranks for the urban areas within the district.

1.4.12 Composite Dalit Development Index



In this report an attempt has been made to develop composite Dalit Development Index. It is having 10 dimensions representing institutional, social and economic inclusion of Dalit, the perception of discrimination, protest against discrimination, conflict resolution, perception of freedom, standard of living, access to basic facilities, like water, education, toilets, sanitation and so on, gender dimensions of Dalit development and educational attainments of Dalit children. The index has been constructed on the basis of information and data collected from one GP in the District.

Therefore findings of this study may not be applicable for any other similar, smaller or bigger geographical units.

1.4.13 Capacity Building through Training

Directed efforts have been made for capacity building. Administrative Training Institute, Mysuru was designated as the Nodal Agency for capacity building. Under this, officials of Zilla Panchayath, the Lead Agencies represented by senior faculties from universities, research institutes, NGOs, professionals, experts, consultants and specialists were trained on various aspects of Human Development and preparation of DHDR. A 4-day Basic Training Programme for capacity building on the theme was also organised by the Planning Department.

Training for the preparation of DHDR was organized for representatives of Lead Agencies, Chief Executive Officers (CEOs) of Zilla Panchayats, District Officers and representatives Urban Local Bodies (ULBs) in 16 batches. These training programmes were planned to sensitize participants on the concepts of Human Development, collection of data for various indicators and the rationale for preparation of DHDRs. Further a 3-day Technical Training Programme was exclusively planned for the representatives of Lead Agencies, Chief Planning Officers in four batches on collection and validation of data, list of indicators to be used, methodology and computation of various indices and their analysis and chapter plan for DHDR.

1.4.14 Sensitization Through Workshops

For mainstreaming Human Development across the district, sensitization through a participatory approach was adopted. As a part of this, seven taluk level workshops and one district level workshop were conducted involving all the stakeholders like district and taluk level officials, people representatives, academicians, NGOs, students, media and so on. Series of debates and discussions were organized across the themes to sensitize all the stakeholders.

1.4.15 Advocacy

The Human Development Division, Planning Department, has been strengthened and professionalized. The HDD has prepared Guidelines Document with elaborate discussion on methodology, construction of indices, contents of the report, etc, and the same has been widely circulated to create Human Development awareness and disseminate Human Development message.

In order to ensure synergy and co-ordination in the preparation of the report,

multi-organisational linkages are made and a High Power Advisory Committee is set up by the Zilla Panchayat. This Committee consisted of eminent persons from the different fields and district administration. This has provided the necessary advisory services and guidance in the report preparation. Further, in order to ensure the quality of the report a High Power Quality Monitoring Group has been constituted consisting of subject experts, development practitioners and officials of the Planning Department, Government of Karnataka. It periodically reviewed and monitored the progress of report preparation in addition to providing the technical guidance and advice on methodological aspects.

1.4.16 Data Sources

The district human development report is based on secondary data and the same are gathered from the following sources.

- Census of India and Karnataka 2011
- Directorate of Economics and Statistics
- District Statistical Office
- Line Departments
- Sarva Shiksha Abhiyan
- Zilla Panchayat
- Revenue Department
- Police Commissioner's Office
- District Commissioner's Office and
- Mysuru City Corporation

In this report five small area studies are conducted in order to understand the region specific issues which have bearing on human development. For this descriptive methodology and participatory approaches have been followed.

1.4.17 Data Gaps and Inconsistencies

Absence of micro level data is a major constraint for micro level analysis. The preparation of district human development report requires sub - district level data i.e., taluk wise data. But the sub - district level data are scarce, inconsistent and irregular. Much of the secondary data used for the report are unpublished but gathered from the office records. It is needless to say that much of the time is devoted for exploring and gathering secondary data as collection of data from the government offices has its natural procedural delay. There are also inconsistencies and anomalies. Data anomalies are noticed with regard to the following aspects.

- Number of ration cards and BPL cards
- Active SHGs
- Institutional deliveries
- Malnourished and underweight children,
- Crime rate
- Internal resources of ULBs
- School drop-outs and out of school children
- Drinking water supply
- SC/ST and gender disaggregated data
- Time series data
- Service delivery facilities
- Houseless, site less households.
- Health Care Services.

These constraints, limitations, data gaps, inconsistencies and anomalies point to the need for a policy intervention for creating a comprehensive and reliable functional data base and its management to empower the PRIs.

1.4.18 Limitations and Challenges

The Human Development approach is not a recipe of policy prescriptions with a set of destinations and a list of ingredients on how to get there. It is a paradigmatic and collective action, that can be used over time as development challenges and priorities shift. In recent past, the human development approach has evolved in directions that pay more attention to the agency aspects of human development, to political freedom and institutions as well as political processes.

Many challenges remain in refining the conceptual underpinnings of the human development approach, developing better measurement tools and making the approach useful for policy purposes. More conceptual clarity is needed about the role of groups, environmental sustainability and better measures of human development that take account of political freedom and better measures of gender equality. It is also true that the rich academic debate has also contributed to the widening context of human development approach.

1.5 Layout of the Report

This Report contains twelve chapters.

First chapter is introductory in nature. It contains conceptual clarification relating to Human Development, determinants of Human Development, measures of Human Development and the refinements in Human Development measurement. It also includes the methodology, data sources and data gaps and also inconsistencies that are noticed in the process of report preparation.

Second chapter presents an overview of the development status of the District and explains the context of Human Development.

The **Third chapter** is about the computation of Human Development Index, Gender Inequality Index, Child Development Index, Food Security Index, Composite Taluk Development Index and Urban Development Index. The computed values of all these indices of Mysuru District are interpreted and analyzed in this chapter.

The **Fourth chapter** is about the literacy and educational attainments of the district. The attainments and shortfalls are explained using a set of indicators developed for the purpose.

The **Fifth chapter** deals with health scenario of the District. It has been explained using a set of health input and outcome indicators developed by the Human Development Division, Planning Department, Government of Karnataka.

Sixth chapter is about income, poverty and employment situation of the District. It has been explained using district and taluk income, sectoral composition, cropping pattern, occupation pattern, work participation rate and poverty ratio.

Seventh chapter contains an analysis of standard of living in the District in terms of housing conditions, housing amenities, housing assets and the access to electricity and modern cooking fuel across the taluks.

Chapter Eight has explained the status of women and children development in the District. It has used the demographic and economic indicators to compare the human development status of women with general population. Gender gaps in education, health, work participation rate, political participation, have also been explained and analyzed. The development status of children is also explained.

Chapter Nine explains the status of SC/ST development in the District. It contains demographic and educational profile of SC/ ST, their occupation pattern and living conditions. Using the Composite Dalit Development Index the development status of SC/ST in one of the GPs of the District has also been presented.

The **Tenth chapter** is about the role of governance in human development.

The **Eleventh chapter** has discussed about the urban issues in human development. They have been examined in terms of urban infrastructural facilities, housing, sanitation, urban governance and service delivery issues.

The **Twelfth chapter** contains a few sector specific strategies based on the human development status and scenario across the sectors in the District.

Chapter - 2
DISTRICT OVERVIEW















2.1 Introduction

This chapter presents a profile of Mysuru District. It provides the necessary background for the discussions that follow in the next chapters. The objective of the chapter is to examine the overall scenario of Mysuru District in terms of resource endowment, geographical and physical features, demographic details and socio-economic conditions. Against this setting the chapter has attempted to introduce the human development process and outcome in the District.

The chapter is divided into three parts. Part I focuses on the physical and natural environment of the District, in part II there is focus on the demographic details and in part III there is discussion on the structure and composition of the District economy.

This scenario mapping of the District has been made by utilizing the available secondary data collected from Census of India and Karnataka 2011, Directorate of Economics and Statistics, DSO, Zilla Panchayath and different line departments of District administration.

2.2 Brief History of Mysuru District

Mysuru District is an administrative District located in the southern part of the state of Karnataka. It is the third most populous District in Karnataka after Bengaluru and Belagavi. The District is bounded by Mandya District to the north east, Chamarajanagar District to the southeast, Kerala state to the south, Kodagu District to the west, and Hassan District to the north. This District had a prominent place in the history of Karnataka; Mysuru was ruled by the Wodeyars from the year 1399 till the independence of India in the year 1947. Mysuru's prominence can be gauged from the fact that the Karnataka state was previously known as Mysuru state.

Mysuru District gets its name from the city of Mysuru which is also the headquarters of the District. A statue of Mahishasura, after whom the city is named, and a temple dedicated to Goddess Chamundeshwari on the top of Chamundi Hill near Mysuru city, relate to the legend of its origin.

The earliest known reference of rulers in Mysuru District are the Gangas who during the rule of King Avinitha (469-529), moved the capital from Kolar to Talakad on the banks of the river Kaveri in theTirumakudalu Narasipura taluk. Talakad remained their regal capital till the end of Ganga rule in the early 11th century. Gangas ruled over a greater part of Mysuru District, then known by the name of *Gangavadi*. By the end of the 8th century, the Rashtrakuta king Dhruva Dharavarsha defeated the Ganga king Shivamara II and wrested Gangavadi from him. Gangavadi came under the governorship of Kambarasa, the son of Dhruva Dharavarsha. Gangas who were overthrown from Gangavadi, had to wait till their king Nitimarga Ereganga (853–869) won a victory against the Rashtrakutas at Rajaramudu. Seeing the increasing might of the Gangas, the Rashtrakuta King Amoghavarsha I gave his daughter Revakanimmadi in marriage to the son of Ereganga, Butuga II who became the ruler of Gangavadi. Gangas ruled over Gangavadi till the Ganga king, Rakkasa Ganga (985–1024) was defeated by the Cholas.

In the year 1117, Vishnuvardhana, the great king of Hoysala dynasty seized Gangavadi and its capital Talakad from the Cholas. To commemorate this achievement,

Vishnuvardhana built the Keerthinarayana temple at Talakad. Gangavadi was ruled by the Hoysalas till the death of their last ruler, Veera Ballala III after which Gangavadi became a part of the Vijayanagar Empire. In 1399, Yaduraya established the Wodeyar dynasty at Mysuru. It remained as a feudatory to the Vijayanagar Empire owing allegiance to the Vijayanagar kings and the Vijayanagar representative at Srirangapatna, till the fall of the Vijayanagar Empire in 1565. In the vacuum that was created, Raja Wodeyar I (1578–1617) established control and became the first major ruler of the Wodeyar family. He defeated the Vijayanagar representative in a battle at Kesare near Mysuru, shifted his capital from Mysuru to Srirangapatna in 1610 AD.

The Wodeyars continued to rule over Mysuru till the reign of Krishnaraja Wodeyar II (1734–1766), when Hyder Ali Khan and his son Tipu Sultan became the virtual rulers of Mysuru. Though there were Wodeyar kings during the rule of Hyder Ali and Tipu Sultan, they were mere figureheads. With the death of Tipu Sultan in 1799 under the hands of the British, the Wodeyars were reinstated to the throne of Mysuru and the capital was shifted back to Mysuru. Prince Krishnaraja Wodeyar III who was just 5 years old was installed on the throne of Mysuru in 1799. Wodeyars were the subsidiaries of the British Empire and had to pay annual subsidies. During the rule of Krishnaraja Wodeyar III, the British took the kingdom back from Wodeyars in 1831 under the pretext that the Wodeyar king did not pay the annual subsidy. Commissioners were appointed to rule over the Mysuru kingdom. Mark Cubbon and L. B. Bowring were the prominent British Commissioners who ruled over Mysuru. However, the Wodeyar kings raised a plea against this with the British Parliament who gave a ruling in favour of the Wodeyars. In 1881, Chamaraja Wodeyar IX (son of Krishnaraja Wodeyar III and Wodeyar king since 1868) was given back the reins of the Mysuru kingdom from the British. The Wodeyars continued to rule over the Mysuru Kingdom, till the rule of Jayachamaraja Wodeyar who, in the year 1947, merged his kingdom into the new dominion of independent India. He remained as a Maharaja till India became a republic in the year 1950 after which he was anointed as a Raja Pramukh (a constitutional position) as the head of Mysuru state till 1956. In 1956, after the reorganisation of Indian states, the Mysuru state was born and Jayachamaraja Wodeyar was made the governor of this state — the position he held until 1964.

2.3 Physical Features and Resource Endowments of the District

Karnataka State is in the southwestern part of India. It is mainly a tableland and an extension of Deccan plateau. It is rhomboid in shape. The state extends to 805 km from north to south and to about 283 km from east to west. The total area of the state is 1,92,493 sq. km.

Mysuru District lies in the Southern Maidan (Southern Plateau) and it is in the southernmost part of Karnataka State. Physiographically, the region in which the District is found may be classified as partly maidan and partly semimalnad (malnad means hilly lands). The District forms the southern part of the Deccan peninsula with Tamil Nadu to its southeast, Kodagu District to its west, Mandya District to its north, Hassan District to its northwest and Bengaluru District to its northeast.

2.3.1 Location and Area

Mysuru District forms a distinct land unit, besides being a cultural entity lying between 11°30' N to 12°50' N latitudes and 75°45' E to 77°45' E longitudes. It covers an area of 6854 sq. km. that is, 3.57 per cent of the state's total geographical area. It holds the sixth place in the state in terms of the area with a population of 30,01,127 according to the Census of India 2011.

Physiographically, it lies between maiden and semi-malnad range at an altitude of 610 meters from the mean sea level. The District covers a total geographical area of 6,76,382 hectares of which 62,851 hectares constitute the forest land. The net cultivable land is 4,86,410 hectares and of this 1,14,010 hectares of land is irrigated. The prominent river of the District is Cauvery. Mysuru District is considered as one of the prosperous Districts of the state based on the development and utilization of irrigation facilities, abundance of forest wealth and sericultural products.

2.3.2 Agro - Climatic Conditions

The climatic conditions of the District are favourable to crops like paddy, jowar, ragi, pulses, sugarcane and tobacco. The District can be divided into two major agro-climatic zones, the Southern Dry Zone comprising of 4 taluks namely, Nanjangud, T. Narasipur, Mysuru and K. R. Nagar and the Southern Transition Zone consisting of H. D. Kote, Hunsur, and Periyapatna taluks. Soil is red sandy loam in most of the areas of the District. The annual rainfall ranges from 670 mm to 888.6 mm in dry zones and from about 612 mm to 1054 mm in the transition zone. The average annual rainfall of the District is 782 mm. The temperature ranges from 11°C to 38°C. Thus the climate of Mysuru District is temperate with moderate variations in different seasons.

2.3.3 Relief

Mysuru District is an undulating tableland with granitic rocks protruding at odd intervals. The general elevation of the District ranges between 700 and 900 meters above the mean sea level. The mountain ranges in the District originate from the Nilgiris along its southern borders and runs in a northwest and northeast direction. There are Ghats and, in between them lies the Mysuru plateau, which is peneplaine with an average elevation of 700 meters. Except in the north, the District is almost entirely surrounded by the Western Ghats which at places are an elevation of more than 1200 meters above the mean sea level. Only along the southeast, the mountain ring is broken, where the river Cauvery takes its course towards the Ghats and plunges into the famous Gaganachukki and Barachukki falls at Shivansamudram.

2.3.4 Rainfall

The variation in the annual rainfall from year to year is not large during the last 100 years. The highest annual rainfall amounting to 156 per cent of the annual rainfall occurred in 1903 and the lowest occurred in 1918. In the same period, the annual rainfall was less than 80 per cent of the normal rainfall in 7 years, none of them consecutive, considering the rainfall at the individual stations. However, two or three consecutive years of good rainfall occurred once or twice at fifty two out of sixty five rain gauge stations. It is observed that the average annual rainfall in the District was between 600 mm and 900 mm in 66 years in the said period.

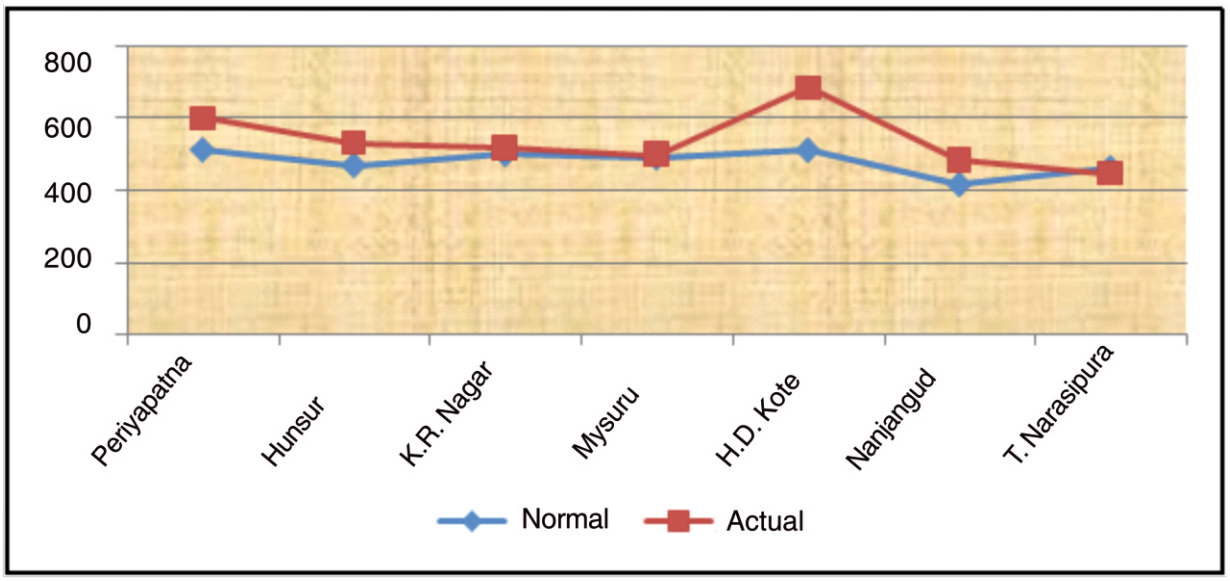
The following table provides information relating to the behavior of actual and normal rainfall in the District across the taluks during 2011-12.

Table 2.1 Monthly Actual Rainfall (mm)-2011-12

Taluk	July		August		September		October		November		December		Total	
	Normal	Actual	Normal	Actual	Normal	Actual	Normal	Actual	Normal	Actual	Normal	Actual	Normal	Actual
Periyapatna	144	103.8	76	93.6	96	65.8	134	293.6	48	44.4	13	0	511	601.2
Hunsur	109	98.4	61	76.8	94	71.3	141	228.3	52	56.7	12	0	469	531.5
K.R.Nagara	76	35.6	64	86.6	109	81.2	180	251.6	55	62.4	15	0	499	517.4
Mysuru	73	98.6	68	100.4	121	52	157	157.9	55	88.9	16	0	490	497.8
H D Kote	152	95.6	86	67.8	80	88.4	124	279.6	52	153.2	16	0	510	684.6
Nanjangud	67	52.4	65	179.5	94	47	131	112.5	47	90.9	13	0.4	417	482.7
T.Narasipura	56	54.8	71	101.4	118	31.4	145	159.8	54	98.5	18	0	462	445.9
Total	96.7	77.0	70.1	100.9	101.7	62.4	144.6	211.9	51.9	85.0	14.7	0.1	479.7	537.3

Source: Mysuru District at a Glance, 2012-13

Figure 2.1 Actual Rainfall (mm)-2011



The above table presents information about rainfall distribution in the District. Among the seven taluks, H D Kote has received maximum rainfall of 685 mm which is much greater than the actual rainfall of 510 mm in the year 2011-12. Whereas in other taluks there is no much difference between actual rainfall and normal rainfall. However, the lowest rainfall is recorded in T. Narasipura taluk with only 546 mm. When compared to the previous year's rainfall there is drastic reduction in the rainfall across the taluks. This is having significant impact on the performance of agricultural sector and rural livelihood opportunities.

Mysuru District is also endowed with a number of rivers. The river Cauvery is the major river which rises at Talakaveri in Kodagu District and flows along the boundary of Periyapatna, K R Nagara and further moves into T. Narasipur and Kollegal before reaching Tamil Nadu. It has tributaries like Kabini, Suvarnavathi, Laxmanathirtha and others. The Cauvery river system covers nearly 18 percent of the land of the state. The river system has supported irrigated agriculture for centuries and served as the lifeblood of the State.

2.3.5 Climate

Mysuru District shares the wider climatic pattern of the state as a whole, although there are some distinctive features. The climate of the District may be described as essentially tropical monsoon type which is a product of the interplay of the two opposing air-masses of the southwest and northeast monsoons. Over the greater part of the District, summers are languorously warm and winters bracingly cool. By and large, Mysuru District is endowed with a delightful or salubrious climate.

Generally, the following four seasons are applicable to Mysuru District.

1. Cold Weather Season
2. Hot Weather Season
3. South-west Monsoon
4. North-east Monsoon

2.3.6 Temperature

Temperature has considerable influence on the socio-economic activities of the people in a region. The District in general enjoys cool and equable temperatures. In the period from March to May, there is a continuous rise in temperature. April is the hottest month with the mean daily maximum temperature at 34.5°C and the daily minimum at 21.1°C. On normal days, the day temperature during summer may exceed 39°C. There is welcome relief from the heat when thunder showers occur during April and May. With the advance of the southwest monsoon about the beginning of June, the day temperature drops appreciably and throughout the southwest monsoon period, the weather is pleasant. After mid-November, both day and night temperatures decrease progressively. January is the coldest month with mean daily maximum at 11°C. On some days during the period November to January, the minimum temperature may go below 11°C. The temperature remains nearly the same for several months but begins to rise in February and touches the peak in either April or May.

2.3.7 Natural Vegetation

The forest belt in the District begins from the western part of Hunsur taluk, spreads along the border of Kerala and Tamil Nadu into the south and east. The thickest and richest forest areas are in H D Kote. The principal species of trees in the forests are teak, honne, rosewood, dindiga, eucalyptus and sandalwood. It is only in the hilly areas, there is however a resemblance of evergreen forests. The major produce of the forests in the District consists of teak, matchwood, sandalwood, rosewood and building materials. Indirectly, forests of the region confer various ecological benefits on the land such as salubrious climate and good rainfall. The area covered by forest is 4,126.45 sq. km, 10% percent of the total area, of which 3,875.6 sq. km, are reserved forest, and 250.9 sq. km. are classified as forests. Mysuru has two types of forests and they are moist deciduous where the rainfall is 900-1100 mm and dry deciduous where the rainfall is 700 – 900 mm.

2.4 Soils

The soils of the Districts can be broadly classified as the laterite, red loam, sandy loam, red clay and black cotton soils. The laterite soil found mostly in the western part of the District while the red loam is found in the northwest. These two account for nearly half the area of the District. The black cotton soil is found mostly in the northeastern parts of the District. The red sandy loam soils are derived from the granites and gneisses. The western taluks of Mysuru like Periyapatna, H D Kote and Hunsur are covered with hilly terrain and contain red, shallow gravelly soils. In the taluks of T. Narasipura and Nanjangud, there is deep red loam occasionally interspersed with black soils. The red soils are shallow to deep well drained and do not contain lime nodules. The black soils are 1 to 1.5 meter in bases with good water holding capacity for a longer time. The soil of the District is conducive for varied agricultural operations. Soil fertility is satisfactory and it can be best used for a variety of agricultural activities.

2.4.1 Land Use Pattern

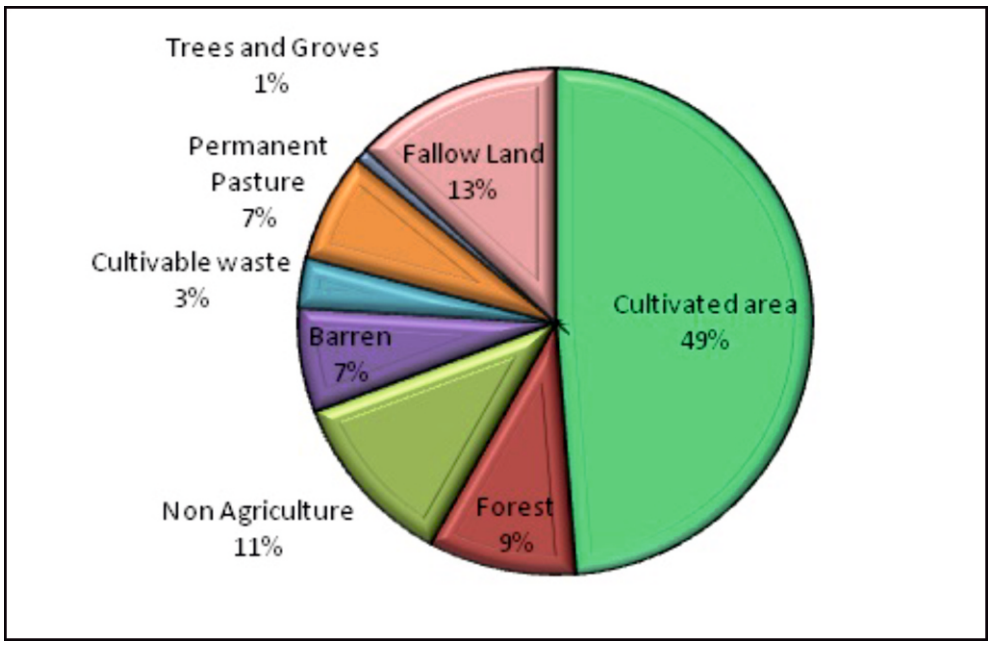
There are strong linkages between the land use pattern and growth prospects of the region. It explains the extent of land used for cultivation and the trends in the same. The details relating to the land use pattern are presented in the following table.

Table 2.2 Land Utilisation Pattern 2011-12 (in hectares)

			Land available for cultivation			Other Uncultivated Land			
Taluk	Geographical Area	Forest	Non Agriculture	Barren	Total	Cultivable waste	Permanent Pasture	Trees and Grooves	Total
Periyapatna	83121	14810	4195	4330	8525	1106	7088	1958	9046
Hunsur	98194	7786	10064	9697	19761	1150	1840	360	2200
K.R.Nagara	61976	166	7960	4486	12446	350	2279	90	2369
Mysuru	81740	3216	14377	6770	21147	2202	2019	114	2133
H D Kote	194138	33031	20661	16709	37370	13846	29302	2103	31405
Nanjangud	98541	3688	13011	2246	15257	2076	3022	386	3408
T.Narasipura	58672	154	5478	780	6258	677	1258	860	2118
Total	676382	62851	75746	45018	120764	21407	46808	5871	52679

Source: Mysuru District at a Glance – 2012-13

Figure 2.2 Land Utilisation Pattern 2011 – 12 (in hectares)



The total geographical area of the District is 6,76,382 hectares and out of this the cultivated area is 3,29,938 hectares and it represents 49 per cent of the total geographical area. Forest cover constitutes 9 per cent of the total area and fallow land is to the tune of 13 per cent. The share of non-agriculture utilization is 11 per cent, barren 7 per cent, cultivable waste 3 per cent, permanent pasture 7 percent and trees and groves 1 per cent. From this, it is clear that there are adequate opportunities to ensure the optimum utilization of land in the District.

2.4.2 Geology

Geologically, the District is mainly composed of igneous and metamorphic rocks of Pre-Cambrian age either exposed at the surface or covered with a thin mantle of residual and transported soils. The rock formation in the District falls into two groups, charnockite series and granite genesis and geissic granite. A fairly wide area of the District consists of charnokites series of rocks, particularly along the southeastern borders of Yelandur and Biligirirangana hills and also at the western border near Hangod in Hunsur Taluk. The intervening ground consists of granitic genesis with thin beds, lenses and elongated runs of various hornblendic rocks, pyroxenites and durities containing chromate and magnesite. Dolerites are in large numbers to the west of Hunsur and Gundlupet taluks.

The Sargur schist belt in H. D. Kote taluk extends from Sargur to Mysuru city for about 40 km. This belt was named as Sargur series. The series comprise of a complex series of metasediments and basic igneous rocks. The garnets illuminate gneiss and the associated norites occurring as patches within the genesis of southern Mysuru represent the remnants of the older khondalite - charnockite system.

The area between Bettadabidu and Doddakanya is essentially a flat lying genesis terrain with numerous enclaves of meta-sedimentary units consisting of quartzites, pelitic schists, crystalliner limestone, cal-silicates and ferruginous quartzites into which the ultramafic and the basic rocks have been emplaced. The enclaves of the schistose units vary in size from just maple units to whole hill ranges, for example, the Konnainabetta ranges.

In the H. D. Kote and Gundlupet regions, the bands of highly altered rocks of kyanite, staurolite, siliceous schists and also bands of limestone and quartizites are found. These rocks are of great economic importance because of the presence of graphite, corundum and granets in them. They extend from Bilikere region up to the southern border of the District in the south-southwest direction for nearly 50 km. Fine textured granite beds are found in Mysuru taluk and around Mysuru city.

2.5 Demographic Profile of the District

Mysuru District is endowed with good human resources. According to the Census of India 2011, the total population of Mysuru District is 30,01,127 out of which 13,44,670 are males and 12,96,357 are females. Between 2001 and 2011 the size of population has increased but the growth rate has declined.

The rate of growth of population is 13.63% which is lesser than the previous decade's growth rate. In the total population, the proportion of rural population is 58.5% and urban population is 41.5%. It is clear that the proportion of rural population has declined and the proportion of urban population has increased during this decade. There is an apparent trend towards urbanization in the District.

According to 2011 census, Mysuru District has 3rd rank in population size next to Bengaluru and Belagavi. Population of Mysuru District constitutes 5% of the state population. It is evident from the above data that the density of population is increasing in Mysuru District. In 2001 density was 385 persons/sq km and according to the census of 2011, the density is 476 persons/sq km. It explains the increasing pressure on land and other resources in the District.

Table 2.3 Demographic Features of Mysuru District 2011

Description	2011	2001
Actual Population	30,01,127	26,41,027
Male	15,11,600	13,44,670
Female	14,89,527	12,96,357
Population Growth	13.63%	15.75%
Area (Sq. Km)	6,307	6,307
Density (Sq. Km)	476	385
Proportion to Karnataka Population	4.91%	5.00%
Sex Ratio (Per 1000)	985	964
Child Sex Ratio (0-6 Age)	961	962
Average Literacy	72.79	63.48
Male Literacy	78.46	70.88
Female Literacy	67.06	55.81
Total Child Population (0-6 Age)	30,5,561	32,3,555
Male Population (0-6 Age)	15,5,807	1,64,934
Female Population (0-6 Age)	1,49,754	1,58,621
Literates	19,62,180	14,71,155
Male Literates	10,63,766	8,36,195
Female Literates	8,98,414	6,34,960
Proportion of Child Population (0-6 Age)	10.18%	12.25%
Boys (0-6 Age)	10.31%	12.27%
Girls (0-6 Age)	10.05%	12.24%

Source: Census of India, 2011

Table 2.4 Rural-Urban Distribution of Population in Mysuru District 2011

Description	Rural	Urban
Population (%)	58.50%	41.50%
Total Population	17,55,714	12,45,413
Male Population	8,87,500	6,24,100
Female Population	8,68,214	6,21,313
Sex Ratio	978	996
Child Sex Ratio (0-6)	963	959
Child Population (0-6)	1,84,028	1,21,533
Male Child(0-6)	93,757	62,050
Female Child(0-6)	90,271	59,483
Child Percentage (0-6)	10.48%	9.76%
Percentage of Male Children	10.56%	9.94%
Percentage of female Children	10.40%	9.57%
Literates	9,94,670	9,67,510
Male Literates	5,60,734	5,03,032
Female Literates	4,33,936	4,64,478
Average Literacy	63.29%	86.09%
Male Literacy Rate	70.64%	89.50%
Female Literacy Rate	55.78%	82.67%

Source: Census of India 2011

2.5.1 Workforce of the District

In any economy Workforce Participation Rate (WPR) is an important indicator. It explains the percentage of total population involved in income earning activities. Out of the total population of 30,01,127, the working population is 13,14,268. It represents 43.79% of the total population. It also explains the dependency ratio which is to the extent of 56%. The disaggregated data show that the work participation rate for male population is 62.16% and for the female population it is 26.35%. There is an overall decline in the work participation rate in both rural and urban areas of the District.

2.5.2 Administrative Setup of the District

Mysuru District consists of the following seven taluks.

1. Mysuru
2. Hunsur
3. Piriyapatna
4. K R Nagara
5. H D Kote
6. Nanjangud
7. T Narsipur

The following table provides information relating to the talukwise total geographical area, number of gramapanchayaths, number of villages and towns of Mysuru District.

Table 2.5 Taluk-wise Number of GPs and Total Geographical Area 2011-12

Taluk	Geographical Area (sq km)	Number of Gram Panchayaths	Number of Villages	Towns/Urban Agglomerations
Periyapatna	785	26	203	01 (TP)
Hunsur	900	30	213	01 (TMC)
Krishnarajanagara	596	31	179	01 ((TMC)
Mysuru	828	35	155	01 (MCC)
Heggadadevankote	1622	32	281	02 (TP)
Nanjangud	991	45	190	01 (TMC)
Tirumakudal Narasipur	598	36	132	02 (TMC, TP)
Total	6320	235	1353	09

Source: District at a Glance 2012-13 & Census of India 2011

Among all the taluks, H D Kote is the biggest one with an area of 1622 sq. Km. However, a major portion of the District is covered by forest. The smallest taluk according to area is K R Nagara. It has an area of 596 sq. Km. The total number of gram panchayaths in the District is 235 and the total number of villages is 1353 according to the latest census.

2.5.3 Taluk-wise Distribution of Population

The following table presents information relating to the total population and its distribution on the basis of sex and place of residence across the taluks in the District. Among all the taluks, the growth rate of population is highest for Mysuru taluk that is 23.43 percent and T. Narasipura has the lowest growth rate of 4.67 per cent during the decade. Further, in Mysuru taluk the urban population represents 79 percent of total population which is the maximum across the taluks of the District. And the least urbanized taluk is Periyapatna with only 6.86 per cent of urban population. It has very profound implications for occupation pattern and livelihood systems.

Table 2.6 Taluk-wise Demographic Details 2011

Taluk	Total Population	Male	Female
Tirumakudal Narasipura (Total)	2,92,035(9.73%)	1,46,258	1,45,777
Rural	2,40,540	1,20,621	1,19,919
Urban	51,495	25,637	25,858
Nanjangud (Total)	3,84,922(12.83%)	1,93,038	1,91,884
Rural	3,34,324	1,68,030	1,66,294
Urban	5,598	25,008	25,590
Heggadadevankote (Total)	2,63,706(8.79%)	1,32,748	1,30,958
Rural	2,37,968	1,19,929	1,18,039
Urban	25,738	12,819	12,919
Mysuru (Total)	12,81,768(42.71%)	6,45,316	6,36,452
Rural	2,67,541	1,36,294	1,31,247
Urban	10,14,227	5,09,022	5,05,205
Krishnarajanagara (Total)	2,52,657(8.42%)	1,26,539	1,26,118
Rural	2,16,852	1,08,639	1,08,213
Urban	35,805	17,900	17,905
Hunsur (Total)	2,82,963(9.43%)	1,42,946	1,40,017
Rural	2,32,098	1,17,516	1,14,582
Urban	50,865	25,430	25,435
Periyapatna (Total)	2,43,076(8.1%)	1,24,755	1,18,321
Rural	2,26,391	1,16,471	1,09,920
Urban	16,685	8,284	8,401
Mysuru District total	30,01,127	15,11,600	14,89,527
Mysuru District Rural	17,55,714	8,87,500	8,68,214
Mysuru District Urban	12,45,413	6,24,100	6,21,313

Source: http://www.Mysuru.nic.in/population.htm 25-09-13

Note: Figures in the bracket indicate the percentage to total population

A glance at the table makes it clear that Mysuru taluk alone has accommodated 43% of the total population of the District.

2.6 Education Scenario

Mysuru District is recognized as the seat of higher learning since the 19th century. The District made an early beginning in the development of education. During the period of Wodeyars a good number of schools and colleges were established and it enabled the District to have a good tradition in education system. Now Mysuru District with a good number of premier institutions of teaching and learning is considered as the 'education hub of Karnataka'. It is a matter of pride that there

are five universities in the District. They are the Univerisity of Mysore, Karnataka State Open University, Music University, Sanskrit University and JSS University (Deemed). Now Government has decided to establish a cluster university for Maharani's Educational Institutions. This has created an enabling network of institutions for education, literary and cultural activities. But despite all this institutional context, the literacy rate in the District is not up to the mark. According to the Census of 2011, the literacy rate of the District is 72.79 per cent which is lesser than the state average. Further, there are also regional and gender disparities in the rate of literacy across the taluks and across the socio-economic groups.

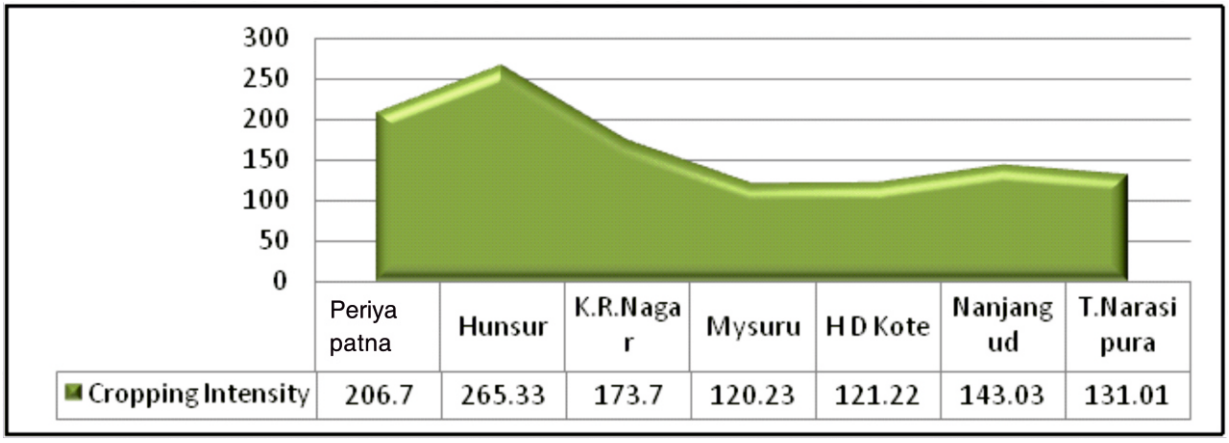
2.7 District Economy: A Profile

The District economy consists of primary, secondary and tertiary sectors. The growth and performance of these sectors explain the chances for economic participation by people and trends in livelihood opportunities. In the following section a brief profile of these sectors is presented.

2.7.1 Agriculture

Agriculture is the backbone of the district economy of this District as it is with the rest of Karnataka. Though agriculture is highly dependent on the rainfall, the rivers Kaveri and Kabini provide the irrigation needs required for agriculture in this District. According to 2011 census, about 3,20,887 farmers are involved in cultivation in the District. In the year 2011-2012, Mysuru District yielded a foodgrain production of 17,48,640 tonnes which is a contribution of about 6 % to the total food grain production in the state for the year. Some of the important crops grown here are cotton, grams, groundnut, jowar, maize, ragi, paddy, sugarcane, sunflower and tur. The climatic conditions of the District are favourable for a diversified cropping pattern. Kharif is the main cropping season and about 3.30 lakh hectares are under cultivation in the District. The extent of irrigation is 36 per cent and District has a few major and medium irrigation projects. However, in recent years the area under food crops is continuously declining.

Figure 2.3 Cropping Intensity (2011-12)



Source: District at a Glance 2012-13

From the above table and diagram it can be observed that the average cropping intensity of the District is 162%. Among the taluks Hunsur has the highest cropping intensity of 265 per cent and Mysuru taluk has the least of 120 per cent. Over a period of time there is a gradual decline in the total cultivable area across the taluks. As a result there is a corresponding decline in cropping intensity and food grain production. This has very serious implications for food availability and eventually food security.

Horticulture is another area contributing significantly to the economy; especially the palm oil production in H D Kote Taluk. H D Kote has four reservoirs: the Kabini, Nugu, Hebbala and Taraka reservoirs. However, agriculture in this taluk is mainly rain-fed because the government has failed to harness the capacity of the reservoirs. Barring the Kabini reservoir, the other reservoirs are always dry. As a result, farmers who could otherwise raise three crops are able hardly to raise one and are perennially in debt. This is one of the main reasons for the economic backwardness of the taluk and distress migration to cities is common. The Taraka Lift Irrigation Project was envisaged with a view to alleviating the miseries of the farmers of this taluk. The project entails pumping water 6 km from the Kabini reservoir into the Taraka reservoir; it was completed in 1983. Cauvery Neeravari Nigam Limited is in charge of this project and claims that 80% of the project is complete.



Kabini



Nugu



Hebbala



Taraka

In Mysuru District, Hunsur is also well known for timber trade, especially teak. Hunsur Teak is noted for its quality and durability; Another important activity is tobacco cultivation and tobacco auctions. Consolidated Coffee Curing Works employ many people in coffee bean processing. This place is also a growing market for sheep farming.

2.7.2 Size of Holdings

According to Agricultural Census 2010-11, Mysuru District has nearly 3,85,726 cultivators. However, among them the majority are small and marginal farmers with less than 2 hectares and they constitute 90 per cent of the total cultivators. This has very serious implications for viable agriculture and sustainable livelihood system. Among all the taluks, Nanjangud taluk has the largest number of cultivators in all the categories.

Table 2.7 Taluk-Wise Number and Area of Agricultural Holdings in Mysuru District 2010-11 (in hectares)

Dist./Taluk	Marginal Farmers		Small Farmers		Total SF/MF		Semi-med. Farmers		Medium farmers		Large farmers		Total	
Mysuru	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area
H D Kote	23410	12669	16613	23068	40023	35737	5866	15302	1249	6681	93	1233	47231	58953
Hunsur	31351	16361	14623	20368	45974	36728	5379	13898	1090	5680	83	2133	52526	58440
KR Nagara	42873	19426	9307	12324	52180	31750	2891	7416	453	2320	11	154	55535	41640
Mysuru	36550	16485	9846	13171	46396	29656	3791	9752	704	3802	90	1365	50981	44576
Nanjangud	47084	23672	15570	21159	62654	44830	6191	16077	1379	7291	99	1325	70323	69523
Periyapatna	27836	14675	12237	16922	40073	31596	5028	12751	1047	5730	79	1197	46227	51274
T.Narasipur	51005	22076	8250	11003	59255	33079	3035	7788	596	3030	17	228	62903	44124
Dist. Total	260109	125363	86446	118014	346555	243377	32181	82984	6518	34535	472	7635	385726	368530

Note : **Holding size:** Marginal Farmers: Below 1 ha., Small Farmers: 1 to 2 ha., Semi-medium Farmers 2 to 4 ha. Medium Farmers 4 to 10 ha. Large farmers 10 ha. and above.

Source: Agricultural Census 2010-11, Report on Operational Holdings in Karnataka, Directorate of Economics and Statistics, Bengaluru

Figure 2.4 Number of different size class of holdings

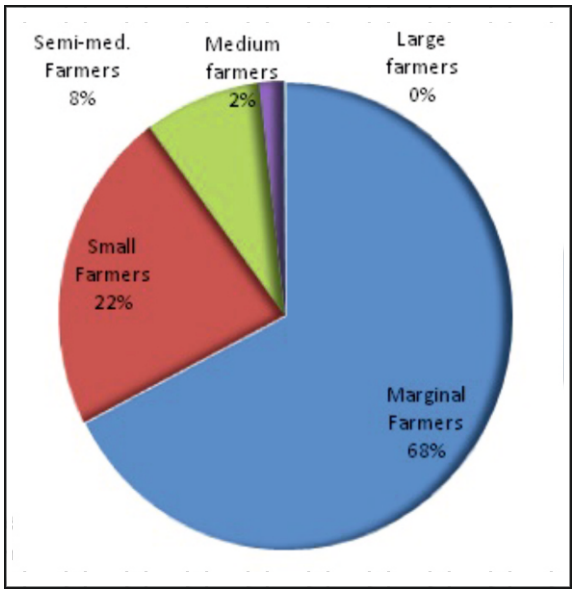
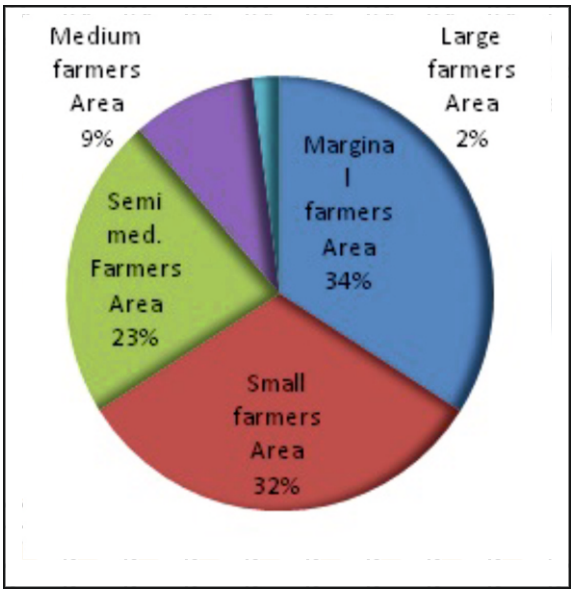


Figure 2.5 Area under different size class holdings



The agricultural Census 2010-11 has shown the predominance of small and marginal farmers in the District's agricultural scenario. Out of 3,85,726 cultivators, small and marginal farmers are 346555 and they constitute 90 per cent of the total cultivators. However, this 90 percent own 66 per cent of the total operational holdings. The remaining 10 per cent are medium and large farmers and they own 34 per cent of the total operational holdings. This shows imbalances in land distribution across different size class of cultivators in the District.

2.7.3 Industry

Industry is another major sector of the District economy. It is a major contributor to District domestic product, employment and total output. But the industries are not spatially distributed across the taluks; most of the major industries are located in and around Mysuru and Nanjangud towns. There are about 25 major industries in the District employing 7 percent of employees in the industrial sector. It is contributing 31 percent to district domestic product. The percent of industrial employment including household industries is 7 percent.

Karnataka Industrial Areas Development Board (KIADB) has established two industrial estates at Mysuru and Nanjangud and six industrial areas in Mysuru District to encourage Industrial Development of the District. These are located at Belagola, Belawadi, Hebbal (Electronic City) and Hootagalli of Mysuru Industrial estate and the industrial areas of Nanjangud and Thandavapura .

Some of the major industries located near Mysuru city are:

- Vikrant Tyres Ltd. - Manufacturer of tyres
- Automotive Axles Ltd. - Manufacturer of axles
- Bharat Earth Movers Ltd. (BEML) - Manufacturer of heavy machinery
- Karnataka Silk Industries Corporation (KSIC) - Manufacturer of silk garments
- TVS Ltd. - Manufacturer of motor vehicles and parts (Near Nanjangud, Mysuru Taluk)
- Larsen and Tubro Limited (Manufacturer of medical equipments and electronic meters)









Kadkola Industrial Area

Some of the major industries located near Nanjangud are:

- Dunford Fabrics (Closed)
- VKC Sandals (India) Private Limited
- Nestle India Ltd
- Ray Hans Technologies
- AT&S India Pvt Ltd.
- TVS Motor Company
- Bannari Amman Sugars Ltd
- South India Paper Mills
- Indus Fila
- S Kumars (Reid & Taylor)
- Raman Boards
- Jubilant Life Sciences limited
- Brakes (India)
- Bacardi rum, Gemini Distilleries Pvt Ltd
- Zenith Textiles
- Kottakal Arya Vaidyasala
- Supreme Pharmaceuticals Mysuru Pvt Ltd.,
- ITC (Tobacco Processing)
- United Breweries (Upcoming)






Tandya Industrial Area Nanjangud

2.7.4 Service Sector

It is an important and leading sector of the District economy. In recent years there is a phenomenal expansion in the service sector with substantial increase in investment, range of services and job opportunities. However, much of the opportunities are concentrated in Mysuru taluk. The major sub sectors are insurance, banking, health, education, tourism and trade related activities. Service sector is contributing 60 percent to District Domestic Product (DDP) and its share to total employment is 25 percent.

2.7.5 Emerging Sectors: Information Technology

In recent years information technology has emerged as an important promising sector in the District. It is attracting a good number of IT industries which require trained man power and professionals. Mysuru is proving to be the next IT hub in Karnataka after the phenomenal success of Bengaluru. The Government of India has recognised Mysuru as number one among the 20 Tier II cities of India for the promotion of the IT industry. Currently, all IT related industries are concentrated around Mysuru city. The Software Technology Park (STP) in Mysuru was inaugurated in 1998 by the then Prime Minister of India, Sri Atal Bihari Vajpayee. As on now, there are 42 companies registered with the STP. Software exports from Mysuru are expected to increase continuously in the coming years.

Some of the major IT companies located here are:

- Wipro Infotech
- WeP Peripherals Ltd. (earlier known as Wipro ePeripherals Ltd.)
- Infosys
- Software Paradigms (India)
- Larsen and Toubro Infotech (L & T)
- Comat Technologies
- Theorem India Pvt. Ltd
- Excelsoft Technologies
- Kaveri Technology Solutions









IT Industries at Mysuru

2.7.6 Tourism

Tourism is another major industry of Mysuru District. Its importance as a tourist destination was evident when it was selected as the venue for the Karnataka Tourism Expo in 2006. Though Mysuru city is well known as a tourist place, other parts of the District are yet to see growth in tourism. However, the Tourism Department has plans to develop other areas like Nanjangud, Bettadapura, Hedathali, Kapadi, Mudukuthore Betta, Mugur and Tirumakudalu Narasipura as tourist places.

The Mysuru Palace in the city is one of the most visited monuments in India, even beating Red Fort, Qutub Minar in 2006. The other places of tourist importance are:

- Lalith Mahal
- Jaganmohana Palace
- Jayalakshmi Vilas Mansion
- Brindavan Gardens
- Happy Man Park
- Butterfly Park in Karanji Lake
- Parks, Gardens & children play areas
- Regional Museum of Natural History
- Folklore Museum
- Rail Museum
- Wax Museum - Melody World
- Mysuru Sand Sculpture Museum
- Chamundi Hills
- St. Philomena's Church
- Mysuru Zoo



Leading Tourist Places of Mysuru District

In addition to all these, the District offers tremendous opportunities for Eco-tourism, medical tourism, historical and heritage tourism. It requires vision, proactive policy measures, institutional context and a wide variety of logistics. In the coming years certainly it can emerge as a leading sector and give a distinct reputation to Mysuru District.

2.7.7 Health Scenario

Mysuru District has been one of pioneers in the provision of health services. Over a period of time, the District has developed a fairly good health care system. After the introduction of NRHM, there are substantial improvements in the health scenario of the District. However, there are regional disparities and gaps in the availability

of health care services. Much of the facilities are urban centric and generally these facilities are provided by the private sector. In recent years, there is an increasing privatization of health care services. But in terms of health indicators like IMR, CMR, MMR, availability of doctors and nurses, population served by PHCs, the performance of the District leaves much to be desired. In recent years there is also community participation and participation by NGOs in health care system.

2.8 Infrastructure Scenario

Infrastructural facilities play an important role in the process of economic development and also human development. There are two way linkages between infrastructure intervention and human development. They include irrigation, power, road and transportation, communication, banking and insurance, trade and marketing services, education, health, housing, drinking water, sanitation, administration and governance.

Infrastructure interventions➡Human Development ➡ Higher order and specialized infrastructural facilities.

The District has created adequate economic infrastructural facilities which have generated opportunities for economic participation of people. Further, social infrastructural facilities like education, health, housing, drinking water, sanitation, governance etc,. have produced substantial impact on the quality of living. Mysuru District has fairly good network of irrigation system, power supply, roads and transportation, communication, insurance, banking, marketing and related services. Over a period of time, there is an increase in the availability, access, penetration and utilization of these facilities. They have enhanced the productivity and competency of people and also the District economy. In recent years even the private sector is playing an active role in the development, delivery and management of infrastructural facilities. It has contributed to the potentiality of the District.

2.9 Regional Perspectives

Mysuru District is a moderately developed district in the state. The current development problems of the district are bit complex and require newer approaches to confront them. Some of the issues are as follows.

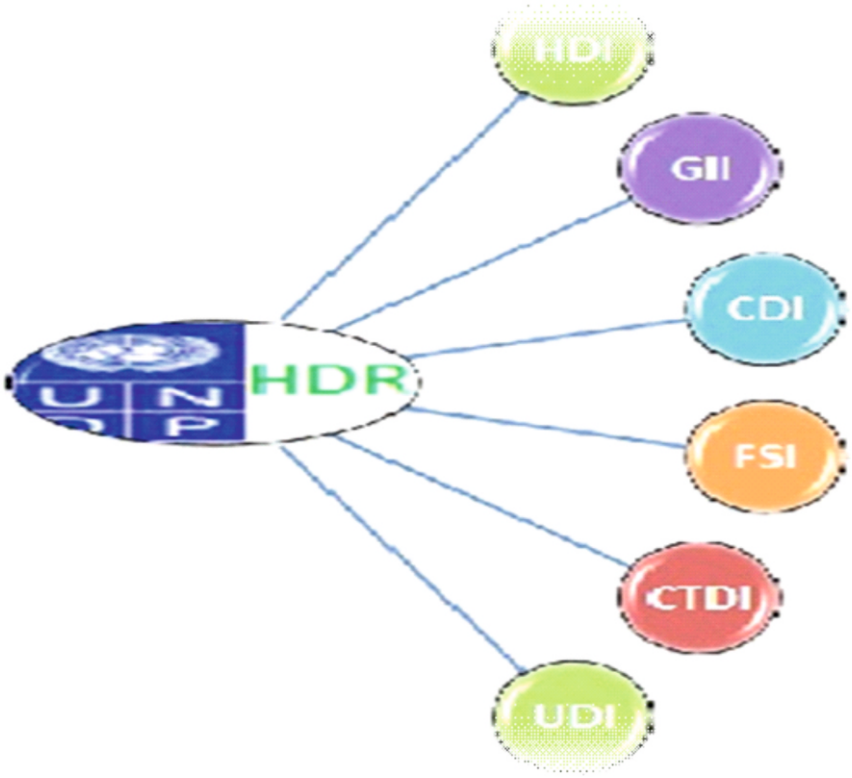
- In the district there are higher regional disparities than the backward districts. If Mysuru city is excluded, disparities would be less.
- Social and economic infrastructure has contributed to the growth and income of Mysuru city. The backwardness of other taluks is mainly because of lack of infrastructural facilities.
- In rural parts agriculture is the main activity and it has to be prioritized in order to improve the livelihood situation in these areas.
- The growth of service sector has contributed to the prosperity of Mysuru taluk but at the same time it has created a clear development divide.

- Mysuru city is set for a massive expansion and the pace of urbanization is being increased by improved connectivity to Bengaluru and greater industrialization. This will place strain on the resources and existing infrastructure in the city.
- The district is experiencing declining work participation rate and agrarian distress. Thus there is need to diversify the economy and to generate non-farm livelihood opportunities.
- Identifying the factors which are responsible for the poor performance in education front should be prioritized.
- Sensitizing the institutional machinery and new partners in development regarding the imperatives of human development.

2.10 Conclusion

Mysuru is one of the relatively developed districts in the state. With good resource endowment and favourable climatic conditions it has many advantages over other districts. However, a critical analysis of the development status of the district reveals that the district is lagging behind in terms of agricultural and industrial development. It has witnessed polarized development with wide regional disparities. The growth of service sector in and around Mysuru has mainly contributed to the prosperity of Mysuru city amidst agricultural distress, rural decay and declining Work Participation Rates. The district has to focus on its weaknesses like declining WPR, poor educational status, agricultural distress, rural decay and growing regional disparities.

Chapter - 3
COMPUTATION OF INDICES





3.1 Introduction

Human development is defined as a process of enlarging choices. Every day human beings make a series of choices – some economic, some social, some political, some cultural. If people are the proper focus of development efforts, then these efforts should be geared to enhancing the range of choices in all areas of human endeavour for every human being. Human development is both a process and an outcome. It is concerned with the process through which choices are enlarged, but it also focuses on the outcomes of enhanced choices.

In the ultimate analysis, human development is development of the people, development for the people, and development by the people. Development of the people involves building human capabilities through the development of human resources. Development for the people implies that the benefits of growth must be translated into the lives of people, and development by the people emphasizes that people must be able to participate actively in influencing the processes that shape their lives.

In 1990, United Nations Development Programme launched the First Human Development Report and introduced Human Development Index (HDI) to measure and compare the status of human development. Indices are absolutely necessary to capture different dimensions of development and progress in development. They provide interesting insights and information regarding the status of development, disparities across the dimensions, regions and groups. Indices have been developed to capture those aspects of human capabilities which are not normally assessed but necessary to improve the quality of life, that is equity, access, deprivations, disparities, happiness, healthy life, quality of life and so on. All these go into the making of these indices and indexation of a few representative indicators. However, they should never be allowed to deteriorate into a number game. They are good instruments for driving and refining policies that address these issues.

In this chapter there is discussion on the computation of indices at sub district level to assess human development both as a process and an outcome. The indices that have been computed for the purpose of the Report are

- ✓ Human Development Index
- ✓ Gender Inequality Index
- ✓ Child Development Index
- ✓ Food Security Index
- ✓ Urban Development Index
- ✓ Composite Taluk Development Index
- ✓ Composite Dalit Development Index

3.2 Human Development Index (HDI)

A concept is always broader than any of its proposed measures. Any suggested measure for any concept cannot fully capture the richness and the breadth of the concept. This is true of the notion of human development as well. In principle, human choices and their outcomes can be infinite and change over time. However, the three essential ones at all levels of development are

for people to lead a long and healthy life, to acquire knowledge and to have access to resources needed for a decent standard of living. If these essentials are not available, many other opportunities remain inaccessible.

The HDR 1990 therefore constructed a composite index, the Human Development Index (HDI) on the basis of these three basic dimensions of human development. The HDI is based on four variables namely, life expectancy at birth, to represent the dimension of a long and healthy life; adult literacy rate and combined enrolment rate at the primary, secondary and tertiary levels, to represent the knowledge dimension; and real GDP per capita (purchasing power parity), to serve as a proxy for the resources needed for a decent standard of living.

The Human Development Index (HDI) is a statistical tool used to measure a country's overall achievement in its social and economic dimensions. These dimensions are based on their level of education attainment, health status of the people and their standard of living. It was created by Pakistani economist Dr Mahbub-ul-Haq and Indian economist Prof. Amartya Sen in 1990 and was operationalised by the United Nations Development Programme.

3.2.1 Human Development and Income

Income is one of the constituents of human development. Income is a means an important one, but not the only one to human development. Income is not the sum total of human lives. Through various measures, the benefits of income need to be translated into creating possibilities for enhancing different aspects of human well-being. Thus economic growth is a necessary, but not a sufficient, condition for human development. It is the quality of growth, not its quantity alone, which is crucial for human well-being. As the 1996 Human Development Report puts it, growth can be jobless, rather than job creating; ruthless, rather than poverty-reducing; voiceless, rather than participatory; rootless, rather than culturally enshrined; and futureless, rather than environment-friendly. Economic growth which is jobless, ruthless, voiceless, rootless and futureless is not conducive to human development.

In the context of human development, income is not the sum total of human lives, the lack of it cannot also be the sum total of human deprivation either. Thus impoverishment, from a human development perspective, is also multidimensional. The lack of income or income poverty is only one aspect of human impoverishment; deprivation can also occur in other areas– having a short and unhealthy life, being illiterate or not allowed to participate, feeling personal insecurity, etc. Human poverty is thus larger than income poverty.

3.2.2 Human Development in Karnataka

It is widely recognized that human development is one of the best paradigms of development. The experiences reveal that despite significant achievements in economic front, still we have to go a very long way towards the attainment of human development. A situational analysis in Karnataka across the districts explains the same. This is evident from the following table (3.1).

Table 3.1 District Human Development Index in Karanataka: 1991, 2001

District	HDI-1991	Rank	HDI-2001	Rank
Bengaluru Urban	0.623	4	0.753	1
Dakshina Kannada	0.661	1	0.722	2
Udupi	0.659	2	0.714	3
Kodagu	0.623	3	0.697	4
Chikkamagaluru	0.559	7	0.647	9
Dharwad	0.539	10	0.642	10
Bengaluru Rural	0.539	11	0.653	6
Shivamogga	0.584	5	0.673	5
Hassan	0.519	16	0.639	11
Uttara Kannada	0.567	6	0.653	7
Kolar	0.522	15	0.625	17
Mysuru	0.524	14	0.631	14
Davanagere	0.548	8	0.635	12
Mandya	0.511	19	0.609	19
Tumakuru	0.539	12	0.63	15
Belagavi	0.545	9	0.648	8
Bidar	0.496	23	0.599	21
Kalaburagi	0.453	25	0.564	26
Haveri	0.496	22	0.603	20
Chamarajanagar	0.488	24	0.576	25
Chitradurga	0.535	13	0.627	16
Bagalkot	0.505	20	0.591	22
Ballary	0.512	18	0.617	18
Gadag	0.516	17	0.634	13
Vijayapura	0.504	21	0.589	23
Koppal	0.446	26	0.582	24
Raichur	0.443	27	0.547	27

Source: Karnataka Human Development Report(KHDR) 2005 & Human Development Division(HDD), Planning Department,GOK, Bengaluru.

To measure and understand the process and level of human development in the state, the Karnataka state has brought out two Human Development Reports, one in 1999 and the other in 2005. These two reports have revealed the poor state of human development in the State and also wide disparities across the districts in the State. The Table 3.1 presents the ranking of the districts on the basis of HDI value. It can be observed that all southern districts of the state (also Dharwad) are in the first 15 positions and almost all northern districts are having lesser index value and therefore lower ranking. This situation can also be explained using the correlation between economic and human development. All these imply that the relatively developed districts are doing well in human development.

3.2.3 Human Development in Mysuru District

In Karnataka the first state level Human Development Report was published in 1999 and the second report in 2005. In these reports human development has been measured at district level. It is evident that there are wide disparities across the districts in the level of human development. Generally, at district level HDI values are heavily influenced by the performance of developed taluks and as a result always the performance of underdeveloped taluks is concealed. Recognising this, Government of Karnataka made an attempt to bring out district reports to measure human development at taluk level. The Government selected four districts and District Reports were released in 2008. Out of these four districts Mysuru was one among them. The idea of measurement of disparities at sub-district level in human development among the districts has received much attention in the context of decentralized development and now Government of Karnataka is preparing District Human Development Reports (DHDRs) for all the districts in Karnataka. The current report on human development (2014) would be the second human development report for the district.

3.2.4 Human Development Index of Taluks in Mysuru District

The composite HDI has 11 indicators. They represent the three dimensions of human development. 7 indicators represent the living standard, 2 indicators represent health status and 2 represent educational attainment. The computed values of HDI of taluks in Mysuru district are presented in table 3.2 and figure 3.1, 3.2, 3.3 & 3.4

Taluk	Living Standard Index	Rank	Health Index	Rank	Education Index	Rank	HDI	Rank
Periyapatna	0.176	6	0.678	3	0.559	2	0.406	4
Hunsur	0.298	2	0.887	2	0.482	5	0.503	2
K R Nagara	0.245	4	0.572	4	0.698	1	0.461	3
Mysuru	1.000	1	0.990	1	0.543	3	0.813	1
H D Kote	0.154	7	0.367	6	0.328	6	0.264	7
Nanjangud	0.220	5	0.286	7	0.483	4	0.312	5
T Narasipur	0.254	3	0.371	5	0.241	7	0.283	6

Figure 3.1 Living Standard Index of Taluks in Mysuru District

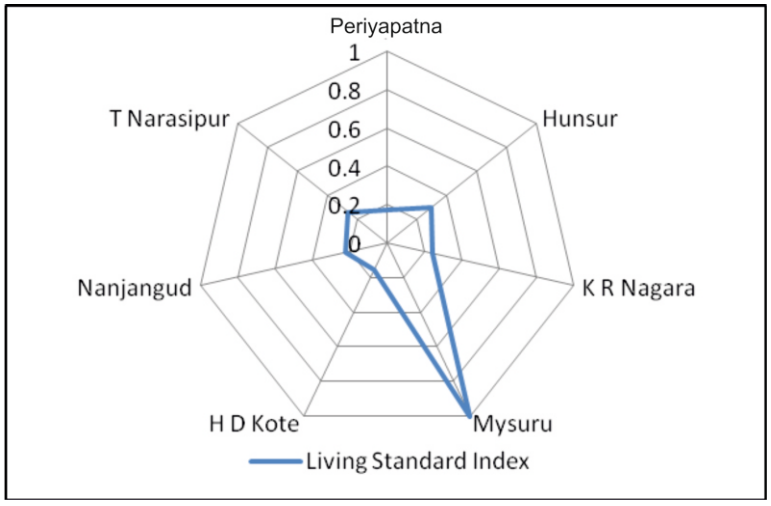


Figure 3.2 Health Index of Taluks in Mysuru District

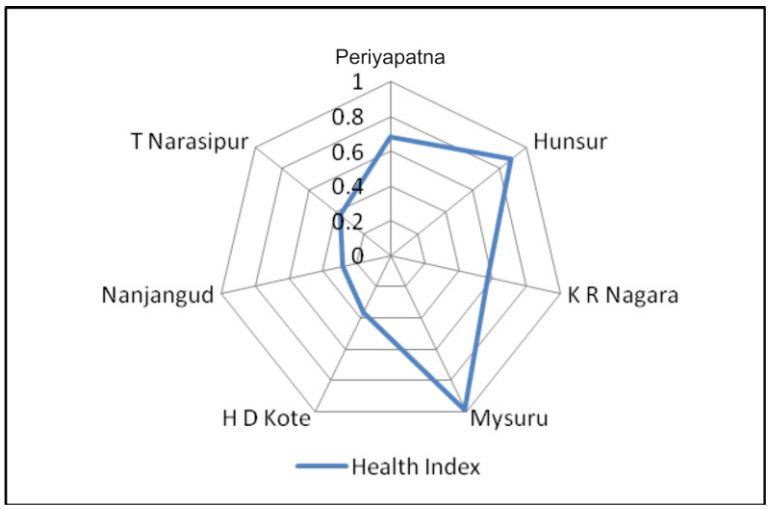


Figure 3.3 Education Index of Taluks in Mysuru District

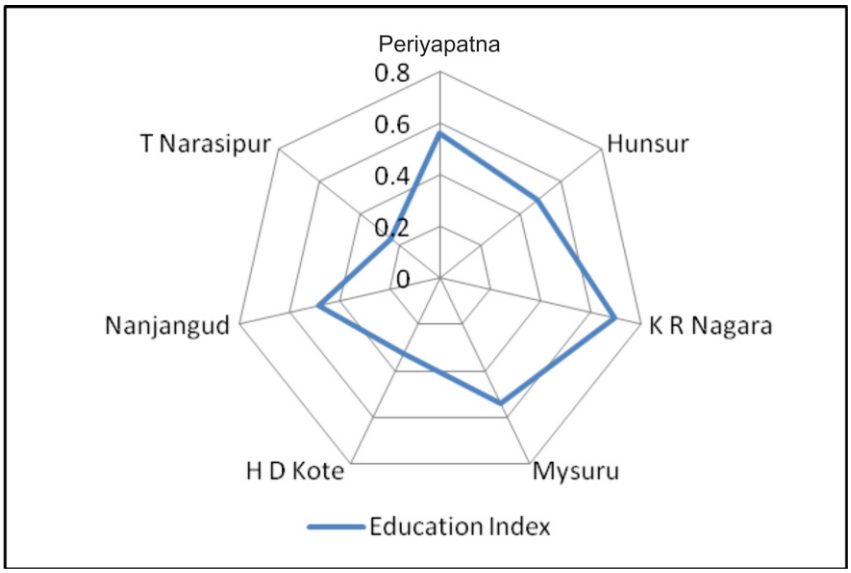


Figure 3.4 Radar Analysis of HDI of Taluks in Mysuru District

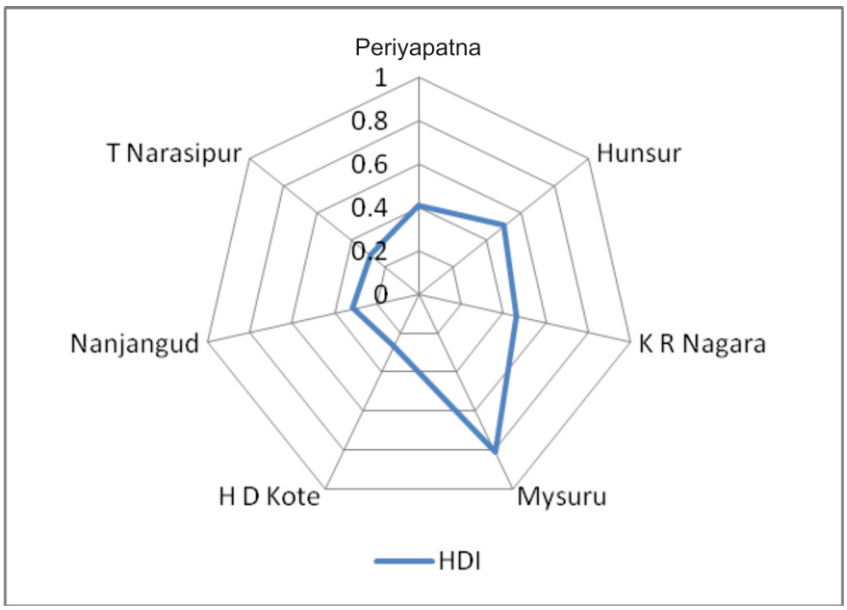


Table 3.2 and figure 3.1, 3.2, 3.3 & 3.4 explain the level of achievement in human development with its three basic components of living standard, education and health for the taluks of Mysuru district. The computed values reveal that, there are wide variations among the taluks, both in respect of individual components as well as with respect to overall human development. In the District, Mysuru taluk is in the first place with an index value of 0.813. Because Mysuru taluk is having the highest values in all the 7 indicators of living standard dimension. In this dimension it is much ahead of all other taluks. In Health dimension also it is in first place because of the lowest MMR and the second lowest CMR in the District. However, in education dimension it is in the third place because of poor performance in GER. Despite this, by virtue of its best performance in living standard and health dimension, it is in the first place in HDI ranking in the district.

In the district, taluks namely Mysuru, Hunsur and K R Nagara have an index value above this and the remaining taluks have an index value lesser than the district average. Among all the taluks, H D Kote taluk has the lowest value of 0.264 as it is lagging behind in all the three dimensions. It is in the last place. In living standard dimension its value is just 0.154 because of its poor access to modern cooking fuel, drinking water, sanitation and electricity and lowest percentage of non-agricultural workers and less per-capita income. Further it has the highest CMR rate and the lowest literacy rate in the district. Due to all these factors H.D. Kote is in the last position in HDI ranking in the district.

From the HDI values it can also be noticed that there are variations across the dimensions in the district. The performance of the district in health dimension is relatively better when compared to other dimensions of human development. In terms of living standard dimension there are striking differences between the taluks of the district. It has varied between 1 and 0.154. This is because of the dominance of service sector in Mysuru taluk and higher share of non-agricultural income. Whereas in other taluks, there is more dependence on agriculture and as a result the share of non-agricultural income is low. The district average living standard index value is 0.335 and only Mysuru taluk is above the district average.

In terms of Health Index, the achievement of the taluks is relatively better. The highest index value of 0.990 is in Mysuru taluk and the least is in Nanjangud that is 0.286. The reasons for the best performance of Mysuru taluk are the lowest CMR and MMR. Whereas in Nanjangud, MMR is the highest and CMR is also quite high. As a result it is in the last position in the health dimension.

In Education Index, the best performer among all the taluks is K.R.Nagar: this is because of its good performance in GER. The poor performance of T. Narasipura is due to its low literacy rate and the lowest GER.

All these variations across the dimensions and across the taluks reveal that much needs to be done to close the gaps between the taluks in living standard dimension and the District has to make serious efforts to convert living standard

improvements into better health status and educational attainments. This should guide the pattern of resource allocation and expenditure pattern at taluk level.

3.3 Gender Inequality Index

The Gender Inequality Index (GII) is a new index for measurement of gender disparity that was introduced in the 2010 Human Development Report, 20th anniversary edition by the United Nations Development Programme (UNDP). According to the UNDP, this index is a composite measure which captures the loss of achievement, within a country, due to gender inequality. It uses three dimensions to do so: reproductive health, empowerment and labor market participation. The new index was introduced as an experimental measure to remedy the shortcomings of the previous indicators, the Gender Development Index (GDI) and the Gender Empowerment Measure (GEM), both of which were introduced in the 1995 Human Development Report. The GDI and GEM became the primary indices for measuring global gender inequality for the United Nations Human Development Reports.

The GDI and GEM faced much criticism for their methodological and conceptual limitations (Bardhan & Klasen, 1999) (Permanyer, 2011). It was observed that the differences between the HDI and GDI were small leading to the implication that gender disparities were irrelevant to human development. The UNDP also claims that both the GDI and GEM were criticized because income levels had a tendency to dominate the earned income component, which resulted in countries with low income levels not being able to get high scores, even in cases where their levels of gender inequality may have been low. The GEM indicators proved to be more relevant to developed countries than less-developed countries. To overcome these limitations the World Economic Forum has been using the Gender Gap Index (GGI) in its Global Gender Gap Reports, which ranks countries according to their gender gaps. It is an attempt to better capture gender disparities.

Given the amount of criticism the GDI and GEM were facing, the UNDP felt that these indices did not fully capture the disparities women faced. In an attempt to reform the GDI and GEM, the UNDP introduced the Gender Inequality Index (GII) in the 2010 Human Development Report. The new index is a composite measure which, according to the UNDP, captures the loss of achievement due to gender inequality using three dimensions: reproductive health, empowerment, and labor market participation. The GII does not include income levels as a component, which was one of the most controversial components of the GDI and GEM. It also does not allow for high achievements in one dimension to compensate for low achievement in another.

3.3.1 Dimensions of Gender Inequality Index

The three dimensions of GII are reproductive health, empowerment, and labor market participation. The dimensions are captured in one composite index, as to account for joint significance. According to the UNDP, none of the measures in the dimensions pertain to the country's development and

therefore a less-developed country can perform well if gender inequality is low. The UNDP considers the dimensions complimentary in that inequality in one dimension tends to affect inequality in another. Therefore, the GII captures association across dimensions, making the index association-sensitive, and ensuring that high achievement in one dimension does not compensate for low achievement in another dimension.

a. Reproductive health

The GII dimension of reproductive health has two indicators: the Maternal Mortality Ratio (MMR) and the Child Mortality Rate (CMR). With a low MMR, it is implied that pregnant women have access to adequate health needs; therefore the MMR is a good measure of women's access to health care. The UNDP expresses that women's health during pregnancy and childbearing is a clear sign of women's status in society. A high CMR measures potential loss of human capabilities. According to the UNDP data, reproductive health accounts for the largest loss due to gender inequality, among all regions.

b. Empowerment

The empowerment dimension is measured by two indicators: the share of parliamentary seats held by each sex and higher education attainment levels. The GII index of higher education evaluates women's attainment to secondary education and above. Access to higher education expands women's freedom by increasing their ability to question and increases their access to information which expands their public involvement.

c. Labor market participation

The labor market dimension is measured by women's participation in the workforce. This dimension accounts for paid work, unpaid work, and actively looking for work. Due to data limitations women's income and unpaid work are not represented in the labor market dimension of GII. In the absence of reliable earned income data across countries, the UNDP considers labor market participation a suitable substitute for economic aspects of gender inequality. Thus GII measures the loss in potential of human development due to inequality between female and male achievements.

3.3.2 Construction of Gender Inequality Index (GII) for DHDR

The UNDP methodology has been slightly modified to suit the context and circumstances. Indicators considered for measuring GII at Taluk Level are presented in the Chapter I.

Using these indicators, GII has been constructed in this DHDR.

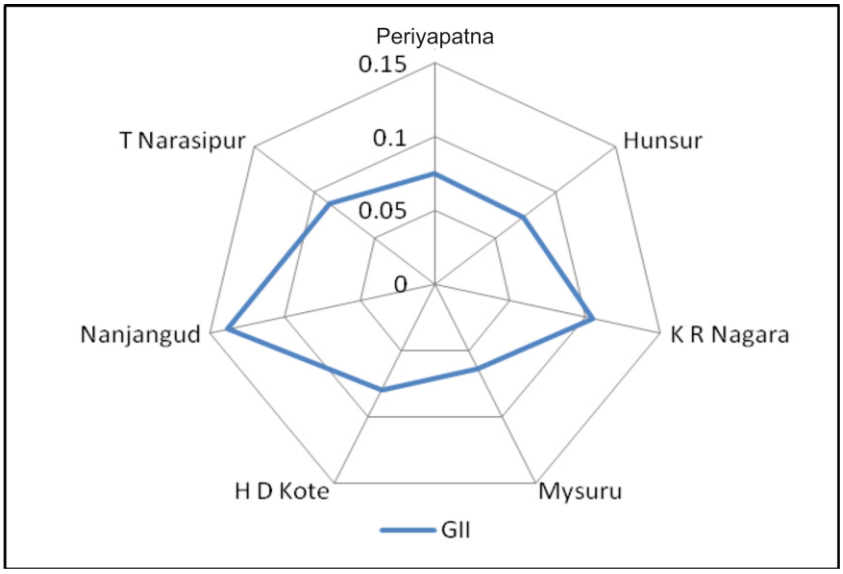
3.3.3 Gender Inequality Index of Taluks in Mysuru District

Using the above said methodology this Report has made an attempt to construct GII for the district. The composite GII has three dimensions. It is a negative index implying that the lesser index value, the better the situation and vice-versa. The computed values of GII of Mysuru district are presented in the following table (3.3).

Table 3.3: Gender Inequality Index of Taluks in Mysuru District

Taluk	health_bar	Emp_bar	LFP_bar	GII	Rank(GII)
Periyapatna	0.692	0.560	0.442	0.075	3
Hunsur	0.679	0.550	0.481	0.073	2
K R Nagara	0.650	0.556	0.331	0.105	6
Mysuru	0.709	0.587	0.620	0.064	1
H D Kote	0.667	0.542	0.434	0.080	4
Nanjangud	0.617	0.536	0.472	0.138	7
T Narasipur	0.649	0.538	0.348	0.087	5

Figure 3.5 Radar Analysis of GII of Taluks in Mysuru District



Computed values of the GII of the district are presented in Table 3.3 and Figure 3.5. The table shows that the Mysuru taluk has the least gender inequality with an index value of 0.064 which is the lowest in the district. The reasons for Mysuru taluk's best performance are better health indicators like low MMR, higher share of institutional deliveries, less percentage of pregnant women with anaemia, better child sex ratio, highest female literacy rate in the district, largest share of female workers in non-agricultural sector and relatively better female agricultural wages. Because of these advantages, Mysuru taluk is in the first place with the least gender inequality. On the other hand, Nanjangud taluk has highest inequality in the district and is in the last position with an index value of 0.138.The reasons are, poor health indicators, poor political representation of women, unfavourable child sex ratio, lowest female literacy, low female work participation

rate and poor economic conditions of women (table 3.3 & figure 3.4).

Across the dimensions of GII also there are inter taluk variations. In health dimension, Mysuru taluk has shown better performance and the poor performer is Nanjangud taluk. In empowerment dimension again the best performer is Mysuru taluk and the poor performer is Nanjangud taluk. It is interesting to note that in empowerment dimension there are no variations across the taluks. Further in female labour market participation dimension, Mysuru taluk is in the first place and K.R. Nagara taluk is in the last place. This is because of the highest percentage of female non-agricultural workers in Mysuru taluk. Understanding these variations and also the reasons for the same is necessary for gender development imperatives.

It is interesting to make a comparison between HDI and GII for the district and also taluks. It is a general understanding that the taluks which are doing well in human development should have less gender inequality. From this point of view, the comparison has been made in the following table (3.4).

The computed index values reveal that on an average there is an inverse type of relationship between human development and gender inequality, which means that the higher the attainment in human development lesser would be the gender inequality. For example, Mysuru taluk has the highest human development index value (0.813) and the lowest gender inequality index (0.064). It means that as human development progresses, there would be decline in gender inequality. The converse is also true i.e., the higher the gender inequality, the lesser would be human development.

3.4 Child Development Index

The **Child Development Index** (CDI) is an index combining performance measures specific to children's education, health and nutrition. The Child Development Index was developed by Save the Children UK in 2008 through the contributions of Terry McKinley, Director of the Centre for Development Policy and Research at the School of Oriental and African Studies (SOAS), University of London, with support from Katerina Kyrili. The indicators which make up the index were chosen because they are easily available,

Table 3.4: Comparison of HDI and GII

Taluk	HDI	Rank(HDI)	GII	Rank(GII)
Periapatna	0.406	4	0.075	3
Hunsur	0.503	2	0.073	2
K R Nagara	0.461	3	0.105	6
Mysuru	0.813	1	0.064	1
H D Kote	0.264	7	0.080	4
Nanjangud	0.312	5	0.138	7
T Narasipur	0.283	6	0.087	5

commonly understood, and clearly indicative of child wellbeing.

3.4.1 Indicators for Child Development Index in the DHDR

In the preparation of District Human Development Reports in Karnataka, four indicators are used to construct the CDI; they are presented in the chapter I.

3.4.2 Child Development Index of Taluks in Mysuru District

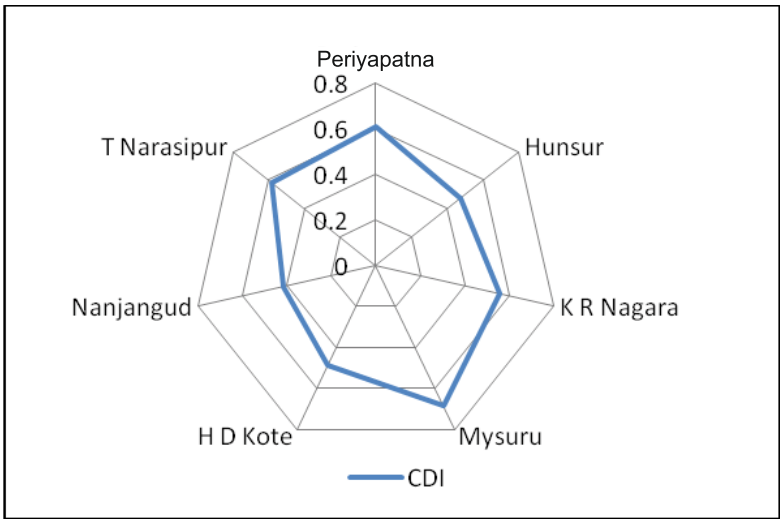
Using this methodology, in this report Child Development Index has been constructed for the district. The index aims to measure the status of child development in the district. The computed values of the index are presented in the following table (3.5).

Data relating to the levels of achievements with respect to child development across the taluks are presented in table 3.6 and figure 3.6. According to the computed values of CDI, Mysuru taluk is in the first place and Nanjangud taluk is in the last place. The reasons for Mysuru taluk's better position are low CMR, lesser percentage of malnourished children and fairly good efforts in mainstreaming the school dropout children. Similarly, the reasons for Nanjangud's poor performance are the highest percentage of malnourished children and inadequate efforts in mainstreaming the school dropout children. Like other indices here also we can notice inter taluk variations across the dimensions. In CMR the best performer is Hunsur taluk and the poor performer is H.D. Kote taluk. Further the percentage of malnourished children is the lowest in Mysuru taluk and the highest is in Nanjangud taluk.

Table 3.5 Child Development Index of Taluks in Mysuru District

Taluk	CDI	Rank
Periyapatna	0.608	2
Hunsur	0.475	6
Krishnarajanagar	0.557	4
Mysuru	0.679	1
Heggadadevanakote	0.482	5
Nanjangud	0.417	7
T Narasipur	0.584	3

Figure 3.6 Radar Analysis of Child Development Index of Taluks in Mysuru District



With respect to mainstreaming of school dropout children, H.D.Kote taluk is the best performer and the poor performer is Nanjangud taluk. Understanding the reasons for the best and poor performance in child development is absolutely necessary to formulate suitable policies and programmes. All these make it clear that human development in general and economic growth in terms of income are not sufficient enough in ensuring child development. In other words income growth may not be a primary factor in child development.

3.5 Food Security Index

Food security is a concept that has evolved considerably over time and there is much literature on potential household food security indicators. There are approximately 200 definitions and 450 indicators of food security. One volume on household food security by Maxwell and Frankenberger (1992) lists 25 broadly defined indicators. Riely and Moock (1995) list 73 such indicators, somewhat more disaggregated than those found in Maxwell and Frankenberger. As a result there are methodological problems for development practitioners to determine the appropriate indicators. In DHDR an attempt has been made to construct food security index at district level. There are a number of studies explaining precarious situation relating to food security. In the coming years food insecurity could be a serious challenge and the poor would be hurt disproportionately because of this. Therefore, a methodology has been developed to construct food security index and examine the status of different taluks in the pursuit of food security.

3.5.1 Food Security Indicators

The indicators used for computing the Food Security Index (FSI) in the DHDR are based on the three major dimensions namely, Availability, Accessibility and Absorption indicators. The list of indicators are given in the Chapter I.

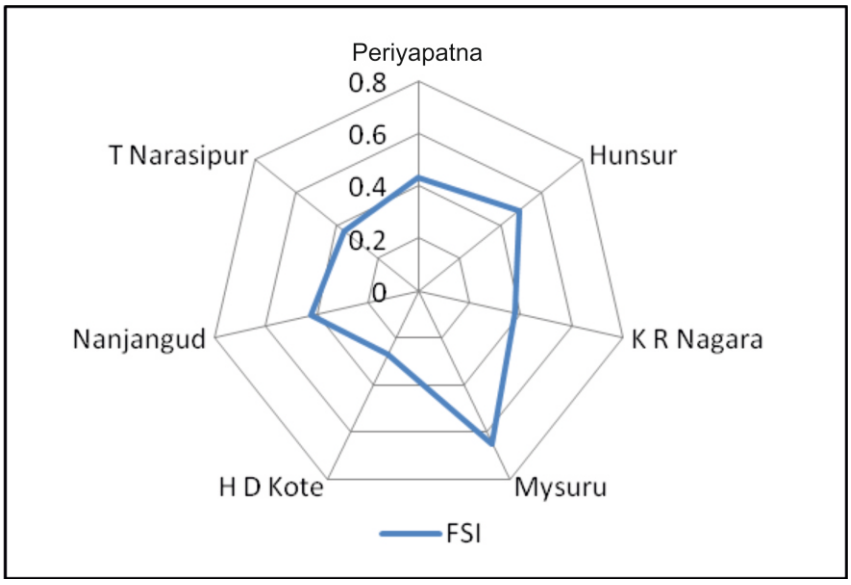
3.5.2 Food Security Index in Taluks

Using this methodology, the FSI has been constructed and the computed taluk wise index values are presented in the following table.

Table 3.6 Food Security Index of Taluks in Mysuru District

Taluk	Availability Index	Accessibility Index	Absorption Index	FSI	FSI Rank
Periaypatna	0.525	0.304	0.466	0.432	3
Hunsur	0.539	0.407	0.533	0.493	2
K R Nagara	0.413	0.221	0.496	0.376	5
Mysuru	0.291	0.886	0.766	0.648	1
H D Kote	0.407	0.236	0.165	0.269	7
Nanjangud	0.642	0.309	0.316	0.422	4
T Narasipur	0.329	0.208	0.551	0.363	6

Figure 3.7 Food Security Index of Taluks in Mysuru District



The computed value of composite FSI (table 3.6) has varied between 0.648 and 0.269 among the taluks of Mysuru District. In FSI ranking Mysuru taluk is in the first place and H.D. Kote is in the last place. The factors which are responsible for the first place of Mysuru taluk are, its better performance in accessbility and absorption dimensions, which include high per-capita income, largest percentage of non-agricultural workers, lesser percentage of agricultural laboures, relatively larger size of holdings, highest coverage of villages by PDS outlets, low CMR, more access to drinking water, lowest percentage of malnourshied children and highest female literacy rate. Because of its advantageous position in these dimensions, Mysuru taluk is in the first place in FSI. Further, the factors responsible for the last place of H.D.Kote are its poor performance in accessibility and absorption dimension. It is paradoxical that H.D.Kote which is relatively better performer

in availbiltiy dimension has put up poor performance in accessibility and absorption dimension. This makes out a case for more interventionist measures to improve its status in accessibility and absorption dimension.

In FSI also there are dimensional disparities across the taluks. In availablity dimension Nanjangud taluk is in the first place and Mysuru taluk is in the last place. In accessiblity, Mysuru taluk is in the first place and T.Narsipura taluk is in the last place and in absorption again Mysuru taluk is in the first place and H.D.Kote is in the last place.

The better position in access and absorption may reflect the better governance in service provision and delivery. H D Kote taluk has the lowest FSI mainly because of weak accessibility and availability dimension. This reflects the poor living standard and also weak governance in service delivery. The absorption dimension is heavily influenced by the living standard or income dimension. The other taluks namely Hunsur, Nanjangud, Periyapatna, K R Nagara and T Narsipur lie in between position.

In the context of Mysuru District one can also observe correlation between FSI and HDI (Table 3.7). The taluks which are relatively better in FSI are also doing better in HDI.

3.6 Urban Development Index

The Urban (City) Development Index was developed for the Second United Nations Conference on Human Settlements (Habitat II) in 1996 and it measures the level of development in cities. The Urban Indicators Programme of the United Nations Human Settlements Programme (UN-Habitat) developed the indicator so that they could rank cities of the world according to their level of development and as a display of indicators depicting development. The UDI cuts across the different clusters identified in the Urban Indicator Framework. It is useful as it provides a snap-shot view of how cities are doing with respect to the different indices.

However, Urban Development Index constructed for this Report is a composite index to measure the status of development of urban areas in the districts. This index takes into account various indicators such as percentage of urban population, extent of access to water supply, sewerage/drainage, number of hospital beds, growth rate of own

Table 3.7 Comparison of HDI and FSI

Taluk	HDI	Rank(HDI)	FSI	FSI Rank
Periyapatna	0.406	4	0.432	3
Hunsur	0.503	2	0.493	2
K R Nagara	0.461	3	0.376	5
Mysuru	0.813	1	0.648	1
H D Kote	0.264	7	0.269	7
Nanjangud	0.312	5	0.422	4
T Narasipur	0.283	6	0.363	6

resources, per capita development expenditure, road length, number of households without own houses, percentage of slum population, crime rate and accident rate. UDI is computed for all the seven taluk headquarters and two more towns namely, Sargur in H.D Kote taluk and Bannur in T. Narasipura taluk.

The indicators used for the UDI in this report are:

- ❖ Percentage of ULB population to total population in the taluk
- ❖ Percentage of households without own houses
- ❖ Percentage of slum population to total ULB population
- ❖ Water Supply-Percentage of households with tap water connection
- ❖ Sewerage/ Drainage-Percentage of households with sewerage and drainage
- ❖ No. of Hospital Beds per 1000 population in urban area
- ❖ Percentage of own resources mobilisation to total receipts
- ❖ Per capita expenditure on development works
- ❖ Length of roads in Kms per sq.km of geographical area
- ❖ Crime Rate per 10000 population
- ❖ Road accidents per 10000 population

3.6.1 Computation of Urban Development Index

- The data collected for the above indicators have been used for calculating the index values. The index values are calculated after identifying whether the indicators are positive or negative. This is done to make the index values unidirectional.
- The index values for each of the indicators have varied between **0 and 1** - 0 indicating the lowest ranking for the urban area and 1 indicating the highest ranking of the urban area.
- The Composite Urban Development Index is the average of the index values of all indicators and this is to be used to assign the ranks for the urban areas within the district.

Table 3.8 Urban Development Index of Taluks in Mysuru District

Name of the ULB	UDI	UDI Rank
Periyapatna TP	0.417	6
Hunsur TMC	0.381	8
Krishnarajanagar TMC	0.546	3
Mysuru CC	0.819	1
Heggadadevanakote TP	0.383	7
Sargur TP	0.539	4
Nanjangud TMC	0.434	5
T Narasipur TP	0.583	2
Bannur TMC	0.341	9

Figure 3.8: Urban Development Index of ULBs in Mysuru District

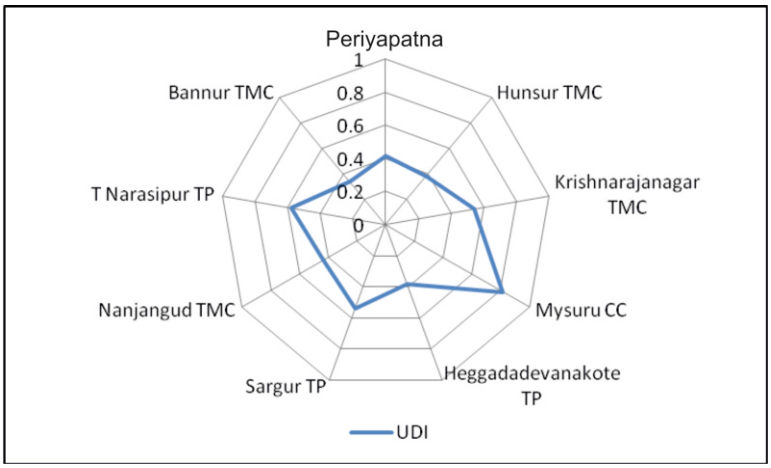


Table 3.8 and figure 3.8 explain the status of urban development in the district. In the district the ULBs like Mysuru, T Narasipura, K R Nagara and Sargur are in a better position. Nanjangud, Periyapatna, H D Kote, Hunsur and Bannur are below the average. The best performer of the district is Mysuru City Corporation.

3.7 Composite Taluk Development Index

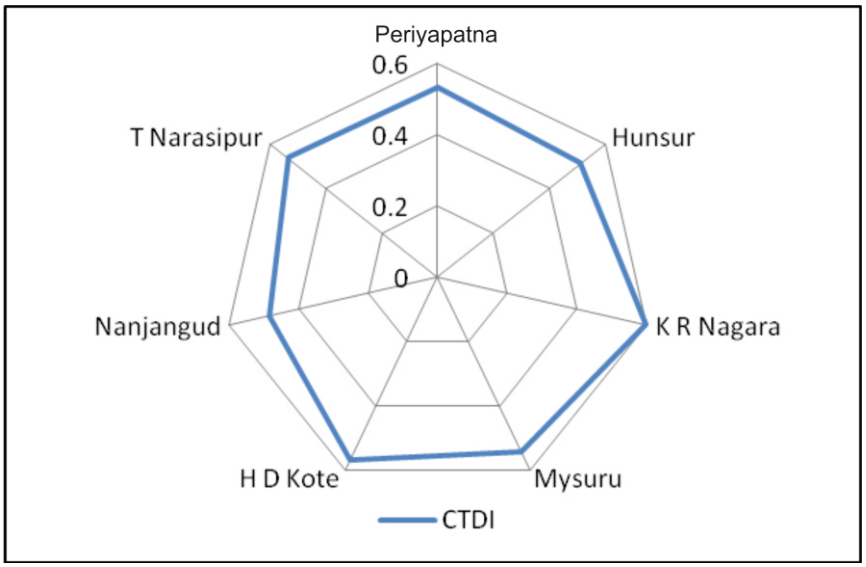
It is a more comprehensive and broader evaluation index of development at micro level. Balanced development is an important prerequisite for the overall growth of the region. In order to understand the pattern of development and issues therein the CTDI has been developed. It represents 68 indicators and they have been grouped into three categories, each category representing one dimension. The three dimensions are standard of living, health, and education. This index considers three broad dimensions relating to demography, livelihood, housing assets, participation, health, education, sanitation and drinking water. In all, sixty eight indicators have been selected to compute CTDI.

Composite Taluk Development Index (CTDI) is computed to show the status of overall development at the taluk level considering it as a measuring unit.

Table 3.9 Composite Taluk Development Index of Taluks in Mysuru District

Taluk	Standard of Living Index	Health Index	Education Index	CTDI	Rank
Periyapatna	0.503	0.539	0.554	0.532	5
Hunsur	0.523	0.582	0.436	0.513	6
K R Nagara	0.492	0.534	0.770	0.599	1
Mysuru	0.547	0.519	0.559	0.542	3
H D Kote	0.504	0.617	0.586	0.569	2
Nanjangud	0.450	0.490	0.512	0.484	7
T Narasipur	0.416	0.696	0.500	0.537	4

Figure 3.9 Composite Taluk Development Index of Taluks in Mysuru District



The computed values of CTDI reveal development gaps and distances between the taluks of the district. The index value has varied between 0.484(Nanjangud taluk) and 0.599(K.R.Nagara taluk). The reasons for K.R.Nagara's best performance are its advantageous position in education dimension and health dimension. Similarly the reason for the poor performance of Nanjangud taluk is its disadvantageous situation in all the three dimensions.

Computed indices of CTDI and its dimensions are given in Table 3.9 and Figure 3.8. From this it can be observed that the performance of the district is relatively poor in living standard compared to health and education dimensions (table 3.9 & figure 3.9).

In terms of living standard dimension five taluks namely, Mysuru, Hunsur, H D Kote, Periyapatna and K R Nagara are in a better position. On the other hand, Nanjangud and T Narasipura have lower values. The average health index value is 0.568 and three taluks namely T Narasipura, H D Kote and Hunsur are above the average. The other taluks including Mysuru are below the average. In the education dimension, the average value is 0.560 and only two taluks K R Nagara and H D Kote are above the average and Mysuru taluk is just equal to average. The remaining four taluks namely Periyapatna, Nanjangud, T Narasipura and Hunsur are below the average (table 3.9 & figure 3.9). All these mean that the averages are heavily influenced by the best performing taluks and as a result the poor performance of other taluks is concealed. Therefore it is necessary to identify the factors which are responsible for the poor performance of other taluks and also taluk wise disparities.

In the following section an attempt has been made to compare the index values of taluk development and human development. The computed values are presented in the following table (3.10).

Table 3.10 Comparison of CTDI and HDI

Taluk	HDI	Rank(HDI)	CTDI	Rank
Periyapatna	0.406	4	0.532	5
Hunsur	0.503	2	0.513	6
K R Nagara	0.461	3	0.599	1
Mysuru	0.813	1	0.542	3
H D Kote	0.264	7	0.569	2
Nanjangud	0.312	5	0.484	7
T Narasipur	0.283	6	0.537	4

In the above table (3.10) an attempt has been made to compare CTDI and HDI ranking of the taluks within the district. It appears that there is no correlation between HDI and CTDI among the taluks within the district. The taluks have different ranking with respect to HDI and CTDI. All this makes it clear that there are significant variations among the taluks of the districts and the overall development is not reflected in human development.

In the last section an attempt has been made to present the computed values of all the indices for the seven taluks along with their respective ranking in a consalidated table. It is quite evident from table 3.11 that there is no substantial link between taluk development, human development, child development, gender development, urban development and food security situation. Since the chosen indicators are different, there may not be strong linkages between the index values and the prevailing scenario. CTDI is more comprehnsive but at the same time there is no weightage to the dimenions of the index. Since, the process of indexation for these aspects is evoluationary, it can be taken as a begining in the right direction.

Table 3.12 Comparison of Taluks/ULBs across the Indices

Taluk/ULB	HDI	Rank (HDI)	GII	Rank (GII)	CDI	Rank (CDI)	FSI	Rank (FSI)	CTDI	Rank (CTDI)	UDI	Rank (UDI)
Periyapatna	0.406	4	0.075	3	0.608	2	0.432	3	0.532	5	0.417	6
Hunsur	0.503	2	0.073	2	0.475	6	0.493	2	0.513	6	0.381	8
K R Nagara	0.461	3	0.105	6	0.557	4	0.376	5	0.599	1	0.546	3
Mysuru	0.813	1	0.064	1	0.679	1	0.648	1	0.542	3	0.819	1
H D Kote	0.264	7	0.080	4	0.482	5	0.269	7	0.569	2	0.383	7
Nanjangud	0.312	5	0.138	7	0.417	7	0.422	4	0.484	7	0.434	5
T Narasipur	0.283	6	0.087	5	0.584	3	0.363	6	0.537	4	0.583	2
Sargur TP											0.539	4
Bannur TMC											0.341	9

3.8 Composite Dalit Development Index

In this report an attempt has been made to develop Composite Dalit Development Index for a selected GP in the District. It is having 10 dimensions representing institutional, social and economic inclusion of Dalit, the perception of discrimination, protest against discrimination, conflict resolution, perception of freedom, standard of living, access to basic facilities, like water, education, toilets, sanitation and so on, gender dimensions of Dalit development and educational performance of Dalit children. The index has been constructed on the basis of information and data collected from one GP in the District.

3.9 Summary

This chapter has discussed about the process and level of attainment of human development in Mysuru district by taking taluk as a unit of mesurement. To capture all the dimensions of human development, the report has used HDI, GII, CDI, FSI, UDI and CTDI. Inter-regional analysis of these indices and their dimensions reveal wide disparities within the district. By and large the improved living standard, taluk income and other income driven components have not adequately led to human development in the district. It reveals gaps, disparities and also institutional inadequecies in taking adventage of bettter living conditions and general development environment.

Chapter - 4
LITERACY AND EDUCATION





4.1 Introduction

Literacy level and educational attainments are vital indicators of human development. The development of a nation depends on the status and quality of education of its citizens. Literacy rate and educational attainments are key variables influencing demographic indicators like fertility, mortality, nutritional level and so on. They also greatly contribute to improving the quality of life and ensuring equity, empowerment and participation. They are also having significant impact on poverty reduction and standard of living. Development is considered as a people centric process and has to result in the enhancement of people's capability or human capital. Literacy and Education are considered as an integral part of this process and also as both the 'means' and 'end' of development.

Education development is a high impact highway to achieve sustainable Human Development. Literacy and education have both intrinsic and instrumental significance in the process of development. Economic development and human development can be accomplished together only when people are literates. Further, education is recognised as a fundamental human right, along with other necessities, such as food, shelter and water in The Universal Declaration on Human Rights (1948).The advantages it confers on individuals and nations are multi-dimensional and multi-faceted. Education is considered to have a strong correlation with social and economic development. In contemporary times when the focus is on the 'knowledge economy' the role of education becomes all the more important in the development of human capital. After all, a society of literates and skilled citizens has more chances of development.

Further, Education can reduce poverty and social injustice by providing the underprivileged with the necessary resources and opportunities for upward social mobility and social inclusion. Human development is predicated upon universal access to education, with its implications for equity, social justice and social relations. It provides the avenues for knowledge and employment capacity, increases their sense of autonomy and self worth. Education empowers people to play an active role in steering democracy towards the ideals of secularism, equality and global peace. Education can provide the basic tools of social and economic empowerment.

4.1.1 Education in Karnataka

Karnataka's progress in educational attainment is quite remarkable, and the state is moving towards universal literacy at a steady pace. It is evident from the following table.

Table 4.1 All-India and Karnataka Literacy Rate (In Percentage)

Karnataka					All-India			
Year	Total	AGR	Male	Female	Total	AGR	Male	Female
1961	29.8		42.29	16.7	28.3		40.4	15.35
1971	36.83	2.36	48.51	24.55	34.45	2.17	45.96	21.97
1981	46.21	2.55	58.73	33.17	43.56	2.64	56.37	29.75
1991	56.04	2.13	67.26	44.34	52.2	1.98	64.13	39.29
2001	66.64	1.89	76.1	57.8	64.8	2.41	75.8	54.2
2011	75.6	1.34	82.8	66.01	74.04	1.43	82.14	65.46

Source: Registrar General of India, Census of India, various volumes
AGR= Annual Growth Rate

From the above table (4.1) it is clear that Karnataka has achieved satisfactory progress in literacy and education and gradually moving towards total literacy. In the State, the literacy rate has increased from 29.8 per cent in 1961 to 75.6 per cent in 2011. The average annual growth rate is also quite impressive though it is declining gradually. There is a phenomenal increase in male literacy from 42.29 per cent to 82.8 per cent during the same period. Female literacy has also increased at a rapid rate from 16.7 per cent to 66 per cent during the said period. Karnataka's performance compares well with all India average. From the table it is evident that total literacy, male literacy and female literacy in Karnataka are slightly higher than the all India average.

However, a critical look at the situation reveals that there are gender gaps in literacy rate in the state. Female literacy is less than the male literacy; however, the gaps are reducing very gradually. The gap was maximum in 1981, when the growth rate was the highest. Further, it is also a known fact that there are disparities between rural and urban literacy and general literacy and literacy among socially and economically disadvantageous groups. This explains the nature and magnitude of deprivation with respect to education.

4.1.2 Karnataka's Education Policy

According to the available statistics, despite the impressive growth of literacy in Karnataka, still 24 per cent of total population is illiterate. There are many reasons for the existence of such high levels of illiteracy in the State. In order to improve the situation and accomplish the goal of total literacy the State has initiated several measures. The National Adult Education Programme (NAEP), launched in 1978, was a national programme to remove illiteracy, under which funds were made available to States to set up Departments of Adult Education. The next initiative, the National Literacy Mission (NLM) 1988, was launched in the then popular mission mode. However, the outcomes of the efforts of the NLM, in terms of literacy gains are not very impressive.

Karnataka Education Policy aims at Universalization of Education in the State. Its objectives are as follows:

- Every child attends school.
- Every child attains, effectively, the minimum levels of learning.
- Every teacher is at school.
- The community is actively involved in the betterment of the schools, thereby encouraging a mass campaign for primary education.

4.1.3 Karnataka Education Act 1983

Karnataka Government has enacted Education Act with an objective to ensure equity, universal access and quality. The provisions of the Act are as follows.

- Enforcement of Compulsory Primary Education,
- Recognition of Educational Institutions,
- Admission to recognized educational institutions, scales of fees etc,
- Grant in Aid,
- Terms and conditions of service of employees in Private Educational Institutions,
- Control of Private Educational Institutions.

4.1.4 Right to Education Act and Compulsory Education

The RTE Act came into effect on 1 April 2010 and it aims at free and compulsory education up to 14 years. It says that every child has right to elementary education of satisfactory and equitable quality in formal school. It has brought about revolutionary changes in the elementary education.

To promote school education, Government of Karnataka has initiated several initiatives in accordance with the priorities and policy environment.

4.1.5 History of Education in Mysuru District

Before the advent of the European system of education in Mysuru, agraharas (Brahmin quarters) provided Vedic education to Hindus, and madrassas provided schooling for Muslims. Modern education began in Mysuru when a free english school was established in 1833. In 1854 the East India Company promulgated the Halifax Dispatch, which suggested organizing education based on the western model in the princely state of Mysuru. The first college to be set up for higher education was the Maharajas' College, founded in 1864. In 1868 the Mysuru state decided to establish hobli schools to extend education to the masses. Under this scheme, a school to provide free education was established in each hobli (a locality within the city). This led to the establishment of a normal school in Mysuru which trained teachers to teach in the hobli schools. A high school exclusively for girls was established in 1881 and later converted into the Maharanis' Women's College. The Industrial School, the first institute for technical education in the city, was established in 1892; this was followed by the Chamarajendra Technical Institute in 1913. While the modern system of education was making inroads, colleges such as the

Mysuru Sanskrit College, established in 1876, continued to provide Vedic education.

Being the hub of educational activity, Mysuru District has enjoyed a rich tradition of cultural and literary activities. The District had a very strong setup of traditional education. Inscriptions themselves speak of nearly 100 *agraharas* found during a period of over 1,300 years beginning with the sixth-century A.D. from the days of the Gangas till the days of the Mysuru Wodeyars. The latter founded *agraharas* even till the beginning of the 20th century in memory of the deceased members of the royal family. With the advent of the British rule, Western learning including English education became popular. Starting of the Raja Free-Schooling by Krishnaraja Wodeyar III in 1833, Industrial School in 1882 and the University of Mysore in 1916 were some of the important landmarks in the history of education in Mysuru District. The princely State of Mysuru was the second in the country (the first being Baroda) to introduce the Compulsory Primary Education in 1913. The Mysore Elementary Education Regulation of 1913 provided for universal, compulsory and free primary education.

The establishment of the University of Mysore in 1916 ushered in a new era of higher education. This was the sixth university to be established in India and the first in Karnataka. The campus was named Manasagangotri ("fountainhead of the Ganges of the mind") by the poet Kuvempu. The University since its inception is catering to the educational requirements of Mysuru, Mandya, Hassan and Chamarajanagar Districts. Engineering education began in Mysuru with the establishment of the National Institute of Engineering in 1946, the second oldest engineering college in the state. The Mysore Medical College, founded in 1924, was the first medical college to be started in Karnataka and the seventh in India. Institutes of national importance in the city include the Central Food Technological Research Institute, the Central Institute of Indian Languages, the Regional Institute of Education, the Defence Food Research Laboratory and the All India Institute of Speech and Hearing.

4.2 Literacy Scenario in Mysuru District

Literacy Rate is one of the indicators used for measuring educational development in a region and it is measured once in ten years as part of Census operations. The literacy rate of the District, as per 2011 census, is 72.46% (Table 4.2), which is slightly less than the state average (75.36%). The District is in 18th place in the literacy rate in the State. The improvement in literacy rate by 9 % in the last decade from 63.48% (2001) to 72.46% (2011) in the District is commendable. This may be attributed to SSA and RMSA initiatives in the District resulting in good schooling facilities, attractive incentive schemes adopted in primary education to improve learning, quality assurance measures and increased awareness among community about the importance of education.

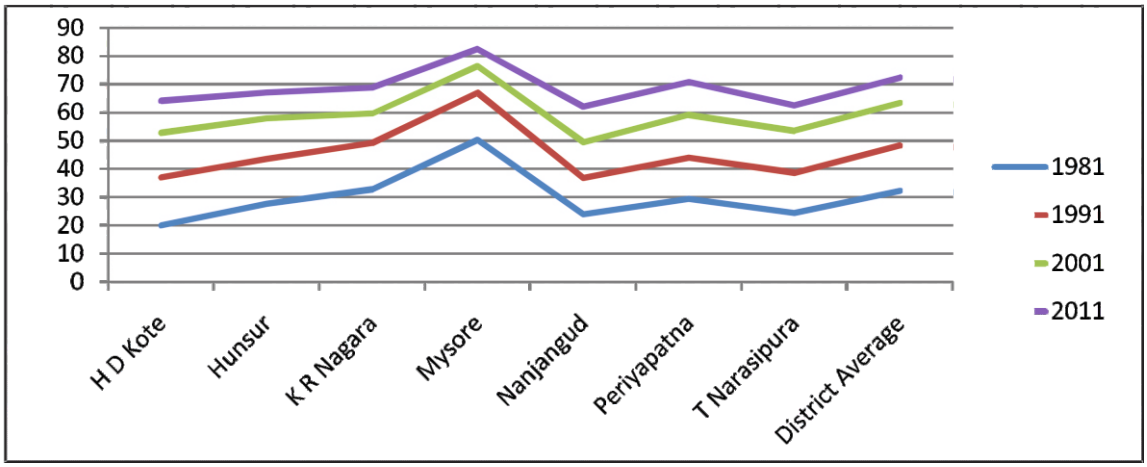
Despite the overall improvements, still we can notice regional variations in the literacy rates in the District. The taluk-wise literacy rates and annual growth rate of literacy are presented in tables 4.2 and 4.3 respectively.

Table 4.2 Taluk-wise Literacy Rates (in Percentage)

Taluk	1981	1991	2001	2011
H D Kote	20.0	36.89	52.84	64.11
Hunsur	27.7	43.59	57.99	67.03
K R Nagara	32.8	49.2	59.67	68.93
Mysuru	50.3	66.98	76.49	82.50
Nanjangud	24.0	36.83	49.58	62.09
Periyapatna	29.4	43.95	59.19	70.78
T Narasipura	24.4	38.67	53.55	62.55
District Average	32.3	48.32	63.48	72.46

Source: Census of India 2011 & Mysuru District at a Glance 2012-13

Figure 4.1: Taluk-wise Literacy Rates



Source: Census of India 2011 & Mysuru District at a Glance 2012-13

From the table 4.2 it can be observed that over a period of 30 years the literacy rate in the District has increased from 32.3 per cent to 72.46 per cent and the growth rate is the highest between 1981 and 1991. The District is steadily moving towards universalization of literacy.

Table 4.3 Annual Growth Rate of Literacy Rate (In Percentage)

Taluk	H D Kote	Hunsur	K R Nagara	Mysuru	Nanjangud	Periyapatna	T Narasipura	District
Average								
1991	8.45	5.74	5.00	3.32	5.35	4.95	5.85	4.96
2001	4.32	3.30	2.13	1.42	3.46	3.47	3.85	3.14
2011	2.13	1.56	1.55	0.79	2.52	1.96	1.68	1.41

Source: Census of India 2011 & Mysuru District at a Glance 2012-13

However, there are regional disparities in the literacy rates though they are increasing very gradually. According to 1981 census, in the District, Mysuru taluk had the highest literacy rate of 50.3 and H D Kote had the least rate of 20 per cent. The extent of variation was 30.3 per cent which is quite significant. 1991 census revealed substantial progress in the literacy rates across the taluks. H D Kote recorded a positive gain. However, regional variations continued. Literacy rates in the District varied between 36.83 percent (Nanjangud) and 66.98 per cent (Mysuru). In the next Census (2001) also the same trend continued with declining regional variations. When compared to the previous decade, the growth rate of literacy across the taluks was relatively less. In 2011, the extent of regional variation across the taluks declined to 20 per cent. Nanjangud taluk has the least rate of 62.09 per cent and Mysuru taluk has the highest rate of 82.5 per cent. Across all the four Censuses, Mysuru taluk has topped the list.

The computed average annual growth rates of literacy are presented in table 4.3. It is quite obvious that the literacy rate is progressing in the District at a declining rate. Between 1981 and 1991 the average growth rate was 4.96 and H D Kote registered the maximum gain. Five taluks registered a growth rate greater than the District average. In 2001 Census the District average growth rate declined to 3.14 per cent and all the taluks experienced the same trend. However, five taluks had a growth rate greater than the District average. 2011 Census data clearly reveal further decline in the growth rate of literacy in the District. It has declined to 1.41 per cent and all the taluks have registered a declining growth rate. And among all the taluks Mysuru taluk has registered the least growth rate and taluks like H D Kote and Nanjangud have registered the highest growth rate which have had the highest gaps in literacy rates. It means that the gaps are closing in the taluks which were poor performers in the District.

4.2.1 Gender Gaps in Literacy Rates

'Educate one man, you educate one person, but educate a woman and you educate a whole civilization', Mahatma Gandhiji.

Female literacy is an important indicator of human development. It is also having tremendous bearing on equity, empowerment, poverty reduction, access to facilities, opportunities and participation. Women who constitute 50 per cent of the total population have got every right to get educated. But the actual situation does not support this aspiration. From this point of view an attempt has been made to examine the gender gaps in literacy rates in the District across the taluks.

Table 4.4: Taluk-wise Male and Female Literacy Rates 1981-2011 (In Percentage)

	1981 Male	1981 Female	GG*	Male	1991 Male	GG	2001 Male	2001 Female	GG	2011 Male	2011 Female	GG
Taluk	1981'	1981	1981	1991	1991	1991	2001	2001	2001	2011	2011	2011
H D Kote	27.7	12	15.7	46.97	26.41	20.56	61.95	43.44	18.51	71.25	56.86	14.39
Hunsur	37.5	17.4	20.1	54.77	31.93	22.84	67.53	48.06	19.47	74.61	59.32	15.29
K R Nagara	43.6	21.6	22	61.61	36.37	25.24	70.32	48.92	21.4	77.55	60.33	17.22
Mysuru	56.9	43.6	13.3	73.47	60.07	13.4	81.58	71.02	10.56	86.25	78.7	7.55
Nanjangud	32	15.7	16.3	45.77	27.52	18.25	57.24	41.7	15.54	68.33	55.83	12.5
Periyapatna	39.9	19	20.9	55.83	31.5	24.33	69.66	47.94	21.72	79.03	62.09	16.94
T Narasipura	31.5	17	14.5	46.53	30.37	16.16	60.47	46.38	14.09	67.93	57.17	10.76
District	39.3	23	16.3	59.71	41.6	18.11	70.9	55.81	15.09	78.46	67.06	11.4

Source: Census of India 2011 & Mysuru District at a Glance 2012-13
**GG: Gender Gap*

In Mysuru District, the female literacy has always been lower than the male literacy in all the taluks across all the Census years. This gap has lead to gender inequality in the District. It is evident From table 4.4. In 1981 Census the average gender gap was 16.3 per cent and it was highest in Periyapatna (20.9 per cent) and lowest in Mysuru taluk (13.3 per cent). 1991 Census data reveal further widening of gender disparities in all the seven taluks. The difference between male and female literacy for the District as a whole was 18.11 per cent. The maximum gap was in K R Nagara (25.24 per cent) and lowest gap was in Mysuru taluk (13.4 per cent). Gender gaps did continue even in 2001 Census. The District average difference was 15.09 per cent. Again the gap was highest in Periyapatna taluk (27.72 per cent) and lowest in Mysuru taluk (10.56 per cent). One healthy trend that we can notice in the census data is that in all the taluks gender gaps are declining. The same trend can be observed in 2011 Census. The gender gaps are closing in all the taluks and the District average difference between male and female literacy rates is 11.4 per cent.

4.2.2 Rural – Urban Disparities in Literacy Rates

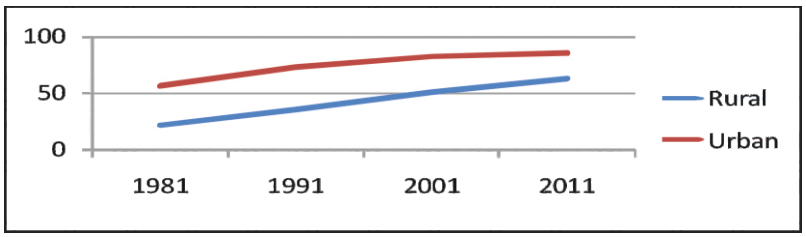
It has been observed that always rural literacy rate is lower than urban literacy rate in all the taluks and Census periods. This is not at all desirable from the point of equity and view of sustainable human development. It is also disturbing to notice that the gap is quite significant. It is evident from the following table (4.5) and figure (4.2).

Table 4.5 Rural – Urban Gap (In Percentages)

Year	Rural	AGR	Urban	AGR	Gap
1981	22.00		56.93		34.93
1991	36.00	6.36	73.5	2.91	37.5
2001	51.08	4.19	82.8	1.27	31.72
2011	63.29	2.39	86.09	0.40	22.8

Source: Census of India 2011

Figure 4.2 Rural – Urban Gap



A comparative analysis of rural and urban literacy rates in the District reveals that always rural literacy rate has remained lower than the urban literacy rates thereby widening rural – urban disparities. In 1981 Census, the gap was to the tune of 35 per cent, it further increased to 37.5 % in 1991 Census. However, since 2001 it has declined and according to the latest census it is 22.8 per cent. These disparities mean that always rural areas are in a disadvantageous position. When we compare the literacy rates, even now in rural areas 36 % of the total population that is more than 1/3rd is illiterate. This also explains lack of awareness, poor participation, inadequacy of schools and school infrastructure, poor socio-economic status of rural people and so on. The rural parts are caught in a vicious circle of illiteracy, ignorance, inadequate development and poor status. On the other hand, the high rates of literacy in urban areas and concentration of skilled people have provided further momentum to the overall development process. Thus disparities in literacy rate have cascading effect on the overall development process in rural and urban areas of the District.

In the table (4.5) the AGRs of rural and urban literacy are also presented. Though rural literacy is lesser than the urban literacy rates, the growth rate is significantly higher for rural literacy. In 1991 rural literacy recorded a growth rate of 6.36 % whereas urban literacy increased at a rate of 2.91 %. In 2001 also the same trend continued and in 2011 Census urban literacy has increased at very slow rate of 0.4 %. It means that the gains in rural literacy are higher when compared to gains achieved in urban literacy.

Table 4.6 Gender wise Rural and Urban Literacy Rates – 2011 (In percentage)

Gender	Rural	Urban	Difference
Male	70.64	89.5	18.86
Female	55.78	82.67	26.89
Total	63.29	86.09	22.8

Source: Census of India, 2011

It is even more disturbing to notice that the rural-urban disparities in literacy rates are still larger across the gender. From the following table (4.6) and figure (4.3) it can be observed that the rural and urban difference with respect to male literacy is 18.86 % and for female literacy it is as high as 26.89 %. All these imply that there are considerable gaps in literacy rates and they reiterate the need for focused attempts to reduce the disparity in Mysuru District. Special interest should be given and promising strategies as well as motivating and comprehensive programmes are to be planned and implemented to achieve cent percent literacy in the District.

4.3 Education Scenario in Mysuru District

In this section an attempt has been made to present the education scenario and the status of education in Mysuru District. General education system is divided into different levels such as pre-primary level, primary level, elementary education, secondary education, undergraduate level and postgraduate level. The National Council of Educational Research and Training (NCERT) is the apex body for curriculum related matters for school education in India. The NCERT provides support and technical assistance to schools and oversees many aspects of enforcement of education policies.

The Government lays emphasis on primary education up to the age of fourteen years, referred to as elementary education in India. The Supreme Court ruling of 1994 has made it clear that every child has fundamental right to free education up to the age of 14 years. It has directed the Government to take responsibility for universal elementary education. Secondary education covers children aged between 14 and 18 years. A significant new feature has been the extension of SSA to secondary education in the form of the **Rashtriya Madhyamik Shiksha Abhiyan.**

In order to assess and compare the status of school education there are a few internationally accepted indicators. They are GER, NER, Dropout rate, Out of School Children, Pupil-Teacher Ratio, School infrastructure, number of schools, school completion ratio and so on.

4.3.1 Enrolment in Elementary Education

Much has been done in the State and the District these years to achieve universalization of elementary education. Enrolment is one of the aspects covered under universalization of education.

4.3.2 Gross Enrolment Ratio

Gross Enrollment Ratio (GER) or Gross Enrollment Index (GEI) is a measure used in

the education sector and by the UN in its Education Index to determine the number of students enrolled in school at different grade levels (like elementary, secondary school and high school), and examine it to analyze the ratio of the number of students at that region to those who qualify for the particular grade level. The United Nations Educational, Scientific and Cultural Organization (UNESCO), describes 'Gross Enrolment Ratio' as the total enrolment within a country "in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education."

The gross enrolment ratio can be greater than 100% as a result of grade repetition and entry at ages younger or older than the typical age at that grade level.

Using the same methodology GER has been calculated for the taluks of Mysuru District and details are presented in table 4.7.

The Gross Enrolment Ratio at elementary level in Mysuru District is almost close to 100 per cent i.e. 99.34%. It is a promising improvement in the direction of achieving universalization of elementary education. Taluk wise comparison indicates that GER at elementary level in all the seven taluks is almost high and it ranges between 98.20% (Hunsur taluk) and 100.89% (H.D. Kote taluk). Five taluks namely, H.D. Kote, T. Narasipura, Periyapatna, K.R.Nagara, and Nanjangud have registered GER of greater than 100 per cent, whereas the other two taluks have registered about 98% GER (table 4.7). Across the taluks there are no much variations in the GER.

4.3.3 Net Enrolment Ratio (NER)

The Net Enrolment Ratio (NER) is defined by the UNESCO Institute for Statistics as enrolment of the official age-group for a given level of education expressed as a percentage of the corresponding population. The purpose of NER is to show the extent of participation in a given level of education of

Table 4.7: GER (Elementary) in 2011-12 (In Percentage)

Taluk	GER
Periyapatna	100.22
Hunsur	98.20
K R Nagara	100.19
Mysuru	98.67
H D Kote	100.89
Nanjangud	100.01
T Narasipura	100.38
District	99.34

Source: DDPI, Mysuru, 2012-13

Table 4.8 Net Enrolment Ratio 2011-12 (Elementary) (In Percentage)

Taluk	2009-10	2010-11	2011-12
Periyapatna	95.95	87.53	99.86
Hunsur	85.86	101.68	99.55
K R Nagara	96.14	98.09	99.76
Mysuru	73.36	110.97	99.38
H D Kote	101.33	79.98	99.60
Nanjangud	96.42	95.74	99.16
T Narasipura	109.55	96.88	99.73
District Total	94.09	95.84	99.58

Source: DDPI, Mysuru, 2012-13

children and youths belonging to the official age-group corresponding to the given level of education.

This is a very important indicator in measuring the rates of access to education, in the context of gender inequality, as well as regional or rural/urban inequalities. The following table (4.8) provides details of Net Enrolment Ratio for the taluks of the District.

Net Enrolment Ratio at elementary level during 2011-12 in the District is 99.58% (table 4.8). It is a promising improvement in the direction of achieving universalization of elementary education. Over a period of time, there is a significant improvement in the NER. It has increased from 94 per cent to 99 percent from 2009-10 to 2011-12. At the same time it can also be noticed that there are no wide variations in NER among the seven taluks of the District during this period; it is almost the same in all the taluks. However , Mysuru taluk which had the lower NER (73.36 per cent) in 2009-10 raised to the top most place in 2010-11 and skipped to the 6th place i.e., next only to H D Kote in 2011-12.

4.4 Dropouts

Dropout means leaving a school for practical reasons, necessities, or disillusionment with the system from which the student leaves. Most commonly, dropout refers to a student quitting school before completing the education. Reasons for dropout of students are varied and may include socio-economic conditions of family, lack of awareness, inadequacy of facilities, family emergency and poor grades. The consequences of dropping out of school can have long-term economic and social repercussions like loss of potential capabilities, underutilization of human resources, development disparities and distortions. Further, it can also cause social disturbances and create unrest in the society. The percentage of school dropout is significantly higher in rural areas particularly among poor families. In Mysuru District also there is the problem of school dropouts and the details of taluk wise dropouts are presented in table 4.9.

Table 4.9 Dropout Rate (Elementary) (in percentage)

Taluk	2009-10	2010-11	2011-12
Periyapatna	0.62	4.09	2.17
Hunsur	1.31	1.55	2.01
K R Nagara	0.97	4.37	0.67
Mysuru	0.95	5.77	2.24
H D Kote	3.33	1.99	1.21
Nanjangud	2.90	1.40	1.39
T Narasipura	2.04	2.94	1.64
District Total	4.23	1.39	0.34

Source: DDPI, Mysuru, 2012-13

The data presented in table 4.9, indicate that the dropout rate at primary education has gradually declined from 4.23 per cent (2009-10) to 0.34 per cent (2011-12). In 2011-12, K.R.Nagara Taluk registered the lowest dropout rate of 0.67% and highest was in Mysuru Taluk (2.24%). The decline is significant and it can be attributed to the focused efforts of the District in this direction. To a very large extent the SSA and complementary initiatives like student and school based reforms are responsible for this drastic change. The special promotional and motivational efforts by the Government in the last few years have had a great influence on decreasing the dropout rate in the District. These improvements can serve as significant indicators / criteria for designing better educational strategies in future also.

4.4.1 Drop- out Children Mainstreamed

Government and the Education Department are making all possible efforts to mainstream out of school children. The number of Out of School Children identified in the District in 2011-12 is 1503 (table 4.10). The number of these children has varied between as low as 14 in Periyapatna taluk and as high as 883 in Mysuru taluk. However, the largest number of these children were mainstreamed in H.D. Kote taluk (89.25%) and the same was the lowest in Nanjangud taluk (43.94%). Considerable efforts of SSA and other organizations to identify out of school children and enroll them in regular schools have enabled the District to mainstream about 63% of children. But, it is not so commendable, and the District has yet to move ahead to reach the goal of cent percent mainstreaming of out of school children.

Table 4.10 Drop-out Children Mainstreamed

Taluk	Drop-out Children			% of Children Mainstreamed in 2011-12
	2008-09	2009-10	2011-12	
Periyapatna	232	95	14	75.49
Hunsur	104	118	138	46.84
K R Nagara	54	24	67	64.86
Mysuru	171	89	883	77.31
H D Kote	141	88	184	89.25
Nanjangud	77	48	167	43.94
T Narasipura	41	28	50	55.84
District Total	820	490	1503	63.21

Source: DDPI, Mysuru, 2012-13

Box 4.1 : Pratham Initiatives for Quality Improvement in Primary Education

Pratham Mysuru, a grass root charity is promoting the cause of educating underprivileged children (3 to 14 years) in slums, villages, unserved and underserved areas in and around Mysuru. Pratham's mission is "Every child is in school and Learning well". In this regard it has implemented two programmes, one is Balawadi model for pre-school education in village Anganawadis run by young women from local community who are trained to handle 3 – 5 ½ year olds for 2-3 hours every day and second one is Balasakshi model in village government schools run by village volunteers trained to teach 1-7 class children Kannada Language and Mathematics using remedial packages called 'Kannada Vaachana' and 'Nagu Nagutha Ganitha 1,2,3' to promote quality learning among children. Both the programmes are found to be effective in promoting learning capabilities of the majority of students.

Box 4.2: An Evaluation Study on Nagu Nagutha Ganitha *1&2- remedial support programme for basic mathematics was conducted by the Dept.of Studies in Education, University of Mysore. The study found that the package is relevant to overcome the difficulties among children and effective in promoting learning. This programme was implemented in all the Govt. Higher Primary schools (103) in rural Mysuru District and the data relating to this were collected from 100 Head Masters /Mistress and 205 assistant teachers.*

Box 4.3 : Success Story of Sankanahally School

It is a remote village in K.R. Nagara Taluk with a total population of 350. The school with a total enrolment of 36 has set a role which is worth emulating. There is active community participation and the school the has shown its social responsibility. The school has involved both the students and their parents in various activities like

- *Tracing the history of the village*
- *Accessing school library*
- *Motivating the public to adopt the sanitation facility*
- *Encouragement to organic farming and rainwater harvesting*
- *Conduct of awareness programmes*
- *Health check-up campaigns*
- *Involving the village community in Mid-day meal programme*
- *Regular interaction with elderly*
- *Gardening in the school*
- *Practice of yoga and Meditation*
- *Children bank in the school*

There are 1127 elementary schools in the District (table 4.11). In all the taluks there is more or less the same number of schools. There are no striking variations in the distribution of the schools across the taluks. However Mysuru taluk has the largest share of 17 per cent and Nanjangud has the least share of 11.45 per cent. From this it can be articulated that there are good number of schools in every taluk. But it is not just availability, access and infrastructural facilities are also important.

Table 4.11 Number of Lower Primary Schools in the District 2011-12

Taluk	LPS	% of Schools to total schools in the district
Periyapatna	180	15.97
Hunsur	179	15.88
K R Nagara	131	11.62
Mysuru	191	16.95
H D Kote	185	16.42
Nanjangud	129	11.45
T.Narasipura	132	11.71
District Total	1127	100.00

Source: District at a Glance 2012-13

4.5 Enrolment in Secondary Education

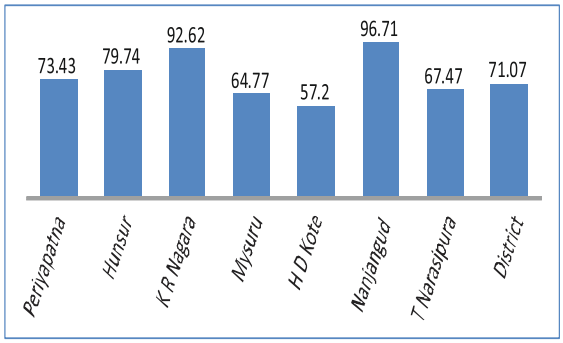
The taluk wise details of enrolment in secondary schools in the District are presented in table 4.12 and figure 4.3.

Table 4.12 Gross Enrolment Ratio - 2011-12 (in Percentage)

	GER
Periyapatna	73.43
Hunsur	79.74
K R Nagara	92.62
Mysuru	64.77
H D Kote	57.20
Nanjangud	96.71
T Narasipura	67.47
District	71.07

Source: DDPI Mysuru, 2012-13

Figure 4.3 Gross Enrolment Ratio - 2011-12 (in Percentage)



The Gross Enrolment Ratio (GER) at secondary level in the age group of 14-16 years for the District as a whole is 71.07%, which is markedly lesser than the GER at elementary level (99.34%.). It means that roughly 30 per cent of children in this age group are out of schools. This is a discouraging trend in the direction of Universalization of Secondary Education. Further there is a lot of variation in GER among the taluks. It has varied between 57.2 per cent (H D Kote) and 96.71 per cent (Nanjangud). The extent of variation in GER is 40 per cent between these two taluks in the District and it is a matter of worry. In H D Kote taluk 43% of children in this age group are out of school (table 4.12 and figure 4.5).

4.5.1 Reasons for Low GER

At the very outset it is clear that the GER at secondary level is considerably low. The District average is 71.07 per cent. Among all the taluks H D Kote has the lowest GER of 57.2 per cent. The reasons for poor GER are too many. More or less the same reasons can also be used to explain the students' dropout at secondary level.

- In secondary education private sector is quite active and occupied a considerable space.
- Student population attain employable age and simply dropout from the school to support family earnings.
- Parent's misperception about girls education in rural families and the influence of socio-cultural beliefs.
- Insufficient and uneven distribution of schools.
- Low learning levels of children coming out of elementary schools
- A majority of students who dropout at secondary level is girls and belong to socially and economically disadvantaged groups.
- Preference for private school by parents.
- Lack of awareness

Box 4.4: Rashtriaya Madhyamik Shiksha Abhiyan (RMSA) *was set up in 2009 in Karnataka as a vehicle to achieve universalization of secondary education. The objectives of RMSA are as follows:*

1. *To improve the quality of education imparted at secondary level through making all secondary schools conform to prescribed norms.*
2. *To remove gender, socio-economic and disability barriers.*
3. *Universal access to secondary level education by 2017, that is by the end of the 11th five year plan.*
4. *Universal retention by 2020.*

4.5.2 Dropout at Secondary Education

Available data indicate that dropout at secondary education is a serious problem and affecting the achievement of universalisation of secondary education. In the District, on an average, 5 percentage of enrolled children dropout from school. The details are presented in Table 4.13

Table 4.13 Dropout rate (Secondary Education) in -2011-12 (in Percentage)

Taluks	Dropout Rate
Periyapatna	6.33
Hunsur	4.62
K R Nagar	3.82
Mysuru	3.61
H D Kote	4.68
Nanjangud	10.92
T Narasipura	7.41
District	4.97

Source: DDPI Mysuru, 2012-13

Box 4.5: Students' Dropping out – A Study by Akshara

A study conducted by Akshara Foundation in Bengaluru in Government primary schools showed that 39% of students were absent for more than 105 days of a school year. The study also showed that absenteeism increased as the school year progressed.

The dropout rate at secondary level in Mysuru District as a whole is 4.97%, which is on the higher side when compared with that of elementary level (0.34%). Talukwise dropout rate ranges between the lowest of 3.61% in Mysuru taluk and the highest of 10.92% in Nanjangud taluk (table 4.13 and figure 4.4). It is interesting to note that Nanjangud taluk has the highest GER and also has registered the highest dropout rate. The reasons are not hard to seek.

4.5.3 Reasons for Dropouts in the District

1. One important reason for drop out is that these students find it difficult to cope up with the academic load, syllabus and threat of failure in the examinations.
2. Poverty has also been identified as one of the main reasons for the high incidence of drop-outs as children in the age-group are easily attracted to the unskilled job market.
3. Economic necessity also forces parents to send their children for jobs to earn an income to supplement the family income.
4. Girls drop out at a higher rate as they are pulled out of school to manage home and assist in sibling care.
5. Language Mismatch: If the child's mother tongue is Urdu, and has studied the primary school in Urdu medium and the medium of instruction in the secondary school is either Kannada or English, the child finds it difficult to understand all the subjects taught in Kannada/English medium.
6. Negative Peer Pressure: Children come under the negative influence of other spoilt children – to play cards, smoke, steal, take drugs, etc.
7. Some children are not interested in studies.
8. Migration: Farm, construction and other forms of temporary and seasonal labour require their families to move locations at various times of the year.

Reducing the number of dropout children is one of the prime and foremost thrust of universalization of secondary education. A variety of factors like poor access to schools, lack of transportation to reach schools, absence of teachers in schools, lack of infrastructure and other basic amenities have to be addressed in this regard. Further, to motivate and encourage the community and parents, awareness programmes need to be continued like street play, the regular programme of the department like shalegagi-navu-neevu [we are for school], samudayadatta shale, parents/guardians meet [poshakarasabha] and so on. RMSA has also taken several programmes for universalization of secondary education and to achieve universal retention in the secondary education.

Table 4.14 Teacher–Pupil Ratio (Elementary Education)

Taluk	2009-10	2010-11	2011-12
Periyapatna	32	24	23
Hunsur	23	24	20
Krishnarajanagara	23	21	17
Mysuru	24	30	22
Heggadadevanakote	24	24	21
Nanjangud	25	26	22
T Narasipura	22	24	20
District Total	25	25	21

Source: DDPI, Mysuru, 2012-13

4.6 Teacher-Pupil Ratio

One of the important indicators, which adds to the quality of education and literacy, is the Teacher-Pupil Ratio. This ratio indicates the number of pupils enrolled per teacher and is calculated considering the total number. of pupils enrolled in Government schools and the number of teachers working in those schools separately for elementary and secondary education level. A lesser ratio is preferable as the teacher can give personal attention to the students. It is determined by the total number of students enrolled and the number of teachers working in the schools.

Teacher-Pupil ratio at elementary level in the District during 2009-10 was 25 and it has declined over a period of time. It means that in 2009-10, nearly one teacher was available to 25 students and by 2011-12 because of improvements one teacher is available to every 21 students.

The lesser the ratio the better would be the quality of teaching. The state average is 1 teacher for every 30 students. By this measure, in the District in all the taluks pupil-teacher ratio is advantageous. However, there are variations in Teacher-Pupil ratio across the taluks in the District. K R Nagara has the lowest ratio of 17 and Periyapatna has the highest ratio of 23 students per teacher (Table 4.14)

4.6.1 Teacher–Pupil Ratio in Secondary Education

It is genuinely accepted that if a teacher is responsible for less number of pupils, it is possible to give individual attention to pupils and promote effective learning. Hence, it is recommended to have teacher-pupil ratio as less as possible. This ratio may not be uniform in all the schools; still higher ratio may be there in some of the schools. This ratio is calculated only for Government schools. But, it is commonly observed that teacher-pupil ratio is much higher in private schools. Thus, it is imperative to address this

Table 4.15 Teacher–Pupil Ratio (Secondary Education) 2011-12

Taluks	Teacher –Pupil ratio
Periyapatna	20
Hunsur	16
K R Nagar	15
Mysuru	19
H D Kote	18
Nanjangud	17
T Narasipura	17
District	17

Source: DDPI Mysuru, 2012-13

Box 4.6: Transition Loss between Class 7 and Class 8

Transition from class 7 to class 8 has been an area of concern. Even though class 8 has been declared as part of the elementary education cycle, historically, class 8 has evolved with the high schools in Karnataka. Lack of secondary schooling facilities in the area is one of the reasons for the dropping out of children when they complete class 7. There is a transition loss of 4.30% when we consider the enrolments between classes 7 and 8. Girls have dropped out at a higher rate than boys.

problem very seriously and bring down the Teacher- Pupil ratio. This could be one of the measures to ensure quality education.

Table 4.15 gives information relating to Teacher-Pupil Ratio at secondary education level in the District. The District average is 18 and is considerably lower than the ratio at elementary education level 21. Disparity in Teacher-Pupil Ratio across the taluks of the District is found to be considerable ranging from 15 in K R Nagara to 20 in Periyapatna taluk.

4.7 Access to Educational Facilities

In addition to availability, accessibility is also an important determinant of education attainment. In order to maximise the benefits and optimise the services, schools should be located closer to habitats. The RTE has stipulated that schools should be located within a distance of 1 km. Mysuru District has achieved remarkable progress in establishing schools closer to habitats. Almost all villages have schools within a distance of 1 km. This is evident from the following table (4.16).

Table 4.16 Percentage of Villages Having Primary School within 1 km. Distance

Taluk	2009-10	2010-11	2011-12
Periyapatna	100.0	100.0	100.0
Hunsur	100.0	100.0	100.0
Krishnarajanagara	100.0	100.0	100.0
Mysuru	100.0	100.0	100.0
Heggadadevanakote	100.0	100.0	100.0
Nanjangud	100.0	100.0	100.0
T Narasipura	100.0	100.0	100.0
District Total	100.0	100.0	100.0

Source: DDPI, Mysuru, 2012-13

From the table it can be observed that all the villages in the District have primary schools within 1 km distance in all the three years 2009-10, 2010-11, 2011-12.It is a clear indicator of easy access to primary education by all the children. In a way it has contributed to increase in the enrolment in Primary Education.

There is another supply side indicator to assess the performance of education system, i.e., students per school. The following table (4.17) explains the number of students per primary school in the different taluks of the Districts. In the District total number of primary schools is 2633 (both LPS + HPS) and 27 per cent of these schools are in Mysuru taluk. A glance at the data reveals that the ratio of students per school is also skewed. In H D Kote taluk the ratio is the least mainly because of poor enrolment in relation to total number of schools and the same is highest in Mysuru taluk that is 226 because of higher enrolment. This could be considered while preparing plans for education development at taluk level and sub-taluk level.

Table 4.17 Ratio of Students to School (Primary) 2011-12

Taluk	Number of Schools (LPS + HPS)	Students	Children per School
Periyapatna	324	31787	98
Hunsur	350	37228	106
K R Nagara	278	29792	107
Mysuru	726	163734	226
H D Kote	362	34810	96
Nanjangud	318	47659	150
T Narasipura	275	33329	121
District Total	2633	378339	144

Source: District at a Glance 2012-13

4.8 School Infrastructure Index

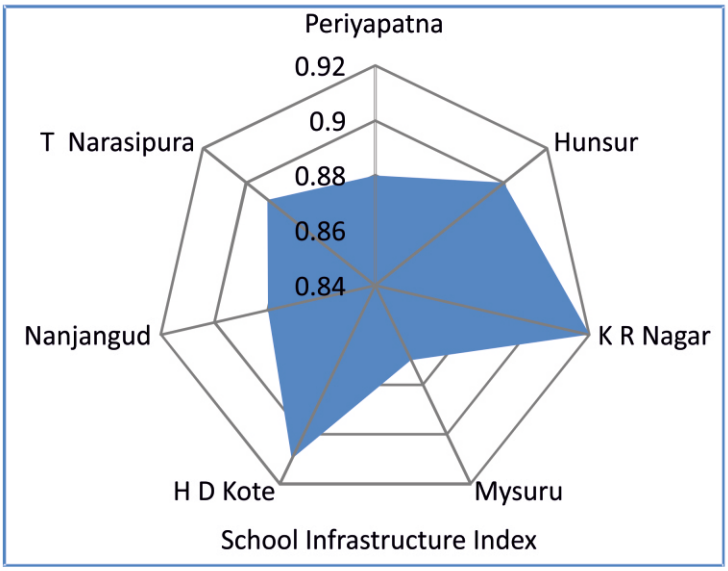
In order to assess the functionality of schools and also their efficiency in the delivery of services, School Infrastructure Index has been constructed. It also helps in comparing the schools in terms of efficiency, facilities and service delivery. It is a composite index of eight facilities, namely, boy's toilet, girl's toilet, electricity, play ground, ramps, library, school compound and drinking water. The schools having all the eight facilities have got a higher index value. SSA has constructed School infrastructure Index for the taluks of Mysuru District and the details are presented below (Table 4.18).

Table 4.18 School Infrastructure Index of Mysuru District – 2011-12

Taluks	School Infrastructure Index
Periyapatna	0.88
Hunsur	0.90
K R Nagar	0.92
Mysuru	0.87
H D Kote	0.91
Nanjangud	0.88
T Narasipura	0.89
District	0.89

Source: SSA and DDPI, Mysuru, 2012-13

Figure 4.5 School Infrastructure Index of Mysuru District - 2011-12



The District average School Infrastructure Index of Mysuru District is 0.89 and all the taluks have more or less the same values (Table 4.18 and Figure 4.5). Among all the taluks, K R Nagara has the highest index value of 0.92 and Mysuru taluk has the least value that is 0.87. In a relative sense, in the District majority of the schools have the required facilities (0.89). This implies that with increasing enrolment there is corresponding increase in school infrastructure. It is natural to expect that there should be adequate number of classrooms with sufficient facilities, student friendly library, availability of teachers and necessary services like drinking water, sanitation and electricity. All these imply that it is not just establishing a school; it should possess the necessary facilities to enable the students to learn effectively. Time and again it has been observed that inadequate infrastructure is one of the limitations of schools in the District mainly in rural areas. It is a sign of improvement that H D Kote which is lagging behind in education index is having adequate school infrastructure.

4.9 Retention Ratio and School Completion Ratio

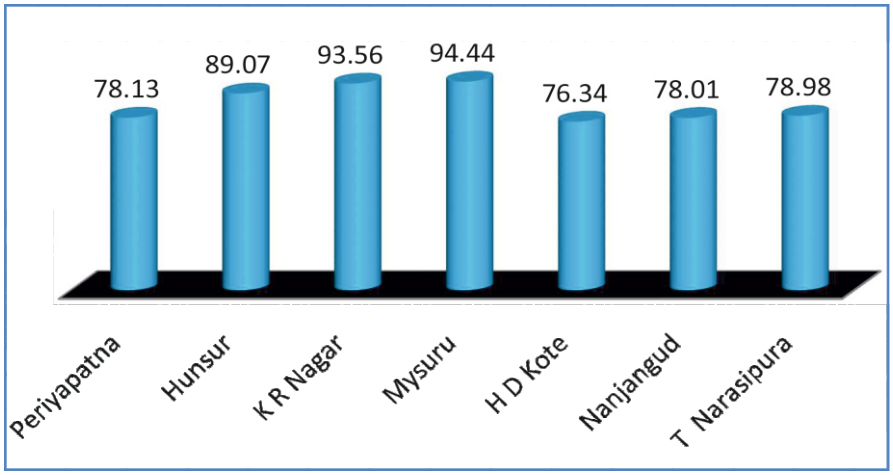
The only indicator by which the quality of secondary school education is measured is the SSLC public examination results. Valid examination results can become a benchmark of quality of both teaching and learning in classrooms. The Karnataka SSLC (Class 10) Public Examination is the first public examination that a student faces in his life time. For many students it becomes the terminal examination as they discontinue education after this examination and take up employment. For those who pass and continue education, this is a high stakes examination. A good performance in this examination helps a student to enter an education stream and a good college of his/her choice.

Table 4.19 Taluk-wise SSLC pass percentage (2011-12)

Taluk	Pass percentage
Periyapatna	78.13
Hunsur	89.07
K R Nagara	93.56
Mysuru	94.44
H D Kote	76.34
Nanjangud	78.01
T Narasipura	78.98
District	85.08

Source: DDPI Mysuru, 2012-13

Figure 4.6 Taluk-wise SSLC pass percentage (2011-12)



With regard to SSLC pass percentage, moderate differences across the taluks are noticed. It is highest (94.44%) in Mysuru taluk followed by the next highest percentage (93.56%) in K.R.Nagara taluk and lowest (76.34%) in H.D.Kote taluk (table 4.19 and figure 4.6). The better performance of Mysuru taluk is mainly because of the prevalence of large number of private high schools in Mysuru city.

4.10 Students-School Ratio (High School)

Table 4.20 explains the number of students per high school in the different taluks of the District. Out of the total high schools, of the District, 48 per cent are in Mysuru taluk and the student school ratio is 1:182. Across the taluks there are variations, in Periyapatna each school has 232 students and K R Nagara has the least number of students per school that is 166. It explains regional imbalances in the availability of secondary education facilities and also school load system.

Table 4.20 Ratio of Students to School (High School) (2011-12)

(in Numbers)

Taluk	High Schools	Students	Children per School
Periyapatna	44	10192	232
Hunsur	58	12577	217
K R Nagara	63	10469	166
Mysuru	322	58738	182
H D Kote	54	11213	208
Nanjangud	67	16816	251
T Narasipura	58	11588	200
District Total	666	131593	198

Source: District at a Glance 2012-13

4.10.1 Pre-University Education

The proportion of children entering PUC in the District is expected to rise, with the implementation of 'Universalisation of Secondary Education' program in the District. The District has to plan for providing enhanced access at the PU stage for this increased number of students in the coming years.

In the state there are a good number of PU colleges. Among all the Districts, Bengaluru (Urban) District (table 4.21) alone accounts for 536 PU colleges (14% of all PU colleges). This is in addition to a large number of senior secondary schools attached to various boards. Besides, each of the four Districts of Bengaluru South and North, Belagavi, and Tumkuru has more than 200 PU colleges. Mysuru is one of the Districts with the highest number of PU colleges. It has 197 PU colleges.

Table 4.21 Distribution of PU Colleges, 2011
(Top Ten Districts with Highest Number of Colleges)

Sl. No.	District	Population (in Lakhs) 2011 Census	Number of Colleges	Colleges/ Lakh Population
1.	Bengaluru South*	95.88	301	5.59
2.	Belagavi	47.78	258	5.39
3.	Bengaluru North*	95.88	235	5.59
4.	Tumkuru	26.81	213	7.94
5.	Mysuru	29.94	197	6.57
6.	Kalaburagi	25.64	191	7.44
7.	Dakshina Kannada	20.83	169	8.11
8.	Vijayapura	21.75	153	7.00
9.	Hassan	17.76	151	8.50
10.	Davanagere	19.46	145	7.45

*Bengaluru (Urban) District consists of Bengaluru North and South Education Districts. Hence both education Districts are taken together for calculating number of colleges per lakh population.

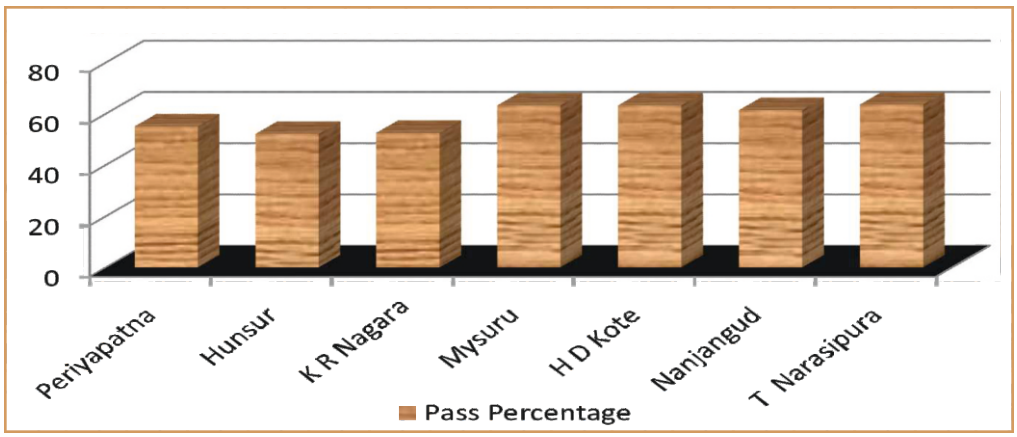
Source: A Critical Study of Secondary & Pre University Sectors in Karnataka - 2012, GoK.

Table 4.22 Taluk-wise PUC pass percentage (2011-12)

Taluks	Pass Percentage
Periyapatna	55.09
Hunsur	52.16
K R Nagara	52.57
Mysuru	63.26
H D Kote	63.28
Nanjangud	61.43
T Narasipura	63.6
District	60.79

Source: DDPI Mysuru, 2012-13

Figure 4.7 Taluk-wise PUC pass percentage - 2011-12



According to the PUC results of 2011-12, the District has a pass percentage of 60.79%. Four taluks namely T. Narispura, Nanjangud H.D.Kote and Mysuru taluks have results greater than the District average. In other two taluks it is just above 50 percentage. The low pass percentage in PUC reiterates the need for proper attention to +2 level education in the District and it also indicates the need for adequate training to teachers to impart quality education. It is very interesting to note that the teachers of +2 level with CBCS and other Central Government schemes have to be compulsorily trained and this is necessary in achieving better results at this level. It is the high time that the significance of proper training for teachers of +2 level is recognized and the State Government should take initiatives to make teacher training (B.Ed) mandatory for them along with Master Degree in the respective subjects.

The following table (table 4.23) explains the number of students per PU college in the different taluks of the District. Out of total colleges 51 percent are in Mysuru taluk and the student college ratio is 1:301. In Mysuru taluk, in addition to more number of colleges, student enrolment is also quite high; Mysuru taluk alone account for 55 percent of total students enrolled at PU level. Thus, there are striking variations in the number of colleges and students enrolled at sub-District level.

Table 4.23 Ratio of Students to College (PUC) 2011-12

Taluk	PU Colleges	Students	Students per College
Periyapatna	16	3350	209
Hunsur	15	4268	285
K R Nagara	21	4582	218
Mysuru	98	29467	301
H D Kote	15	3293	220
Nanjangud	14	4417	316
T Narasipura	15	4459	297
District Total	194	53836	278

Source: District at a Glance, Mysuru 2012-13

4.10.2 Higher Education and Technical Education

Higher education is an optional final stage of formal learning that occurs after secondary education, often delivered at universities, academies, colleges and institutes of technology. Higher education is also available through certain college-level institutions, including vocational schools, trade schools, and other career colleges that award academic degrees or professional certifications. The right of access to higher education is mentioned in a number of international human rights instruments. The UN International Covenant on Economic, Social and Cultural Rights of 1966 declares, in Article 13, that "higher education shall be made equally accessible to all, on the basis of capacity, by every appropriate means, and in particular by the progressive introduction of free education".

In many developed countries, a high proportion of the population (up to 50%) enter higher education at some time in their lives. Higher education is therefore very important to economies, both as a significant industry in its own right and as a source of trained and educated personnel for the rest of the economy. College educated workers command a significant wage premium and are much less likely to become unemployed than less educated workers.

Higher education improves an individual's quality of life. Studies show that, compared to high school graduates, college graduates have longer life spans, better access to health care, better dietary and health practices, greater economic stability and security, more prestigious employment and greater job satisfaction, less dependency on government assistance, greater knowledge of government, greater community service and leadership, more volunteer work, more self-confidence, and less criminal activity and incarceration. Higher education, theoretically, also enables individuals to expand their knowledge and skills.

4.10.3 Gross Enrolment Ratio (GER) in Higher Education

Gross Enrolment Ratio (GER) in Higher education in India is calculated for 18-23 years of age group. Total enrolment in higher education, regardless of age, is expressed as a percentage to the eligible official population (18-23 years) in a given school year. The GER is widely used to show the general level of participation in and capacity of higher education.

Box 4.7: Higher Education Institutions in Mysuru

District is having fairly satisfactory network of higher education institutions. Since the time of Maharaja's of Mysuru, higher education has received priority and Mysuru has become the seat of higher learning. The following is the list of Universities located in Mysuru.

1. *University of Mysore (UoM)*
2. *Karnataka State Open University(KSOU)*
3. *Jagadguru Sri Shivarathreeswara University (JSS) - Deemed University*
4. *Karnataka State Gangubhai Hangal Music and Performing Arts University (KSGH)*
5. *Amrita Vishwa Vidyapeetham*

In addition to this there are quite a good number of degree colleges in the District. The details regarding the number of different colleges are presented below (table 4.24).

4.24 Number of Higher Education Institutions in Mysuru District – 2011-12

Taluk	Degree College-Govt.	Degree College-Private	Medical College-Govt.	Medical College-Private	ISMC-Govt	ISMC-Private	Dental College-Govt	Dental College-Private	Polytechnic Colleges-Govt.	Polytechnic Colleges-Private	Engineering colleges-Govt.	Enginering colleges-Private
H D Kote	1	0	0	0	0	0	0	0	0	0	0	0
Hunsur	4	1	0	0	0	0	0	0	0	0	0	0
K R Nagara	3	1	0	0	0	0	0	0	1	0	0	0
Mysuru	5	35	1	1	1	1	0	2	1	8	0	7
Nanjangud	2	1	0	0	0	0	0	0	0	2	0	0
Periyapatna	1	1	0	0	0	0	0	0	0	0	0	0
T Narasipura	2	0	0	0	0	0	0	0	0	0	0	0
District Total	18	38	1	1	1	1	0	2	2	10	0	7

Source: District at A Glance, Mysuru 2012-13

4.11 Initiatives for Primary Education

Karnataka Government has undertaken a series of measures to improve and enrich primary education in the State. Mysuru District is not an exception to this. The District administration is implementing all the schemes formulated by the Government of Karnataka. They can be classified as follows.

I. School Based Initiatives
II. Students Based Initiatives
III. Teacher Based Initiatives
IV. Community Based Initiatives
V. Administration Based Initiatives

School based initiatives include increasing the number of schools, establishing special schools like Kasturba Gandhi Balika Vidyalaya, improving teaching and learning equipments, Nali-Kali, Chinnara Angala, Baa Baale Shaalege, Beediyinda Shaalege, Cooliyinda Shaalege and so on.

Students based initiatives include Mid-day meal schemes and nourishment programmes like provision of milk, iron capsules, free distribution of bags, books, bicycles, uniform, hostel facilities, scholarships, facilities for SC,ST and minority children, facility for children with special needs, destitute and so on.

Teacher based initiatives include training, incentivization, teacher grants, institutional support by DSERT, DIET and Education Department.

Community based initiatives include involving the communities in school management, participation, ownership, regulation and sensitization programmes.

Administration based initiatives include programmes for training, capacity building and professional development of educational administrators. In 2009-10 State Institute for School Leadership and Educational Management was established. There is multi-level monitoring system which includes attainment survey, quality monitoring test, learner achievement survey, Karnataka School Quality Assessment Organization and so on.

4.11.1 Secondary School Education

The expansion of elementary education in the District has created a significant demand for secondary and pre-university education. The benefits of secondary education are increasingly becoming apparent to families even in rural and remote habitations. Over the years, household income has increased with a decrease in the average family size and it means that secondary education has become more affordable to the masses.

With the successful implementation of the Operation Black Board (OBB), District Primary Education Programme (DPEP) and Sarva Shiksha Abhiyan (SSA) in the District, a large number of students are passing out from upper primary classes creating a huge demand for secondary education. The Sarva Shiksha Abhiyaan program set up by the Government to bring elementary education to millions of children has been successful to a large extent, and has thus created a need for strengthening secondary education infrastructure in the District. The demand for secondary education is bound to increase as Karnataka is moving steadily towards universal elementary and secondary education in the coming years. The education sector will have to address the challenges of universal secondary education by ensuring budgetary support to meet the infrastructure requirements of the most underdeveloped regions. This is necessary to ensure that quality is not affected as the system expands its outreach. The vision for secondary education is to make good quality education available, accessible and affordable to all young persons in the age group of 14-16 years.

4.11.2 Education of Children with Special Needs

Educational development of children with special needs received an impetus with the enactment of the 'Persons with Disabilities Act, 1995'. The Act entrusts the appropriate

governments and local authorities to provide children with disabilities access to education, employment, preferential treatment, non-discrimination, financial incentives, etc. Programs for attitudinal changes, capacity building among teachers and training institutions to educate children with special needs have been taken up.

The data on special children reveals that roughly one percent of the child population suffers from disabilities. This is probably a gross underestimation. Special children are also children who are disadvantaged as they are denied equal opportunities in education. In poorer families, a significant number of special children are subjected to deprivation and hardship.

The sub sector study on elementary education in 2001 identified the following issues relating to provision of equal opportunities for education of special children:

- Lack of proper infrastructure for identification of physically challenged children and lack of awareness among parents about incentives being provided to them for their welfare and education.
- Need for flexible curriculum in de-segregated schools.
- Individualized instruction for all learners with special needs.
- Special support services in collaboration with other departments.
- Compensatory and remedial measures to suit the special needs.
- Lack of adequate training for all primary school teachers in methods to handle specially challenged children.
- Identification of gifted and talented children and to prepare a program to nurture their diverse and creative abilities.

The Government has set aside a certain percentage of seats in almost all educational institutions for the physically challenged children. Even though some support has been given to the education of special children at elementary stage, the issue needs to be tackled seriously at the secondary and PU stages.

In the context of Universalisation of Secondary Education it is also necessary for the District to ensure that –

1. Every child with a disability has access to free education in an appropriate environment.
2. Promote the integration of students with disabilities in the normal schools.
3. In respect of children with disabilities, which prevent them from accessing the neighbourhood school, the local authorities concerned (BEO/SDMC) should make adequate and appropriate arrangements for their education.
4. The state should also set up special schools for those children in need of special education in such a manner that children living in any part of the State have access to such schools.

The data on the children with special needs was collected during a census conducted in November of 2011. Ten disabilities were identified during the census and they include low vision (LV), total blindness (TB), hearing impaired (HI), speech impaired (SI), orthopedic disability (OD), mental retardation (MR), multiple disability (MD), learning disability (LD), cerebral palsy (CP) and autism spectrum disorder (ASD). The census covered the children under five age groups, 3 to 5 years, 6 to 10 years, 11 to 14 years, 15 to 16 years and 17 to 18 years. There are 9,069 children with disabilities identified in Mysuru District. Of them, 5,393 are boys and 3,676 girls.

4.12 Expenditure on Education in the District

The positive externalities of education make it a public good and therefore it needs to be supplied by the State as markets cannot provide it at the socially optimum levels. Therefore traditionally education is financed by the government. We presume that education expenditure is by and large pro-poor and progressive. However, many studies reveal that mere increase in public expenditure on education may not produce the intended effects on human development process and education outcomes. The targeting and efficiency of public expenditure is crucial in optimizing the benefits. Further, Benefit Incidence Analysis explains which group is benefiting from the public expenditure and how this is distributed between different regions and groups of people. And gender disaggregated Benefit Incidence Analysis of Public Expenditure explains the distribution of benefits between boys and girls and helps in understanding the root causes of gender inequality.

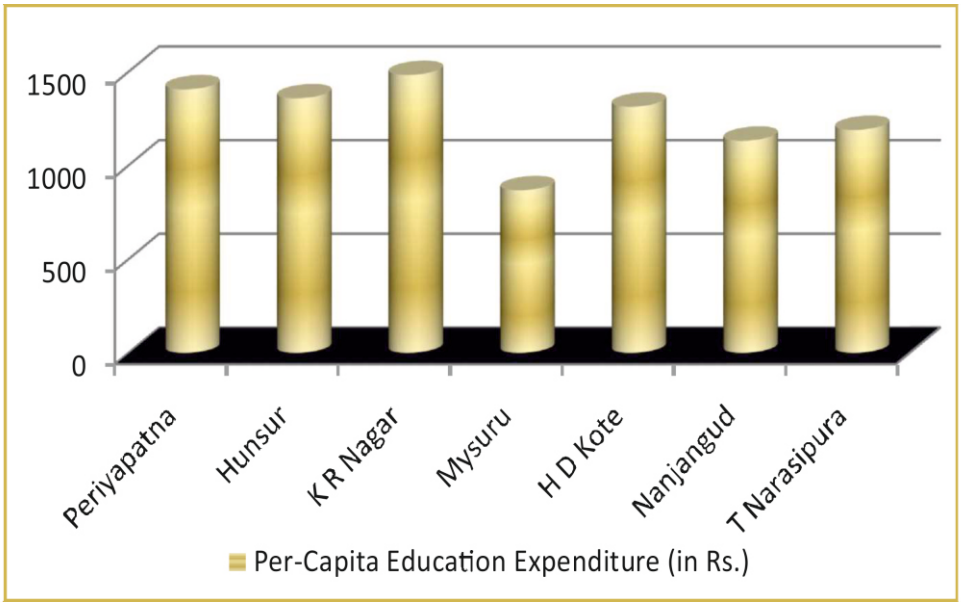
The loud thinking is that the Government has to focus on elementary education from the point of view of universal access to formal education. Public spending on secondary education generally yields more benefits to urban people and also non-poor categories. Therefore, targeting of expenditure on areas of disparities and inequalities is necessary from the point of view of sustainable human development.

Table 4.25 Taluk-wise Per-Capita Education Expenditure in 2011-12

Taluk	Per-Capita Education Expenditure (in Rs.)
Periyapatna	1407
Hunsur	1359
K R Nagara	1484
Mysuru	869
H D Kote	1315
Nanjangud	1133
T Narasipura	1191
District	1115

Source: DDPI office, Mysuru, 2012-13

Figure 4.8 Taluk- wise Per-capita Education Expenditure in 2011-12



Per-capita expenditure on education for 2011-12 in the District is Rs. 1115. It has varied between the taluks. It is lowest in Mysuru taluk (Rs.869) and highest in K.R.Nagara Taluk (Rs.1484). There is every justification to rise public expenditure on education.

4.12.1 District Domestic Product and Expenditure on Education

According to 2008-09 prices, the Gross District Domestic Product (GDDP) is Rs. 2, 41, 85,153 lakhs and education expenditure in the District was Rs. 33,459 lakhs in 2011-12. It represents 0.14 per cent of District Domestic Product. It implies that more expenditure should be made on education and the income and wealth of the District should be translated into better education outcomes.

4.12.2 Private Sector Expenditure on Education

The increase in the share of public expenditure on education to total public expenditure has also been mirrored in the growth in private expenditure on education. In the last two decades, the share of private expenditure on education to the total private consumption expenditure has increased. This is reflected in the growing pace of private educational institutions across the District.

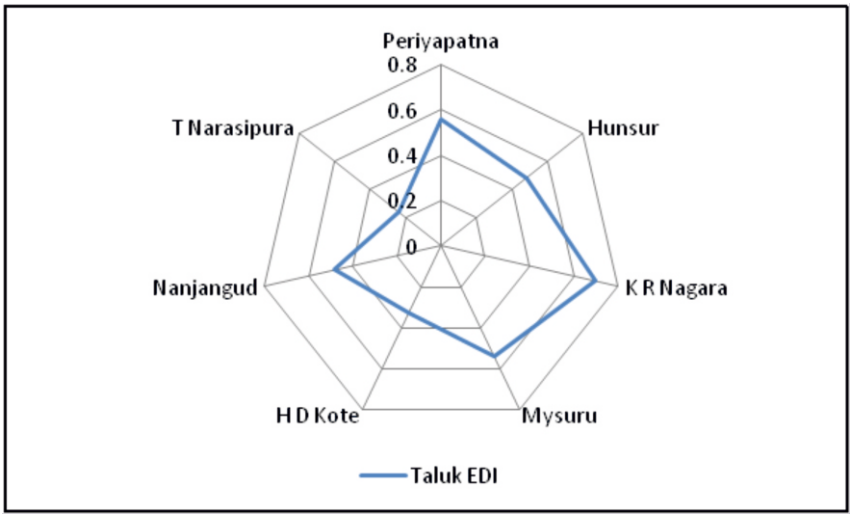
4.13 Education Index of Mysuru District

Education is a major component of well-being and is used in the measure of economic development and quality of life. The computed values of education index of the District and taluks are as follows.

Table 4.26 Education Index of Taluks in Mysuru District

Taluk	Taluk EDI	Taluk Ranking
Periyapatna	0.558	2
Hunsur	0.482	5
K R Nagara	0.697	1
Mysuru	0.542	3
H D Kote	0.327	6
Nanjangud	0.483	4
T Narasipura	0.241	7

Figure 4.9 Education Index of Taluks in Mysuru District



The above table (4.26) and figure (4.11) explain Education Index of Mysuru District. The ranking of the District at the state level is 21st which is very poor by any standard. The taluk index value has varied between 0.241 (T Narasipura) and 0.697 (K R Nagara). It means that there are significant differences in educational attainments within the District. The State value also reveals the same sorry state of affairs. Mysuru taluk which has a better situation in living standard index has not been able to use the possibilities to cause improvements in educational attainments. K R Nagara which has a relatively low living standard index has been able to attain relatively better educational performance. Therefore understanding the forces that are driving the improvements in education is necessary and it also proves that income growth and human development do not always coincide.

4.14 Emerging Trends and Issues

From the above discussion a few issues and concerns can be articulated.

- Reducing the disparities between the regions in educational attainment. Differences in progress reflect different starting points.
- Forces driving improvements in education are different from those driving improvements in income.
- Understanding the processes through which people become more educated with wider possibilities, eg; changes in institutional structure, changes in socio-cultural attitudes, closing the gaps and a variety of inexpensive interventions.
- Addressing the problem of illiteracy in the face of the declining literacy rate.
- Addressing gender inequalities and targeting public expenditure using Disaggregated Benefit Incidence Analysis.
- Improving governance in education sector.
- Sustaining the participation and involvement of the communities in education management.
- Addressing the second generation issues in education.
- Deliberate attempts should be made to reduce the gender disparity particularly in rural parts of the District.
- Special interest should be given and target oriented strategies should be implemented to achieve cent percent female literacy in the District.
- Capacity building initiatives for teachers are necessary to improve the quality of learning and education outcomes.
- Special attention should be given to education of children with special needs, which demands more and more involvement of parents and community. This goes a long way in achieving the goal of inclusive education.

4.15 Small Area Study

Impact of Right to Education (RTE) on the Performance of Students in Mysuru City

4.15.1 Introduction

The demand for free and compulsory education in India is as old as our freedom struggle. It was felt that the State sponsored free and compulsory education be made available to all children until the age of 12 years. Since then there are several initiatives in the country to ensure free and compulsory primary education.

In 2002, the Eighty-Sixth Amendment Act was passed and Article 21A obligated the State to provide free and compulsory education to all children in the age group of 6 to 14 years and it was introduced in the Chapter on Fundamental Rights. The Right of Children to Free and Compulsory Education Act, 2009 (RTE Act) was enacted to give effect to this fundamental right. This Act came into effect on the 1st of April, 2010.

4.15.2 The Context

The Right of Children to Free and Compulsory Education (RTE) Act, 2009, which

represents the consequential legislation envisaged under Article 21-A, means that every child has a right to full time elementary education of satisfactory and equitable quality in a formal school which satisfies certain essential norms and standards. It is perceived as a new hope in the endeavor of universalisation of elementary education and also reforming the much ignored public education system. The Act is designed to afford more opportunities to children by improving the basic educational infrastructure and helping each child realize his or her potential.

The title of the RTE Act incorporates the words 'free and compulsory'. 'Free education' means that no child, other than a child who has been admitted by his or her parents to a school which is not supported by the appropriate Government, shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education. 'Compulsory education' casts an obligation on the appropriate Government and local authorities to provide and ensure admission, attendance and completion of elementary education by all children in the 6-14 age group. With this, India has moved forward to a rights based framework that casts a legal obligation on the Central and State Governments to implement this fundamental child right as enshrined in the Article 21A of the Constitution, in accordance with the provisions of the RTE Act.

This study is an attempt to understand the actual implementation of the Act at micro level and its impact on the learning performance of the students.

4.15.3 Provisions of the Act

(i) Right of children to free and compulsory education till completion of elementary education in a neighbourhood school.

(ii) It clarifies that 'compulsory education' means obligation of the appropriate government to provide free elementary education and ensure compulsory admission, attendance and completion of elementary education to every child in the six to fourteen age group. 'Free' means that no child shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education.

(iii) It makes provisions for a non-admitted child to be admitted to an age appropriate class.

(iv) It specifies the duties and responsibilities of appropriate Governments, local authority and parents in providing free and compulsory education and sharing of financial and other responsibilities between the Central and State Governments.

(v) It lays down the norms and standards relating to Pupil-Teacher Ratios (PTRs), buildings and infrastructure, school-working days and teacher-working hours.

(vi) It provides for rational deployment of teachers by ensuring that the specified pupil teacher ratio is maintained for each school, rather than just as an average for the State or District or Block, thus ensuring that there is no urban-rural imbalance in teacher postings. It also provides for prohibition of deployment of teachers for non-educational work, other than decennial census, elections to local authority, state legislatures and parliament and disaster relief.

(vii) It provides for appointment of appropriately trained teachers, i.e. teachers with the requisite entry and academic qualifications.

(viii) It prohibits physical punishment and mental harassment of children, screening procedures for admission of children, capitation fee, private tuition by teachers and running of schools without recognition.

(ix) It provides for development of curriculum in consonance with the values enshrined in the Constitution, and which would ensure the all-round development of the child, building on the child's knowledge, potentiality and talent and making the child free of fear, trauma and anxiety through a system of child friendly and child centered learning.

(x) The Act says that 25% of seats in private schools should be reserved for such children and also makes provisions for reimbursement of child's education cost to private institutions.

4.15.4 Scope of the Study

In Mysuru city the study was conducted in two schools namely, Vijaya Vittala Vidhyashala and Pramathi Hill View Academy. Both the schools are implementing RTE as per the norms. This study was undertaken in order to assess the impact of RTE on the performance of the students in Mysuru city.

4.15.5 Objectives of the study

- To examine the provisions of the Act and understand the perception of parents and school management,
- To examine the actual implementation of the Act in private schools and
- To assess the impact of the Act on students' learning

4.15.6 Methodology

The study is descriptive and analytical and has used both primary and secondary data. In order to collect primary data we administered structured questionnaire for beneficiaries and service providers. 20 parents were interviewed and the study team interacted with the whole group of students admitted to the school under RTE.

The study was conducted at two levels. Preliminary discussions were held with education department officials, experts and District Core Committee members. On the basis of several rounds of discussions,

indicators were identified and methodology was finalized. To carry out the study, the doctoral students of the Department of Studies in Economics and Co-operation, University of Mysore, Mysuru were identified and trained. The study team conducted a preliminary visit to the Education Department and to the schools and gathered the background information. In the final stage both the schools were visited. The study has used both quantitative and qualitative indicators. They are as follows.

4.15.7 Quantitative Indicators

- No. of students admitted and their details (exercising rights)
- Admission procedure
- Class room performance of RTE students
- Performance in the examination

4.15.8 Qualitative Indicators

- How comfortable are the students?
- Children's Psychological challenges
- Cognitive challenges and educational performance

Composition of Sample Size

Sample	Size
No. of Schools	02
No. of Parents	20
No. of Teachers	20
Management Representatives	04
Students	48

4.15.9 Profile of the Schools

❖ **Vijaya Vittala Vidyashala**

Vijaya Vittala Vidyashala, an English Medium co-educational school was established at Mysuru in 1985 by Sri Pejawar Mutt,Udupi. The school meets the persistent demands of the people in the locality catering to the all-round development of the pupils. The school has earned reputation and made impressions upon the minds of people with its achievements. The school claims that it has the necessary resources and infrastructure to delivery quality education. They include spacious building with all amenities, qualified and experienced teaching faculty, well equipped laboratory, library, multimedia classrooms and an efficient management. Vijaya Vittala Vidhyashala admitted 13 students in 2011-12 and 27 students in 2012-13 under the RTE Act. In 2013-14 they have admitted 23 students and for the year 2014-15 they have received 160 applications.

❖ **Motto of the School:** To provide value based education from pre-primary to Pre-university level in an environment characterized by mutual love and respect between the teacher and the taught, making the students grow into worthy global citizens with a positive attitude, ready to face the challenges in this competitive world.

❖ **Pramathi Hill View Academy School**

Pramati Hill View Academy is an endeavour from a group of philanthropists and leaders who share the concern for a value based education. Pramati is a co-educational

day schooling, day boarding and residential school run by Pramati Educational and Cultural Trust Established in the year 2004 with a handful of students. Today the school has grown up with a student strength around 600. The school is housed in a landmark building with all the required facilities and space for various curricular and co-curricular activities. The school feels that quality education built on values has assumed greater significance these days than any time before. Pramathi Hill View Academy is implementing the RTE scheme since 2010. In 2010-11 they admitted 5 students, in 2011-12, 15 students, in 2012-13 they have admitted 20 students,and in 2013-14 they have admitted 25 students. For the current academic year they have received 130 applications.

4.15.10 Observations based on FGD with School Management

The following observations were made during FGD with school management.

- There is lack of awareness among parents regarding neighbourhood schools.
- Number of schools is not sufficient to meet the requirements of students.
- Parents exercise unnecessary pressure on school management.
- Schools are not providing all the facilities to RTE students.
- Teachers are encouraging and do not discriminate between RTE and non-RTE students.
- RTE student's performance is equally good and class room behaviour is normal.
- Management wants centralized admission to ensure transparency and smooth functioning of the system.
- The number of SC/ST students under RTE is very poor and not proportional.
- No monitoring by the education department.

4.15.11 FGD with Parents

- The admission process under RTE is not transparent and it is through lottery system.
- There is no sufficient representation to SC and ST students and there is no focus on really needy and poor students.
- Monitoring is not done by education department.
- Schools are not providing all the facilities to RTE students.
- Parents are incurring expenditure for the schooling requirements of their children. This has affected the poor parents.
- There is no discrimination between RTE and non-RTE students.
- Their children are being encouraged and treated well.
- Their children are performing better and their cognitive abilities are on par with non-RTE students.
- Lack of need based training facilities for teachers. They also lack professional approach in the effective implementation of RTE provision.

- RTE students have access to all the facilities made available by the school.
- No representation to parents of RTE students in school management committee.

4.15.12 Policy Implications

Act has a few flaws, however with the existing provisions, it can be better implemented.

- Creating awareness programmes among the stake holders by focusing on the rights and responsibilities.
- Making rights more meaningful and durable is necessary. Creating an enabling environment in the neighbourhood school is a pre-requisite for this. The essence of the Act is to provide 'Free and Compulsory Education' to all the children without any discrimination. But this is not happening at micro level.
- Increasing the number of schools in the neighbourhood is necessary to meet the increasing demand.
- Roster system has to be followed while admitting the students.
- There should be transparency in the admission process.
- To impart quality education, providing training facilities for teachers is necessary. The schools have to comply with the provisions of RTE Act and teach children according to the stipulations of the Act.
- Regular school inspection and social auditing should be made mandatory.

4.15.13 Conclusion

Despite the good spirit of the Act, there are serious flaws in the Act and its implementation. The principle of equal opportunity to every child to have access to good quality education cannot be achieved through 25 % reservation. It means that all children will not get the same opportunity. Despite the above mentioned flaws, there is still a need to engage with the legislation critically and constructively, in order to achieve the objective of ensuring equitable quality education to all children until the age of 18 years. The Act should be used as tool to achieve the larger goal of building a national system of education, based on the principle of neighbourhood schools to create a Common Schooling System, as envisaged in the earlier national policies and the Directive Principles of the Constitution.

Chapter - 5
HEALTH AND NUTRITION





5.1 Introduction

This chapter presents a status report on the health sector of Mysuru district. The main objective is to analyse and evaluate the status of health and nutrition in Mysuru district. Good health is a pre-requisite to human productivity which is an essential factor in the development process. A healthy community is the base upon which strong and stable society can be built. The World Health Organization (WHO) defined health in its broader sense in 1946 as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity". Health status is one of the indicators of Human Development after the introduction of HDI by the UNDP in1990.

India was one of the signatories to the U N Declaration of Health for all by 2000 AD. As a signatory at the Alma Ata 1978, the Government of India launched several health programmes to increase the life expectancy, reduce the IMR and the birth rate. In support of this, a New Health Policy was declared in 1983. This brought about drastic changes in the health scenario.

5.1.1 Health Scenario in Karnataka

Today the health scenario in Karnataka is a combination of achievements and challenges. Significant advances have taken place in health and healthcare services over the past decade. It is an important human development indicator and has a great significance for the overall development of the State. Achieving and maintaining health is an important and ongoing process. The Government of Karnataka has given importance to the health sector during the last few years. Provision of good health care to the people is an essential component of the health strategy adopted by the State. The focus on health intervention is to prevent and manage diseases, injuries and other health conditions through surveillance of cases and the promotion of health behaviors, communities and environments. Provision of good health care to the people is an essential component of the development strategy adopted by the State to achieve overall socio-economic development.

Karnataka has made significant progress in improving the health status of its people in the last few decades. However, despite the progress, the State has a long way to go in achieving the desired health goals. The State has made satisfactory progress in building health infrastructure at different levels. The public expenditure on health is about 0.9% of GSDP during the Eleventh Five Year Plan period.

The state has a wide institutional network providing health services both in urban and rural areas. There are 18 District Hospitals, 10 other hospitals and 28 autonomous and teaching hospitals in the state. The primary health infrastructure in rural areas has fulfilled the norms required under the "minimum needs programme" at the aggregate level. There are 8871 sub-centers, 2346 primary health centers (PHCs), 186 community health centers (CHCs) and 176 taluk hospitals catering to the health needs of the rural population.

Box 5.1: Karnataka State Integrated Health Policy 2004

Based on the report of the Task Force on Health and Family Welfare (2001), the Government formulated a State Integrated Health Policy. The policy aims at

1. *Providing integrated and comprehensive primary healthcare.*
2. *Providing a credible and sustainable referral system.*
3. *Establishing equity in the delivery of quality healthcare.*
4. *Encouraging greater public–private partnership in the provision of quality healthcare in order to better serve the under-served areas.*
5. *Addressing emerging issues in public health.*
6. *Strengthening health infrastructure.*
7. *Improving access to safe and quality drugs at affordable prices.*
8. *Increasing access to alternative medicine systems.*

5.1.2 Health policy

The National Health Policy was endorsed by the Parliament of India in 1983 and revised in 2002. Karnataka was one among the first states in India to bring out an integrated policy on health bringing together various health and development related policies. It was notified in 2004 based on the recommendations of the Karnataka Task Force on Health and Family Welfare. The Task Force on Health and Family Welfare submitted its report in 2001. One of the important recommendations was to adopt an Integrated Health Policy and since then it has provided the overall direction to the health programmes and initiatives in the state.

5.2 District Health Profile

Mysuru district has been one of the pioneers in health services planning, with a focus on primary health care. The district has benefited from the 'Bhore Committee' Report, which laid the foundation for the health care system in India. It preceded the Alma Ata 1978 Declaration by three decades. Mysuru District Administration was committed to attaining the goal of "Health for All by 2000 AD".

From the beginning of the Five-Year Plans, efforts were made to build primary, secondary and tertiary health care centers and to link them through an appropriate referral system. Some of the programmes for combating major public health problems were evolved and implemented. Mysuru district's achievement on the health front has been significant particularly in the attainment of human development indicators, namely, reduction in birth and death rate, infant mortality rates as well as increase in life expectancy. The past few decades have witnessed the development of a vast health care infrastructure in Mysuru district with a thrust on rural health care system.

5.2.1 Health Indicators and health status

Health Indicators are quantifiable characteristics of a population which describe

the health of a population. They are often used by governments to guide health care policy. Health indicators are nothing but measurements. They measure different aspects of health within a community or group. Each indicator is like a piece of a puzzle contributing to an overall picture. When indicators are tracked over time, the picture becomes a movie, allowing us to see how the health scenario is changing. There are two types of indicators, namely, Health Status Indicators and Health Determinant Indicators. Status indicators measure the different aspects of the health of a population. Eg; life expectancy, infant mortality, maternal mortality, disability or chronic disease rates. Health determinant indicators measure things that influence health. Eg; diet, water quality, income, access to and availability of health services. Now there are also attempts to consider language, culture and spirituality to be health determinants.

Health indicators help to answer a few questions, like

- How healthy is our community?
- Is our community in balance?
- What things affect health in our community?
- Are our programs, services or policies working?
- Are we moving towards or away from our vision of health?

Thus every report has to use a few indicators to explain the status and to compare with other districts. The indicators used in this report are, IMR, CMR, MMR, percentage of institutional deliveries, Child Immunization, ANC care, availability of health care facilities, percentage of population affected by communicable diseases, availability of health infrastructure, health expenditure and so on.

5.3 Infant Mortality Rate (IMR)

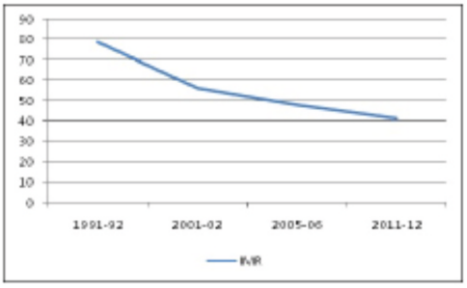
Infant mortality is the death of a child less than one year of age. Childhood mortality is the death of a child before the child's fifth birthday. UNICEF definition of infant mortality is probability of dying between birth and exactly one year of age expressed per 1,000 live births. National statistics tend to group these two mortality rates together. Infant mortality rate is universally regarded not only as a most important indicator of the health status of a community but also of the levels of living of people in general and the effectiveness of medical services in particular. Infant mortality is often given a separate treatment by demographers because (a) infants are the largest single age – category of mortality; (b) deaths at this age are due to a peculiar set of diseases and conditions to which the adult population is less exposed or less vulnerable; (c) infant mortality occurs more rapidly than the mortality among adults. Globally, ten million infants and children die each year before their fifth birthday; 99% of these deaths occur in developing nations. Infant mortality takes away society's potential physical, social, and human capital. Generally the most common cause worldwide has been dehydration from diarrhea, a preventable disease. In recent years a variety of programs combating this problem have helped to reduce the number of children dying from dehydration.

Table 5.1: IMR in Mysuru District

Year	IMR
1991-92	79
2001-02	56
2005-06	48
2011-12	41

Source: MHDR-2008 & SRS 2011

Figure 5.1: IMR in Mysuru District



The IMR in Mysuru district has declined slowly from 79 per thousand in 1991 to 41 per thousand live births in 2011 (Table 5.1 and figure 5.1). Many factors have lead to infant mortality such as the mother's level of education, environmental conditions, socio-economic conditions poor medical infrastructure etc.

However, the ongoing improvements in sanitation, access to clean drinking water, immunization against infectious diseases, and other public health measures have helped to reduce high rates of infant mortality. There is plenty of evidence to show that better control of infant mortality is related to widespread literacy particularly, female literacy and availability of primary health care.

The available statistics reveal that in the district there are wide variations in the IMR among the taluks of the district.

Table 5.2 Taluk-wise Infant Mortality Rate

Taluk	2005-06	2011-12
Periyapatna	48	47
Hunsur	47	25
K R Nagara	49	40
Mysuru	44	25
H D Kote	50	60
Nanjangud	49	37
T Narasipura	49	50
District Average	48	41
Karnataka State	48	31
India	57	42 (2013)

Source: MHDR-2008 & SRS 2011

Figure 5.2 Taluk-wise IMR in Mysuru District

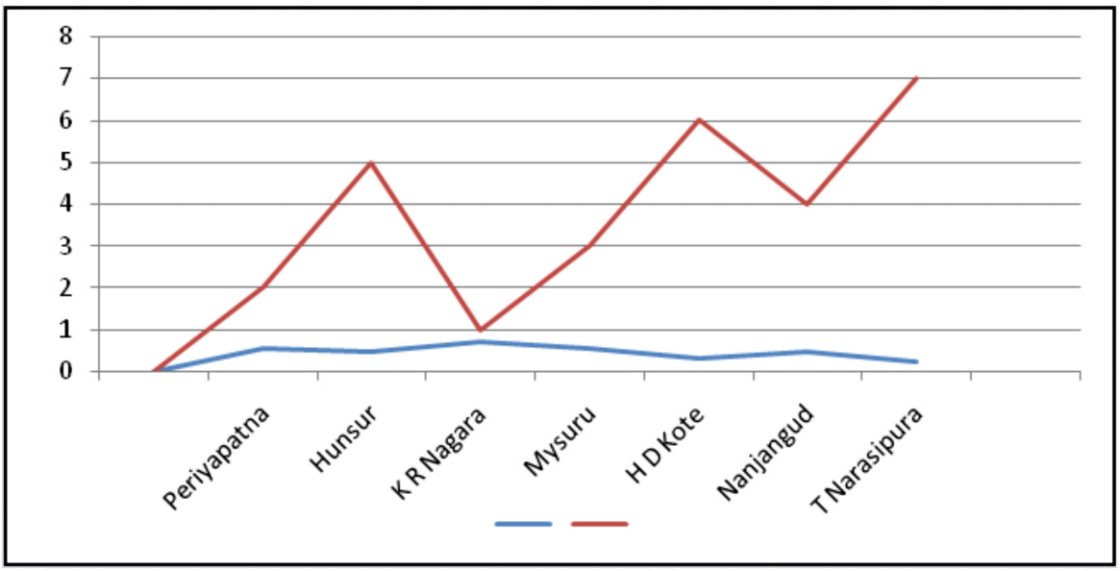


Table 5.2 and figure 5.2 show infant mortality rates per thousand live births in Mysuru district. In all the taluks there is a decline in IMR except H D Kote taluk. In 2005-06, in Mysuru taluk the IMR was the least (44) and it was the highest in H D Kote (50). In 2011-12 also there is no change in the relative positions of the taluks. Further, there is a decline in IMR in all the taluks except H D Kote. It is shocking to note that in H D Kote taluk, IMR has increased from 50 to 60 per thousand live births. This is because of home deliveries, anemia among pregnant women, undernourishment of women, underutilization of ANC care, early marriages, low education and awareness. It is quite evident from the above figure (5.2).

5.3.1 Child Mortality Rate (CMR)

Child mortality, also known as under-5 mortality, refers to the death of infants and children under the age of five. Reduction of child mortality is one of the United Nations' Millennium Development Goals. Many deaths in the third world go unnoticed since many poor families cannot afford to register their babies in the government registry. Under five Mortality Rate among children born to illiterate mothers has been consistently higher than those born to mothers with any education. Children born to adolescent mothers and children of SC and ST families have higher risk of dying than others. Further, the risk is higher for children born in scheduled tribe (ST) families as compared to scheduled caste (SC).

According to NFHS-3, in 2005-06 the under-five mortality rate was 55 deaths per 1,000 live births in Karnataka and the same declined to 37 in 2013. The main causes of Under-Five Mortality, according to doctors, are low birth weight, malnourishment, poor immunisation, poor environmental conditions in slums, high population density, exposing children to diseases like asthma, tuberculosis and vector-borne diseases.

Table 5.3 CMR in Mysuru District 2011-12

Taluk	2011-12
Periyapatna	56
Hunsur	30
K R Nagara	51
Mysuru	31
H D Kote	75
Nanjangud	45
T Narasipura	62
District Average	50

Source: SRS 2011

The CMR in Mysuru district is much greater than the State average. This is mainly because of poor health status in some of the taluks like H D Kote (75), T Narasipura (62) and Periyapatna (56).The details are presented in the following table 5.3 and figure 5.3.

5.3.2 Maternal Mortality Rate (MMR)

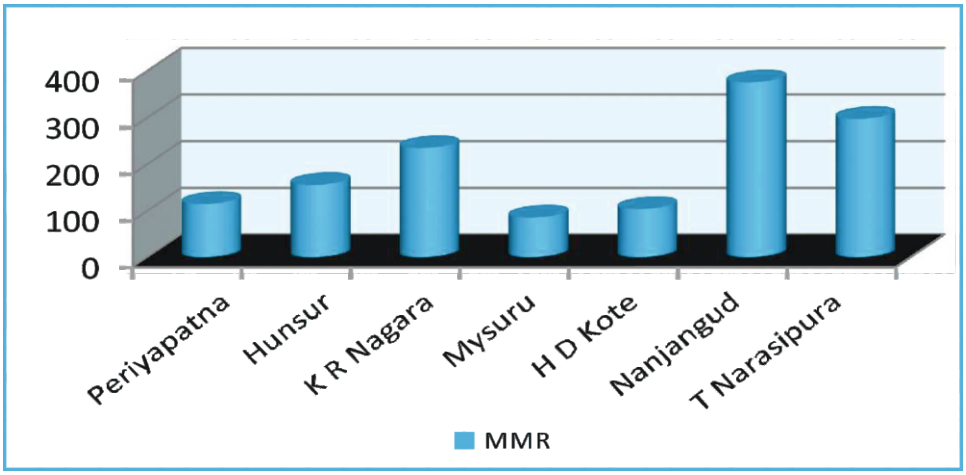
Women's health encompasses many areas of concern and most female deaths are caused by child birth. Maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. Maternal mortality is a crucial indicator of both women's health and gender justice.

Table 5.4 Taluk-wise MMR in Mysuru District – 2011-12

Taluk	MMR
Periyapatna	114
Hunsur	155
K R Nagara	234
Mysuru	85
H D Kote	103
Nanjangud	375
T Narasipura	297
District Average	195
Karnataka Sate	144

Source: SRS 2011

Figure 5.3 Taluk-wise MMR in Mysuru District (2011-12)



From the table it can be observed that in the district average MMR is 195 according to 2011-12 data. A glance at the table makes it clear that the MMR is highest in Nanjangud (375) and the lowest in Mysuru taluk (85). Though IMR and CMR are the highest in H D Kote taluk, the taluk is having the second lowest MMR in the district (103). The reasons for the high MMR are, early marriage, high fertility rate, anemia and malnutrion, lack of awareness, reluctance to utilize institutional health care facilities, poor socio-economic conditions, delays in utilizating the services during crucial stages and so on.

Maternal and child health (MCH) services are the two major components of the reproductive and child health (RCH) programme that is provided through primary health centers (PHCs) and sub centers in the rural areas of Karnataka. In urban areas, maternal and child health services are available in government hospitals, urban health centers, hospitals and clinics operated by NGOs and various private nursing homes and maternity homes. Maternal and child health has several components, of which, antenatal care and institutional deliveries are critical to ensure safe delivery and maternal survival.

5.4 Protected Couples

Family planning refers to a conscious, premeditated, systematic program through which couples decide to avoid unwanted births and to have only a limited number of children taking into account the economic and health position of the family. Family planning is absolutely essential not only to save households from health and economic hardships caused by excessive child birth but also to conserve resources of the nation by way of having limited size of population.

The Government Family Planning Programme promotes three temporary methods i.e., the pill, IUD and condoms. According to NFHS 3 report 2005-06, of these three methods, women are most likely to know the pill and the IUD (69% and 68% respectively) and men are most likely to know about condoms and the pill (86% and 74%

respectively). Knowledge of female sterilization has been high since NFHS-1, but knowledge of male sterilization has been declining over time. Percentage of couples protected by any contraceptive method in Mysuru district is 77.84% and the taluka-wise details are given below.

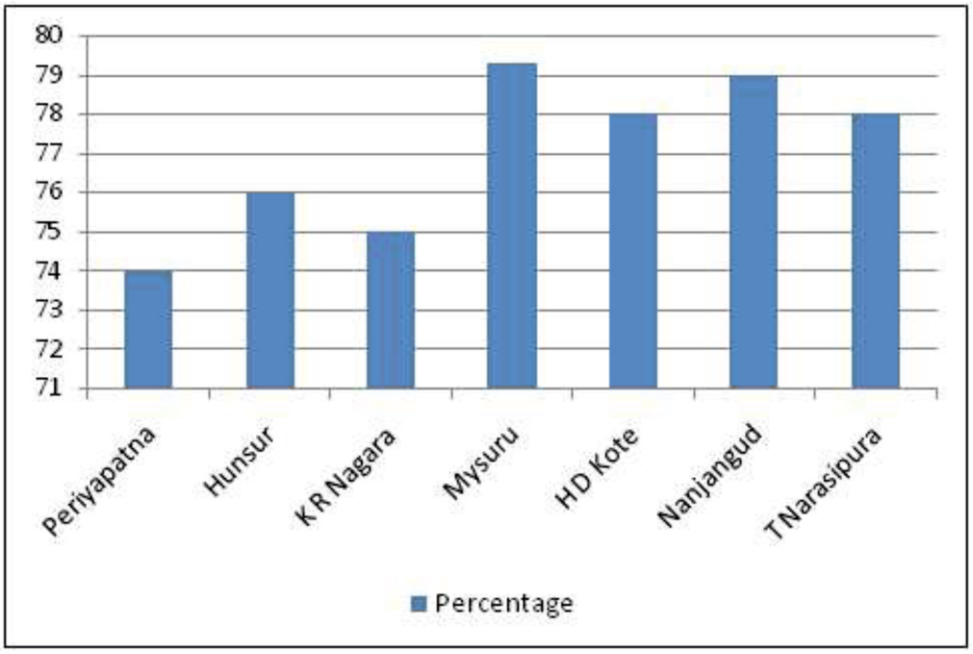
In Mysuru and Nanjangud taluks 79% of eligible couples are using contraceptives. Among all the taluks in Periyapatna taluk it is just 74% (table 5.5 and figure 5.4) and it means that in the district still 26 per cent of eligible couples are not protected. It indicates the need for awareness creating and motivating programmes at the taluk levels and sub-taluk levels.

Table 5.5 Percentage of Protected Couples – 2011-12

Taluk	Percentage
Periyapatna	74.00
Hunsur	76.00
K R Nagara	75.00
Mysuru	79.28
H D Kote	78.00
Nanjangud	79.00
T Narasipura	78.00
Mysuru district	77.84

Source: Health Department, 2012-13

Figure 5.4 Percentage of Protected Couples -2011-12



5.5 Public Health Infrastructure in Mysuru District

In case of health the term infrastructure takes on a wider role than mere physical infrastructure. Healthcare centers, dispensaries, hospital facilities, equipments, staff, medicines etc are considered as health infrastructure. The sub-centre is the most peripheral institution and the first contact point between the primary healthcare system and the community. Primary Health Centers (PHCs) provide integrated curative and preventive healthcare to the rural population with emphasis on preventive and promotive aspects. Promotive activities include promotion of better health and hygiene practices, tetanus inoculation of pregnant women and institutional deliveries. Community health centers are also there to serve people. Table 5.6 shows the number of government hospitals in the district.

There are 7 taluk hospitals, 138 Primary Health Centers and 7 community health centers in Mysuru district (table 5.6) .More number of Primary Health Centers are functioning in Mysuru taluk. However, from the point of view of functionality much leaves to be desired. In most of the government hospitals and PHCs the required facilities are not available. Quite often doctors and paramedical staff are also not available. As a result public generally do not rely on government hospitals and prefer private clinics and hospitals. Therefore it is not just the number of hospitals, but the availability of the facilities, effectiveness, efficiency, quality, adequacy and reliability of services are also important. This should become an integral component of rural health care system.

An important indicator of availability and adequacy of health care services is the ratio of population to health centre, doctor and nurse. In the following table (5.7) information relating to these aspects is presented.

Table 5.6 Number of Government Hospitals in the District 2011-12

Taluk	Taluk Hospitals		Other Hospitals		Primary Health Centers		Community Health Centers	
	Nos	Beds	Nos	Beds	Nos	Beds	Nos	Beds
Periyapatna	1	100	0	0	19	128	0	0
Hunsur	1	100	0	0	22	132	0	0
Krishnarajanagara	1	100	0	0	14	84	1	30
Mysuru	1	400	3	671	33	198	2	60
Heggadadevanakote	1	100	0	0	18	108	0	0
Nanjangud	1	100	0	0	18	128	1	30
T Narasipura	1	100	0	0	14	76	3	90
Mysuru district	7	1000	3	671	138	854	7	210

Source: District at a Glance 2012-13

Table 5.7 Average Population Served by Health Care System 2011-12

Taluk	Population served by Sub-Centers	Population served by each PHCs	Availability of doctors per 1000 population	Availability of nurses per 1000 population
Periyapatna	3379	11915	0.08	0.32
Hunsur	3136	10550	0.12	0.33
Krishnarajanagara	3388	13553	0.07	0.23
Mysuru	4386	17836	0.03	0.10
Heggadadevanakote	2674	13220	0.08	0.30
Nanjangud	4127	16716	0.05	0.20
T Narasipura	3165	13363	0.09	0.28
Mysuru district	3429	13717	0.06	0.20

Source: Source: District at a Glance 2012-13

5.6 Antenatal Care (ANC) Coverage and Anemia among Pregnant Women

Another matter of worry is anemia among pregnant women in Mysuru district. Given the inadequacy of their diet and iron deficiency, anemia is widely prevalent among the married women in the age group 15-49 years. All age groups are uniformly affected, with a slightly higher prevalence in younger ages, which is a matter of concern. Because they constitute the largest proportion of the fertile population among women in the district. Women living in urban areas have relatively lower levels of all grades of anemia compared to women in rural areas. Further, women from SC and ST communities also have a higher prevalence of anemia.

The following table explains the percentage of pregnant women who are severely and moderately anemic in the district.

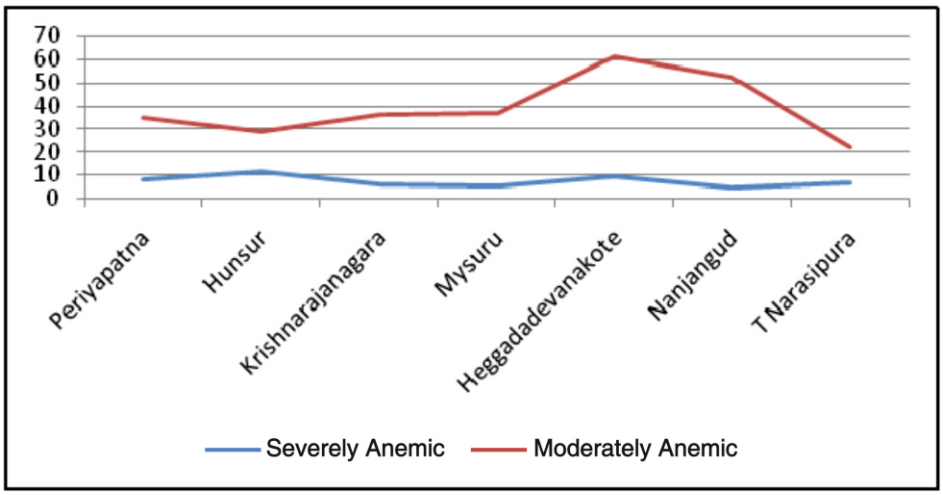


Table 5.8 Percentage of Pregnant Women with Anemia (In Percentage) 2011-12

Taluk	Severely Anemic	Moderately Anemic
Periyapatna	7.82	34.63
Hunsur	11.21	28.55
Krishnarajanagara	6.24	35.98
Mysuru	5.50	37.05
Heggadadevanakote	9.61	61.45
Nanjangud	4.98	52.36
T Narasipura	6.82	21.93
Mysuru district	6.89	38.85

Source: HMIS 2012-13

Figure 5.5 Percentage of Pregnant Women with Anemia 2011-12



In Mysuru district the percentage of pregnant women with moderate anemia is 38.85% and percentage of severely anemic women is 6.89 % (table 5.8 and figure 5.5). Heggadadevana Kote and Hunsur taluks have the largest number of women with moderate and severe anemia respectively. Among all the taluks the situation is comparatively better in Nanjangud taluk. It is disturbing to notice that in Mysuru taluk 5.5 per cent of pregnant women are severely anemic and 37 per cent are moderately anemic. The district presents a pathetic situation with respect to the percentage of pregnant women with anemia.

Antenatal care (ANC) coverage is very important to reduce IMR, MMR and anemia among pregnant women. Mysuru district has taken sufficient initiatives in order to provide ANC coverage at all levels and also to create awareness among the target group.

Table 5.9 Percentage of Pregnant Women Received Full ANC in 2011-12

Taluk	Percentage
Periyapatna	99.09
Hunsur	99.17
K R Nagara	81.25
Mysuru	99.07
H D Kote	99.60
Nanjangud	98.62
T Narasipura	98.62
Mysuru district	97.22

Source: HMIS 2012-13

From the table (5.9) it is clear that on an average 97 per cent of pregnant women are receiving antenatal care in the district. It means that there is sufficient awareness among women across the taluks of the district. An extensive institutional net work has been created to improve the coverage of the programme.

5.7 Institutional deliveries

A key determinant of the health of mothers and children is the place where the delivery takes place. It is the second important focus of the reproductive and child health (RCH) programme. Delivery should take place in hygienic conditions and under the supervision of trained health professionals. Safe delivery depends on the education and literacy level of the mothers and also socio-economic conditions of the families. Studies have shown that there is direct relationship between female literacy and percentage of institutional deliveries.

However, safe deliveries are less likely to be accessible to the rural poor and the Scheduled Castes and Tribes for several reasons. There has been a considerable improvement in the proportion of safe deliveries at the district level though there are variations across the taluks. Women resort to home deliveries primarily for economic reasons, although distance from the health facility, customary practices and lack of knowledge about the facilities available are the other reasons. The Government has enhanced and improved the coverage of health care infrastructure in order to increase institutional deliveries. This is a step in the right direction.

Institutional deliveries include antenatal registration, screening of high risk pregnancy and follow-up, anemia correction, TT immunization, intra-natal care, emergency obstetric services, post natal care, new born care and child immunization.



Table 5.10 Details of Institutional Deliveries 2012-13

Taluk	Percentage
Periyapatna	98.29
Hunsur	99.32
Krishnarajanagara	99.53
Mysuru	98.04
Heggadadevanakote	99.53
Nanjangud	99.70
T Narasipura	100.00
Mysuru district	99.20

Source: HMIS 2012-13

Figure 5.6 Details of Institutional Deliveries

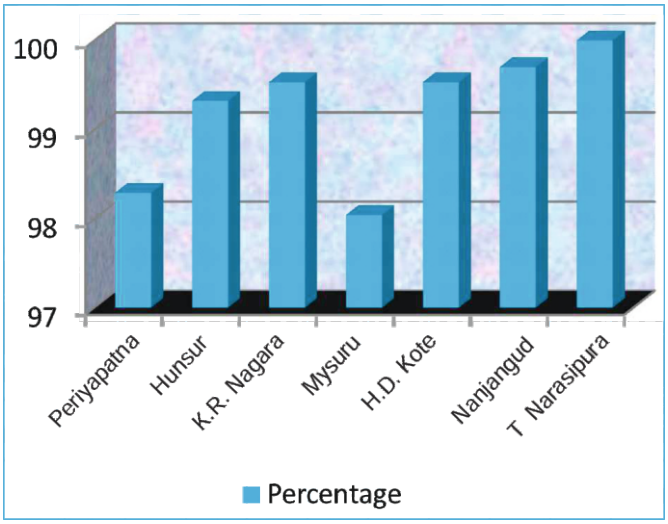


Table 5.8 and Figure 5.8 provide information relating to the percentage of institutional deliveries in the district. In Mysuru district Institutional deliveries are nearly 100 percent. In Nanjangud and T Narasipura taluks all the deliveries have taken place in health institutions. This reflects awareness among pregnant women and also their families. However, a major portion of institutional deliveries have take place in private hospitals. Another interesting observation is that in the district during 2011-12, there were 45,360 institutional deliveries. Out of which 16,521 that is 37 per cent have taken place in Mysuru taluk alone. It explains the preference of the people for urban centric private hospitals. This could be a pointer for health policy and maternal health related initiatives.

5.8 Child Immunization

Babies are born with protection against certain diseases because antibodies from their mothers were passed to them through the placenta. After birth, breastfed babies get the continued benefits of additional antibodies in breast milk. But in both the cases, the protection is temporary. Immunization (vaccination) is a way of creating immunity to certain diseases by using small amounts of a killed or weakened micro-organism that cause the particular disease. Micro-organisms can be viruses (such as the measles virus) or they can be bacteria. Vaccines stimulate the immune system to react as if there were a real infection.

Therefore, immunization forms the major focus of child survival programmes throughout the world. Vaccinations protect the child from deadly diseases, such as polio, tetanus and diphtheria, and also keep other children safe by eliminating or decreasing dangerous diseases that spread from child to child. In 1985, the Universal Immunization Programme (UIP) was launched to protect all infants (0-12 months) against six serious but preventable diseases, namely, tuberculosis, diphtheria, pertusis, tetanus, poliomyelitis and measles. The objective of the programme was to fully vaccinate at least 85% of all infants of the age of one year. In subsequent years, the goal of UIP was raised to ensure 100% coverage of all eligible children with one dose of BCG, three doses of DPT and OPV and one dose of the measles vaccine. This programme was integrated with the Child Health (RCH) Programme in 1997. In addition to the ongoing routine immunization programme, the Pulse Polio Immunization (PPI) campaign was initiated in 1995 to eradicate poliomyelitis from the country.

Box 5.2: Types of Vaccines

There are different types of vaccines, like

Attenuated (weakened) live viruses which are used in some vaccines such as in the measles, mumps and rubella (MMR) vaccine.

Killed (inactivated) viruses or bacteria are used in some vaccines such as in IPV.

Toxoid vaccines contain an inactivated toxin produced by the bacterium. For example, the diphtheria and tetanus vaccines are toxoid vaccines.

Conjugate vaccines (such as Hib) contain parts of bacteria combined with proteins.

In the district, there is fairly good awareness about child immunization programme. It seems that ANC and increase in the number of institutional deliveries have contributed in a big way for child immunization programme. The details about the percentage of children fully immunized are given in the following table.

Table 5.11 Percentage of Children Fully Immunized

Taluk	Percentage
Periyapatna	100.00
Hunsur	95.29
K R Nagara	97.17
Mysuru	100.00
H D Kote	99.10
Nanjangud	99.03
T Narasipura	100.00
Mysuru district	98.99

Source: HMIS 2012-13

Figure 5.7 Percentage of Children Fully Immunized 2011-12

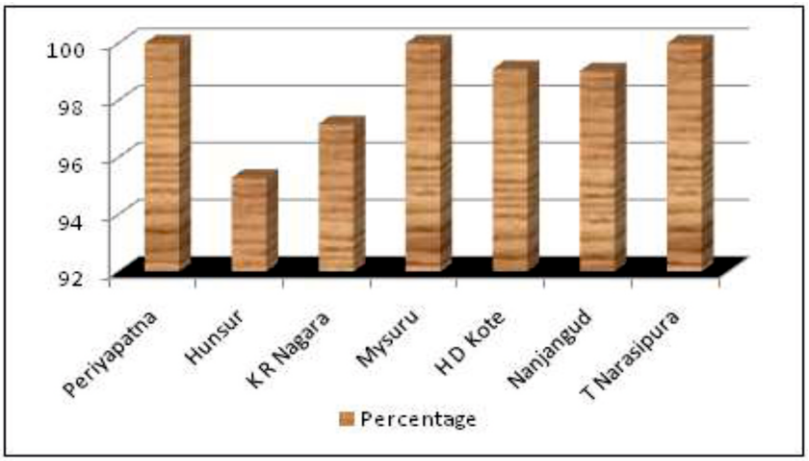


Table 5.11 and figure 5.7 present the taluk-wise details on percentage of children fully immunized in Mysuru district. Available data indicate that it is almost cent percent. It clearly shows that there is good awareness regarding health care of children. In almost all the taluks there is satisfactory immunization and the community has benefited significantly from this initiative.

5.9 Children born underweight

The weight of an infant at birth is an important measure of the nutritional status of the mother and an indicator of the child's survival rate. An infant with birth weight less than 2,500 grams is at high risk. It is also probable that mothers with poor nutritional status will deliver low-weight babies. The RCH survey data on birth weight observed that about 20 per cent of the infants were below 2,500 grams. In many districts more than one-fifth of the infants were reportedly under-weight. The lowest proportion of under-weight babies was in Bengaluru Urban (9 per cent) and the highest in Dharwad district (39 per cent). More than half of the districts had more than 20 per cent under weight babies, which is a grim testimony to the incidence of under-nutrition among women. In Mysuru district also 18% of children have low birth weight.

As per the data provided by the District Health and Family Welfare Department, the average percentage of children born under-weight in Mysuru district is 18.24%. In Mysuru taluk alone 44.01% of children are born underweight. The percentage of such children has varied between 7.56 percent (Nanjangud) and 44 percent (Mysuru taluk) in the district.

5.10 Communicable Diseases

Communicable Disease is a disease that spreads from one person to another or from an animal to a person. The communicable diseases like Tuberculosis, Leprosy, Vector borne diseases (Malaria, Kala-Azar, Dengue, Chikungunya, Filaria, Japanese Encephalitis, etc.), Water-borne diseases (Cholera, Diarrhoeal Diseases, Viral Hepatitis A & E, Typhoid Fever etc.), Zoonotic

Table 5.12 Percentage of Children Born Underweight-2011-12

Taluk	Percentage
Periyapatna	14.66
Hunsur	15.72
K R Nagara	14.72
Mysuru	44.01
H.D.Kote	20.95
Nanjangud	7.56
T Narasipura	10.07
Mysuru district	18.24

Source: HMIS 2012-13

diseases (Rabies, Plague, Leptospirosis, Anthrax, Brucellosis, etc), and Vaccine preventable diseases (Measles, Diphtheria, Tetanus, Pertussis, Poliomyelitis, Viral Hepatitis B etc) are endemic everywhere and continue to be a major public health problem.

The non-communicable diseases like cancer, diabetes, cardiovascular diseases, chronic obstructive pulmonary diseases etc are on the rise due to urbanization and changes in life style. In addition to this, there is always a threat of new emerging and re-emerging infectious diseases like Napa virus, Ebola virus, Avian Influenza, SARS, novel H1N1 Influenza, Hanta virus etc. Thus, due to industrialization, urbanization and the persisting inequality in health status and varying socio-economic conditions, many regions are facing "triple burden of diseases", which are as follows.

1. Unfinished agenda of communicable diseases,
2. Emerging non-communicable diseases related to lifestyles and
3. Emerging infectious diseases.

5.10.1 Costs of Infectious Diseases

- These diseases disrupt routine health services and cause public health emergencies.
- Cause loss in productivity, the missed educational opportunities and cause high health care costs.
- Children are particularly vulnerable to infectious diseases. Pneumonia, diarrhea and malaria are the leading causes of death among children under five years of age.
- Besides huge morbidity and mortality the emerging and re-emerging infectious disease outbreaks have huge impact on human development process and outcome.

Table 5.13 Percentage of People Affected by Major Communicable Diseases (2011-12)

Taluk	Percentage
Periyapatna	0.09
Hunsur	0.12
Krishnarajanagara	0.06
Mysuru	0.08
Heggadadevanakote	0.04
Nanjangud	0.08
T Narasipura	0.08
Mysuru district	0.08

Source: HMIS 2012

According to the available data with the Health Department in Mysuru district, 0.08% of total population is affected by major communicable diseases. Within Mysuru district in Hunsur taluk the highest percentage of people are affected by major communicable diseases. In Heggadadevana Kote it is the lowest that is only 0.04% of the population is affected by communicable diseases. The above set of data refers to the known or registered cases of diseases. Obviously the number is much more than what is registered and recorded.

5.10.2 Strategies to control communicable diseases

Many Expert Committees, dating back to the Bhore Committee in 1946, reviewed the existing health infrastructure situation in the country and made recommendations needed to control diseases including communicable, non-communicable and emerging diseases. More recently, the Expert Committee on Public Health System (1996) and the National Commission on Macroeconomics and Health (2005) examined these issues. National Five Year Plans, National Health Policy (1983, 2002) and many international initiatives such as Health for All by 2000, Calcutta Declaration on Public Health in South-East Asia (1999), U.N. Millennium Development Goals (2000), Global Commission on Macroeconomics and Health (2001), Revised International Health Regulations (2005), Asia Pacific Strategy for Emerging Diseases (2005, 2010) have also provided strong policy directives for the development of health care delivery system to control and prevent diseases.

As a result of these efforts, health infrastructure is strengthened and several national disease programmes have been initiated to eradicate, eliminate or control communicable diseases. In the district a few measures have been undertaken to control the diseases.

5.10.3 Measures to control communicable diseases

Well defined strategies have been identified to control communicable diseases. Based on these strategies, the disease control programmes are making efforts to control and prevent communicable diseases. The strategies include (I) risk reduction (ii) adequate health care infrastructure (iii) availability of adequately trained health manpower (iv) an efficient disease surveillance and response system for early detection and treatment of cases and for early detection and control of outbreaks of epidemic prone disease and (v) providing sanitation, drinking water and awareness on health care facilities.

5.11 Initiatives in Child and Maternal Health

Karnataka Government has taken many steps to improve the overall status of health in the state. Following are some of the health programmes of the state and the same are being implemented in Mysuru district also.

1. **Janani Suraksha Yojana (2005, Central Scheme)**: JSY aims at helping the poor pregnant women during and after delivery. The programme provides financial assistance to the poor pregnant women during delivery. Janani Suraksha Scheme is continuation of the previous delivery allowance scheme of the Central Government. Details on the member of beneficiaries of Janani Suraksha Yojana are presented in table 5.13.

2. **Madilu** (2007, State Scheme) Madilu scheme is aimed at protecting the health of the mother and the newborn and bringing down the maternal and infant mortality rate. It emphasizes compulsory registration of births and encourages poor women to admit themselves to government hospitals for delivery. For benefits under the Madilu Yojana, the beneficiary should be from a family living below the poverty line, delivery should have been in a government hospital or a primary health centre, the beneficiary should have not more than two children, should have a BPL ration card and be registered under Janani SurakshaYojana. Details on the number of beneficiaries are presented in Table 5.14

Table 5.14 Number of Beneficiaries of Janani Suraksha Yojana and Madilu kit in 2011-12

Taluk	Janani Suraksha Yojana Beneficiaries	Madilu Kit Beneficiaries
Periyapatna	1572	1558
Hunsur	1947	1863
Krishnarajanagara	2196	2084
Mysuru	5664	7680
Heggadadevanakote	2745	2572
Nanjangud	3120	2785
T Narasipura	2972	2351
Mysuru district	20216	20893

Source: District at a Glance Mysuru 2012-13

3. **Thayi Bhagya Scheme** is Public- Private Partnership in maternal health care. This revolutionary scheme provides totally free service for the pregnant women belonging to BPL families in registered private hospitals.

4. **Suvarna Arogya Chaitanya** is a school health programme. It includes health checkup for all students studying in 1st standard to 10th standard and the detected cases of diseases are treated free of cost in PHCs, taluk hospitals and district hospitals.

5. **Indira Gandhi Matritva Sahayog Yojana (IGMSY)** The scheme has been implemented to improve the health and nutrition status of Pregnant and Lactating (P & L) women and their young infants.

6. **Immunization:** it is the most cost effective public health intervention to reduce mortality and vaccine preventable diseases.

5.12 Public Expenditure on Health

Public health expenditure consists of recurrent and capital spending from government (central, state and local) and grants (including donations from international agencies and nongovernmental organizations), and social health insurance funds. Total health expenditure is the sum of public health expenditure. It covers the provision of health services (preventive and curative), family planning activities nutrition activities and emergency aid designated for health.

The total expenditure on health in the district during 2011-12 is Rs. 15090 lakhs. It includes expenditure by union, state and local government. In the following table an attempt has been made to calculate taluk-wise average health expenditure.

Box 5.3:Yeshasvini Health Insurance

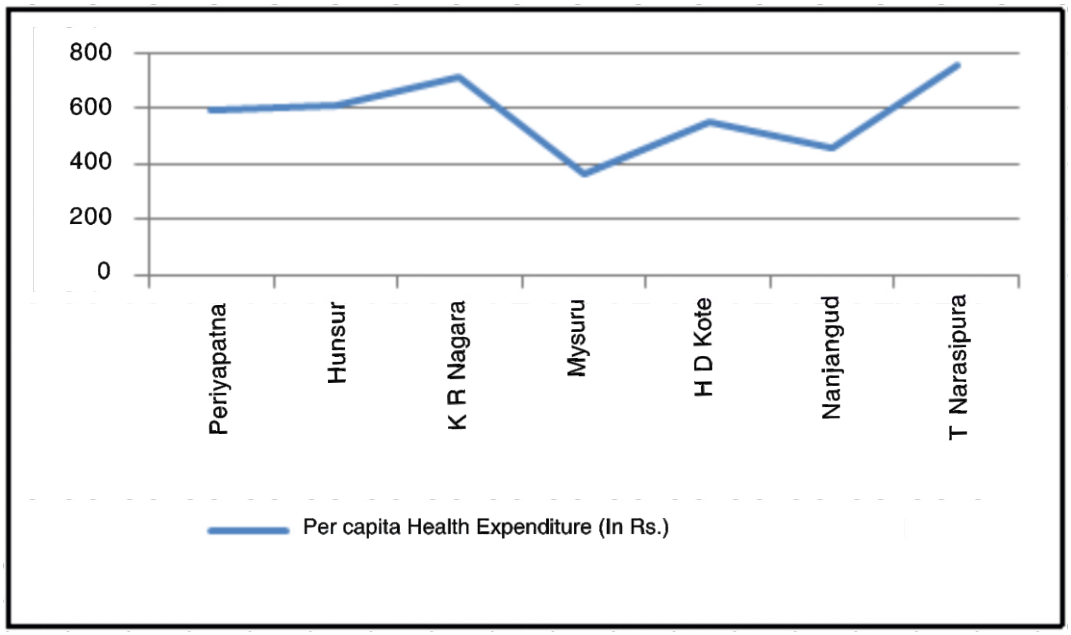
Yeshasvini cooperative farmers' health care scheme was introduced by the State Government to the cooperative farmers of Karnataka. The scheme was operationalized with effect from 1st June 2003. Karnataka has become a role model state with the introduction of this self-funded health care scheme. Yeshasvini is one of the largest self-funded healthcare schemes in the country, where the beneficiaries contribute a small amount of money every year to avail any possible surgery for himself and his family members during the period. The beneficiaries are offered cashless treatment subject to conditions of the scheme at the Network Hospitals spread across the State of Karnataka.

Table 5.15 Per capita Health Expenditure in Mysuru District 2011

Taluk	Per capita health expenditure (In Rs.)
Periyapatna	596.52
Hunsur	611.39
K R Nagara	712.43
Mysuru	364.34
H D Kote	549.85
Nanjangud	462.43
T Narasipura	756.76
Mysuru district	579.10

Source: Health & Family Welfare Dept, Mysuru 2012

Figure 5.8 Per capita Health Expenditure in Mysuru District



In Mysuru district the Per capita public expenditure on health sector is Rs. 579.10 which is very meager by any standard (table 5.15 and figure 5.8). Among all the taluks, it is highest in T Narasipura taluk and lowest in Mysuru taluk. There are striking variations in the per capita health expenditure between the taluks. The two important determinants of per-capita health expenditure are the total population and volume of fund flows.

In recent years the number of diseases and disease burden are increasing across the regions. Further, with rising income, literacy and awareness there are also changes in the health seeking behavior of the people. Particularly in urban centers there is more demand for promotional and rehabilitative health services. Further, it can also be observed that even this amount is not being utilized effectively and efficiently.

Disaggregated Benefit Incidence Analysis can be done for this data to track the flow of funds to different taluks, groups and categories. There is every justification to raise the proportion of expenditure on health care services. In this context the district authorities can give a serious try to public-private partnership and involvement of civil society organizations in the provision of health care services.

5.12.1 National Rural Health Mission (NRHM)

National Rural Health Mission (NRHM) was launched on 12th April, 2005 by the Government of India to improve medical facilities in the rural areas of the country. It seeks to provide accessible, affordable and quality health care to the rural population, especially the vulnerable sections. At present, schemes such as the National Vector Borne Disease Control Programme (NVBDCP) and Revised National Tuberculosis Control Programme (RNTCP) come under the NRHM.

The NRHM is being implemented in Karnataka through the creation of a State Health Society at the State Level and District Health Societies in each of the districts. Program implementation is being done through its district chief medical officer's office, blocks, CHCs, PHCs, sub-centers (SCs) and Village Health Sanitation Committees (VHSCs). Certain activities are managed at the State level such as drug procurement, Information, Education and Communication (IEC), civil works, training using specialized entities such as State Institute of Health and Family Welfare (SIHFW), IEC Bureau and Directorate of Health and Municipal Corporations for the urban health components. In addition to this, funds are also released to NGOs and private entities under public private partnership (PPP) arrangements.

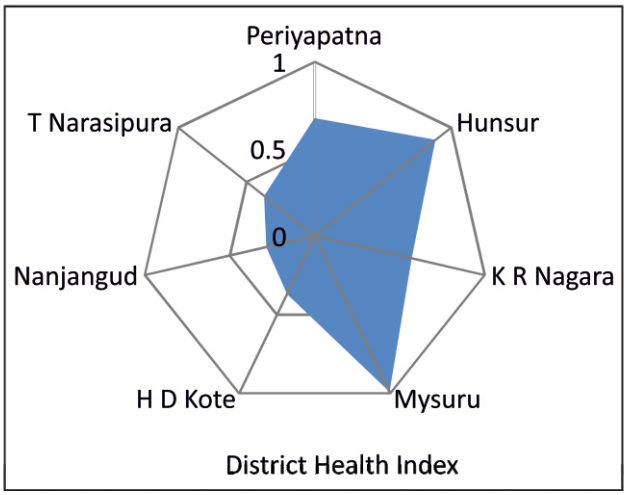
5.13 Health Index of Taluks in Mysuru District

Health Index is one of the non-income dimensions of composite human development. The disaggregated health index explains CMR and MMR. This has for reaching implications for development policy. Table 5.16 and figure 5.9 explain the health index of Mysuru District.

Table 5.16 Health Index of Taluks in Mysuru District

Taluks	Taluk Health Index	Taluk Ranking
Periyapatna	0.678	3
Hunsur	0.887	2
K R Nagara	0.572	4
Mysuru	0.99	1
H D Kote	0.367	6
Nanjangud	0.286	7
T Narasipura	0.371	5

Figure 5.9 Health Index of Taluks in Mysuru District



The above table (5.16) and figure (5.9) explain Health Index of Mysuru District. The ranking of the district at the state level is 20st which is very poor by any standard. The district index value has varied between 0.286 (Nanjangud) and 0.990 (Mysuru). It means that there are significant differences in health status within the district. The State value also reveals the same sorry state of affairs. In Mysuru district the better situation in living standard index has not been converted into improvements in health status. Nanjangud, H D Kote and T Narasipura need very strong initiatives in order to improve the health status.

5.14 Gender gaps and deprivation related to health services

Gender discrimination is quite apparent in our system and the same is manifested in various ways. Even in 2011, adult female literacy in the State is barely 66 per cent, where as male literacy is 83 per cent and the gender gap is 17 percent. Further, female labor force participation rates are also low. As a consequence, in non-agricultural sector, the labor participation rates of women have remained low. Although this situation is changing among young women, but for women in the reproductive age this combination of poor education and low labor force participation outside of agriculture has led to low autonomy in the household. Still worse is, married women are unlikely to have any decision- making authority. Even our health policies are not gender sensitive and awareness among public regarding women health issues is very poor which have lead to negligence of women health.

5.14.1 Health Deprivation Index

Health Deprivation Index explains the disparities in the health status of male and female.

Table 5.17 Health Index of Male and Female

Taluk	Female health index	Male health index
Periyapatna	0.822	1
Hunsur	0.829	1
Krishnarajanagara	0.740	1
Mysuru	0.826	1
Heggadadevanakote	0.665	1
Nanjangud	0.566	1
T Narasipura	0.761	1

Male health index-female health index = Health Deprivation Index

Considering the health status of male as equivalent to one, depravations in women's health status can be understood. The comparison made in the table (5.17) clearly shows that in Mysuru district female health index is lesser than male health index. Female index is just 75 per cent of male health index. Further, there are inter-taluk variations. In Nanjangud, the women health index is just 0.566 with maximum deprivation. Among all the taluks the situation is relatively better in Hunsur taluk with an index value of 0.829.

5.15 Nutritional Status in the District

Nutrition is a significant determinant of good health and the incidence of malnutrition and under-nutrition in the community affect the health indicators such as IMR, CMR and MMR. For the poor, an improvement in per capita income combined with the availability of cheaper food is a step towards ensuring higher levels of food consumption. The status of nutrition is, however, also dependent on food consumption patterns, which in turn, are shaped to a great degree by women's status relative to men. Custom dictates that women eat least and last in the feeding order, followed closely by children. Not surprisingly, the greatest levels of poor nutrition occur among women and children. An insufficient food intake and ignorance about nutrition coupled with low immunity causes that the most vulnerable experience very fragile health. In this context, the greatest changes can occur only when there is an improvement in women's status and an increase in per capita food availability.

Malnutrition is a major public health emergency in India today, with about 50% of the population suffering from it in one or the other form. It is the main cause of at least 50% of deaths of under 5 children in the country. Even if it does not lead to death, malnutrition including micronutrient deficiencies often lead to permanent damage including impairment of physical growth and mental development.

The nutrition scenario in Karnataka compared to other Southern States is also a cause of concern. To measure and assess the nutritional situation, a few indicators are used.

5.15.1 Nutrition indicators

Nutritional anemia is one of India's major public health problems. The prevalence of anemia ranges from 33% to 89% among

pregnant women and is more than 60% among adolescent girls. Under the anemia prevention and control program of the Government of India, iron and folic acid tablets are distributed to pregnant women. In Karnataka also, Government has introduced a scheme for the distribution of iron and folic acid tablets for school children.





5.15.2 Malnutrition among children

Child malnutrition is a severe problem and also a major underlying cause of child mortality in India. The percentage of malnourished children in the district is nearly 30 percent and details are given in the table 5.18 and figure 5.12.

According to the available data, the percentage of malnourished children in Mysuru district is 29.17%. Nanjangud taluk has the highest percentage of malnourished children that is 33 per cent and the lowest is in T Narasipura taluk.

Box 5.4: Nanjangud has most number of malnourished kids



With 133 severely malnourished children, including 72 females, Nanjangud has the highest number of children with nutritional deficiencies in Mysuru district. There are about 52 malnourished children in 0 to 3 years of age and 81 in 3 to 6 years of age in the taluk.

Mr. Vijay said the Mysuru-based Central Food Technological Research Institute (CFTRI), a premier food technology laboratory of Council of Scientific and Industrial Research, has taken up a study on malnutrition in children in six anganwadi centres of Nanjangud taluk. About 100 children are being studied by a team of experts from the institute.