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Public Expenditure Analysis for the State of Madhya Pradesh

PUBLIC EXPENDITURE ANALYSIS FOR THE STATE OF MADHYA PRADESH

Planning and Policy Support Unit Society

State Planning Commission, Government of Madhya Pradesh

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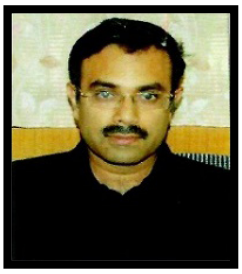
FOREWORD



A well-functioning government that delivers quality public services consistent with citizen choices and fosters market-led development while managing fiscal resources prudently is considered critical to the state's vision ofinclusive growth and the achievement of Sustainable Development Goals 2030.

Public expenditure on the social development has a closely association to the overall human development and to the sustainable strategies of the Government. Prior to any kind of expenditure being incurred, thesectoralbudget allocation of the Government reflects the corecommitment of the State towards the most deprived or vulnerable sections of the society.

Previously, policy debates about the prospect of implementing social sector policies in developing countries tended to emphasize financial constraints as well as affordability. It was often argued that poor countries cannot afford universal public services, especially in health care, nutrition, education, protection, water and sanitation or social welfare, due to lack of adequate fiscal resources and contributory capacity of the beneficiary .At the same time, there is growing recognition that by supporting wide access to social services theymay be considered as humandevelopment investment individual a chance to develop to their full potential and contribute to the development of the national economic growth.

Both the Government of India and Government of Madhya Pradesh are going through an unprecedented and historical transition such as GST, universal health care, SBM etc. which clearly state that people should be placed at the centre ofthe ambitious reform agenda. Never in its history has the country or the State had such an opportunity to set the solid foundations of a society where inclusive human developmentis promoted, thereby including the most vulnerable and marginalized population.

With this report the first of its kindin public expenditure analysis, a snapshot of actual budgetary allocation and spending in the social development sectors has been prepared. More detailed analysis will be needed to shed full light on theIncorporate of reforms in the budget process at the country and State levels to contribute to the establishment of an efficient result-oriented outcome budgeting mechanism.

I would like to express my gratitude for the engagement of UNICEF and Centre for Public Policy and Research (CPPR) with the State Planning Commission in conducting this analysis.

I hope that, this report will be of relevance to policy making as well as development practitioners, research scholars, and those interested in public governance.

Aniruddhe Mukerjee
Principal Secretary, Planning Economics and Statistics, Govt. of MP

PREFACE

Assuring a sense of scale and likelihood of investment needsfor the Government of Madhya Pradesh, particularly of the most disadvantaged population in the State, the public expenditure analysis alongside equity analysis reports are the building blocks to evidence generation, which would serve as the basis for redefining the strategic goals and appropriate frameworks to enhance effective operationalization of the action plans to achieve State Vision/SDG 2030.

Reaffirming the critical role of Sustainable Development Agenda in the State Vision/SDG 2030 of Madhya Pradesh, the State expressly needsto develop a robust sustainable financing framework to address the rising inequities and/or vulnerabilities being faced by the most disadvantaged section of the society,particularly the tribal sub-group population in the State. As such, the public expenditure analysis report modestly outlined the critical public finance challenges impacting quality of service delivery in health, nutrition, education, water, sanitation and hygiene sector that would be the basis to identify the key areas of interventions and/or analysis of existing fiscal spacesfor child budgeting to inform strategic planning and child-centric resource prioritization to ensure equitable allocation of resources to address unmet social development needs of children and women in the State.

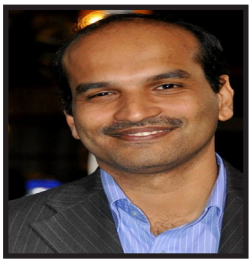
Arguably, the report underlies that even after having achieved accelerated output growth in Madhya Pradesh over the recent years, inequity still exists in some of the key social sector expenditures. As such, there is an urgent need to coherently review existing policies/schemes along with their correlating implementation challenges/issues to identify key bottlenecks and make corrective actions with a view to expand the fiscal space for children and women to enable them realize inclusive social development.

District wise analysis of various outcome level indicators shows that certain districts need more attention, and therefore, the involvement of Local Self-Government (LSG) is criticalto ensure effective and efficient implementation of fiscal policies on the ground. Fiscal decentralization, in terms of transfer of resources, power, and authority to the local government are essential ingredients to enhance effective and sustained empowerment of local people to meaningfully and productively engage in provision of oversight function towards operationalization of SDG-Action to achieve State Vision/SDG 2030.

Overall, inclusive social development whilst addressing key deprivations impacting women and childrenparticularly the tribal sub-group population are critical and necessary for the realization of Vision 2030 in MP.

Michael Steven Juma
Chief, UNICEF Madhya Pradesh

Acknowledgements



I would like to thank all the individuals for their cooperation and support in completing the report. It is to be emphasised that the report is the result of persistent and concerted efforts of many individuals.

I am grateful to the members of the Planning and Policy Support Unit (PPSU), State Planning Commissionfor their support throughout the study. The authors would like specifically thank Mr Ramesh Srivastava and Dr Rajendra Mishra for their coordination and support in completing the report. I would also like to thank Dr. Yogesh Mahor, Mr. S.P.Bhatra, and Ms. Swati Parihar and Mr. Alok Asthana for providing us with data and critical comments at various stages of developing the report.

We would like to extend our gratitude to the officials of UNICEF Bhopal- Mr. Sujan Sarkar, Mr. JitendraPandit and Mr. B Azhaganathan for their valuable suggestions in developing the report.

I am thankful to the officials of Rajya Siksha Kendra, Directorate of Public Instruction, Women and Child Development, Integrated Child Development Services (ICDS), Public Health and Family Welfare, Public Health Engineering, National Health Mission Tribal Welfare, and Social Justices for providing us with data and valuable insights. I am also thankful to the officials of the above departments for their active participation in Focus Group Discussions.

At the organisation, I would like to thank all the members of CPPR for their support in successfully completing the report.

Dr. D Dhanuraj
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Chapter 1

Introduction

The functions and responsibilities of modern governments have undergone a metamorphosis since the onset of the World Depression of the 1930s. The result is that the role of public expenditure has changed in such a way that it includes prevention of cyclical fluctuations and counteracting any secular tendency towards stagnation. India also witnessed a tremendous increase in public expenditure due to development requirements and the same pattern reflected in all federal states including Madhya Pradesh (MP), India's second largest state with an area of 3,08,252 sq. km. At present, the debate on development finance has focused in large part on the generation of additional resources to realize and support Sustainable Development Goals (SDGs).

Most development and millennium development indicators in MP display a divergent trend, which clearly specifies a disconnect between the level of growth and human development. According to the 2011 census, Madhya Pradesh recorded 70.6 per cent literacy rate vs. 74 per cent Indian literacy; it ranked 24th in the country in terms of overall literacy, while it slipped to the 28th position in female literacy rate. There is still great disparity in the literacy rates of males (80 per cent) and females (60 per cent) in the state in the midst of a clear improvement of female literacy over the last decade.

Madhya Pradesh was among the states with the highest poverty head count ratio and poverty gap ratio, compared to the Millennium Development Goal (MDG) targets in 2015. There exists visible inequity in terms of different social indicators among women and children in Madhya Pradesh. High levels of women mortality are seen in terms of key women related survival indicators in the state. The same divergence can be noticed in most of the human development indicators. Social groups like scheduled tribes, scheduled caste, other backward communities, women and children are heavily disadvantaged. There is scope for lessening these divergences as the state covers 9.4 per cent of the total land area of India and has rich forest resources and abundant biodiversity. The right mix of public expenditure is the best way to achieving this goal.

1.1 Demographic Profile of Madhya Pradesh

According to the 2011 census, Madhya Pradesh is the sixth most populous state in the country with a population of 7.2 crore. The state population grew at 20.3 per cent in the last decade with 72.4 per cent of the population living in rural areas. Madhya Pradesh is often called the tribal state of India as it has the largest population of Scheduled Tribes (STs) in India. MP has the most unique mix of ethnic

groups, tribes, castes and communities with huge migrant population from other states.

Table 1:1 Madhya Pradesh: Demographic indicators

Indicators	MP	India
Geographical Area in Lakh Sq. Km.	3.08	32.87
Population (Crore)	7.26	121.02
Decadal Growth Rate per centage	20.30	17.64
Density of Population (Population/Sq. Km.)	236.00	382.00
Urbanisation (per cent)	27.63	31.16
Sex Ratio Females/1000 Males	930.00	940.00
Literacy Rate (per cent)	70.60	74.00
SC share in Total Population	15.60	16.60
ST share in Total Population	21.10	8.60

Source: Census, 2011

Although the state's sex ratio has increased by 12 points since census 2001 to reach 930 females per 1,000 males in census 2011, it is still below the national average of 940. As per the latest Annual Health Survey (AHS) report of 2012-13, sex ratio at birth is only 905 and there is wide variation by place of residence, i.e. for urban it is 876 and for rural it is 916. Child sex ratio has declined by 20 points in Madhya Pradesh during the decade 2001-2011. In terms of literacy rate, the state at 70.6 per cent fares below the national literacy rate (74 per cent) and the literacy rates have huge disparity between male and female.

1.2 Some Issues of Development and the Role of Public Expenditure

Though Madhya Pradesh registered one of the highest GSDP growth rates in the country, the state is performing poorly in most human development indicators.

Table 1:2 Madhya Pradesh: Health and Nutrition indicators

Indicators	MP	India
Percentage of population below poverty line-Rural-2011-12	35.70	25.70
Percentage of population below poverty line-Urban-2011-12	21.00	13.70
Per centage of population below poverty line-Total-2011-12	31.60	21.90
Infant Mortality Rate (IMR) (2016)	34.00	47.00
Maternal Mortality Ratio (MMR) (2014-16)	173.00	130.00
Prevalence of Underweight Children under five years of age (in per cent)	42.80	35.70
Enrolment in Primary education (GER primary)	92.13	95.12

Source: SRS Bulletins, NFHS-4, DISE 2015-16, and Planning Commission

As per SRS, Statistical Report 2016, Madhya Pradesh has the second highest neonatal mortality rate of 32 per thousand live births and the infant mortality rate is 54 per thousand live births. According to the report, under-5 mortality rate is one of the highest in the country at 55. MMR in Madhya Pradesh is the fifth highest in the country with 173 per lakh live births (SRS 2014-1). For these reasons, Madhya Pradesh is one of the least developed states in India, with an HDI value of 0.375 in 2007-08, which is below the national average of 0.467.In terms of Gender Development Index, Madhya Pradesh stood at 0.516 whereas the national value was 0.590 as on 2006. In Gender Equality Marker, the value is 0.463 for the state, which is below the national figure of 0.497.

MP is among the most food insecure states of the country. The state fares poorly across indicators of nutrition, relative to other states in India, and there is a wide disparity within the state. The prevalence of under nutrition is the highest in Madhya Pradesh (55 per cent), followed by Bihar, Orissa, Uttar

Pradesh and Rajasthan as per UNICEF studies (UNICEF 2013), with National Family Health Survey (NFHS-4) data recording 42.8 per cent of children under the age of five years as underweight in the state. According to the India State Hunger Index, Karnataka has the highest prevalence of calorie undernourishment (28.1 per cent), while Madhya Pradesh has 23.4 per cent, Rajasthan 14 per cent, and Punjab 11.1 per cent. A number of reports and surveys, including the NFHS-4, highlight the need for substantial improvement in the nutritional status of children under six in Madhya Pradesh.

Poverty and inequality are the leading outcomes of divergent development indicators. According to the RBI, based on Mixed Reference Period (MRP) consumption (computed as per Tendulkar method on MRP) nearly 31.65 per cent of the population is estimated as living Below Poverty Line (BPL) in 2011-12 with rural poverty ratio (35.74 per cent) exceeding the urban poverty ratio (21 per cent) significantly. The state of the poor is categorized by periodic drought, marginal and under-productive landholdings, uncertain land tenancy and high dependency on periodic agricultural and forest labour. Inequality has also increased in Madhya Pradesh between 2004-05 and 2009-10. The Gini coefficient has increased from 0.237 in 2004-05 to 0.276 in 2009-10 for the rural areas. In the urban areas, with a higher level of inequality to start with, the Gini coefficient has increased from 0.351 to 0.367 in the same period. It is noteworthy that the Gini coefficient for rural areas in 2004-05 for MP is now close to the all-India average.

Public expenditure in the right mix could be used in this context. Madhya Pradesh state government has made some progress in addressing the problems in the social sector; yet the disparity in human development persists. Emphasis has to be given to social expenditure. The share of social sector expenditure to total disbursement was 42.8 per cent in 2016-17 (RE) for all Indian states. The same for Madhya Pradesh is around 40.7 per cent, which is lower than other low income states such as Chhattisgarh (56.6 per cent), Bihar (48.7 per cent), Rajasthan (42.4 per cent), Odisha (45.9 per cent) and Uttar Pradesh (39.7 per cent). Madhya Pradesh being a revenue surplus state can devote more resources towards the social sector to improve outcome indicators.

1.3 Sustainable Development Goals and Focus of the Study

The 2030 Agenda for Sustainable Development is articulated as a "plan of action for people, planet and prosperity". It contains a set of 17 Sustainable Development Goals and 169 accompanying targets and 234 indicators. The vision document entitled 'Transforming Our World: The 2030 Agenda for Sustainable Development" was adopted by the UN General Assembly Sustainable Development Goals (SDGs) in 2015. It aims at a universal, holistic framework to help set the world on a path towards sustainable development by addressing all three dimensions of economic development, social inclusion and environmental sustainability.

The monitoring framework and indicators for the SDGs are developed based on the lessons from the MDGs, the targets of which have not been realized by Madhya Pradesh. The state lags behind many other states in the country and is likely to miss even the easy targets like universalization of elementary education. Health parameters present a disappointing picture (MP State MDG Report, 2014-15). SDGs have been infocus from January 1, 2016 and an SDG cell has been consequently established in the Planning Commission. The State Planning Commission has set up Planning and Policy Support Unit, Project Monitoring Unit, Knowledge Management Unit and International Division. Considering the concerns in areas like education, health, nutrition, and water and sanitation, a detailed examination of public expenditure focusing on the above sectors is the theme of the present study.

It must be noted that while output growth in the recent period has been accelerating there

seems to be a large disconnect between growth and human development indicators. This stands in the way of achieving SDG goals. Looking at trends in various indicators of human development and SDGs, there is an urgent need to look at the various policies and implementation issues related to these sectors and take corrective measures. Socioeconomic indicators and factors contributing to these indicators need to be examined to bring out reforms and restructure priorities within the sectors, regions and social groups. At this juncture, the present study is initiated to look into the following objectives:

- To analyse the trend in public expenditure at the state level and see the trend of the same in selected sectors such as health, education, nutrition, water, sanitation and child protection.
- To understand the impact of public expenditure on women and children in terms of outcome variables such as mortality rate, enrolment rate, malnutrition in children under five years etc.

1.4 Methodology

The period of the study is from 2012-13 to 2016-17.All expenditure data are collected from State budget documents and RBI publications. Preliminary analysis is done using descriptive statistics from secondary data. Annual growth rates are calculated to analyse the trend in public expenditure on the various sectors. Suitable deflating indices are used to adjust the total expenditure by the government on the above sectors so as to calculate the real public expenditure.After analysing the data and identifying key issues, focus group discussions will be held with key informants and stakeholders.

1.5 Framework of the Study

Public Expenditure Review (PER) and Public Expenditure Tracking Survey (PETS) are used to analyse the study. PETS is a social audit tool— a management and accountability mechanism — used to assess, understand, report on and improve the social performance of a policy or plan.PETS involves close monitoring, assessment and evaluation of the government budget process — i.e. from planning, allocations, disbursement and implementation to the final stage of assessing the impact of the budget.It is sometimes called "following the money" because it tracks the flow of public resources from the highest level of government to frontline service providers and beneficiaries in order to identify differences between the official and actual allocations and to determine the extent to which resources reach service providers and users. It is a careful and intentional 'watch' over the use of public resources.

The present study uses PETS as an analytical framework to understand the overall impact of government expenditure and allocation on various developmental issues. This report highlights and attempts to understand the demographic changes, gender inequality and state of child rights in MP from available data on population, education, health and employment. This report also tries to highlight the status of achievement of gender and child rights indicators, identify the gaps and the possible solutions to achieving the goal or bridge the gap through government intervention with suitable policy recommendations.

1.6 Data Sources

This report predominantly relied on several sources —Central and State Budgets for the years 2012-13 to 2016-17, State Treasury data for these years, RBI data sources for various years, budget documents, CAG Reports of various years and data from literature survey. Discussions with officials and selected experts were also conducted to explore the impact of public expenditure on aspects considered in the study.

1.7 Structure of the Report

This report comprises seven chapters. The first

introductory chapter is followed by the second chapter – a brief review of major economic and social trends in MP. The third chapter gives a general overview of public finance, whereas the fourth chapter depicts an analysis of budget expenditure covering recurrent and development expenditure. The fifth chapter is an analysis of social expenditure covering health, education, nutrition, housing, water and sanitation etc., giving a thrust to children and women. The sixth chapter shows basic social services and cost efficiency along with an inquiry into the scope for resource mobilization. The seventh is the conclusion and way forward.

Chapter 2

Major Economic and Social Trends

Often called the 'Heart of India', Madhya Pradesh is historically known as Malwa (derived from the word 'Malav' which means Goddess Lakshmi). Madhya Pradesh is the second largest state in India after Rajasthan, with a geographical area of 308,000 sq km. The state occupies 9.38 per cent of the total area of India and houses 6 per cent of the total population of the country. Of the total population, rural population constitutes 72.73 per cent and urban population is 27.63 per cent.

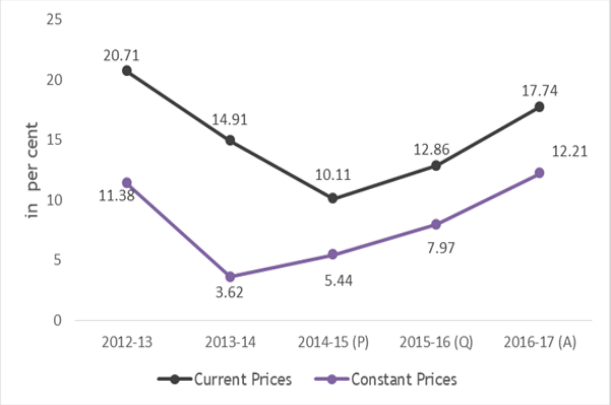
2.1 Major Economic Trends

2.1.1 Economic Growth

The state registered an impressive double-digit growth rate of 11.38 per cent (constant prices) in 2012-13. However, the growth rate dipped to the lowest in 2013-14 at 3.62 per cent. From 2014-15 onwards the state has registered an upward trend in the GSDP growth rate and is poised to reach 12.21 per cent in 2016-17.

The double digit GSDP growth rate in 2012-13 can be attributed to the double digit growth registered by the primary sector at 22.93 per cent, compared to -1.09 per cent and 9.83 per cent by the secondary and tertiary sectors respectively.

Figure 2:1 GSDP growth rate (in per cent)



Source: Department of Economics and Statistics, Madhya Pradesh

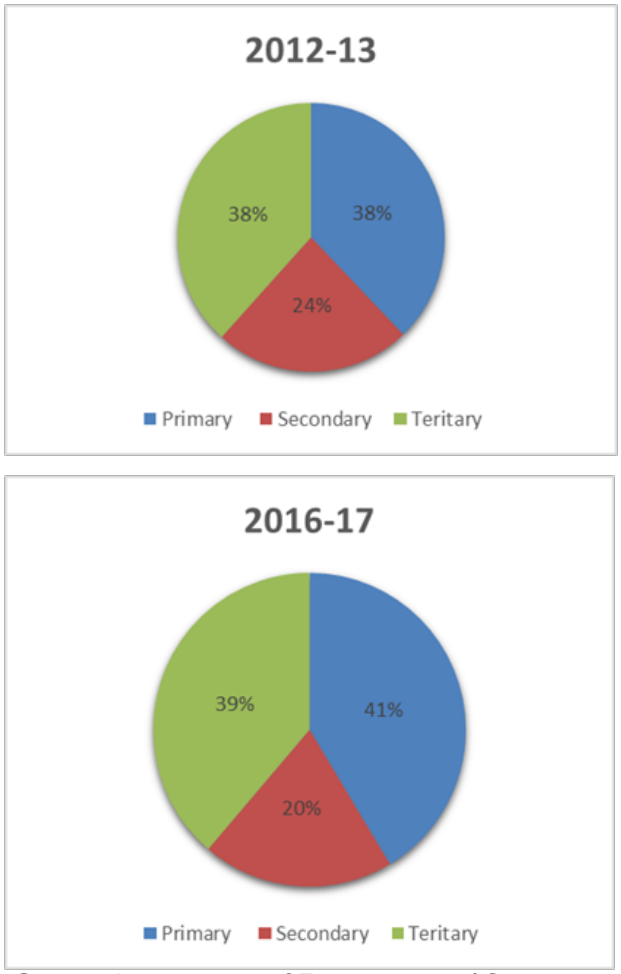
Within the primary sector, the highest growth rate has been registered by crops and livestock at 28.12 per cent and 16.85 per cent respectively in 2012-13. In 2013-14, a steady decline in the growth of primary sector was registered at -0.43 per cent which is reflected in the GSDP growth rate of the state. Agricultural sector being a major contributor to GSDP greatly influences the pattern of GSDP growth in the state.

2.1.2 Sectoral Composition

The share of primary sector to the Gross State Value Added (GSVA) has increased from 38 per cent in 2012-13 to 41 per cent in 2016-17. Within

the primary sector, agriculture and allied sectors account for the highest share and it has increased its share in the primary sector from 83 per cent in 2012-13 to 87 per cent in 2016-17.

Figure 2:2 Composition GSVA (2012-13 and 2016-17)

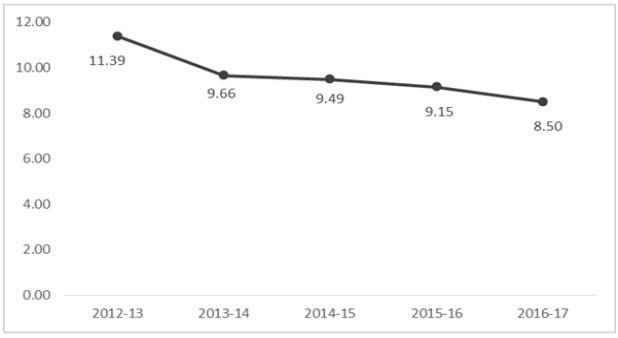


Source: Department of Economics and Statistics, Madhya Pradesh

Between 2012-13 and 2016-17, the agricultural sector registered an impressive growth rate of 88 per cent. Its contribution to the total GSVA of the state has increased from 31 per cent in 2012-13 to 36 per cent in 2016-17. This clearly shows the importance of the agriculture sector in the Madhya Pradesh economy.

When it comes to the secondary sector, it can be seen that its share in the total GSVA has declined from 24 per cent in 2012-13 to 20 per cent in 2016-17. Within the secondary sector, the share of manufacturing has declined from 48 per cent in 2012-13 to 42 per cent in 2016-17. During the same period, the contribution of electricity, gas, water supply and other utility services has increased from 11 per cent to 13 per cent. The contribution of construction sector has also increased from 40 per cent to 43 per cent. Except 2013-14, the manufacturing sector has registered a growth rate of around8 per cent. The high growth rate of the manufacturing sector has not translated in increasing its share in the GSVA. The share of the manufacturing sector in the GSVA has declined from 11.3 per cent in 2012-13 to 8.4 per cent in 2016-17.

Figure 2:3 Contribution of Manufacturing Sector to the GSVA (in %)



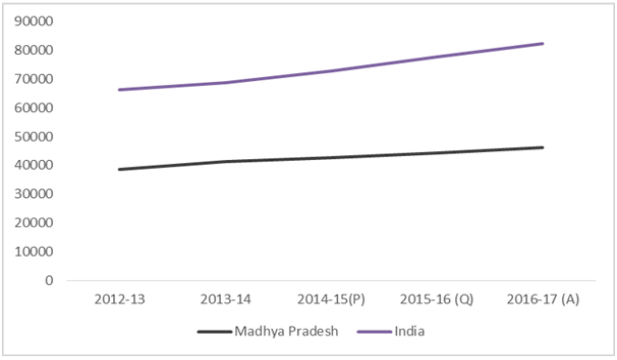
Source: Department of Economics and Statistics, Madhya Pradesh

The share of tertiary sector to the GSVA of the state has marginally increased from 38 per cent in 2012-13 to 39 per cent in 2016-17. Within the tertiary sector, trade, repairs and hotels account for the highest share at around 29 per cent in 2016-17. Trade, repairs and hotels contribution to the tertiary sector has been maintained at 29 per cent in both 2012-13 and 2016-17.It registered an annual growth rate of 22.2 per cent in 2012-13, but declined to 10.8 per cent in 2016-17.

2.1.3 Per capita Income

Per capita GSDP of the state has increased from ₹47,289 in 2012-13 to ₹59,052 in 2016-17(A) at constant prices. At current prices, per capita GSDP of the state has increased from ₹ 51,253 to ₹81,300 during the same period, registering a growth rate of 10.5 per cent in 2016-17. The best indicator of per capita state income is Net State Domestic Product (NSDP) divided by the population.

Figure 2:4 Per capita State Income and National Income at constant (2011-12) prices



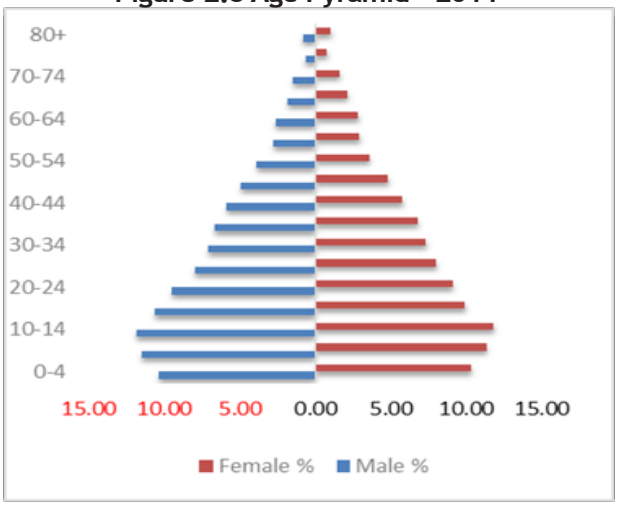
Source: Department of Economics and Statistics, Madhya Pradesh

At current prices, per capita income of the state has increased from ₹ 4,931 in 2012-13 to ₹72,599 in 2016-17(A), registering a growth rate of around 61.57 per cent during the five year period. During the same period, per capita at constant prices increased from ₹41,257 to ₹51,853.

2.1.4 Demographic Dividend- Driver for Economic Growth

The age composition of the population in Madhya Pradesh is given in figure 2:5. It shows that majority of the population belongs to the working population group (15 to 59 years). The share of the working age group (labor force) increased from 54.11 per cent in 2001 to 58.56 per cent in 2011 in the state.

Figure 2:5 Age Pyramid - 2011



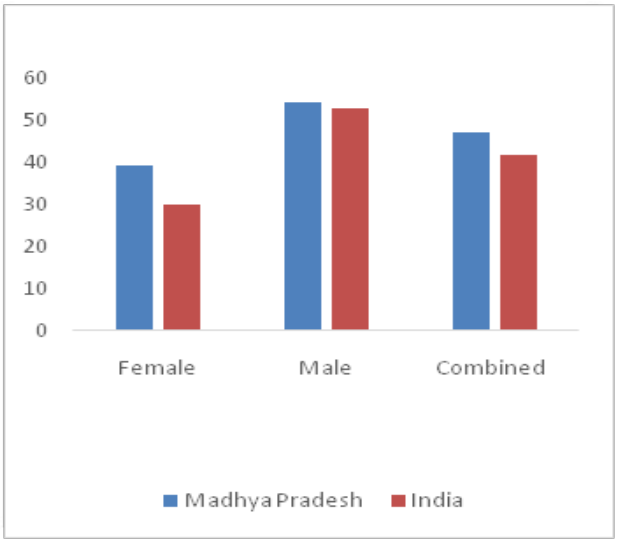
Source: Census, 2011

The share of young population in the state is greater than the national average, while the old age group represents only a small share of the population.

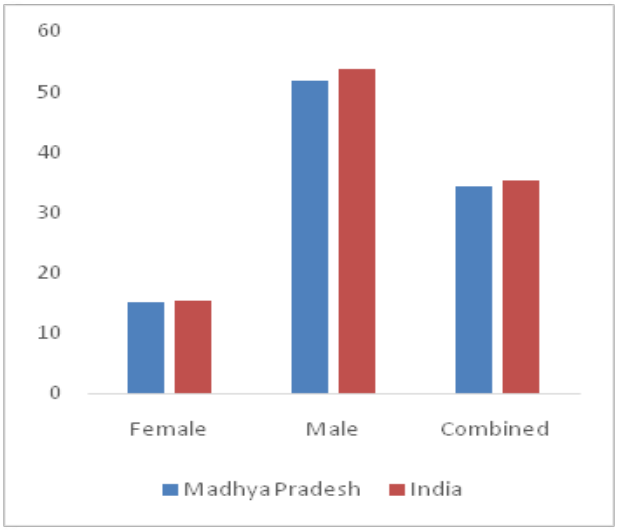
Population growth and the associated labour force is considered to be a major potential for the country's economic growth. By 2025, India is poised to become one of the most populous nations with a population of 1.4 billion. Around 64 per cent of India's population is expected to be in the age group of 15-59 years by 2026- this could be of great consequence for the economic growth of the country. Around 60 per cent of the population increase in India would come from Madhya Pradesh, Bihar, Uttar Pradesh and Rajasthan. As per Census

Figure 2:6 Workforce Participation Rate (in per cent)

Rural



Urban



Source: Census, 2011

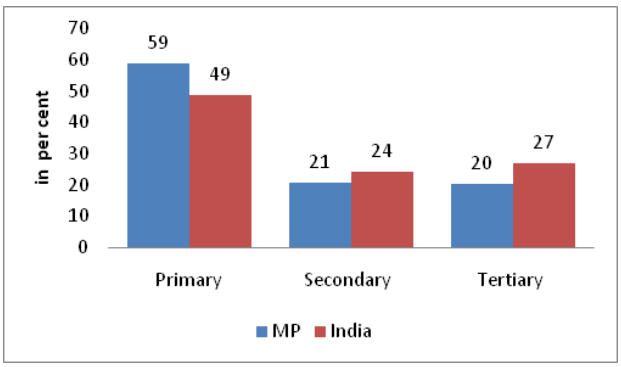
2011, median age of Madhya Pradesh stands at 23, whereas the median age of India is at 24. The young median age suggests a positive impact on the economic growth of the state.

The workforce participation rate for rural areas is higher in Madhya Pradesh both for males and females than the national average. But in urban areas, workforce participation rate in the state is less than the national average. By 2026, working age group (20-64) is going to have a share of 58 per cent to the total population in the state. The state will be able to reap its demographic dividend only if it can generate a skilled working population and step up its workforce participation rate.

2.1.5 Employment Scenario

A comparison of the distribution of workers employed in different sectors shows the highest share in the primary sector for the state as well as at the national level, with the state share being 10 percentage points higher than the latter. On the contrary, the all India share of workers in the other sectors is higher, especially for the tertiary sector.

Figure 2:7 Share of Workers across sectors



Source: NSSO, 68th Round

The secondary sector employs 21 per cent of the workforce, compared to the national average of 24 per cent. The tertiary sector employs 20 per cent of the workforce compared to the national average of 27 per cent.

The employment levels in the state have witnessed a steep decline from 59 per cent in 2013-14 to 45 per cent in 2015-16 with the national average for the latter being 50.5 per cent. The 52 employment centres across the state have 11.24 lakh educated unemployed youths registered; only 422 were given jobs till the end of 2017. One of the major steps taken by the state is the labour reforms brought about to ease the business climate and address distortions in the market. Increasing the threshold under the Industrial Disputes Act from 100 to 300 workers and easing other compliance requirements are some of the steps taken to boost this sector and its contribution to the state economy.

2.3 Social Trends

Education, health and nutrition are the factors considered under this section.

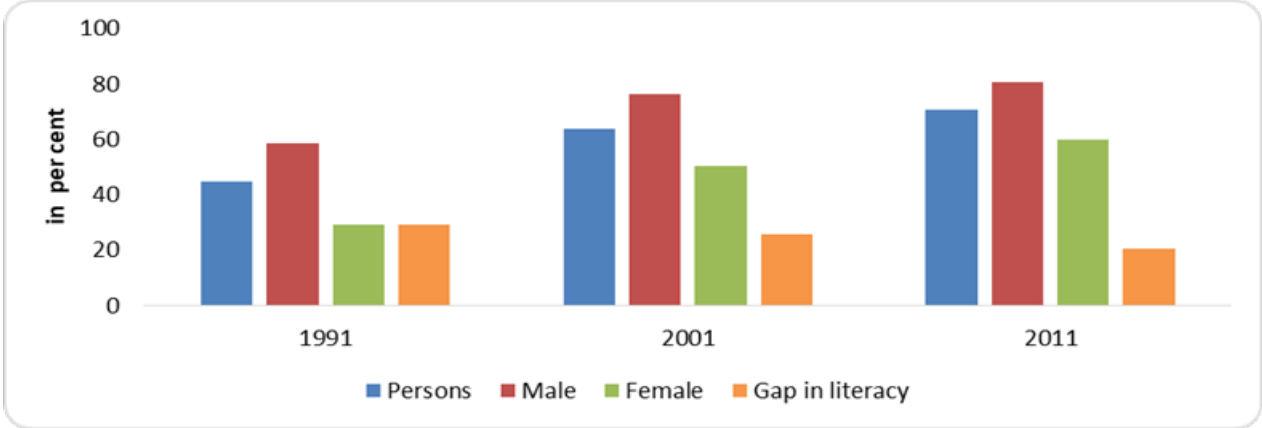
2.3.1 Education

The education sector in Madhya Pradesh has seen a positive change in the last two decades, with the state aspiring for universal education. Currently, Madhya Pradesh has an overall literacy rate of 70.6 per cent in 2011 which improved from a meagre 44 per cent in 1991. There exists a wide disparity between the literacy rates in rural and urban areas. While the urban population reached the current overall literacy levels in 1991 and is now at 84.1 per cent, rural literacy has reached only 65.3 per cent in 2011 improving from 35.4 per cent in 1991.

The gap in the literacy levels of males and females of the state continues to be around 20 per cent. Historically, male literacy is at a higher level than that of females and shows a positive trend altogether. Even though the female literacy rates doubled in the past 20 years, more than a third of the women in the state remain illiterate.

A great emphasis has been laid on elementary education by the government of Madhya Pradesh. From the DPEP (District Primary Education Program) of the early 1990s to SSA (Sarva Siksha Abhiyan) in 2001, various central initiatives also helped the education sector revamp and progress.

Figure 2:8 : Literacy in MP by Gender



Source: Various Census Reports

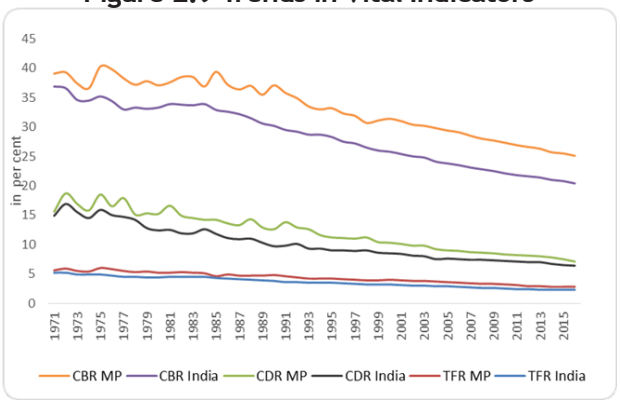
More than80 per cent of the primary schools are managed by the government. Private schools have seen a minor increase from 17.5 per cent in 2007-08 to 18.6 per cent in 2015-16.

Both the SC and ST enrolment rates have marginally improved over the past decade. In 2005, they were 15.8 per cent and 19.2 per cent respectively; whereas in 2015, they were at 17.2 per cent and 24.3 per cent respectively. The student classroom ratio is at 25 (i.e. one classroom for 25 students on an average) and this is gradually decreasing over the years. Transition rates from primary to upper primary showed an improvement from 68 per cent to 88.7 per cent, which is a positive sign. The changes in infrastructure and in other fields caused an overall improvement in the enrolment and retention of students, particularly girl children.

2.3.2 Health Trends

In the past decade, the overall social development—particularly the improvement in health status—has reflected in the health outcomes in Madhya Pradesh. The state has made remarkable progress in addressing the issues of population growth and followed the national trends closely. The crude birth rate has decreased to 25.1 from 31.4 in 2000 following a steep and consistent decline. Furthermore, the crude death rate has been restricted to a single digit after 2002 and is currently at 7.1 in 2016. The current fertility rate has halved from that of the 1990s and is projected to achieve replacement level fertility by 2020. However, these rates are still below the national average and Madhya Pradesh needs to work harder given the higher population growth rates compared to the rest of the country.

Figure 2:9 Trends in Vital Indicators



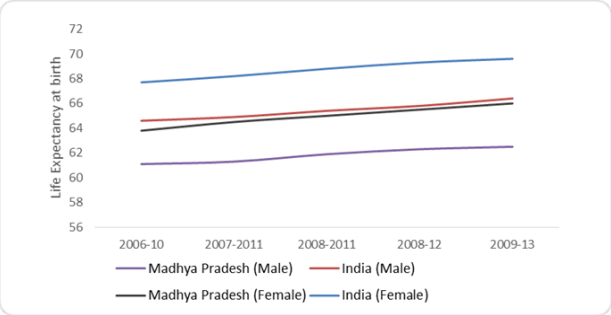
Source: SRS, 2014-15

The indicator for family planning measures, which helps in improving the reproductive health, shows contrary trends. The use of any contraceptive method was 55.9 per cent in 2005-06 (NFHS -3) which only reduced to 51.4 per cent in 2015-2016 (NFHS-4). The total unmet need of family planning still stays at 12.1 per cent in 2015-16 (NFHS -4), the same as that of 2005-06 (NFHS-3) and the unmet need of spacing increased from 5.4 per cent in 2005-06 to 5.7 per cent in 2015-16. Thus, further efforts are needed to improve family planning services.

The life expectancy at birth for both men and women has seen a steady increase, but it still lags behind the national average keeping a consistent

gap of three years.

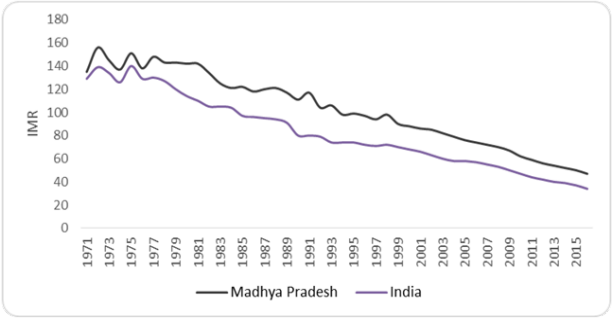
Figure 2:10 Trends in Life Expectancy at Birth



Source: SRS, 2014-15

The progressive reforms in the health sector in the past decade have concentrated on improving maternal and child health and thereby preventing the avoidable mortality and morbidity of women and children. The Maternal Mortality Ratio has declined from 407 per 100,000 live births in 1999-2001 to 221 in the year 2011-13 compared to the national figures of 327 and 167 in the respective years. Thus, the state fell behind in achieving the MMR target of Millennium Development Goal (MDG) by 2015 and is now struggling to achieve the Sustainable Development Goal (SDG) target. Similar trends can also be seen in other mortality indicators. The Infant Mortality Rate (IMR) stood at a high rate of 88 per 1000 live births, which almost halved at 47 by 2016. The corresponding national rates were 68 and 34 in these years, which shows the extent of lag of the state. The nation is progressing towards the National Health Policy goal of achieving IMR below 28 by 2019, while the state may find it too ambitious at this point. Under-5 mortality also decreased in the past decade from 94 in 2005-06 (NFHS -3) to 65 in 2015-16 (NFHS-4).

Figure 2:11 Trends in IMR



Source: SRS 2014-15

Interventions related to childbirth, such as institutional delivery, births assisted by health professionals and births registered, increased considerably in the past decade. The proportion of women who had an antenatal check-up (ANC) in their first trimester of pregnancy increased from 39.3 per cent to 53.1 per cent and the proportion of women who received four or more ANC visits increased from 22.3 per cent to 35.7 per cent during this period. Overall, there have been improvements in child nutrition and health outcomes levels in Madhya Pradesh between 2006 and 2016. The proportion of children who were stunted fell from 50 per cent to 42 per cent, which still remains disproportionately high. The prevalence of low birth weight also remains high with only a small difference from 23.4 per cent to 23.1 per cent.

Immunization coverage has seen a positive trend in the state. The proportion of children who were fully immunized increased from 40.3 per cent to 53.6 per cent. However, it is still abysmally low, as almost half of the children are not immunized while the nation aspires for universal immunization. The practice of open defecation remains over 60 per cent even though it reduced from 73 per cent in 2005. Thus, sanitation and hygiene issues persist as the single most difficult problem in the field of public health of the state that needs immediate and strong efforts to tackle.

The health infrastructure in the state continues to face many limitations in terms of availability and access. Over the past decade, the population of Madhya Pradesh has increased from 60.4 million to 72 million. The health infrastructure, however, has not adapted itself to the increasing demands of the population. There has been only a marginal rise in the number of Sub Centres (8874 in 2005 to 9192 in 2015) and the number of Community Health Centres (229 from 2005 to 334 in 2015). Some of the Primary Health Centres have been upgraded to Community Health Centres though few facilities were added. This led to a minor

decrease in the number of PHCs between 2005 and 2015 (1192 to 1171). These statistics only show the number of existing facilities and do not include their performance in terms of service provision and utilization. Similar issues exist in terms of health workforce too. There are disparities in human resource requirement and actual staff, and large numbers of vacant positions of various medical and paramedical staff, which are sanctioned but not filled. Both the number of vacant positions and a shortfall in requirements has seen an increase over the past 10 years, which are a serious flaws in the state's public health delivery system.

2.3.3 Nutrition

The state has one of the highest levels of malnutrition in the country. Even more worrisome is the prevalence of anaemia, especially among pregnant women and young children. Although the share of women and children affected by anaemia has declined, 69 per cent of children (6-59 months) are still afflicted. The share of women affected is also a staggering 52.5 per cent, with a higher prevalence for pregnant women (NFHS 2015-16).

Stunting and wasting among children is also a serious concern although it has decreased from 50 per cent (2005-06) to 42 per cent (2015-16) and 35 per cent (2005-06) to 25.8 per cent (2015-16) respectively. The prevailing high levels of stunting and wasting found in the state have serious consequences for the health, learning outcomes and overall development of the child.

2.4 Summing Up

To conclude, there has been noticeable progress in many fields of the state economy but social development is yet to pick up pace. In the economic front, there should be attempts to maintain and sustain agriculture development and accelerate the development of secondary and tertiary sectors. The state can reap its demographic dividend only if it is able to generate sufficient employment opportunities. In the social sector, serious attempts and interventions are required to achieve sustainable development goals, particularly in the health sector.

Chapter 3

General Overview of Public Finance

The government requires revenue to fund its activities— mainly the provision of essential public services for its citizen. The attainment of SDG goals makes the attainment of this revenue all the more important.

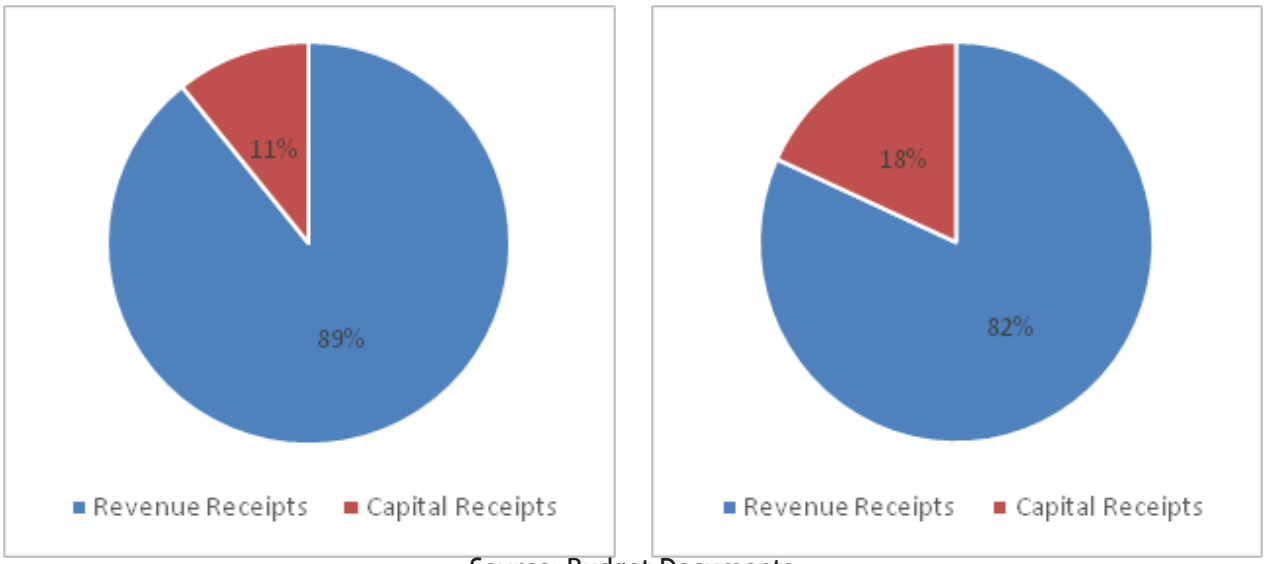
The total receipts of the state stand at ₹ 150,704.2 crore in 2016-17, registering a growth rate of around 15 per cent. Of the total receipts, revenue receipts occupy the largest share followed by capital receipts. The share of revenue receipts to the total receipts has declined from 89 per cent in 2012-13 to 82 per cent in 2016-17. During the same period, the share of capital receipts has increased from 11 per cent to 18 per cent.

The fall in revenue receipts maybe attributed to the decline in the share of non-tax revenue to the revenue receipts. The share of non-tax revenue to total revenue receipts has declined from 12 per cent in 2012-13 to 7 per cent in 2016-17.

3.1 Performance of Revenue Receipts

The total revenue receipts of the states in the country consist of own revenue receipts and transfers from the central government. Own revenue receipts of the state consist of tax revenue and non-tax revenue. On the other hand, central transfers include both share in central taxes and grants-in-aid from the central government.

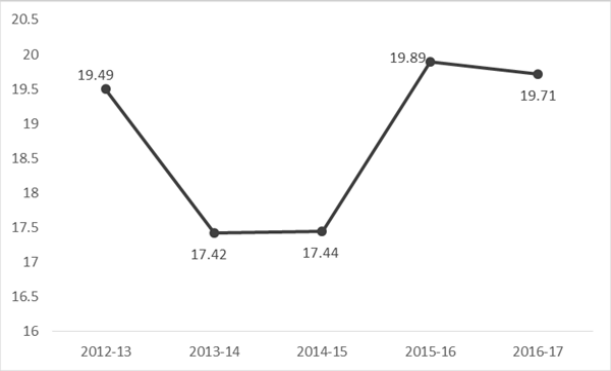
Figure 3:1 Composition of Total Receipts



Source: Budget Documents

During 2012-13 to 2016-17, there has been a marginal increase in the total revenue receipts of the state as a share of GSDP. The marginal increase can be attributed to the increase in the central transfers as own revenue (tax revenue and non-tax revenue) has declined during the specified time period.

Figure 3:2 Revenue Receipts as per cent of GSDP



Source: State Finances: Study of Budgets, RBI

The major contributor to the state's own revenue is tax revenue. During 2012-13 to 2016-17, both own tax revenue and own non-tax revenue of Madhya Pradesh witnessed a declining trend. During the same period, an increasing trend has been evident in the case of central transfers as a share of GSDP.

Table 3:1 Major Components of Madhya Pradesh's revenue in relation to GSDP (in per cent)

Indicators	2012-13	2013-14	2014-15	2015-16	2016-17
Own tax -GSDP	8.50	7.80	7.60	7.60	6.90
Own non-tax-GSDP	1.90	1.80	2.20	1.60	1.60
Own-total revenue-GSDP	0.11	0.11	0.12	0.12	0.11
Central Transfers-GSDP	9.10	7.90	8.70	10.70	11.20
Revenue Receipts-GSDP	19.49	17.42	17.44	19.89	19.71

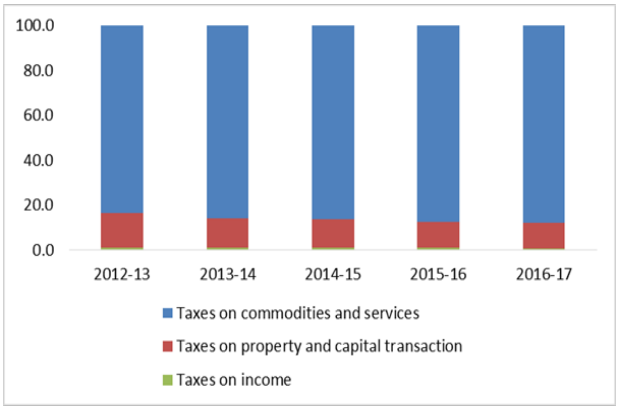
Source: State Finances: Study of Budgets, RBI

The own-tax GSDP of the state has declined from 8.5 per cent in 2012-13 to 6.9 per cent in 2016-17. The own non-tax GSDP of the state has declined from 1.9 per cent to 1.6 per cent during the same time period. On the other hand, the central transfers GSDP of the state has increased from 9.1 per cent to 11.2 per cent from 2012-13 to 2016-17.

3.2 Composition of own-tax revenue

States receive their own-tax revenue from sales tax/value added tax (VAT), state excise, stamps and registration fees, motor vehicle tax, and other sundry taxes like agricultural income tax, land revenue, profession tax, property tax, electricity duty and entertainment tax. Taxes on commodities and services account for the highest share in the own-tax revenue of MP followed by taxes on property and capital transaction and taxes on income.

Figure 3:3 Composition of own-tax revenue (in per cent)



Source: State Finances: Study of Budgets, RBI

The taxes on income have a miniscule share in the own-tax revenue and its contribution to the own-tax revenue has declined during the study period. Taxes on income consist of agricultural income tax and taxes on professions, trades, callings and employment. Though Madhya Pradesh is an agrarian economy, the contribution of agricultural income tax is nil.

Taxes on property and capital transaction have declined from 15.7 per cent to 11.1 per cent during the study period. Within taxes on property and capital transaction, the share of both land revenue and stamps & registration fee has declined from 9.2 per cent and 82.2 per cent to 8.3 per cent and

79.9 per cent respectively during the study period. On the other hand, share of urban immovable property tax has increased from 8.6 per cent to 11.9 per cent.

The share of taxes on commodities and services has increased from 83.5 per cent in 2012-13 to 88.1 per cent in 2016-17. Among the taxes on commodities and services, sales tax/VAT is the major contributor followed by state excise, taxes on goods and passenger, taxes on vehicles, taxes and duties on electricity. The contribution of sales tax/VAT towards taxes on commoditues and services has declined marginally from 58.2 per cent in 2012-13 to 57.9 per cent in 2016-17. A similar trend is evident in the case of state excise with its share declining from 19.9 per cent to 19.3 per cent during the study period.

3.3 Growth of major own-tax revenue sources

Table 3.2 shows the year-to-year growth rate of own-tax revenue of the state. The state's own-tax revenue has been showing a declining trend during the study period with an exception in 2015-16.

The growth rate registered by taxes on income has shown an improving trend — it increased from -4.8 per cent in 2012-13 to 4.1 per cent in 2016-17. A similar trend is evident in the case of taxes on property and capital transaction, with its growth rate improving from 3.4 per cent in 2012-13 to 4.1 per cent in 2016-17. Within taxes on property and capital transaction a huge decline has been registered by stamps and registration fees, with its growth rate declining from 20.1 per cent in 2012-13 to 1.5 per cent in 2016-17. Taxes on commodities and services also registered a declining trend with a growth rate of 15.7 per cent in 2012-13 and 10.7 per cent in 2016-17. The highest decline has been registered by state excise with a growth rate of 17.6 per cent in 2012-13 and -4.9 per cent in 2016-17.

3.4 Buoyancy of own tax revenue

Buoyancy of tax revenue measures the responsiveness of tax revenue to the changes in the income of the state. In terms of buoyancy of

Table 3:2 Growth Rate of Own-Tax Revenue (per cent)

	2012-13	2013-14	2014-15	2015-16	2016-17
State's Own Tax Revenue	13.4	9.7	9.0	10.0	9.9
i. Taxes on Income	-4.8	8.1	3.2	11.5	4.1
ii. Taxes on Property and Capital Transactions	3.4	-7.7	7.6	-1.0	4.1
a. Land Revenue	59.0	-17.4	-33.6	13.9	46.9
b. Stamps and Registration Fees	20.1	-13.8	14.5	-0.6	1.5
c. Urban Immovable Property Tax	-61.7	61.5	-4.8	-9.1	1.1
iii. Taxes on Commodities and Services	15.7	13.0	9.3	11.6	10.7
a. Sales Tax	18.7	12.1	8.9	9.2	13.9
b. State Excise	17.6	16.3	13.3	18.3	-4.9
c. Taxes on Goods and Passengers	17.0	7.7	4.2	14.8	23.3

Source: State Finances: Study of Budgets, RBI

tax revenue, Madhya Pradesh is in a dire situation registering a value of less than one throughout the study period. (A tax is buoyant when revenues increase by more than, say, 1 per cent for a 1 per cent increase in GDP.)

Table 3:3 Buoyancy of own-tax revenue

Year	Buoyancy of own-tax revenue
2012-13	0.13
2013-14	0.22
2014-15	0.16
2015-16	0.15
2016-17	0.07

Source: Calculated from State Finances: Study of Budgets, RBI and DES, Madhya Pradesh

Buoyancy of own-tax revenue has also been deteriorating over the five-year period. Its value declined from 0.13 per cent in 2012-13 to 0.07 per cent in 2016-17. The low value for buoyancy of own-tax revenue is a major concern as the state is not mobilising enough resources in response to the increasing GSDP growth.

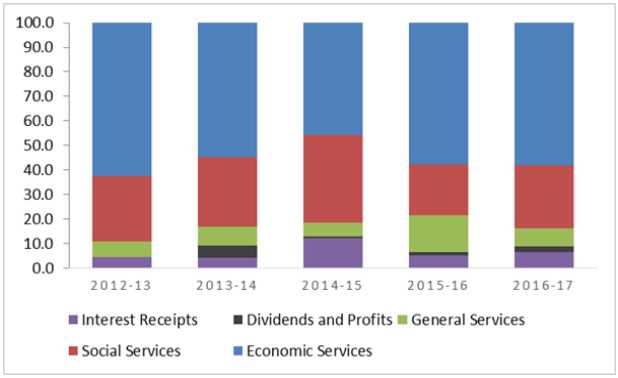
3.5 Composition of own non-tax revenue

The main sources of own-tax revenue of the states are

- Interest receipts on loans rendered
- Dividends and profits on equity investments on state public sector enterprises (PSEs) and statutory corporations
- User charges on social, economic, general and fiscal services.

Fig 3:4 presents the composition of own non-tax revenue of the state. From the figure, it is clear that economic services account for the highest share of the total own non-tax revenue of the

Figure 3:4 Composition of own non-tax revenue (in per cent)



Source: State Finances: Study of Budgets, RBI

state. During the study period, its share in the total own non-tax revenue has declined from 62.6 per cent to 58 per cent. Within the economic services, industries register the highest share increasing from 56.3 per cent in 2012-13 to 60.5 per cent in 2016-17. The overall decline in the share of economic services to own non-tax revenue can be attributed to the decline in the share of forestry and wildlife.

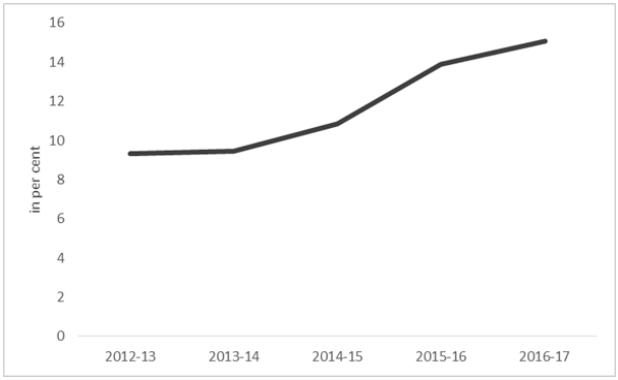
The share of forestry and wildlife in economic services declined from 20.7 per cent in 2012-13 to 17.4 per cent in 2016-17. A similar trend is evident in the case of social services with its share in the own non-tax revenue of the state declining from 26.5 per cent in 2012-13 to 25.57 per cent in 2016-17. Within the social services, education, sports, art and culture account for the highest share, but their share in social services has declined from 90.7 per cent in 2012-13 to 77.95 per cent.

The other major components of own tax revenue such as interest receipts, dividends and profits and general services have improved their share in the own non-tax revenue from 2012-13 to 2016-17.

3.6 Central Transfers

Central transfers include both share in central taxes and grants from the central government. Central transfers as a percentage of GSDP have been showing an increasing trend. It increased from 9.3 per cent in 2012-13 to 15 per cent in 2016-17.

Figure 3:5 Central Transfers as per cent of GSDP



Source: State Finances: Study of Budgets, RBI

Central transfers as a percentage of GSDP has been showing an increasing trend. It increased from 9.3 per cent in 2012-13 to 15 per cent in 2016-17.

Table 3:4 presents the growth rate of central transfers in the state. Central transfers have registered a fluctuating trend over the course of five years. Central transfers registered a growth rate of 16.69 per cent in 2012-13, and subsequently dipped to 5.01 per cent in 2013-14. After reaching a peak of 36.04 per cent in 2015-16, it again dipped to 23.44 per cent in 2016-17.

Table 3:4 Growth rate of Central Transfers (in per cent)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Central Transfers	**16.69**	**5.01**	**20.89**	**36.04**	**23.44**
(i)Share in Central Taxes	14.19	9.18	6.13	59.28	19.97
(ii) Grants from the Centre	21.27	-2.19	49.37	4.20	30.73

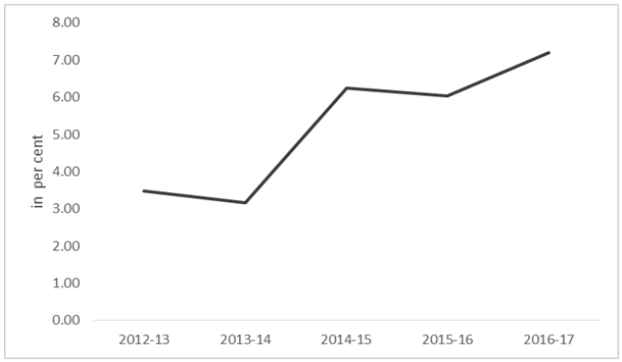
Source: State Finances: Study of Budgets, RBI

The growth rate registered by both the components of central transfers has also shown a fluctuating trend. The highest growth rate has been registered by share in central taxes at 59.28 per cent in 2015-16. Similarly, grants from the centre have registered a high growth rate in 2014-15 at 49.37 per cent.

3.7 Capital Receipts

Capital receipts of the state increased from ₹2,238.45 crore in 2012-13 to ₹33,465.08 crore in 2016-17. The main source of capital receipts of the state includes internal debt, loans and advances from the centre, recovery of loans and advances, deposits and advances, and state provident fund.

Figure 3:6 Capital Receipts as per cent of GSDP



Source: State Finances: Study of Budgets, RBI

Capital receipts as a percentage of GSDP have increased from 3.48 per cent in 2012-13 to 7.19 per cent in 2016-17. The increasing share of capital receipts to GSDP portrays the deteriorating fiscal situation of the state.

3.8 Summing Up

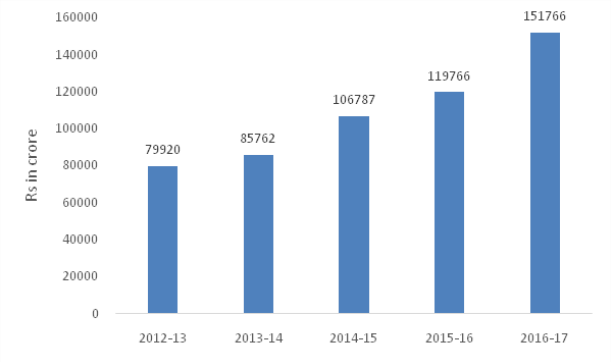
The analysis of revenue receipts as a percentage of GSDP shows a fluctuating trend. During the study period, the growth rate of state's own-tax revenue has been exhibiting a fluctuating trend. On the other hand, capital receipts as a share of GSDP has been following an increasing trend over the years, which shows the increasing reliance on borrowing. The buoyancy of the state's own tax revenue has been deteriorating over the last five years, which is a worrisome sign. The implementation of GST will have significant impact on the total revenue receipts of the state, which will be reflected in the coming years.

Chapter 4

Analysis of Budget Expenditure

Public expenditure is broadly categorized into revenue expenditure and capital expenditure based on its nature. Both these categories have further sub-classifications based on function, viz. development expenditure (social services and economic services) and non-development expenditure (general services).

Figure 4:1 Total Expenditure (2012-13 to 2016-17)



Source: State Budget documents

The total expenditure of Madhya Pradesh has increased from ₹79,920 crore in 2012-13 to ₹151,766 crore in 2016-17, exhibiting a growth rate of around 89 per cent over the five years.

4.1 Composition of Total Expenditure

The share of various components of expenditure in total expenditure is presented in table 4:1. From the table it is clear that revenue expenditure occupies the highest share at around 78 per cent. The share of revenue expenditure to the total expenditure has been showing a fluctuating trend, with its share reaching the highest at 83 per cent in 2015-16, and it further declined to 78 per cent in 2016-17. On the other hand, the share of capital expenditure to the total expenditure has increased from 14.47 per cent in 2012-13 to 17.98 per cent in 2016-17.

Table 4:1 Share of various components in Total Expenditure (in per cent)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Revenue Expenditure	78.79	81.47	77.14	83.30	78.76
Capital Expenditure	14.47	12.61	11.12	14.06	17.98
Loans and Advances	6.73	5.92	11.74	2.64	3.26
Development Expenditure	76.39	74.40	77.94	76.95	80.27
Non-Development Expenditure	23.61	25.60	22.06	23.05	19.73

Source: State Finances: Study of Budgets, RBI

Table 4:2 Share of various components of expenditure to GSDP (in per cent)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Total Expenditure	22.73	23.49	27.80	29.36	32.63
Revenue Expenditure	17.90	19.14	21.45	24.46	25.70
Capital Expenditure	3.29	2.96	3.09	4.13	5.87
Loans and Advances	1.53	1.39	3.26	0.77	1.06
Development Expenditure	16.48	16.55	20.81	21.48	25.38
Non-Development Expenditure	5.09	5.69	5.89	6.43	6.80

Source: State Finances: Study of Budgets, RBI

The high share of revenue expenditure could be attributed to the increasing share of committed expenditure—mainly salary, pension and interest payments. Expenditure on salary and pension occupies around 26 per cent share of the total revenue expenditure. Compared to other states, where more than half of the revenue expenditure is spent on salaries and pension, Madhya Pradesh is in a much better position. The share of salary and pension expenditure to the total revenue expenditure of the state has declined from 33.6 per cent in 2012-13 to 26 per cent in 2016-17. The share of interest payment to the total revenue expenditure has marginally declined from 8.8 per cent in 2012-13 to 7.6 per cent in 2016-17.

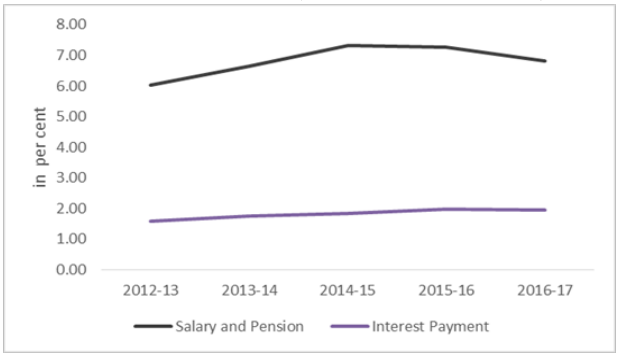
Table 4:3 Expenditure on Salaries, Pensions and Interest Payments (As a share of revenue expenditure) (in per cent)

Year	Salary and Pension	Interest Payment
2012-13	33.61	8.85
2013-14	34.78	9.15
2014-15	34.11	8.58
2015-16	29.76	8.11
2016-17	26.54	7.60

Source: State Finances: Study of Budgets, RBI

The expenditure on salary and pension as a share of GSDP does not present a healthy picture. The share of salary and pension expenditure to the GSDP of the state has increased marginally from 6.02 per cent in 2012-13 to 6.82 per cent in 2016-17.

Figure 4:2 Expenditure on Salaries, Pension and Interest Payment (As a share of GSDP)



Source: Calculated from State Finances: Study of Budgets, RBI and Economic Survey, Madhya Pradesh

It should be noted that Kerala, the state that spends around 56 per cent of its total revenue expenditure on salary and pension also spends 6.26 per cent on the same as a proportion of GSDP. The share of interest payment to the GSDP of the state has increased from 1.82 per cent in 2012-13 to 1.95 per cent in 2016-17.

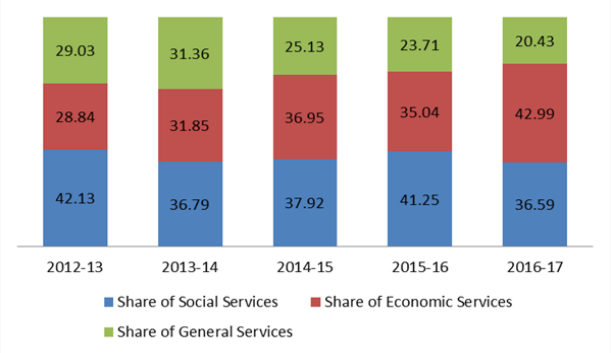
4.2 Functional Classification of Expenditure

Based on the functional classification, total expenditure of the government is categorised under the following heads:

- Social Services
- Economic Services
- General Services

The share of social services in total expenditure has been declining over five years—from 42.13 per cent in 2012-13 to 36.59 per cent in 2016-17. The share of general services has also declined from 29.03 per cent in 2012-13 to 20.43 per cent. On the other hand, the share of economic services has increased from 28.84 per cent in 2012-13 to 42.99 per cent in 2016-17.

Figure 4:3 Composition of Expenditure (in per cent)



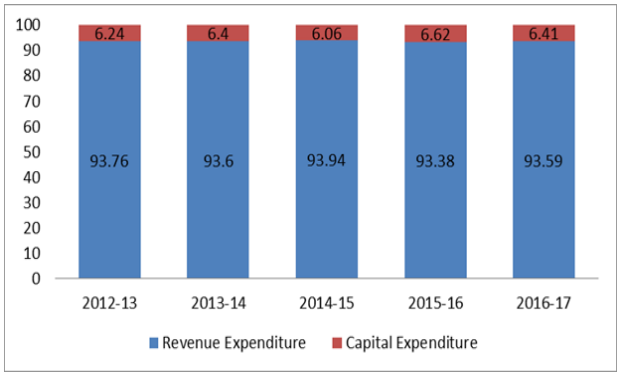
Source: State Finances: Study of Budgets, RBI

The declining share of general services to the total expenditure should be considered a healthy sign. It shows a declining trend in the government spending towards interest payments and debt servicing.

4.3 Quality of Expenditure on Economic and Social Services

In order to understand the quality of expenditure, it is important to understand where the money is spent in social and economic services. Expenditure on social services increased from ₹25,996.4 crore in 2012-13 to ₹51,227.5 crore in 2016-17, registering a growth rate of around 97 per cent over the five year period. Around 93 per cent of the total expenditure towards social services goes to revenue expenditure. Revenue expenditure consists of spending on wages and salaries and other transfers within the social services. The disproportionately high share of revenue expenditure shows that a meagre amount is spent on creation of new capital assets. The share of capital expenditure to the total expenditure in social services has remained stagnant at around 6 per cent during the study period.

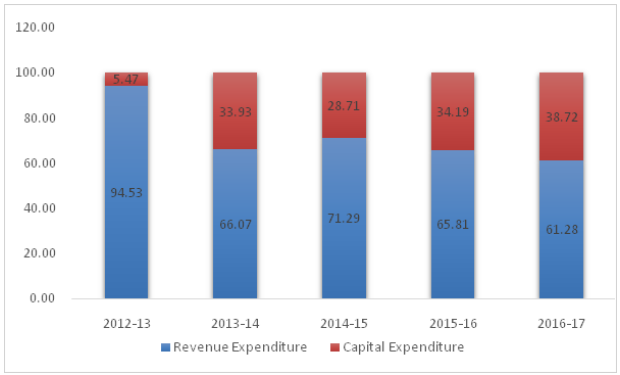
Figure 4:4 Composition of Expenditure in Social Services (in per cent)



Source: State Finances: Study of Budgets, RBI

Compared to social services, quality of expenditure in economics services is in a much better position with the share of capital expenditure increasing over the years. Expenditure on economic services has increased by around 238 per cent, from ₹17,797.4 crore in 2012-13 to ₹60,190 crore in 2016-17.

Figure 4:5 Composition of Expenditure in Economic Services (in per cent)



Source: State Finances: Study of Budgets, RBI

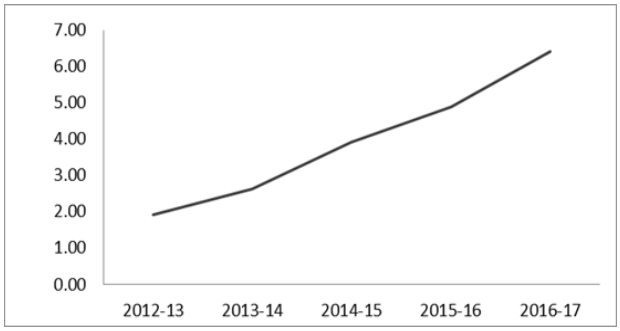
The share of capital expenditure to the total expenditure on economic services increased from 5.47 per cent in 2012-13 to 38.72 per cent in 2016-17.

4.4 Deficit Indicators

Before analysing the deficit indicators, it is important to look into the debt situation of the state. The debt-GSDP ratio of the state has been increasing over the course of five years. Debt as a share of GSDP has increased from 1.9 per cent in 2012-13 to 6.4 per cent in 2016-17. Though the debt-GSDP ratio of the state has been increasing,

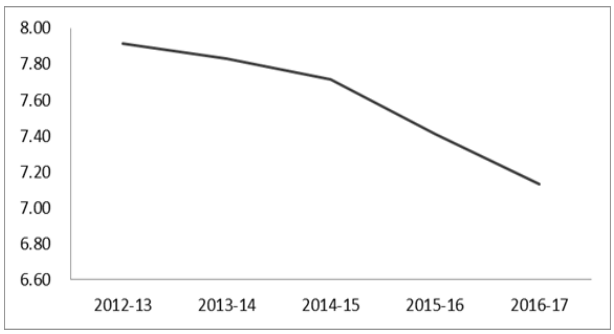
the state is far below the debt level prescribed by the 14th Finance Commission. The 14th Finance Commission prescribes a debt- GSDP ratio of less than 25 per cent for the Indian states.

Figure 4:6 Debt as a share of GSDP



Source: Calculated from Budget Documents and DES, Madhya Pradesh

Figure 4:7 Interest Payments as a share of Revenue Receipts (in per cent)



Source: Calculated from Budget Documents and DES, Madhya Pradesh

Another important parameter to analyse the debt situation of the state is to look into the share of interest payments as a share of revenue receipts. The share of interest payments to the revenue receipts of the state has been stagnant around 7 per cent. In line with debt-GSDP ratio, the state is within the permissible level prescribed by the 14th Finance Commission. The 14th Finance Commission has prescribed an interest payment-revenue receipts ratio of less than 10 per cent. Thus, Madhya Pradesh qualifies for both the condition suggested by the 14th Finance Commission for raising the fiscal deficit above 3 per cent of the GSDP limit.

4.5 Key Deficit Indicators

The key parameter for measuring the fiscal imbalance of the state is its fiscal deficit. Fiscal deficit measures the excess of expenditure over the receipts of the state. It indicates the dependence of the government on borrowing and the strength of government finances. The second indicator used is primary deficit, i.e. fiscal deficit minus interest payments. The third indicator is the revenue deficit that measures the deficit created by the government from its current activities.

Table 4:4 Deficit Indicators as share of GSDP (in per cent)

Particulars	2012 - 13	2013 - 14	2014 - 15	2015 - 16	2016 - 17
Fiscal Deficit	2.60	2.19	2.29	2.49	4.30
Primary Deficit	1.01	0.79	0.90	1.06	2.90
Revenue Surplus	2.06	1.30	1.23	1.02	0.60

Source: Budget Documents

The FRBM Act targets eliminating revenue deficit and maintaining it at zero per cent of GSDP. Madhya Pradesh is a revenue surplus state and the revenue surplus as a share of GSDP has been declining over the years, from 2.06 per cent in 2012-13 to 0.6 per cent in 2016-17. Revenue surplus indicates that the government's actual net receipts are above the projected receipts. Fiscal deficit of the state has been increasing during the study period. Fiscal deficit as a share of GSDP increased from 2.60 per cent in 2012-13 to 4.3 per cent in 2016-17.

4.6 Decomposition of fiscal deficit

It is important to understand the pattern of government spending from the borrowed money. Table 4:5 presents the decomposition of gross fiscal deficit from 2012-13 to 2016-17.

From the table it is clear that capital outlay dominates the fiscal deficit of the state. Capital outlay occupies the highest share in the fiscal deficit, though revenue deficit started gaining prominence over the years. The high share of capital outlay in the fiscal deficit of the state should

be considered as a welcome sign, it shows that the state is spending on the creation of capital assets. The investment on the creation of capital assets can have a multiplier effect positively influencing the long term growth of the economy.

Table 4:5 Decomposition of Fiscal deficit (₹ in crore)

Year	Revenue Deficit	Capital Outlay	Net Lending
2012-13	-7460	11,570	5350
2013-14	-5880	10,810	4980
2014-15	-6270	11,880	5770
2015-16	-5740	16,840	3000
2016-17 (RE)	-1530	26,780	4650

Source: State Finances: Study of Budgets, RBI

4.7 Composition of Outstanding Liabilities

The total outstanding liability of the state has increased from ₹80,980 crore in 2012-13 to ₹127,710 crore in 2016-17. The growth rate in terms of total outstanding liabilities has increased from 7.2 per cent in 2012-13 to 17.4 per cent in 2016-17. The outstanding liability as a share of GSDP has marginally declined from 25.7 per cent in 2012 to 24.1 per cent in 2016.

Internal debt occupies the highest share in outstanding liability—increasing from 60.88 per cent in 2012-13 to 65.30 per cent in 2016-17. The next major sources in financing total outstanding liability are loans from centre and provident fund. The share of loans from centre in the total outstanding liability of the state has declined from 14.03 per cent in 2012-13 to 10.70 per cent in 2016-17. During the same period, the share of provident fund in the total outstanding liability of the state has also declined from 11.55 per cent to 10.71 per cent.

Table 4:6 Composition of outstanding liability (in per cent)

Particulars	2012	2013	2014	2015	2016
Internal Debt	60.88	60.02	61.16	63.06	65.30
Loans from Centre	14.03	13.70	5.30	12.17	10.70
Provident Fund	11.55	11.39	28.28	11.64	10.71
Reserve Fund	4.27	6.12	1.50	5.52	6.37
Deposit and Advances	9.00	8.54	3.74	7.14	6.53
Contingency Fund	0.25	0.22	0.02	0.46	0.39

Source: Calculated from State Finances: Study of Budgets, RBI

4.8 Summing Up

Analysis of the expenditure pattern of the state shows that revenue expenditure occupies the highest share. The increasing share of capital expenditure in total expenditure is a welcome sign. The meagre share of capital expenditure in the social services is an area of concern. During the study period, the share of capital expenditure in social services remained more or less stagnant.

The analysis of deficit indicators showed that the state was within the permissible level as prescribed in the FRBM Act till 2015-16. In 2016-17, the fiscal deficit of the state was 4.3 per cent. FRBM Act mandates that the government should maintain the fiscal deficit at 3 per cent of GSDP.

Chapter 5

Analysis of Social Sector Expenditure

Social expenditure is defined as expenditures on social sectors like education, health, nutrition and other welfare programs in addition to expenditure on poverty through rural development programmes. In India, social sector expenditure includes expenditure on General Education, Technical Education, Sports and Youth Services, Arts and Culture, Medical and Public Health, Family Welfare, Water Supply and Sanitation, Housing, Urban Development, Information & Publicity, Broadcasting, Welfare of SC, ST and OBC, Labour and Employment, Social Security & Welfare, Nutrition, Natural Calamities, and Other Social Services.

Government expenditure on social services assumes importance because it tends to benefit the poor relatively more than the rich; it also produces direct growth and indirect spill over benefits to the economy by increasing its human capital (IMF Working Paper, 2002). India's Human Development Index (HDI) is weak because the track record of managing the social services comprising health, education, water supply, and food and nutrition security has been inadequate. (Kumar, Nema, Hazarika, & Sachdeva; Baqir, 2002) According to a NITI Aayog paper on the *Social Sector Expenditure of State Pre & Post Fourteenth Finance Commission*, this expenditure is of critical importance on three fronts:

- The magnitude of deprivation is too large to leave it to only the market forces.
- A higher proportion of poor households utilizing government services, compared to richer households.
- To ensure clearly articulated outcomes in social sector viz. Sustainable Development Goals.

5.1 Trend in Social Sector Expenditure

Social sector expenditure has increased from ₹25,996 crore in 2012-13 to ₹51,227.6 crore in 2016-17. The growth rate in social sector expenditure has registered a fluctuating trend, with 18.73 per cent in 2012-13 and 12.16 per cent in 2016-17 after reaching a peak of 33.80 per cent in 2016-17.

In the same period, social sector expenditure as a percentage of GSDP increased from 7.39 per cent to 11.01 per cent. On the other hand, the share of social sector expenditure in total expenditure declined from 42.13 per cent in 2012-13 to 36.59 per cent in 2016-17.

Table 5:1 Trend in Social Sector Expenditure

Year	Social sector Expenditure as per cent of GSDP	Social sector expenditure as a per cent of Total Expenditure	Growth Rate in Social sector Expenditure (per cent)
2012-13	7.39	42.13	18.73
2013-14	8.13	36.79	14.12
2014-15	8.89	37.92	15.07
2015-16	11.20	41.25	33.80
2016-17	11.01	36.59	12.16

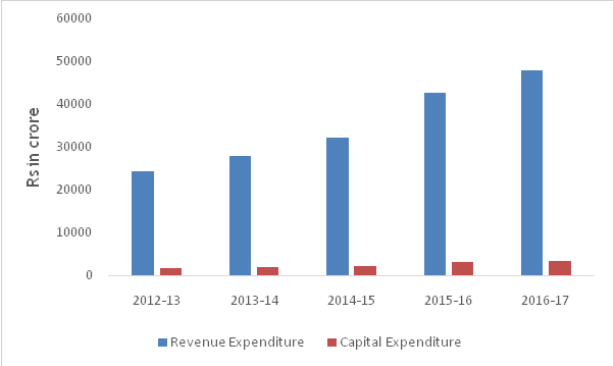
Source: Calculated from State Finances: Study of Budgets, RBI and DES, Madhya Pradesh

5.2 Classification of Social Sector Expenditure

Of the total expenditure, revenue expenditure occupies the highest share at around 93 per cent. Revenue expenditure under social sector has increased from ₹24,375.5 crore in 2012-13 to ₹47,942.4 crore in 2016-17. The growth rate of revenue expenditure has declined from 20.09 per cent to 12.40 per cent in 2016-17.

Capital expenditure increased from ₹1620.9 crore in 2012-13 to ₹3285.1 crore in 2016-17. The growth rate in capital expenditure increased from 1.3 per cent in 2012-13 to 8.6 per cent in 2016-17, after reaching a peak of 46 per cent in 2015-16.

Figure 5:1 Expenditure under Social Services (₹ Crore)



Source: State Budget Documents

5.3 Components of Social Sector Expenditure

Analysis of the various components of social sector expenditure shows that Education, Sports, Art and Culture occupy the highest share. During the study period, its share declined from 46 per cent in 2012-13 to 43 per cent in 2016-17, after reaching a peak of 48 per cent in 2014-15. After Education, Sports, Art and Culture, Medical and Public Health occupies the highest share. The share of Medical & Public Health remained more or less stagnant during the study period. The share of Medical & Public Health meagrely increased from 10 per cent in 2012-13 to 11 per cent in 2016-17.

Table 5:2 Components of Social Sector Expenditure (in per cent)

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Education, Sports, Art & Culture	46	42	47	48	39	43
Medical & Public Health	10	11	10	13	11	11
Family Welfare	1	1	1	1	1	1
Water Supply & Sanitation	6	6	6	5	5	7
Housing	2	2	1	3	3	7
Urban Development	4	6	6	4	9	10
Welfare of SC, ST & OBC	10	10	9	7	7	7
Labour & Labour Welfare	1	1	1	1	1	1
Social Security & Welfare	12	11	11	6	9	8
Nutrition	5	5	4	3	3	3
Relief on account of Natural Calamities	3	3	4	6	11	2
Others	1	1	1	1	1	1

Source: State Finances: Study of Budgets, RBI

The share of Water Supply & Sanitation in social sector expenditure has increased from 6 per cent in 2012-13 to 7 per cent in 2016-17. During the same period, the share of nutrition declined from 5 per cent to 3 per cent.

5.4 Schemes in Madhya Pradesh focussing on Social Sector

The below section discusses the expenditure pattern of some of the major social sector schemes that are being implemented in the state. It also discusses the share received by each district under the various schemes.

Table 5:3 Expenditure under various schemes (₹ in crore)

Schemes	2012	2013	2014	2015	2016
Ladli Laxmi Yojana	897.1	816.2	6.8	1376.8	321.3
Mangal Diwas	20.2	5.3	15.7	20.2	5.1
Beti Bachao Abhiyan	2.4	2.8	3.5	3.5	1.3
Integrated Child Development Service	655.2	855.7	694.9	812.8	285.8

Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

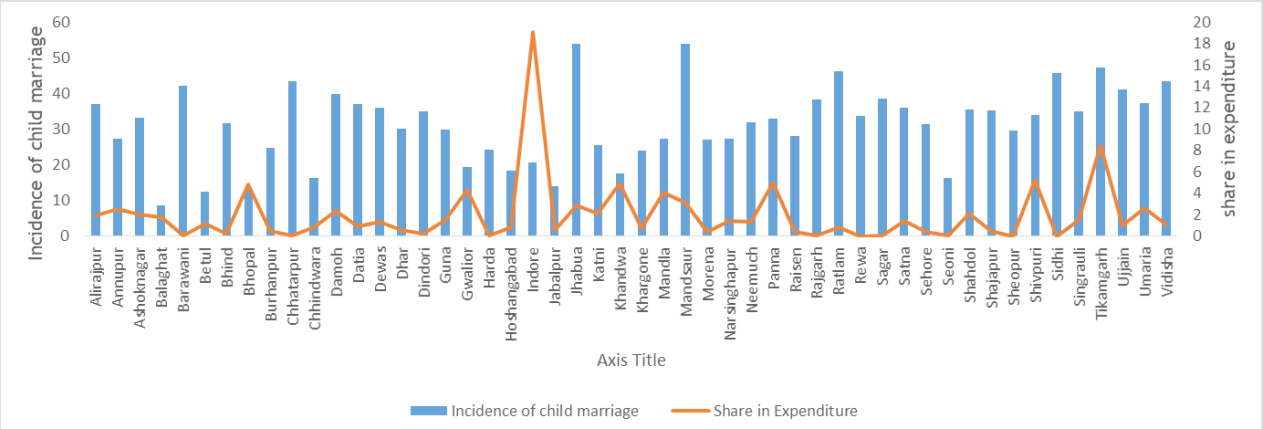
Ladli Laxmi Yojana scheme aims to provide a strong foundation for girls' future by improving their educational and economic status, bring about a positive change in social mind set towards the birth of a girl and prevent child marriages. The total spending on the scheme has been following a fluctuating trend—declining from ₹897.1 crore in 2012 to ₹321.3 crores in 2016, marking the highest in 2015 at ₹1376.8 crore.

The incidence of child marriage is highest in the districts of Jhabua, Mandsaur and Tikamgarh. The incidence of child marriage is lowest in Balaghat, the district with the highest literacy rate.

It is evident that the highest share of expenditure is towards Indore, accounting for around 19 per cent, followed by Tikamgarh and Shivpuri. Districts such as Rewa, Sidhi and Sheopur receive an inadequate share. The expenditure pattern reveals that priority districts are not getting enough funds. For instance, districts such as Jhabua and Mandsaur with high incidence of child marriages are not getting enough funds through the scheme.

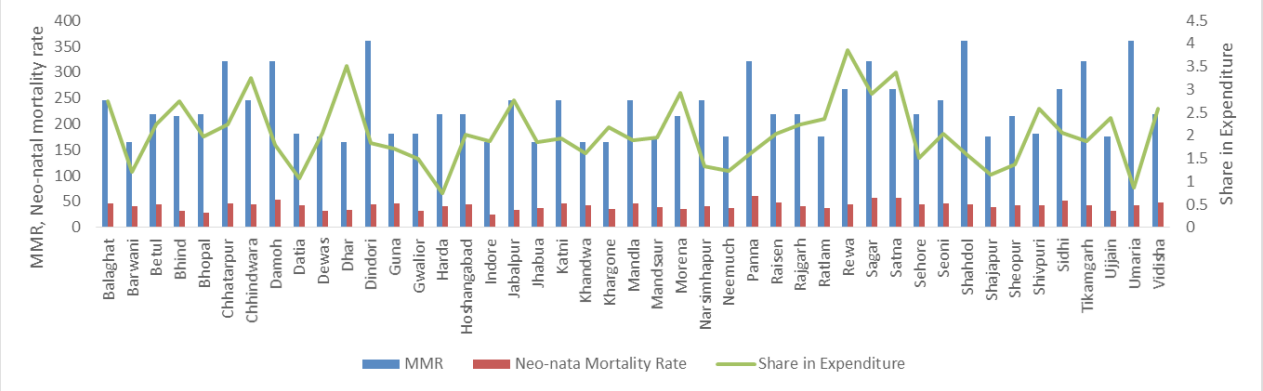
Mangal Diwas scheme started by Madhya Pradesh government aims to improve the attendance of children at Anganwadi centers, ensure safe delivery, reduce maternal and infant mortality rate, reduce malnutrition in children and provide appropriate facilities for the proper care of adolescent girls. The expenditure towards Mangal Diwas has been following a fluctuating trend from 2012 to 2016. The expenditure towards the scheme registered a considerable decline from 2012 to 2016, from ₹20.2 crore to ₹5.1 crore.

Figure 5:2 Share of districts in expenditure towards Ladli Laxmi Yojana (2016) (in per cent) and Incidence of Child Marriage (in per cent)



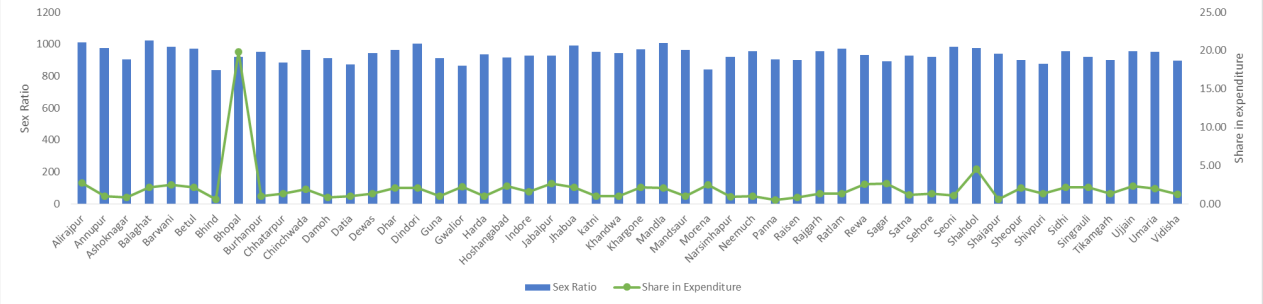
Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh, NFHS-4

Figure 5:3 Share of districts in expenditure towards Mangal Diwas (2016) (in per cent) and NNM, MMR



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh, AHS-2012-13

Figure 5:4 Share of Districts in Expenditure towards Beti Bachao Abhiyan (2016) (in per cent) and Sex Ratio



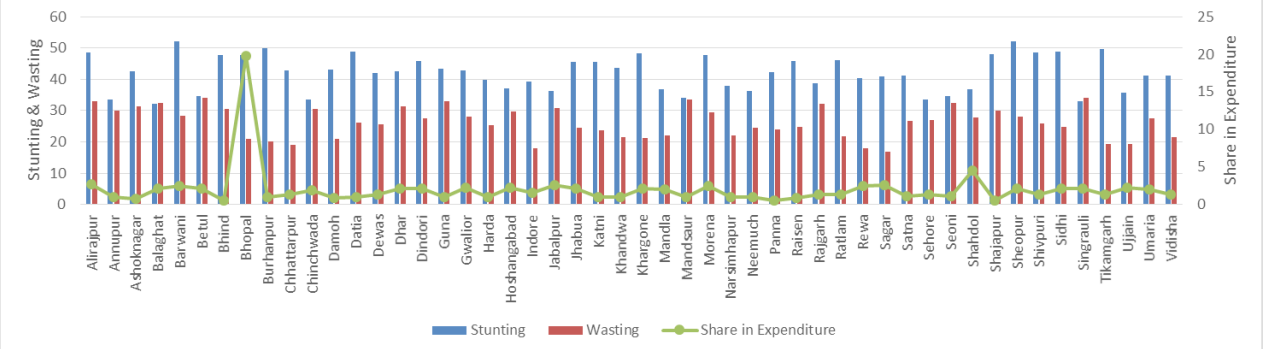
Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh and Census, 2011

It can be inferred from figure 5:3, Rewa, Dhar and Satna account for the highest share whereas Burhanpur, Agarmalwa and Harda receive the lowest share. There is a disconnect in the expenditure pattern, as districts like Shahdol, Umaria and Panna which register high MMR and NNM receive lower share in the expenditure under the scheme.

Beti Bachao Abhiyan scheme aims at arresting the declining sex ratio, which is a serious problem with far-reaching social ramifications and at eliminating discrimination against girls. Many activities are carried out under this campaign for educating people about the importance of saving the girl child for a healthy gender balance in society. The spending towards the scheme has shown an increasing trend from 2012 to 2015, but registered a decline in 2016.

Bhopal received the highest share followed by Shahdol and Alirajpur. On the other hand, districts registering the worst sex ratio in the state, like Bhind and Panna, received the lowest share.

Figure 5:5 Share of districts in total expenditure towards ICDS (2016) (in per cent) & Children under-5 who are stunted and Wasted (in per cent)



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh, NFHS-4

Integrated Child Development Service (ICDS) scheme aims at improving the nutritional status of women and children mainly through the Anganwadi centers. ICDS provides food, pre-school education and primary health care to children below six years and their mothers. During 2012 and 2016, expenditure has declined from ₹655.2 crore in 2012 to ₹285.4 crore in 2016, marking the highest in 2015 at ₹812.8 crore.

Across the districts, Bhopal accounts for the highest share followed by Dhar and Rewa. Umaria, Harda and Agarmalwa account for the lowest shares in the total expenditure. There exists disconnect between the expenditure pattern and outcome variables, with Bhopal receiving more than 40 per cent of expenditure towards the scheme.

5.5 Summing Up

The analysis shows that though there is an increase in social sector expenditure, its share in the total expenditure is declining. Education claimed a major share in total social services expenditure. Important sectors like health, water supply and sanitation, social welfare, nutrition, and welfare of SC, ST and OBC registered only a meagre share. There is a need for investment in sectors health, nutrition, water supply and sanitation to improve the outcome indicators of the state.

Chapter 6

Scope for Additional Resource Mobilization for Basic Social Services (BSS) and Improving Cost Efficiency

Social sector expenditure is critical to the attainment of SDGs. The expenditure on the social sector will also have externalities affecting the outcomes in other sectors. For instance, measures to improve female literacy can have a direct impact on the reduction of mortality indicators and improvement in other health outcomes. Similarly, expenditure on education and human capital is found to have a positive and significant effect on economic growth. It is expected to bring in externalities and other indirect effects such as higher educational attainment, better health and lower mortality of children, higher labour productivity with more participation of labour force that could positively influence economic growth (Michaelowa, 2000). However, with limited budget receipts, a manifold increase in social sector spending is not feasible. This calls for the need to prioritize the limited resources among different social sectors to attain the desired outcomes.

In the following sections, expenditure towards Education, Health, Nutrition, and WASH is analysed utilizing treasury data. Expenditure under the heads 2202, 2210, 4210, 4202 and 2235 is taken into account for the analysis.

6.1 Health

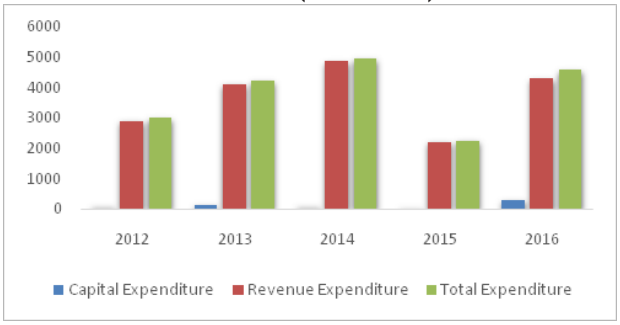
Health sector reforms are aimed at improving the functioning and performance of the health sector and, ultimately the health status of the people (WHO, 2000). It deals with equity, efficiency, quality, financing and sustainability in the provision of healthcare. The most striking reforms in the health sector deal with the sustainable financing of the sector. Health care financing is important to ensure equitable access, efficient and effective health care.

Health is also a prominent sector in SDG, with nine goals dedicated to it. SDG is more focused on the health sector than MDG. Thus, the attainment of SDG goals requires that more resources be allocated to the health sector. The Abuja Declaration of 2001 recommended that governments allocate 15 per cent of their budgets to the health sector. Though the agreement pertains to African countries, it is one of the most referred benchmarks for health expenditure. The World Health Report (2010) points out the need to spend 4-5 per cent of GDP towards the health sector to attain universal health coverage. The report also points out that a low-income country needs to spend on average US$60 per capita by 2015 to deliver a set of essential health interventions. The estimates were independently updated to 2012 US dollar terms (from 2005) resulting in an average figure of $86 per capita.

6.2 Health Expenditure- Madhya Pradesh

Total health expenditure in MP has increased from ₹2986 crore in 2012-13 to ₹4569 crore in 2016-17, marking an increase of around 53 per cent. However, a continuous increasing trend is not evident in health expenditure from 2012-13 to 2016-17.

Figure 6:1 Health Expenditure 2012-13 to 2016-17 (₹ in crore)



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

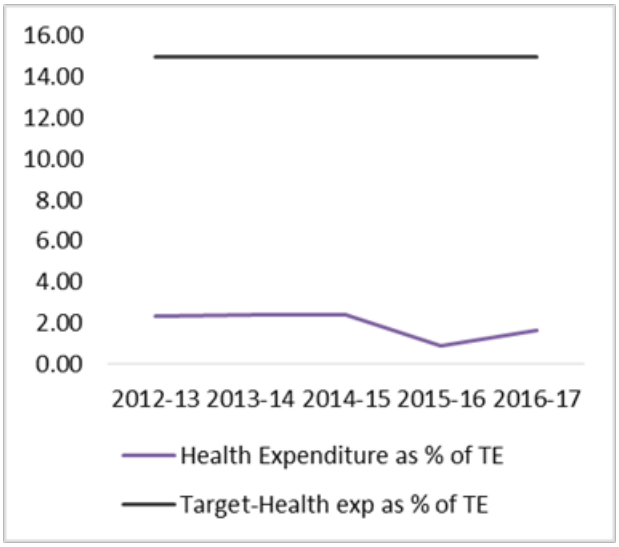
When total expenditure is taken into account, revenue expenditure registers the highest share compared to capital expenditure. The share of revenue expenditure to total expenditure has declined from 97 per cent in 2012-13 to 93 per cent in 2016-17.

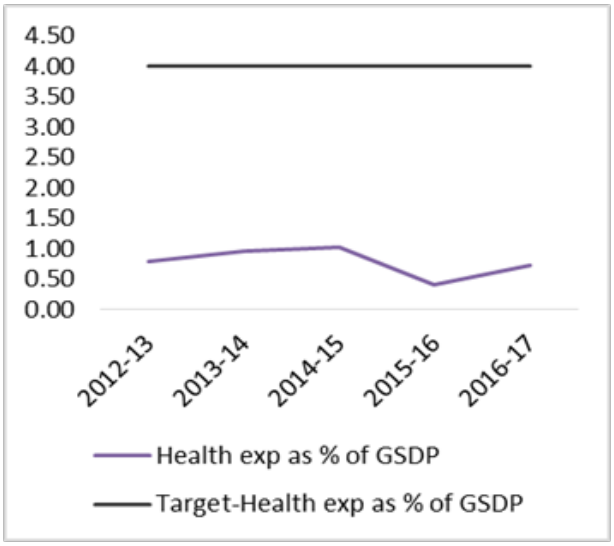
Health expenditure as a percentage of total expenditure has declined from 2.4 per cent in 2012-13 to 1.6 per cent in 2016-17. The share of health expenditure as a percentage of GSDP has also marginally declined from 0.8 per cent in 2012-13 to 0.7 per cent in 2016-17. From Figure 6:2, it is evident that the state is nowhere close to achieving the target of spending 15 per cent of the total expenditure towards health sector or spending 4-5 per cent of its GSDP on health.

6.3 Composition of Health Expenditure

As per Census (2011), around 72 per cent of the population in Madhya Pradesh lives in rural areas. Yet rural health services receive only a share of 16 per cent of the total revenue expenditure while urban health services have a share of 69 per cent of the total revenue expenditure. In a span of five years, the share of urban health services in total revenue expenditure has increased from 60 per cent in 2012-13 to 64 per cent in 2016-17. During the same period, the share of rural health services declined from 22 per cent to 16 per cent. This distribution is highly inequitable due to the higher share of rural population in the state. Furthermore, the health outcomes in these areas are significantly poorer implying a greater burden that requires focused attention.

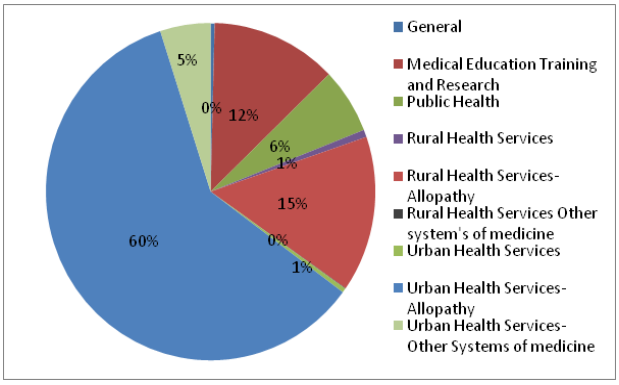
Figure 6:2 Health Expenditure as per cent of Total Expenditure and GSDP





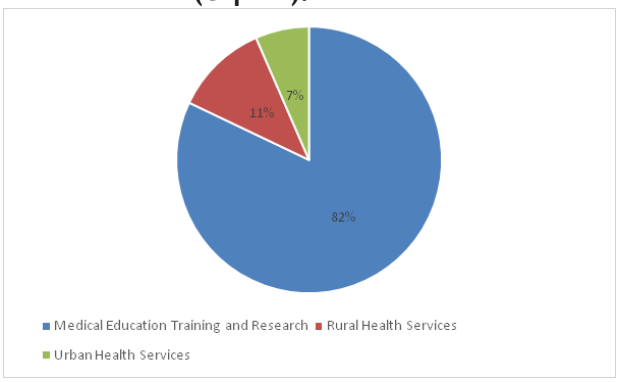
Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

Figure 6:3 Composition of Health Expenditure (Revenue):2016-17



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

Figure 6:4 Composition of Health Expenditure (Capital): 2016-17



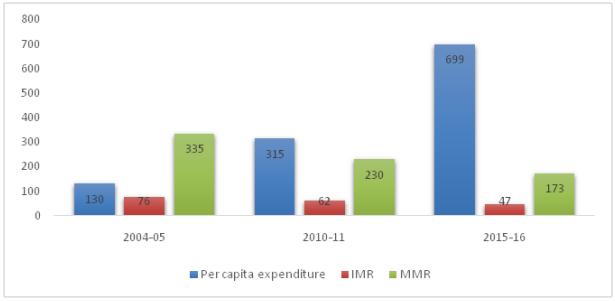
Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

When the composition of capital expenditure on health is taken into account, it can be seen that Medical Education and Training accounts for the highest share followed by Rural Health Services and Urban Health Services. There is a need to focus more on rural health services as the state does not have a sufficient number of health centres in rural areas.

6.4 Impact of Health Expenditure on Outcome Variables

World Bank Report (2010) points out that low-income countries need to spend on average US$60 per capita by 2015 to deliver a set of essential health interventions. The estimates were independently updated to 2012 US dollar terms (from 2005) resulting in an average figure of $86 per capita. From 2004-05 to 2015-16, per capita health expenditure of the state has increased from ₹130 to ₹699, marking an increase of around 430 per cent. Though there has been a steady increase in the per capita health expenditure, the state has not met the target of spending US$ 60 per capita on health.

Figure 6:5 Per Capita Health Expenditure, IMR, and MMR



Source: Budget documents and SRS bulletins

During the same period (2004-05 to 2015-16), IMR and MMR of the state have declined from 76 and 335 to 47 and 173 respectively. Though various external factors can have a positive influence on outcome variables, there exists a high negative relation between per capita health expenditure and outcome variables such as IMR and MMR.

6.5 Intra-sectoral restructuring - Health

A strong health infrastructure is essential to achieve better health outcomes. In rural areas, the public health sector plays a dominant role. Each public health facility is established according to certain population norms set by the Ministry of Health and Family Welfare, Government of India.

The jurisdiction of Sub Centres is maternal and child health which includes antenatal, intranatal and postnatal care, child health, family planning and contraception, counselling and referral for safe abortion, adolescent health care, assistance to school health services, control of locally endemic disease, disease surveillance, water quality monitoring, promotion of sanitation which encompasses proper garbage disposal and use of toilets and community needs assessment (Ministry of Health and Family Welfare, 2012).

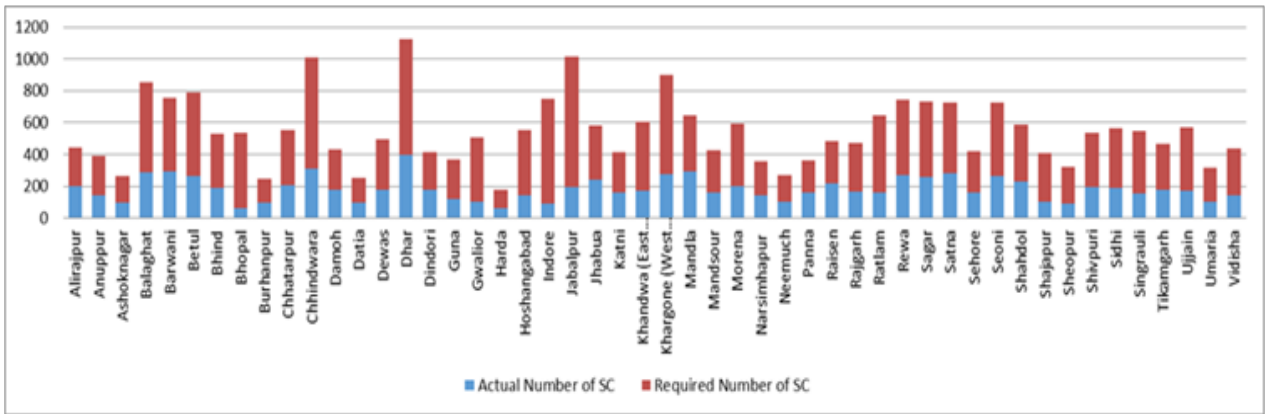
Primary Health Centre's (PHC) jurisdiction is in accordance with Alma Ata declaration i.e. provision of medical care, maternal-child health including family planning, safe water supply and basic sanitation, prevention and control of locally endemic diseases, collection and reporting of vital statistics, education about health, referral services, training of health guides, health workers, local dais and health assistants and basic laboratory workers (Fiyas.BI, 2012).

SC and PHC have an important role in ensuring child and maternal health. In Madhya Pradesh, there are 9192 Sub Centres (SC), 1171 Primary Health Centres (PHC). From the graphs given below, it can be inferred that there exists a wide gap between the required and actual number of PHC and SC in all the districts. The existing gap is a serious concern in tribal districts as well as districts such as Panna, Sidhi (tribal district), Satna, Damoh and Shivpuri registering the worst child and maternal mortality indicators.

From the table 6:1, it can be inferred that during 2012-16, capital expenditure on health has been highly skewed towards certain districts. Of the total 51 districts in Madhya Pradesh, only 17 districts in the state received a share of capital expenditure on health (Bhopal is taken as an outlier). Even the share received by the 17 districts is insignificant compared to the health infrastructure requirement of the districts, as there exists a significant gap between the actual and required number of health centres.

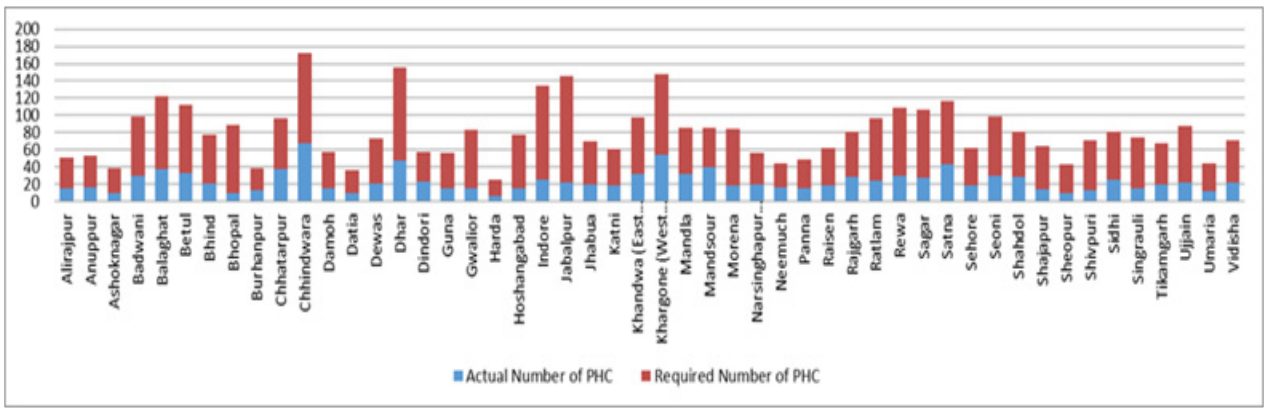
Ministry of Health and Family Welfare has identified 17 districts: Raisen, Tikamgarh, Sidhi, Singrauli, Sagar, Damoh, Satna, Dindori, Shahdol, Anuppur, Umaria, Chhatarpur, Panna, Barwani, Mandla, Jhabua and Alirajpuras high priority districts. It should be noted that the high priority districts have not received any considerable share in the capital expenditure during 2012-16, which is a serious concern.

Figure 6:6 Sub-centre (Actual vs Required)



Source: RHS, 2015

Figure 6:7 Primary Health Centre- (Actual vs Required)



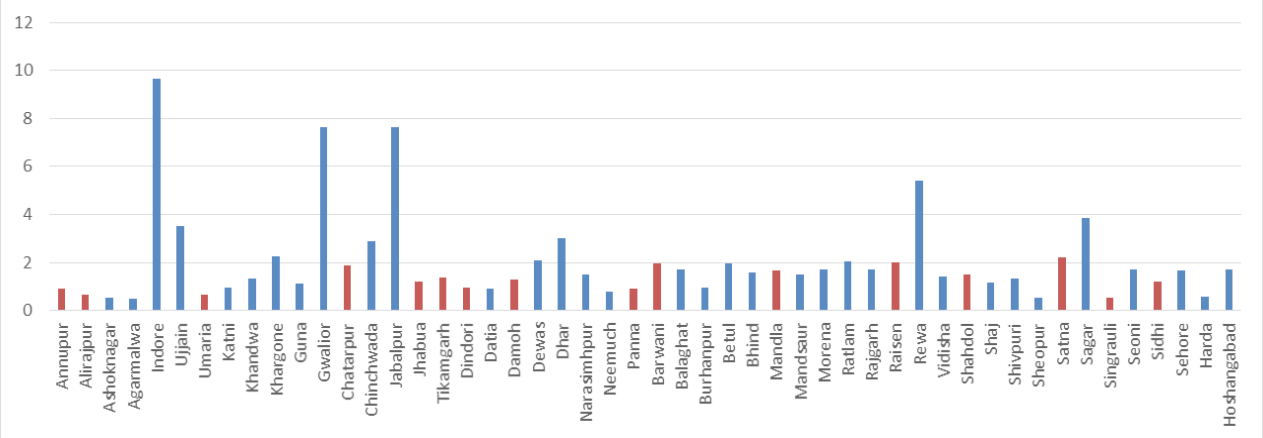
Source: RHS, 2015

Table 6:1 Capital Expenditure- District wise (₹ in crore)

Districts	2012	2013	2014	2015	2016
Annupur	0.11	-	-	-	-
Alirajpur	0.22	-	-	-	-
Indore	16.70	5.40	8.80	3.10	0.28
Gwalior	3.20	1.10	3.80	2.60	0.32
Chinchwad	0.55	-	-		
Jabalpur	0.30	8.40	3.90	2.70	0.18
Jhabua	0.11	-	-	-	-
Dindori	0.11	-	-	-	-
Dhar	0.33	-	-	-	-
Barwani	0.22	0.11	-	-	-
Balaghat	0.11	-	-	-	-
Burhanpur	-	3.00	-	-	-
Mandla	0.22	-	-	-	-
Rewa	0.13	1.10	2.70	2.70	0.14
Shahdol	-	-	-	0.04	-
Satna	-	-	-	0.13	-
Sagar	3.00	0.46	-	0.20	5.00

*Source:*Treasuries and Accounts, Department of Finance, Madhya Pradesh

Figure 6:8 Share of districts in the total revenue expenditure (in ₹) (2016-17)



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh (High Priority Districts in Red Color)

The low level of capital expenditure in the high priority districts is explained by its low share in the revenue expenditure. The urbanized districts such as Indore, Jabalpur and Gwalior receive the highest share in the total revenue expenditure towards the health sector.

6.6 Per Capita Health Expenditure-Districts

Per capita health expenditure across the districts has been calculated and Bhopal is taken as an outlier. Gwalior registers the highest per capita health expenditure in the state at ₹913.14, whereas Singrauli registers the lowest per capita health expenditure at ₹111.57. It should be noted that Singrauli is classified as one of the high priority districts by the Ministry of Health and Family Welfare.

Per capita health expenditure is highly skewed towards the urbanized districts of Indore, Jabalpur and Gwalior. There is a need to allocate more resources towards the high priority districts as they continue to receive a low share in the total health expenditure.

6.7 Cost Efficiency Improvements in Health Sector

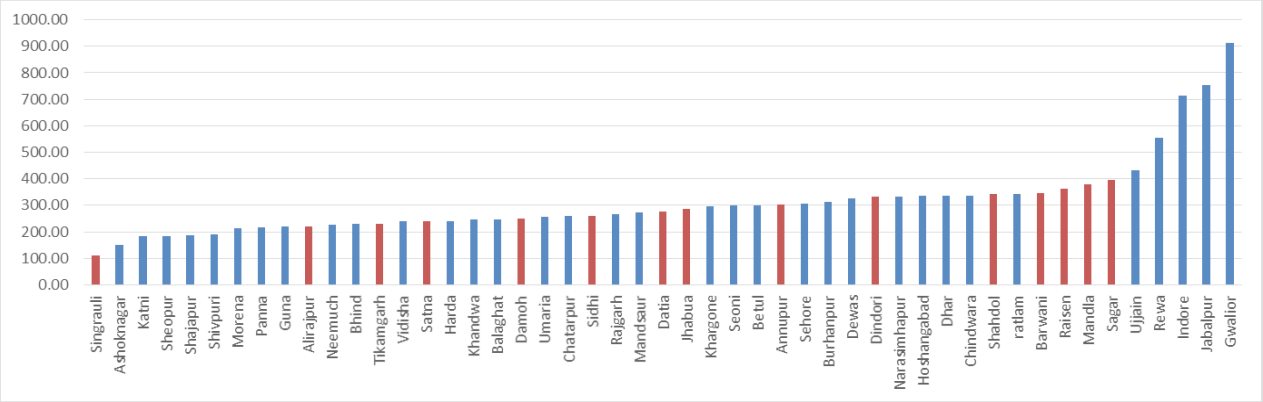
6.7.1 Strengthening Primary Health Care

The study found that adequate staffing was an acute problem in the state, especially in rural areas. Medical professionals prefer to work in urban areas due to poor conditions in the rural areas. These poor conditions include working conditions in medical facilities as well as other factors such as the lack of good schools, security concerns, etc. It is the government's responsibility to provide primary healthcare services to all. Investment at this level with a focus on preventive healthcare would be more cost effective than expenditure towards curative services. Tier I facilities are the initial point of contact between the community and the healthcare institutions. Unless medical professionals are sufficiently trained and equipped to handle their responsibilities the pressure of delivering quality healthcare would fall on the bigger hospitals, which may not be financially feasible for the community.

The study found that ASHA workers and ANMs had a positive impact on the health outcomes in the state; however, they do not have the supporting infrastructure necessary to deliver their services. The state must leverage the strong network of these health workers to deliver better healthcare to the community by offering better salaries, transportation facilities etc.

While there seems to be an adequate number of ASHA and ANM workers, the number of doctors and specialists in PHCs and SCs are alarmingly low. Against the required 334 obstetricians and

Figure 6:9 Per capita Health Expenditure (in ₹) (2016-17)



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh(High Priority Districts in Red Color)

gynaecologists and paediatricians at the CHCs, the District Level Household Survey (DLHS 2012-13) showed only 55 and 85 positions to be filled respectively. Certain districts do not have any obstetricians/ gynaecologists available— Sheopur, Datai, Tikamgarh, Panna, Damoh, Satna, Umaria, Shahdol, Sidhi, Mandsaur, Ujjain, Shajapur, Barwani, Rajgarh, Harda, Narsimhapur, Dindori, Mandla and Seoni. This is particularly alarming as the CHCs act as referral units and play a critical role in ensuring good maternal and child health.

6.7.2 Increased Public- Private Partnerships

Inadequate staffing at these institutions requires a better understanding of the supply side factors that may affect their availability. For a population of 7.33 crore, the state only has five government medical colleges with 620 MBBS and 311 PG seats. This is clearly insufficient to provide for the medical needs of such a vast and diverse populace, also making it almost impossible for the state to achieve the WHO norm of one doctor per 1000 population.

In this context, it is critical that the government take cognizance of the prevailing inadequacies and address the same. Along with increasing seats at Government medical colleges, the state must also create a conducive regulatory environment for setting up private medical education institutions. More private institutions and public-private partnerships (PPP) in medical training and education would imply that government expenditure in this regard could be lowered over time, freeing up valuable funds for other basic health services.

In addition to following a PPP model for medical education and training, the government can also explore the possibilities of collaboration in healthcare delivery. This would entail the government handing over the operational and managerial responsibilities of public facilities to private parties. This is not to be mistaken for privatization of healthcare but is an attempt to bring high quality services to the public domain. With the state providing land and meeting the other physical space requirements, the private entities no longer face high barriers in providing services to the community. The private partner would deploy skilled health personnel significantly impacting the performance of otherwise poorly functioning institutions. Furthermore, the government could also provide Viability Gap Funding (VGF), which would protect private investors against the long gestation periods in the industry.

6.7.3 Health Financing

A strong health financing system is critical towards the achievement of any state's health and development goals. In recent times, there have been more discussions on creating a framework for universal health coverage. WHO has highlighted three main areas of focus while moving towards universal coverage:

- Raising funds for healthcare
- Reducing financial barriers to access through pooling of funds rather than direct out-of-pocket payments
- Efficient and equitable allocation of funds

Achieving universal health coverage is one of the targets listed under Sustainable Development Goals. The main metrics used for monitoring the same is the incidence of catastrophic health expenditure. Catastrophic Health Expenditure (CHE) is the out-of-pocket spending for health care that exceeds a proportion of the household income. CHE places a great burden on household income as it could lead to high opportunity costs in terms of education, water and sanitation, etc. A household is said to be impoverished by health expenditure if the direct out-of-pocket payments incurred have caused it to fall below the poverty line. India has one of the highest burdens of out-of-pocket health expenditure in Asia. Using National Sample Survey Organisation (NSSO) data, studies have estimated that during 2004, 39 million

people were pushed into poverty by out-of-pocket health expenditure; the same data applied with a different methodology estimated the number to be 63 million (World Bank Report).

Financial protection in India is mainly provided through state funded health services, financed through taxes, or by risk pooling through medical insurance. Health financing is a critical element in the sector that could determine various aspects such as health-seeking behaviour, the preferred type of health institution (public or private) and even the overall health outcomes of a society. Health financing in the state of Madhya Pradesh is a major concern, with less than 18 per cent of the households covered by health insurance. District wise data shows very low household coverage across the state as well as high inter-district disparities from 2.6 per cent in Jhabua to 40 per cent in Burhanpur (NFHS 2015-16).

In an attempt to provide universal health coverage, the Centre has announced the Ayushman Bharat-National Health Protection Mission (AB-NHPM) which intends to offer 100 million poor and vulnerable families a cover of up to ₹5 lakhs for secondary and tertiary care. The framework of the scheme is however critical in ensuring success. For instance, a study based on the data from the Consumer Expenditure Survey (61st round - 2004-05), found that 72 per cent of out-of-pocket expenditure was on drugs. This was higher in outpatient cases (82 per cent) than inpatient (42 per cent). Furthermore, the share of drugs in out-of-pocket payments was found to be highest for those below the poverty line (88 per cent), progressively declining with higher economic status (62 per cent for the top 20 per cent APL quintile). Thus it is important to analyse the coverage offered by the scheme with respect to different aspects of healthcare.

The same study also found that the proportion of households facing catastrophic health expenditure (greater than 40 per cent of non-food expenditure) fell from the status quo of 5 per cent to less than 1 per cent when there was no out-of-pocket expenditure for medicines or outpatient care. The provision of free inpatient care did not provide such benefits, implying that it is not the overriding source of household impoverishment.

While it is imperative that households are financially protected from catastrophic health expenditure, the framework of such schemes needs to be critically evaluated with the objective of providing maximum benefits and protection to those in need.

6.7.4 User Fee Mechanism in Public Hospitals

The analysis of public healthcare expenditure clearly shows insufficient funding towards healthcare systems. The inadequate resources available at the health institutions severely limit their potential to provide quality services at public facilities. To address the same many countries have adopted user fee in an attempt to generate additional financial resources. User fees are charges levied at the point of use for any health service. While the possibility of creating inequities is often discussed in this context, the counter-argument holds equal merit. User charges could help generate revenue for the institutions at the local level and these resources could then be utilized to provide good quality health services to vulnerable sections of the community.

Keeping in mind the high demand for healthcare in the state, it is imperative that the measures adopted do not act as barriers in accessing healthcare services and risk engendering inequities. It is suggested that user fees could be charged with an exemption policy that would exclude the poor and vulnerable. The latter could be based on the existing BPL-APL classification or the eligibility criteria set for the AB-NHPM. However, care must be taken to incorporate features of the local setting while formulating the policy. With the exemption policy in place, such financing mechanisms could be progressive — charging a fee from those who use the services and can afford

to pay, while simultaneously redistributing that revenue to those living under poor socio-economic conditions. Ensuring equity through such a system is dependent on the implementation of the policy. Identification and effective targeting of the vulnerable communities are integral for achieving health equity goals.

The additional revenue generation and improved public health facilities envisioned through user fee mechanisms can only be achieved under an efficient and decentralized management structure. For instance, in Rajasthan the user fee system is managed by the Medical Relief Society (MRS) within each hospital, with enough autonomy to determine the user fee rates within its hospital, based on local circumstances and constraints. The MRS also has the power to identify additional sources of income.

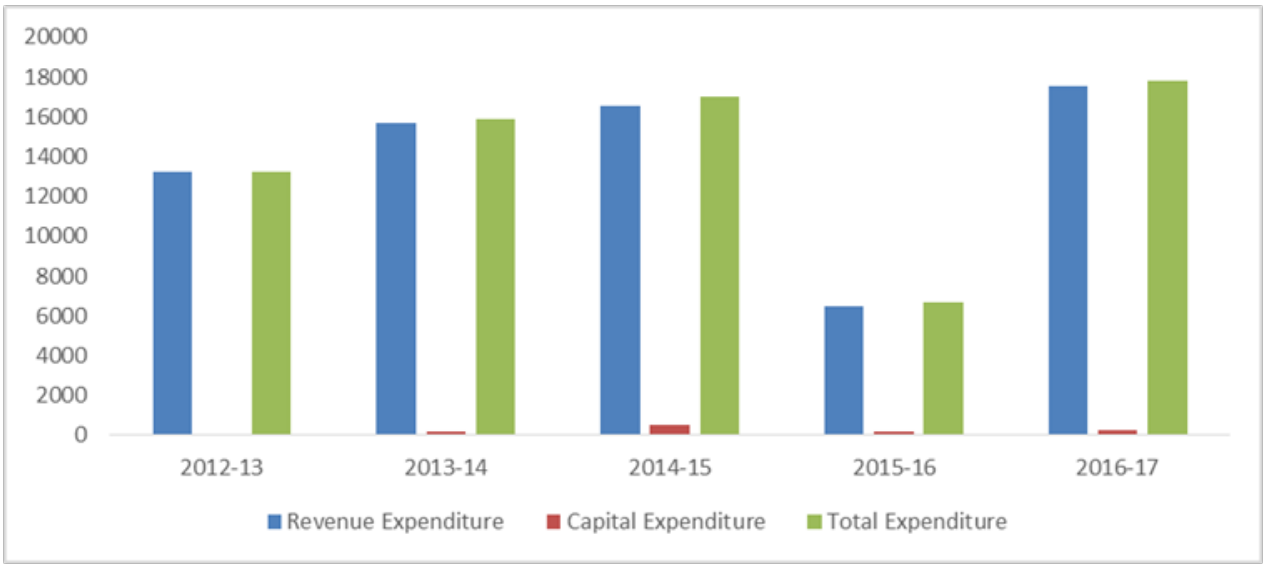
The next critical component is the utilization of the additional resources. The local administration must be given the autonomy to utilize the additional revenue generated to improve the healthcare system in the community. A significant portion of the revenue generated from user fee must be retained at the healthcare facility and the local administration must be given the autonomy in utilizing the same.

6.8 Education

SDG has not set any targets for education spending, but the achievement of SDG targets under education calls for the need to allocate/ prioritize more resources towards the education sector. Over the years, two international benchmarks for spending on education have been established. The first set a target of spending 20 per cent of total government budgets on all levels of education. The second target calls for spending 6 per cent of GNP on education. In May, 2014, new education goals have been outlined which came to be known as the Muscat Agreement. The Muscat Agreement was a precursor for SDG targets in education and sets a target of spending 4-6 per cent of GNI on education and 15-20 per cent of the total government budget on education.

In a span of five years, education expenditure in the state has increased by around 34 per cent from ₹13,255 crores in 2012-13 to 2016-17. Although there is an increase in the expenditure towards the education sector, education expenditure as a percentage of total expenditure has declined from

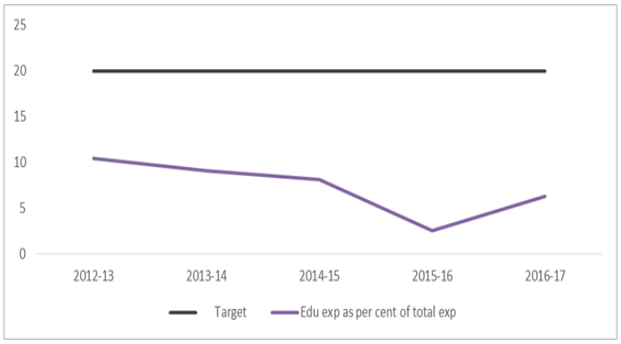
Figure 6:10 Expenditure on Education
(₹ in crore)



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

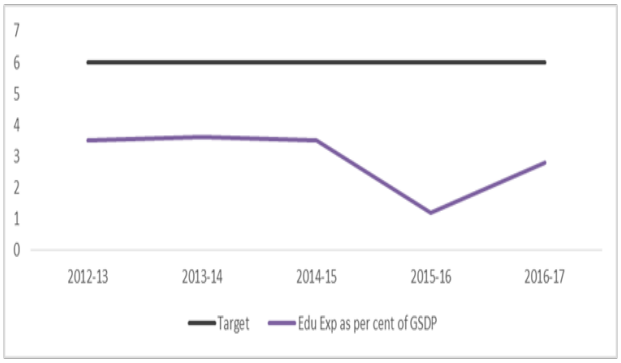
10.49 per cent in 2012-13 to 6.34 per cent in 2016-17. This shows that Madhya Pradesh falls far below the benchmark, which recommends spending around 20 per cent of the total expenditure on education.

Figure 6:11 Education Expenditure as Percentage of Total Expenditure



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

Figure 6:12 Education Expenditure as Percentage of GSDP



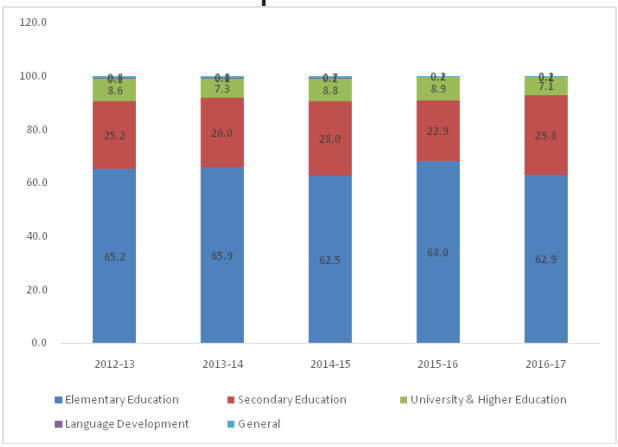
Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

Education expenditure as percentage of GSDP has also declined from 3.48 per cent in 2012-13 to 2.78 per cent in 2016-17. In this aspect, it can be seen that the state does not fulfil the criteria for spending around 6 per cent of the GSDP on education. It can be inferred that over the years the state is lagging behind in terms of achieving the target of spending 20 per cent of total expenditure and 6 per cent of GSDP on the education sector.

6.9 Composition of Education Expenditure

Elementary education accounts for the highest percentage at around 63 per cent of the total education expenditure. Secondary education comes second with a share of around 30 per cent followed by university and higher education at 7 per cent.

Figure 6:13 Composition of Education Expenditure



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

Though elementary education accounts for the highest share, it can be seen that its share has declined from 65.2 per cent in 2012-13 to 62.9 per cent in 2016-17. A similar trend is visible in higher and university education with its share declining from 8.6 per cent to 7.1 per cent during the same period. But an increasing trend is visible in secondary education with its share increasing from 25.2 per cent in 2012-13 to 29.8 per cent in 2016-17.

6.10 Elementary Education

Elementary education is recognized as a priority in all education budgets. In Madhya Pradesh, the financing of elementary education is carried out by the state government and through Sarva Siksha Abhiyan (SSA). SSA, a centrally sponsored scheme implemented by the Government of India in partnership with state governments, aims at the universalization of elementary education. Alongside, Right to Education Act (RTE) was implemented on April 1, 2010, making it a fundamental right for children in the age group 6-14 years to have access to elementary education.

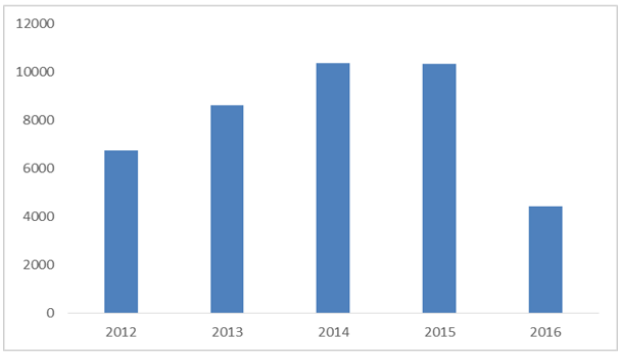
In Madhya Pradesh, a fluctuating trend is evident

Box 6.1: Right to Education Act- Major Provisions

- Every child between the ages of six to fourteen years shall have the right to free and compulsory education in a neighbourhood school, until completion of elementary education.
- For this purpose, no child shall be liable to pay any kind of fee, charges or expenses that may prevent him or her from pursuing and completing elementary education.
- Where a child above six years of age has not been admitted to any school or though admitted, could not complete his or her elementary education, then, he or she shall be admitted in a class appropriate to his or her age.
- For carrying out the provisions of this Act, the appropriate government and local authority shall establish a school, if it is not established, within the given area, within a period of three years from the commencement of this Act.
- The Central and the State Governments shall have concurrent responsibility for providing funds for carrying out the provisions of this Act.

in its spending towards elementary education over the last five years. As per the Treasury data, revenue expenditure under elementary education expenditure has declined from ₹6750 crore in 2012-13 to ₹4417 crore in 2016-17, after reaching a peak of ₹10359 crore in 2014-15.

Figure 6:14 Revenue Expenditure on Elementary Education (₹ in crore)



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

As per the Census data, around 25 lakh children in Madhya Pradesh in the age group 6-14 years are categorized as out of school children. The 12th FYP of Madhya Pradesh has set a target of bringing all these children into schools and reducing the dropout rate to less than 5 per cent by 2016-17. SDG also gives thrust to elementary education by ensuring complete free, equitable and quality primary education to all boys and girls. It shows that though elementary education accounts for the highest share in the total education expenditure of the state, there is a need to focus more on the sector.

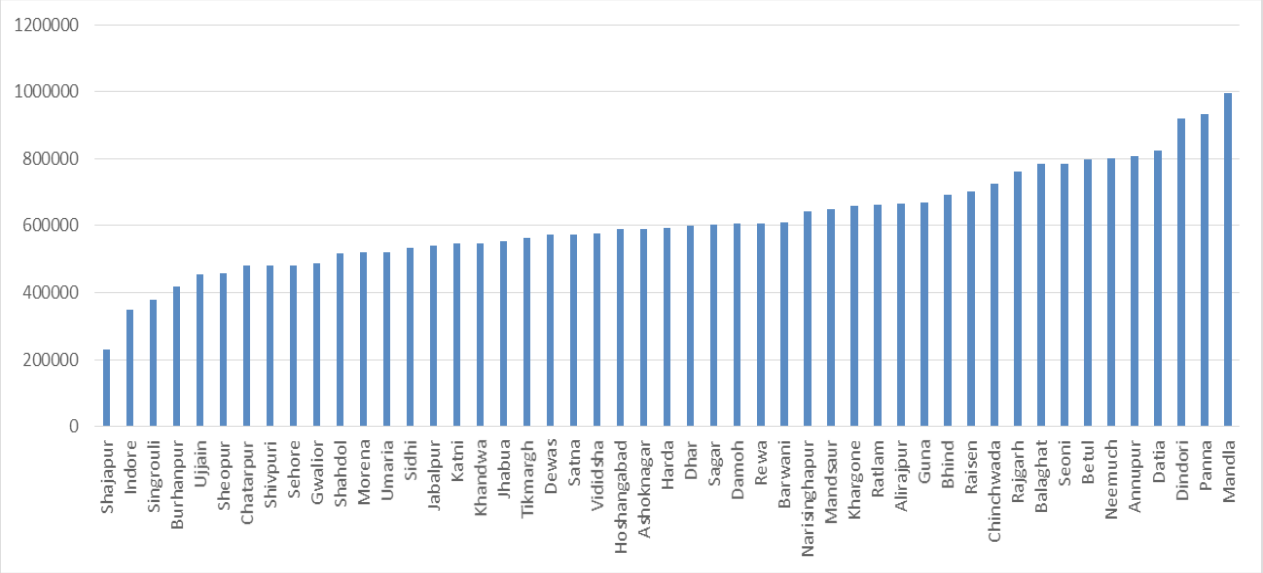
6.11 Per capita Elementary Education Expenditure - District-wise Analysis

Per capita elementary education expenditure is the lowest in Alirajpur followed by Shajapur, Indore, Singrouli, Burhanpur, Ujjain, Sheopur and Chatarpur. Per capita elementary education expenditure is the highest in Mandla, followed by Panna, Dindori, Datia, Annupur, Neemuch, Betul, Seoni, Balaghat and Rajgarh.

Elementary education expenditure should focus on districts with low GER/NER and high dropout rate. Improving the education indicators in these districts will improve the overall education outcomes of the state.

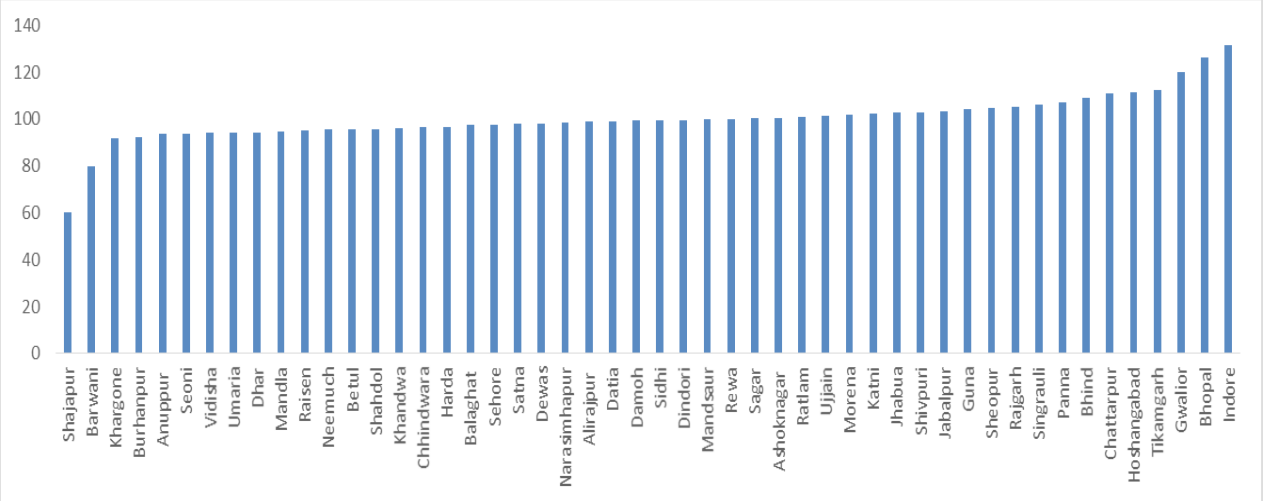
GER at the primary level is above 100 per cent only for some districts like Ashoknagar, Bhopal, Chattarpur etc. From the above graphs, it is evident that more focus should be given to districts such as Shajapur, Barwani, Khargone, Burhanpur, Annupur, Jhabua and Alirajpur registering the lowest GER at

Figure 6:15 Per capita elementary expenditure- 2016



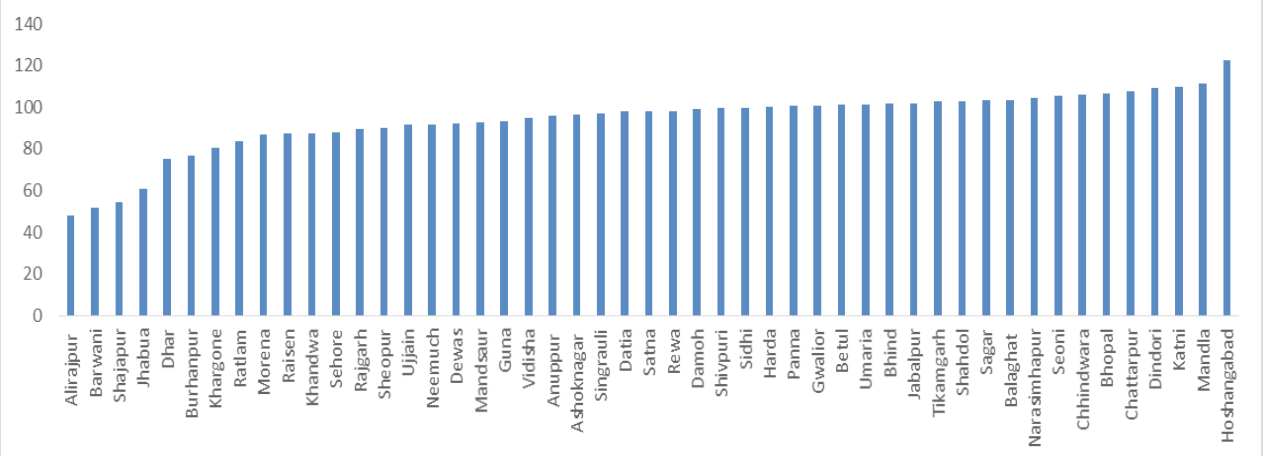
Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

Figure 6:16 GER (Primary)



Source: DISE, 2015-16

Figure 6:17 GER (Upper Primary)



Source: DISE, 2015-16 (Indore not included)

both primary and upper-primary level. The highest dropout rate (I-V) is registered in Alirajpur, Gwalior, Guna, Datia and Barwani. Similarly, dropout rate (VI-VIII) is the highest in districts such as Guna, Sheopur, Barwani, Ashoknagar and Shivpuri. The above districts should be considered as high priority districts in spending towards elementary education.

6.12 Infrastructure in Schools

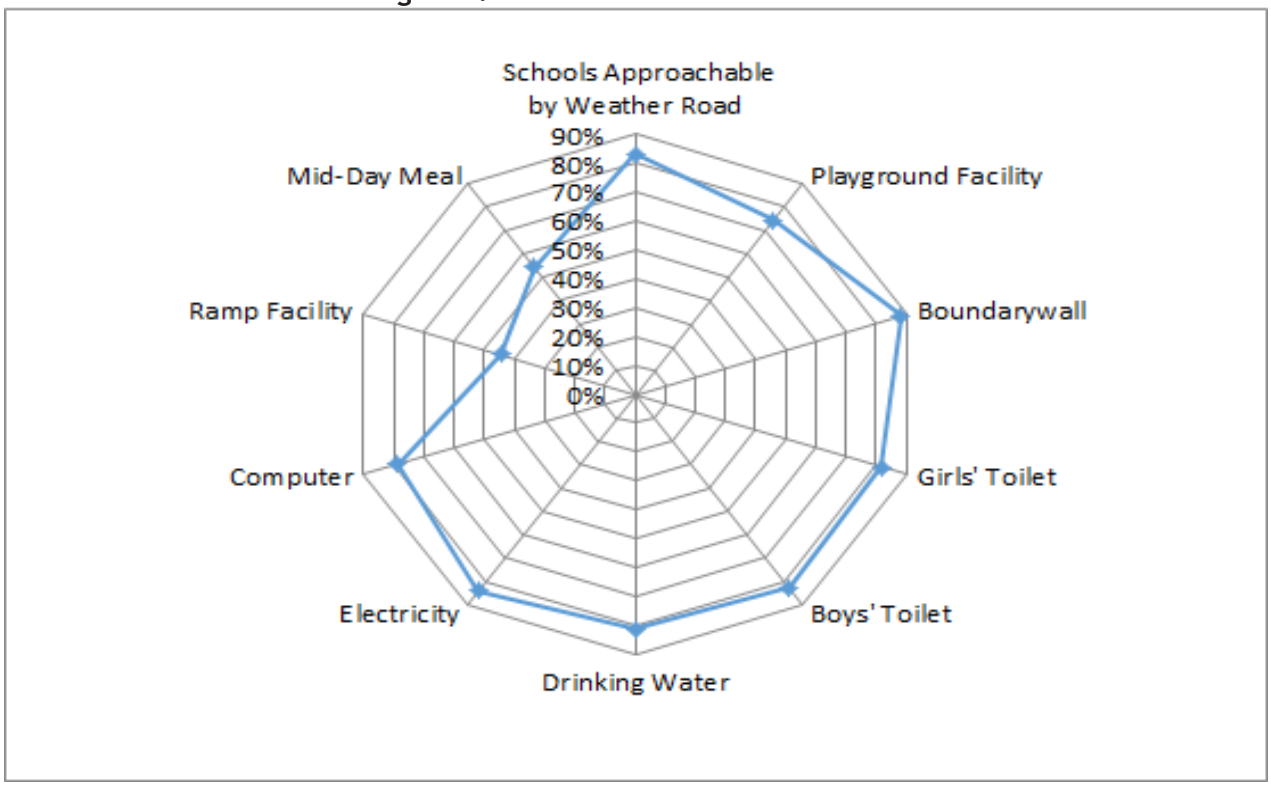
Drinking water, computer, mid-day meal and girls' toilet are key drivers of school enrolment; playground, electricity and other such facilities are found to have the least influence. The correlation between and various infrastructure aspects are given below.

The diagram implies that schools with facilities like toilets, drinking water, electricity, mid-day meals, playground and all-weather roads motivate students to enrol. However, there exist significant inter-district disparities for the same. For instance, an average of 57.11 per cent of schools across the state have access to electricity, with Alirajpur being the lowest at 8.51 per cent and Bhopal highest with 65.62 per cent schools electrified. The infrastructure problems faced by the schools across the state calls for the need for more spending under capital expenditure head, with a special focus on districts such as Alirajpur, Mandla, Betul, Dindori and Jhabua.However, the capital outlay towards general education (2016-17) gives us a different picture. The capital outlay in general education was only towards districts such as Indore, Khargone, Balaghat, Bhopal, Sheopur, Shahdol and Satna. The skewed expenditure calls for the need to prioritize spending in the districts that require upgradation of school infrastructure.

6.13 Improving the Quality Education

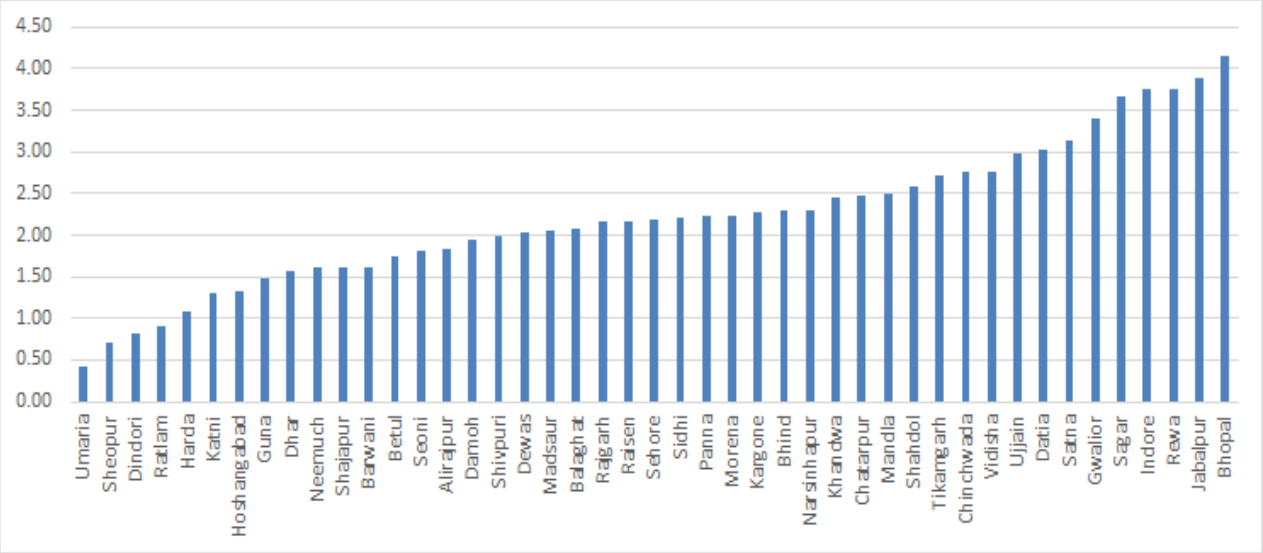
Madhya Pradesh is faced with serious deterioration in the quality of school education. Teachers have an important role to play in enhancing the quality of education. In India, District Institute of Education and Training (DIET) is the nodal agency for providing academic and resource support at the district and grassroots levels for the success of various strategies and programmes undertaken

Figure 6:18 Infrastructure and Enrolment



Source: DISE 2015-16

Figure 6:19 Share of Districts in spending towards DIET (in per cent)



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh, Various years

in the areas of elementary education. DIET is entrusted with the task of equipping teachers with new pedagogical measures. The strengthening of DIET is thus very important and requires proper fund allocation.

In 2016, around ₹20 crore was spent on DIET institutions with Bhopal, Jabalpur, Rewa and Indore registering the highest share and districts such as Umaria, Sheopur, Dindori and Ratlam receiving the lowest. There is a need to strengthen DIET with special focus on the low performing districts in terms of educational indicators.

The private schools in the state are found to perform better than the government schools in terms of educational outcomes. An ASER report (2016), confirms this; the major findings are listed below:

- Reading outcomes (proportion of students in a particular class capable of reading Class II text) are significantly higher for private schools than government schools
- In 2016, the proportion of Class V students who can read Class II text was much higher in private schools (63.3 per cent) than government schools (31.3 per cent).
- Arithmetic outcomes are better for private schools when compared with government schools.
- In 2016, the proportion of Class VIII students who could do division was considerably higher in private schools (51.5 per cent) than government schools (29.2 per cent).
- The proportion of children enrolled in private schools has been steadily increasing from 12.15 per cent (2006) to 25.90 per cent (2016).

Under the RTE Act, 25 per cent of the seats in private schools should be reserved for students from economically weaker sections of the society. This quota justifies the fact that the quality of education in private schools is better than in government schools. School vouchers can have a positive impact on the quality of school education, making government schools more accountable and competitive.

School vouchers are coupons that can be redeemed for educational services from participating institutions (schools). They are based on the idea that education expenditure should be on students not on schools ("students first" not "schools first"). The schools thus selected by the students/parents will get the funding. Such a system would ensure competition, making the government schools more accountable and responsive to the needs of students and parents. Vouchers would bring about a change in the way the government spends on

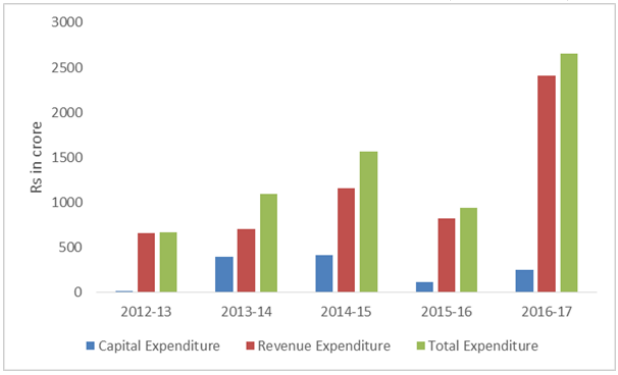
education thereby achieving the desired results in the quality of education.

6.14 WASH

As per NFHS (2015-16), around 84 per cent households in Madhya Pradesh have access to drinking water source. 79.5 per cent of the rural households have access to drinking water source, whereas the number stands at 96.8 per cent for urban households. When it comes to households using improved sanitation facility the number stands at 33.7 per cent. 66.4 per cent households in the urban area have access to improved sanitation facility whereas for the rural area the number stands at 19.4 per cent. SDG-6 focuses on achieving universal and equitable access to safe and affordable drinking water, sanitation and hygiene. The eThekwini Agreement in 2008 recommended that countries should spend 0.5 per cent of GDP on WASH. Many studies have suggested that countries should spend at least 1 per cent of their GDP to attain the MDG goals. With more targets set under SDG, more investment is required in the sector.

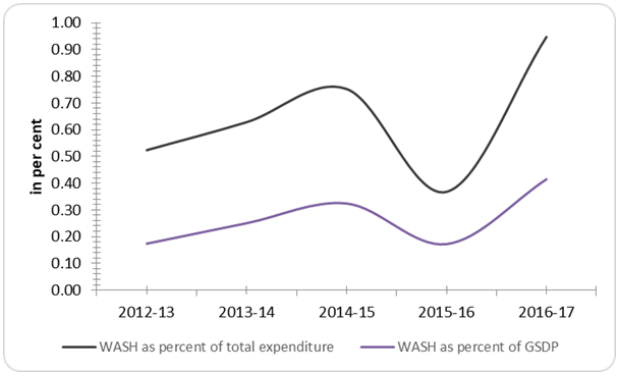
Total expenditure on WASH has increased by around 300 per cent from ₹661 crore in 2012-13 to ₹2656 crore in 2016-17.

Figure 6:20 Expenditure on WASH (₹in crore)



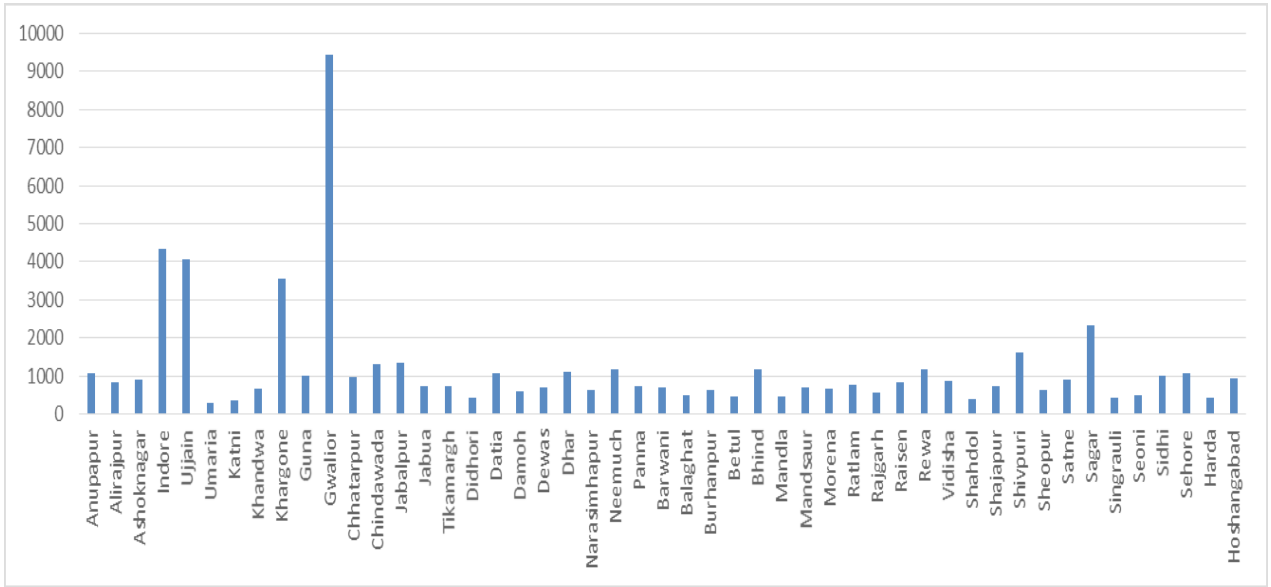
Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

Figure 6:21 Expenditure on Wash as Percentage of Total Expenditure and GSDP



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

Figure 6:22 Per Capita WASH Expenditure (2016-17)



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

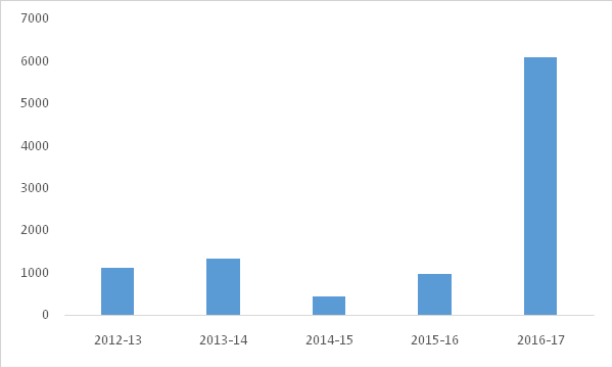
An increasing trend is evident in the expenditure of WASH as a share of total expenditure and GSDP. The expenditure on WASH as a share of total expenditure has increased from 0.5 per cent in 2012-13 to 0.9 per cent in 2016-17. A similar trend is visible in the case of expenditure on WASH as a share of GSDP, it increased from 0.2 per cent in 2012-13 to 0.4 per cent in 2016-17. Although the prescribed SDG targets have not been met, the state couldachieve them with increasedcommitment.

A district wise analysis of per capita expenditure shows that Gwalior receives the highest share, whereas Umaria receives the lowest share.

6.15 Nutrition

Good nutrition is necessary for achieving optimal physical and mental development during childhood and has been linked to improved academic performance and higher wage rates during adolescence and adulthood. Conversely, poor nutrition impairs labour productivity, which in turn impedes national economic growth. Without appropriate investments and action, poor nutrition contributes to the global burden of disease, impairs quality of life, and acts as a brake on economic growth worldwide. In this background, Goal 2 of SDG focuses to end hunger and all forms of malnutrition. Goal 2 aims to achieve the internationally agreed targets on stunting and wasting in children under 5 years of age and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons. In Madhya Pradesh, 42 per cent of the children under five years are stunted, whereas around 25 per cent of the children under five years are wasted.

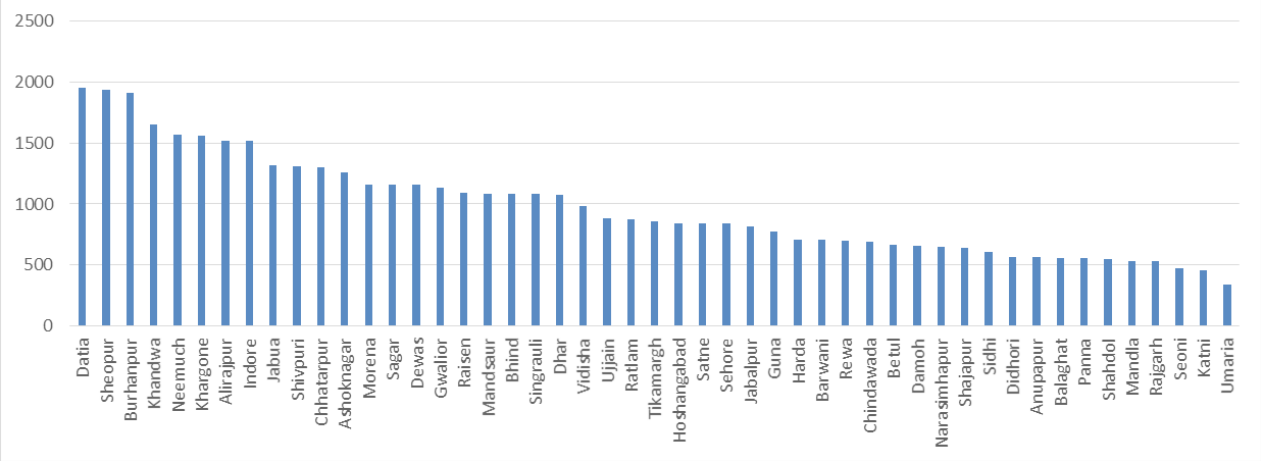
Figure 6:23 Total Expenditure- Nutrition



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

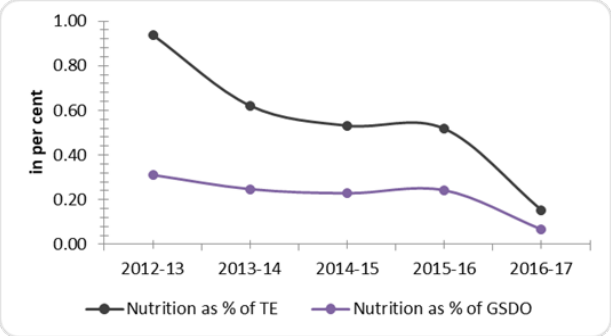
Expenditure on nutrition has increased by around 400 per cent from ₹1104 crore in 2012-13 to ₹6083 crore in 2016-17. An increasing trend is also evident when we take into account the share of nutrition in the total expenditure and GSDP.

Figure 6:25 Per Capita Expenditure Nutrition (2016-17)



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

Figure 6:24 Nutrition Expenditure as Percentage of Total Expenditure and GSDP



Source: Treasuries and Accounts, Department of Finance, Madhya Pradesh

Nutrition expenditure as a percentage of GSDP has decreased from 0.31 per cent to 0.07 per cent and it decreased from 0.94 per cent to 0.15 per cent of total expenditure during the same period.

District wise analysis of per capita nutrition expenditure shows that Datia receives the highest share whereas Umaria receives the lowest share.

6.16 Per capita Expenditures and Elasticity

For a clearer picture, the per capita expenditures in various sectors and their elasticities have to be examined. The projected population for various years is used to work out per capita expenditures. Table 6.2 presents data relating to per capita expenditures in each sector of social services.

The per capita education expenditure is the highest among all. It has gone up in 2016-17 as compared to 2012-13. Per capita expenditure in health, nutrition and WASH sectors present a low amount without a steady trend. The elasticity measured by using the standard formula of the proportional method is shown in table 6.3.

Table 6:2 Per capita Expenditures of various Social Service Sectors

Year	Per capita GSDP	Per capita Education Exp	Per capita Health Exp	Per capita Nutrition Exp	Per capita Wash Exp
2012-13	50,378.58	1753.02	394.91	146.01	87.53
2013-14	56,737.88	2059.34	545.43	170.96	142.06
2014-15	61,226.99	2162.46	627.16	54.62	198.42
2015-16	67,724.11	827.79	279.87	119.39	116.53
2016-17	78,149.27	2170.54	557.49	742.22	324.07

Source: Computed from Census 2011 and Treasury data, MP

Table 6:3 Expenditure Elasticity of Various Sectors

Year	Percentage change in per capita expenditure					Elasticity			
	GSDP	Education	Health	Nutrition	Wash	Education	Health	Nutrition	Wash
2013-14	12.62	17.47	38.11	-10.35	62.31	0.72	0.33	-1.22	0.20
2014-15	7.91	5.01	14.98	-0.19	39.68	1.58	0.53	-42.57	0.20
2015-16	10.61	-61.72	-55.37	17.09	-41.27	-0.17	-0.19	0.62	-0.26
2016-17	15.39	162.21	99.19	-68.05	178.10	0.09	0.16	-0.23	0.09

Source: Computed from Budget document and Treasury Data, MP

It is inferred from the table that elasticity of education expenditure is only 0.09 during 2016-17 which suggests that for every 1 per cent increase in state per capita income the per capita public education expenditure is 0.09 only, whereas it is 0.16 for health expenditure, 0.09 for WASH and a negative change of -0.23 for nutrition. A steady performance has not been noticed for all types of expenditure. A serious intervention is required in nutrition and WASH sectors as per the elasticities and percentage change in their expenditures.

6.17 Summing Up

The analysis shows that social sector expenditure pattern of the state does not meet the global benchmarks. Health expenditure as a percentage of total expenditure is 1.6 per cent in 2016-17; it has declined compared to 2012-13. The same trend has been noticed in the case of education with 6.34 per cent of total expenditure in 2016-17. The expenditure on WASH and nutrition as a share of total expenditure are 0.9 per cent and 2.17 per cent respectively in 2016-17 which exhibits an upward trend but not up to the prescribed level. The expenditure is also skewed towards certain districts, requiring restructuring to yield better outcomes.

Chapter 7

Conclusion

The output growth of Madhya Pradesh in the recent period has been accelerating. However, there seems to be a large disconnect between growth and human development indicators. as well as in terms of the social sector expenditures towards achieving SDGs. Looking at trends in various indicators of human development and the 2030 targets set by the Government, there is an urgent need to understand the various policies along with its implementation issues and make corrective actions. Allocation of public expenditure should be fine-tuned in such a way that the best outcomes are realized. The various sub-sectors that come under social sector need to be given a thrust on the one hand and adequate emphasis has to be given in the allocation of public expenditure for the benefit of disadvantaged sections like women and children, particularly those belonging to backward classes.

The policies and strategies in the social sector are devised at the state level. District wise analysis of various outcome indicators shows that certain districts need more attention. To ensure maximum efficiency and effectiveness of the policies, involvement of Local Self Government (LSG) is critical. Proper and effective implementation of 73rd and 74th amendments to empower and build capacity to the local government level is very important and vital for the sustainable development practices, which will be reflected on the public expenditure. The capacity building of District Planning Committee along with LSGs is important to assess the needs at the local level and to ensure that funds are utilized. Transfer of power to the local governments with adequate support systems to audit and project the local development requirements should be immediately taken up. Finding the barriers and the social contexts are important for the efficient use of the funds and allocation to the bottom of the pyramid. This could be augmented by strong local bodies.

7.1 Health and Nutrition

The health outcomes in Madhya Pradesh have made considerable progress, though it is far below the targets to be achieved. On both health and nutrition front, Madhya Pradesh is one among the least performers in the country. As per the Health Composite Index (2018), Madhya Pradesh was one of the worst performing states with a composite score of 40.09, compared to 76.55 for Kerala (best performer). The state was able to register a meager improvement in the score but was not able to improve her ranking, maintaining the position at 17.

As per the treasury data (2016-17), the bottom ten districts in terms of per-capita health

expenditure are Singrauli, Ashoka Nagar, Katni, Sheopur, Shajapur, Shivpuri, Morena, Panna, Guna, andAlirajpur. The Equity Analysis has classified 21 districts in terms of low performance in health indicators. Sidhi, Alirajpur, Singrauli, Barwani, and Panna constitute the bottom five districts in terms of its performance its health indicators. It should be noted that Panna, Singrauli and Alirajpur also comes under the category of districts with low per-capita health expenditure. The above issue highlights the need to allocate more resources to districts with low health indicators. Field level data is required for the estimation of the resources required and the planning of the programs to be implemented. The data will also help the interlinkages and causation of the poor performance of the indicators. Field level collection and analysis should be institutionalised in the state.

There exist large infrastructural gaps in the healthcare system in the state. Strengthening the primary health care system is critical for improving child and maternal indicators. The analysis shows that there exists a wide gap between the required and actual number of PHC and SC across the districts. The study found that the gap is a serious concern in Panna, Sidhi (tribal district), Satna, Damoh and Shivpuri registering the worst child and maternal mortality indicators. When pattern of capital expenditure is taken into account, districts facing acute infrastructural problems have not received adequate funds to bridge the infrastructure gap.

The analysis of various schemes in the health and nutrition sector shows that there exist disconnect between the outcome indicators and the expenditure pattern. The districts registering highest IMR, MMR, stunting and wasting are not getting an adequate share in the expenditure towards the schemes; while, those receiving a high share of expenditure have not performed well in terms of outcome indicators. This calls for a need to fix the leakages in the system and assess whether the funds go to the intended beneficiaries.

7.2 Education

Goal 4 calls for universal access to all levels of education and skill development, starting from pre-primary education, early childhood care and development, primary and secondary education, all the way to tertiary education, and skill development. GER and NER of Madhya Pradesh stand at 94.47 percent and 78.93 percent respectively. The state has made a considerable stride in improving the enrolment rate but still registers one of the highest shares of out of school children in the country.

As per the Equity Analysis for the state of Madhya Pradesh (2018), 25 districts are identified with crucial educational problems. As per the educational index, worst performing district in terms of educational indicators are Alirajpur followed by Jhabua, Barwani, Shajapur, Dhar, and Khargone. The government needs to invest in elementary education as it will bring in better educational outcomes. Districts such as Shajapur, Barwani, Khargone, Burhanpur, Annupur, Jhabua and Alirajpur register the lowest GER and NER in the state. There is a need to allocate more resources towards the districts with low performing educational indicators.

An analysis of the expenditure pattern shows that districts with low performing educational indicators also receive the lowest per-capita expenditure. As per treasury data (2016-17) Shajapur, Indore, Singrauli, Burhanpur, Ujjain, Sheopur, Chattarpur, Shivpuri, Sehore, and Gwalior are the districts receiving a lower share in the expenditure towards education.

The analysis shows that infrastructure facilities like access to water and electricity, segregated toilets and boundary walls strongly influence enrolment rates. It is critical that government take cognizance of these requirements in the schools with the objective of increased

enrolment and retention of students. The infrastructure problems faced by the schools are severe in districts such as Alirajpur, Mandla, Betul, Dindori, andJhabua. The capital expenditure under education is skewed towards certain districts and due attention should be given in allocating more resources toward these districts to address the infrastructural issues. The role of local community in managing schools and its functioning could bring more transparency and accountability to the system. It is essential that an empowered school education committee with the involvement of the local government becomes a mandatory requirement in the process.

7.3 WASH

Water and Sanitation are the crucial components in determining the overall health and development of a society. MDG has made a significant landmark in reducing child and maternal death, but still millions across the globe are dying of preventable diseases. Against this background, SDG has given greater emphasis to WASH as each SDG can be achieved at a greater pace by the inclusion of WASH practices. In Madhya Pradesh, 84.7 percent households have access to improved drinking water sources and 33.7 percent households have access to improved sanitation. The significant element in the system analysis in this context is the periodic assessment of the quality of the provisions and its sustainability so that adequate resources could be incorporated in the budget documents.

Districts with crucial problems are identified to be Singrauli, Mandla, Raigarh, Shahdol, Shivpuri, Umaria, Annupur, Dindori, Sidhi, Chattarpur, Damoh, Panna, Sheopur, Tikamagarh, Alirajpur, andJhabua. In districts likeSatna, Rewa, Singrouli and Morena less than one per cent households have household connections with PWS. The per capita WASH expenditure as per the treasury data (2016-17) shows that Umaria, Katni, Shahdol, Harda, Singrauli, Dindori, Mandla, Betul and Seoni receive the lowest share.

The analysis of outcome indicators in the social sector across the state shows that urban districts have performed better than their rural counterparts have. The urban districts register high per capita income, and the analysis found a strong relation between that per capita income and outcome variables. This signals the need for increasing the per capita income by generating more employment opportunities. The creation of more opportunities and attracting more investment calls for conducive policies to be implemented in the states. Conducive policies along with the right mix of public expenditure will help in attaining better indicators in the social sector.

7.4 SDG and Public Expenditure

SDG 2030 envisions ambitious goals for the human emancipation from poverty and backwardness. The seventeen goals aim to address the three aspects of sustainable development – economic prosperity, social development, and environmental protection. The budgeting provisions to attain the goals in a time bound manner is very critical for the augmentation and sustenance of the programs and interventions planned. The crucial element in all these processes would be the gathering of information, both qualitative and quantitative, and timely analysis of the same. The field reports should be reflective of the social milieu and be facilitated by engagements with the informed public, for a more efficient supply chain management and strengthening of institutions . The budgetary provisions should also emphasise the sustained investments in the social capital until the goals are attained.

Good practices and the global takeaways in different contexts should be studied and looked into in detail. Coherence in policymaking in the context of the best practices with the involvement of the local institutions is very relevant in the

allocation of money towards the needy and targeted. Practical approaches to the auditing (includes social audit), monitoring and reporting on the SDGs shall be institutionalised. Efforts should also be undertaken to explore the possibilities of working partnerships - institutional, structural and economical - with market players to attain the goals. For a state like Madhya Pradesh, the attainment of SDGs seems ambitious in the present context. The efforts to reduce or eliminate the barriers faced by the disadvantaged sections of society would be fundamental towards achieving the goal of inclusive development. The Public Expenditure provisions in the critical sectors must reflect these efforts.

References

1. Agarwal, S. and Taneja, S. 2004. Situational Analysis for Guiding USAID/India and EHP/India: Technical Assistance Efforts in Indore, Madhya Pradesh, India. Arlington VA: Environmental Health Project.
2. Bhakta, Runu.2014. Impact of Public Spending on Health and Education of Children in India: A Panel Data Simultaneous Equation Model. Mumbai: IGIDR
3. Bhanumurthy et al. 2016. Madhya Pradesh State MDG Report 2014-15. New Delhi: National Institute of Public Finance and Policy
4. Bils, M. and P. Klenow, 1999. Does Schooling Cause Growth? American Economic Review, 90.No.5: 1160 – 1183.
5. Bohn, Henning. 1999. Fiscal policy and the Mehra-Prescott puzzle: On the welfare
6. Buiter, Willem H.1985. A Guide to Public Sector Debt and Deficits. Economic Policy 1, No. 1: 13-79
7. Chutikul, S. 1986. Malnourished Children: An Economic Approach to the Causes and Consequences in RuralThailand.Hawaii: East-West Population Institute.
   Consortium on Educational Outcomes and Poverty, WP08/18.
8. Das, J. 2005. Equity in Educational Expenditures: Can GovernmentSubsidies Help? World Bank Policy Research Working Paper No.3249, Washington D.C
9. De, A. and Endow, T. 2008. Public Expenditure on Education in India: Recent Trends and Outcomes. Research
10. Deolalikar, A. 2005. Attaining the Millennium Development Goals in India: How Likely and What Will it Take
11. Devarajan,Shantayanan et al. 1996.The Composition of Public Expenditure and Economic Growth. Journal of Monetary Economics 37, No.2 : 313-344
12. Dr Nair, Sthanu R, and Dr Rudra Sensarma.2017. State Finances of Kerala: Performance, Challenges and the Way Forward. Kozhikode: IIM
13. Dreze, J and Amartya Sen.1996. Economic Development and Social Opportunity. New Delhi: Oxford University Press
14. Dreze, J. and G.G. Kingdon, 2001. School Participation in Rural India.Review of Development Economics 5, No.1: 1 – 24.
15. Duflo, E. and R. Hanna. 2005. Monitoring Works: Getting Teachers toCome to School. NBER Working Paper No. 11800, WashingtonD.C.
    Enrolment and Completion? New Delhi: Oxford University Press.
16. Filmer, D. and L. Pritchett.1997. Child Mortality and Public Spending onHealth: How Much Does Money Matter? World Bank Policy Research Working Paper No. 1864, Washington D.C.
17. Filmer, Deon and Lant Pritchett.1999. The Impact of Public Spending on Health: Does Money Matter. Social Science and Medicine 49, No.10: 1309-1323
18. Government of India. 2015. Millennium Development Goal, India Country Report. Ministry of Statistics and Programme Implementation.
19. Government of India. 2017. National Family Health Survey (NFHS-4) 2015-16. Ministry of Health and Family Welfare.
20. Government of India. 2017. On the Implementation of Sustainable Development Goals.NitiAayog.
21. Government of India.2018. Healthy States, Progressive India. NitiAayog.

22. Government of Madhya Pradesh.2011. Madhya Pradesh Development Report. Planning Commission

23. Gupta, S et al.1999. Does higher government spending buy better result in education and health care? Woking Paper 99/21. Washington DC: International Monetary Fund

24. Gupta, S.et al. 2002. The effectiveness of government spending on education andhealth care in developing and transition economies. European Journal of Political Economy, 18.No. 4.: 717-737
implications of budget deficits when real interest rates are low. Journal of Money, Creditand Banking 31, No.1: 1-13

25. Jamison, D. T. 1986. Child Malnutrition and School Performance in China. Journal of Development Economics20, No.2:299-310

26. Kaur,Balbir et al.2017.Debt Sustainability of States in India. Mumbai: Reserve Bank of India

27. Krueger, A. and M. Lindahl.2001. Education for Growth: Why and ForWhom? Journal of Economic Literature, 39: 1101-1136

28. Mayer, S. E. and Sarin, A. 2005. Some mechanisms linking economic inequality and infant mortality. Social

29. Mingat, A. 1998. The Strategy Used By High-Performing AsianEconomies in Education: Some Lessons for Developing Countries.World Development 26, No.4: 695- 715

30. Moock, P. R. and J Leslie. 1986. Childhood Malnutrition and Schooling in the Terai Region of Nepal. Journal of Development Economics 20,No.1:33-52

31. Mukesh, Anand et al.2001.Fiscal Discipline at the State Level: Perverse Incentives and Paths to Reform.New Delhi: National Institute of Public Finance and Policy

32. Raikumar, A.S and V Swaroop.2008.Public Spending and Outcomes: Does Governance Matter? Journal of Development Economics 86, No.1: 96-111

33. Rao, M Govind. 2002. State Finances in India: Issues and Challenges. Economic and Political Weekly 37, No.31:3261-3271

34. Roger, R. & Wofford, S. 1989. Life expectancy in less developed countries: socioeconomic development or public health? Journal of Biosocial Science 21,No:2, 245-252.

35. Roy et al. 2004. Social Inequalities in Health and Nutrition in Selected States. Economic and Political Weekly 39, No.7: 677-683
Science & Medicine, Elsevier 60, No.3: 439-455

36. Tanzi, V. and L. Shuknecht.1997. Reconsidering the Fiscal Role ofGovernment: The International Perspective. American Economic Review 87, No.2:164-168.
to Reduce Infant Mortality, Child Malnutrition, Gender Disparities and Hunger-Poverty and to Increase School

37. WHO.2010.Monitoring the Building Blocks of Health System: A Handbook of Indicators and their measurement. Geneva: WHO

38. World Bank.1988.World Development Report. New York: Oxford University Press

39. World Bank.1997. World Bank Report. Washington D C: Oxford University Press

40. World Bank.1998. Public Expenditure Management. Washington D C: World Bank

41. World Bank.2005.State Fiscal Reforms in India: Progress and Prospects. New Delhi: Macmillan

Abbreviations

AHS	Annual Health Survey
ANC	Ante Natal Care
ANM	Auxiliary Nursing Midwife
ASER	Annual Status of Education Reports
ASHA	Accredited Social Health Activist
AWC	Aganwadi Centres
BPL	Below Poverty Line
CBR	Crude Birth Rate
CDR	Crude Death Rate
CHC	Community Health Centre
CSO	Central Statistical Organisation
DH	District Hospitals
DISE	District Information for Education
EAG	Empowered Action Group
FWPR	Female Workforce Participation Rate
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GSDP	Gross State Domestic Product
ICDS	Integrated Child Development Services
IMR	Infant Mortality Rate
MDG	Millennium Development Goals
MMR	Maternal Mortality Ratio
NER	Net Enrolment ratio
NFHS	National Family Health Survey
NNMR	Neo-Natal Mortality Rate
NRDWP	National Rural Drinking Water Programme
NSDP	Net State Domestic Product
NSSO	National Sample Survey Organisation
OBC	Other Backward Class
PCI	Per capita Income
PHC	Primary Health Centre
PNC	Post Natal Care
PNMR	Post Natal Mortality Rate
PWS	Piped Water Supply
RBI	Reserve Bank of India
RMSA	Rashtrya Madhyamik Shiksha Abhiyan
RTE	Right to Education
SC	Schedule Caste
SC	Sub-Centre
SDG	Sustainable Development Goals
SRS	Sample Registration System
SSA	Sarva Siksha Abhiyan
ST	Schedule Tribe
TFR	Total Fertility Rate
U-5 MR	Under-5 Mortality Rate
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organisation
WPR	Workforce Participation Rate

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