DETERMINANTS OF PUBLIC EXPENDITURE ON SOCIAL SERVICES IN MIZORAM

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DETERMINANTS OF PUBLIC EXPENDITURE ON SOCIAL SERVICES IN MIZORAM

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I

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CERTIFICATE

This is to certify that the thesis entitled **"Determinants of Public expenditure on Social Services in Mizoram"** by Shri. C.Sangthuamluaia has been written under my guidance. This thesis is the result of his investigation into the subject and was never submitted to any other University for any research degree.

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DECLARATION

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March 2025

I, C.Sangthuamluaia, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the degree of Doctor of Philosophy in Economics.

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For any errors or inadequacies that may remain in this work, of course, the responsibility is entirely my own.

(C.SANGTHUAMLUAIA)

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LIST OF ABBREVIATIONS

ATR	Average Tax Rate
COVID	Corona Virus Disease
GDP	Gross Domestic Product
GNP	Gross National Product
GSDP	Gross State Domestic Product
GST	Goods and Service Tax
HER	Human Expenditure Ratio
HDI	Human Development Index
IMF	International Monetary Fund
IMR	Infant Mortality Rate
IMSR	Infant Mortality Shortfall Reduction
MLPC	Mizoram Liquor Prohibition Control
MTR	Marginal Tax Rate
NIC	Newly Industrialised Countries
NSDP	Net State Domestic Product
OBC	Other Backward Class
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
PER	Public Expenditure Ratio
RTE	Right to Education
SAR	Social Allocation Ratio
SC	Scheduled Caste
SDP	State Domestic Product
SPR	Social Priority Ratio
ST	Scheduled Tribe
TCE	Total Capital Expenditure
TRE	Total Revenue Expenditure

UDISE	Unified District Information System for Education
UNDP	United Nation Development Programme

CHAPTER - I

INTRODUCTION

1.1 INTRODUCTION

According to World Bank "Public Expenditure is the expenditure of public authority – central, state and local governments" It is the government expenditure incurred by the Central, State and Local Governments for its own maintenance and for the promotion of economic and social welfare of the people of the country. Public expenditure has grown both relatively and absolutely in all the states of the Indian Union. The main objective of public expenditure policy is sustained and equitable economic growth. Public expenditure has been recognized as an effective tool in boosting economic growth in the short run and has played an important role in physical and human capital formation in the long run (Hicks, 1947). The developmental process in any society had then to be conditioned by priorities policy set by the state. Griffin and Mckinly (1992) argued that the composition of public expenditure is more important than its volume. Accordingly the level and direction of public expenditure allocations were to be designed for their maximum beneficial impact on economic and social sectors in order that income growth and the performance on social indices reinforced each other.

In recent years, considerable attention has been paid to the measurement of the size of the government expenditure as well as expenditure on social sector services and the underlying factors which govern its growth. The government plays an integral role in economic growth and development process, especially in least developed and developing economies, riddled with low per capita income and weak private investment (Folster & Henrekson, 1999). The government may provide goods and services directly or play a supportive role such as maintaining law and order, regulating economic activities, and developing physical infrastructure to stimulate economic growth. The mainstream view is that public expenditure, especially on physical infrastructure and human capital can support economic growth by bolstering productivity in the private sector (Keynes, 1936). The social sector, broadly consisting of education, health, and social protection or security, is one of the major beneficiaries of public expenditure in developing economy like Mizoram. This attributed to the fact that investment in health and education facilitates development of the human capital that every economy needs to achieve

its economic growth and development aspirations Romer, 1986). Expenditure on social services like education and health has been justified by reference to the market's failures both to guarantee outcomes that meet society's equity objectives and to alleviate the possible causes of market inefficiency. The society's objectives in health care are to guarantee equality of access, cost and outcome for those who equally needed, while ensuring that the delivery system uses resources efficiently. In education, it is correspondingly argued that society's objective is to achieve equality of educational opportunities for those of equal ability, and an efficient allocation of resources.

In most of the developing economies, systems are not in place where the private sector can make a remarkable contribution towards the provision of public goods and social welfare. The government has to step up with decisions that impact the economic and social structure in a myriad ways. The context of growth of per capita income, change in the composition of output provided by shifting traditional sector by modern industrial and service sectors, generation of employment and decrease in the number of poverty have shown the economic impact of public expenditure which generally makes provisions on infrastructure facilities and skill development. When government gives priority to social sectors in public expenditure, the social impact will be positive thereby resulting in better nutritional and health situations, higher levels of educational attainments, more and meaningful social security arrangements, which is accompanied by a rise in the living standards. These social and economic impacts revealed themselves in the direction pass through by a number of indices and are therefore feasible to measurement. Likewise, economic outcomes are measured through changes and the rate of growth in absolute income levels and per capita, changes in the sectoral composition of aggregate output with a complementary rise in the modern manufacturing and service sectors, stability in the growth process with a fall in unemployment rates in the economy. Social impacts are measured via higher life expectancy at birth, a fall in maternal and infant mortality rates, higher in the literacy rates and lower poverty incidence.

As far as India is concerned, before independence, no efforts and little planning were made to provide welfare services for the people of India but the growth of public expenditure has grown rapidly since independence because of the expansion of the social and the economic activities. Public expenditure enhances overall socio-economic development by improving education, health, social welfare and economic growth. Ever since India's independence, India has adopted mixed economy and both central and state governments have been playing an important role towards the social and the economic development.

Growth is important and so is public policy orientation. Public policy orientation is an important determinant of economic and social outcomes. (Sen, 1983).The developmental process in any society had then to be guided by policy priorities set by the state government. The state government should design the level and direction of public expenditure allocations for their maximum beneficial impact on economic and social sectors in order to strengthen the income growth and the performance on social indices. Expenditure prioritization must determine a fine balance between the two. Economic development can be conceived as the sustained promotion in the standards of living of the people in the society, structural changes that lead to increased better utilisation of resources, and better income distribution. The condition of infrastructural facilities, the level of human development, environmental sustainability, social inclusion, better health status of individuals along with rising literacy levels, all determine the quality of the developmental process.

Human development is broadly defined as a process of enlarging people's choices, as well as raising the level of well being. These choices can vary over the time and can be indefinite like the choice to lead a long and healthy life, the choice to acquire knowledge and be educated, and to have access to resources needed for a decent level of living (Kumar 2015). Further, these three choices are the most critical and socially valuable perspectives. Per capita income is to incorporate other aspects of well being not captured by indicators on the social attainments on education, health and longevity of live and life expectancy and educational attainments are value ends in themselves. Therefore, development and growth has

to be woven around people and not people around development (UNDP, 1990). From the above logic, human development has two sides: the formation of human capabilities like improved knowledge, health, skill and the use of acquired capabilities for productive purposes, for active in cultural, social and political affairs (Hag, 1995). Development must, therefore, be more than just the expansion of income and wealth. Several empirical research studies revealed that "steady growth of per capita income is not the only determinant of achieving human development; public spending on social sectors also has a crucial role to play" (Streeten, (1979), Sen (1981), Anand and Ravallion (1993), Chakraborty (2004)).

The significance of public expenditure as an instrument of promoting the socio-economic development of a country is well accepted by the development economists in modern times all over the world, particularly in the developing countries which shelters roughly two-thirds of the world's poverty ridden people. In a socialistic and welfare characterized state, governments directly intervene in achieving an efficient allocation of resources, in achieving an equitable distribution of income and finally in maintaining economic stability in the economy. The growing concern over the necessity of improving the future well-being of the people is of paramount importance, and therefore, has impelled the governments of the developing countries including India to overcome the problems of mass poverty, unemployment, social and economic backwardness etc.

Policy makers in recent years are increasingly interested in the composition of public spending. This attention stems from the recognition that expenditure allocations in favour of education and health can boost economic growth while promoting equity and reducing poverty. This argument has been put forward by many researchers eg. Barro (1997), Chu (1995), Tanzi and Chu (1998).This particular argument will be taken as a starting point for establishing a causal effect relationship between the level of public expenditures and the level of human development. It is difficult task to establish a bivariate link between the growth of public expenditure and growth of human development because there is many socio-economic and policy variable that result in human development.

1.2 AREA AND SCOPE OF THE STUDY

Mizoram is one of the states of Northeast India, with Aizawl as its capital city. The name is derived from Mi (people), Zo (lofty place, such as a hill) and Ram (land), and thus Mizoram implies *"Land of the hill people"*. Like several other north-eastern states of India, Mizoram was previously part of Assam until 1972, when it was carved out as a Union Territory. It became the 23rd state of India, a step above Union Territory, on 20 February 1987.

The study covers a period of 16 years from 2005-06 to 2020-2021. The subject matter of this study is trends, pattern and determinants of public Expenditure on social services in Mizoram. The study analyses the public expenditure situation in Mizoram including trends and pattern of expenditure on social services to understand the magnitude of human development as a flow concept. There were mild economic reforms introduced in the country from 1980 and intensive economic reforms with the introduction of New Economic Policy at the national level in 1991. The state of Mizoram has been alternatively ruled by two opposing party – the regional Mizo National Front Party and Indian National Congress. During these periods, the state has witnessed substantial changes in expenditure policies due to favourable relations with the centre and some recurrent social and political tensions in the state.

1.3 ECONOMICS AND SOCIAL PROFILE OF MIZORAM

Mizoram is a landlocked state accounting for 0.64 per cent of the country's geographical area and 0.09 per cent of its population. The population density at 59 per sq. Km is quit less national average of 382 as per 2011 census. The literacy rate at 91.33 per cent in 2011 is above the all-India rate of 74 per cent and is the third highest in the country. The infant mortality rate, as per figures available from the Sample Registration System of Registrar General of India, at 22 per thousand in 2020-21 was considerably lower than that for the country which stands at 28 per thousand. Mizoram has the lowest infant mortality rate in the country. The maternal mortality ratio in the state at 112 per 100000 live births in the year 2020-21 is well

above the national average of 103 per 100000. It is confusing to note that the state consistently underachieved in an area that is amenable to public expenditure intervention.

The growth rate of Mizoram economy is one of the fastest growth rates among the state of India. The state of Mizoram is estimated to achieve an annual economic growth rate of 10.14% during the year 2022-23 which was estimated at 9.50% during 2020-21 (Actual), with per capita income of Rs 116229 in 2020-21 as against Rs 144,334 for the country. Gross State Domestic Product (GSDP) at constant (2011-12) prices which is a true indicator of growth without being influenced by factors like inflation is expected to attain an amount of Rs. 20369.33 crore in 2020-21 against the estimate of Rs 18033.61 crore for the year 2019-20 showing a growth of about 12.95% over the previous year. The Gross State Value Added at constant prices has clocked 12.15% average annual growth rate during financial year 2011-12 to 2020-21.

As per the economic Survey of Mizoram (2008), in the year 2007-08 at constant (1999-'00) prices, the share of agriculture and allied activities was 14.9 %, industry 20.2 % and services 64.9 %. In 2020-21 the share of agriculture and allied sector increased to 25.93 % and so did the share of industry to 26.00% with the services sector's share fell to 48.06%. The rising share of agriculture and allied activities and industry at the expense of services sector, at such a rudimentary level of development, is acceptable for the state like Mizoram.

The low level of capital expenditure by the state may be the primary reason for stagnant productivity levels of the state and stalling economic growth. This is particularly acute in agriculture sector. Capital expenditure by the state government for development purposes fell from 16.94 per cent of NSDP in 2005-06 to 5.36 per cent in 2020-21. While the state government's development spending increased at the rate of 5.82 per cent in 2005-2021, non-development spending grew at a much faster rate of 7.47 per cent. Within development, the share of spending on economic services shrunk over this period owing particularly to the decline within revenue expenditure on economic services. Private investment is limited by the poor quality

and quantity of physical infrastructure in the state. The state government investment record is also vitiated by the fact that there is a long list of unfinished and abandoned capital projects.

Mizoram was accorded the states of special category state by the national development Council way back in 1986. However, curiously enough, the state has often than not been strapped for resources due to the heightened current expenditures on committed expenditures. More interesting is the fact that not much was achieved, by way of development, even after the liberal funding norms for assistance provided by the centre. The state was seen to have become overly dependent on central assistance which in turn bred an element of complacence side of encouraging leakage of funds. It is time that easier norms for the devolution of funds are replaced by concentrating more on the efficiency aspects of funds utilization to ensure that real development takes roots.

All along the state had been running unsustainable levels of gross fiscal deficit more so when seen in the context of recurring revenue deficits. The situation was somewhat retrieved after the adaption of the Fiscal Responsibility and budget management (FRBM) Act. However in its aftermath there have been serious hiccups along the way. There has been no uniform progress on fiscal management. Much of the performance on this count depends on central assistance. Frequent bail outs such as debt redemption also help shore up deficits to manageable levels. This does not bode well for a revenue and capital account. A clear analysis of the ills that afflict the fiscal situation and remedial action for better expenditure management is urgently called for.

1.4 PUBLIC EXPENDITURE IN MIZORAM

In recent years, the expenditure of the Mizoram government has steadily increased, driven by both an intensive and extensive expansion of government functions. This surge in public expenditure has often led to budgetary deficits, necessitating the government to resort to substantial public borrowing from both internal and external sources. To understand the complete dynamics of expenditure,

it is essential to examine the patterns of public expenditure in Mizoram. This chapter thus aims to explore the expenditure patterns of the Government of Mizoram.

The substantial growth in public expenditure in the state reflects the accumulated economic and social aspirations of the society. To understand the intricacies of this growth, it is pertinent to first analyse the directional trends.

The government accounts in Mizoram are categorized into three parts. The first part encompasses the Consolidated Fund of the State, the second part entails the Contingency Fund of the State, and the third part consists of transactions in the Public Accounts. Within the Consolidated Fund, there are two main accounts: the Revenue Account and the Capital Account. The Revenue Account comprises income derived from taxes, duties, fees, and non-tax revenues, while the Capital Account includes loans received and disbursements for asset creation.

The Contingency Fund caters to urgent and unforeseen expenditure, while the Public Account handles public money that cannot be booked in the Consolidated Fund. Notably, these funds are distinct from State Government funds and must be repaid or utilized according to specific agreements.

Public Expenditure is expenditure incurred by the government to provide public goods and services, and to repay its debts. There has been a remarkable increase in total public expenditure in Mizoram from 2005-06 to 2020-21. Total public expenditure surged from Rs 2172 crores in 2005-06 to Rs 11262 crores in 2020-21. Public expenditure as a percentage of Net State Domestic Product (NSDP) peaked at 81.02 percent in 2012-13 and plunged to 45.77 percent in 2020-21. However, despite this tremendous expenditure, more than 19.62% of households in Mizoram's continues to live below the poverty line (BPL), with inadequate access to basic amenities indicating that a significant portion of the state population hardly derive any significant benefit from the mounting public expenditure.

1.5 STATEMENT OF THE PROBLEM

In Mizoram state, economic growth under interrupted periods of time has been seen along with political and social upheavals. Currently in Mizoram, economic growth is receiving the attention of government, business, labour, and the different sector of the economy. Economically speaking, during the study period, the state government has been facing a range of challenges in building the foundation for sustainable growth, including lack of infrastructure, week education and health system, high unemployment, weak governance systems. However, in the last decades, the state witnessed an expansion in construction activities such as roads, bridges, houses and other facilities.

With regard to State political scenario, there has been drastic change in the state political scene since the inception of the state. After 1987, there was a competition between non-congress and congress parties to capture the vote bank, which led to a drastic change in their expenditure policy i.e., from economic principle to populist measures. Alternatively, in order to meet the mounting pressure of public expenditure, mobilization of resources has become a herculean task on the part of the state government. The failures on the part of the government to mobilize adequate resources for the purpose may be attributed to the fact that there is a poor tax base in the state. Thus, successive governments in Mizoram have resorted to loan methods of financing its expenditure programmes.

It is against this background an attempt will be made in this study to look into the intricacies of the relationship between the growth of public expenditure and the rate of human development in Mizoram. The factors which shows the backwardness of the state is that more than 60 percent of the total population are still engaged in agriculture and rated as one of the lowest in the country in having access to opportunities for a reasonably minimum standard of living. Although certain significant development efforts of the state have taken place in some spheres since attainment of statehood in 1987, the developmental efforts of the state have not been in commensurate with the amount of expenditure that the state has been incurring so far. This might have been due to the failure of the public expenditure

pogrammes to address themselves to the right set of objectives that fiscal policy accords. Thus, it is observed that phenomenal growth of public expenditure in the state of Mizoram without corresponding growth in income have brought about an explosive growth of public expenditure in the state.

In Mizoram, public spending on social services such as education, health, and social welfare has increased significantly over the years. However, despite this rise in expenditure, disparities in access to essential services, persistent poverty, and inadequate infrastructure continue to pose challenges to development. A key issue is understanding what drives public expenditure on social services in Mizoram. Various economic, demographic, and institutional factors, such as state income levels, revenue mobilization, political priorities, and central government transfers, may influence the pattern and magnitude of spending. Additionally, the effectiveness of expenditure in achieving intended social outcomes remains a concern. While prior research has explored public expenditure trends, there is limited empirical evidence on the specific determinants shaping social sector spending in Mizoram.

Given the state's financial dependency on central transfers and its limited internal revenue generation, it is crucial to assess how different fiscal and economic factors impact government spending on social services. This study aims to fill this research gap by identifying and analyzing the key determinants of public expenditure on social services in Mizoram, thereby providing insights for policymakers to optimize resource allocation and improve social development outcomes.

1.6 CONCEPTUAL FRAMEWORK

1.6.1 Social Services Expenditure :

Social services expenditure refers to the allocation of financial resources by governments towards providing essential services that improve the well-being and quality of life of individuals and communities.

1.6.2 Importance and Challenges of Social Services Expenditure: Public Expenditure on social Services is crucial for promoting economic growth, social welfare, and human development. Public expenditure on Social Services helps alleviate poverty and income inequality, ensuring a more equitable distribution of resources. Investing in social services like education improves literacy rates, educational attainment, and cognitive skills, leading to a more informed and skilled workforce which leads to increased productivity. Investing in healthcare services also leads to better health outcomes, increased life expectancy, and reduced mortality rates. Public expenditure on social services promotes social inclusion, its reduced inequality and social unrest by providing essential services to disadvantaged groups, and hence, its provides a safety net, protecting individuals and families from economic shocks which and so promoting economic development.

However, there is some challenges in social services expenditure. Competing priorities and limited financial resources or insufficient funding mechanism always hinder the allocation of sufficient funds for social services. Insufficient coordination among government agencies, NGOs, and private sector organization lead to inefficiencies which further leads to ineffective targeting, duplication, and waste. Further, rural-urban disparities and regional inequalities affect the availability and quality of social services, particularly for vulnerable groups, can exacerbate social and economic inequalities. Inadequate governance structures, corruption, lack of transparency and limited accountability mechanisms can also make it difficult to track the impact and effectiveness of social services expenditure. Moreover, persistent socio-economic inequalities, aging populations, urbanization, and migration can create new challenges for social services delivery. Other challenges like insufficient technological infrastructure, digital divides, natural disasters and conflicts also disrupt social services delivery and create new challenges.

1.6.3 Characteristics of Social Services Expenditure

1.6.3 A. Economic Characteristics

1. Non-Rivalry: Social Services are non-rivalrous, meaning their consumption by one individual does not reduce their availability to others.

2. Non-Excludability: Social services often exhibit non-excludability, making it difficult to exclude individuals from consuming them.

3. Positive Externalities: Social Services generate positive externalities, benefiting not only the individual consumer but also society as a whole.

B. Social Characteristics

1. Merit Goods: Social services are considered merit goods, as their consumption is deemed desirable by society

2. Social Welfare: Social services aim to promote social welfare, reducing poverty, inequality, and social exclusion.

3. Human Development: Social services invest in human development, enhancing education, health and skills

C. Fiscal and Administrative Characteristics

1. Government Funding and Redistribution: Social services are often funded by governments, using tax revenues or by public agencies/institutions and then transfer resources from one group to another

2. Regulatory framework and Intergenerational: Social services are subject to regulatory frameworks, ensuring standards, quality. It requires accountability, transparency, efficiency, and effectiveness in resource allocation thereby having intergenerational implications, benefiting future generations.

D. Dynamic and Complexity: Social services are dynamic, responding to changing social needs, demographics and economic conditions. Its also involves complex decision making, balancing competing priorities and interests.

1.6.4 Components of Public Expenditure:

1. Expenditure on General services

1. In Revenue account, Expenditure on General services : Organs of the state, Fiscal Services, Interest Payments and servicing of debt, Administrative Services, Pensions and Miscellaneous General services etc.
2. In Capital Account, Expenditure on General Services: Other Fiscal Services, Police, Stationery and Printing, Public Works, Other Administrative Services, Miscellaneous General Services etc.

2. Expenditure on Social Services

1. In Revenue Account, Expenditure on social Services: Education, sports, Art and Culture, Health and Family Welfare, Water Supply, Sanitation, Housing and Urban Development, Information and Broadcasting, welfare of Scheduled Castes, Scheduled tribes, Other Backward Classes, Labour and Labour Welfare, Social Welfare and Nutrition, and other expenditure
2. In Capital Account, Expenditure on Social Services: Education, sports, Art and Culture, Health and Family Welfare, Water Supply, Sanitation, Housing and Urban Development, Information and Broadcasting, welfare of Scheduled Castes, Scheduled tribes, Other Backward Classes and Minorities, Social Welfare and Nutrition, and other expenditure

3. Expenditure on Economic Services

1. **In Revenue Account, Expenditure on economic services :** Agriculture and Allied Activities, Rural Development, Special Areas Programmes, Irrigation and Flood Control, Energy, Industry and Minerals, Transport, Communication, Science, Technology and Environment, Tourism, Foreign Trade and export Promotion, Census Surveys and Statistics, Civil Supplies, General Economic Services, General Financial and Trading Institutions,

International Financial Institutions, Defense services, Indian railways and Commercial Lines.

2. **In Capital Account, Expenditure on Economic Services :** Agriculture and Allied Activities, Rural Development, Special Areas Programmes, Irrigation and Flood Control, Energy, Industry and Minerals, Transport, Communication, Science, Technology and Environment, Tourism, Foreign Trade and export Promotion, Census Surveys and Statistics, Civil Supplies, General Economic Services, General Financial and Trading Institutions, International Financial Institutions, Defense services, Indian railways and Commercial Lines.

1.6.5 Components of Major Social Services Sector

1. Expenditure incurred on the education, Sports, Art and Culture has been considered as Education Expenditure
2. Expenditure incurred on the Health and Family Welfare has been taken as Health Expenditure

A. In Revenue Account, Expenditure on Education, Sports, Art and Culture includes following items :

1. **General Education** : Expenditure incurred on the Elementary Education, Secondary Education, University and Higher Education, Adult Education, Language Development and General.
   a) Elementary Education: Expenditure incurred on the Direction and the Administration, Assistance to the Government Primary Schools and the Non-Government Primary School, Assistance to the Local Bodies for the Primary Education, Teachers Training, Sarva Siksha Abhiyan, National Programme of Mid-Day Meals in schools, Assistance to the Municipalities, Special components Plan for Scheduled Castes, tribal Area Sub-Plan, Transfer to the Reserve Fund and Other Expenditure.
   b) Secondary Education: Expenditure incurred on the Direction and the Administration, Maintenance of Buildings, Inspection, Research and Training, Teachers Training, Scholarships, Text Books, Government

Secondary Schools, Assistant to the Non-Government Secondary Schools, Special Components Plan for Scheduled Castes, Tribal Area Sub-Plan, and Other Expenditure.

c) University and Higher Education: Expenditure incurred on the Direction and the Administration, Assistance to the Universities, Assistance to the Government Colleges and institutes, Assistance to the Non-Government Colleges and Institutes, Scholarships, Institutes of Higher Learning, interest subsidy on education Loan to the Bright and the Needy Student, Special Component Plan for Scheduled Castes, Tribal Area Sub-Plan, and Other Expenditure.

d) Adult Education: Expenditure incurred on the Direction and the Administration, Other adult Education Programmes, Special Component Plan for Scheduled Castes, Tribal Area Sub-Plan, and Other Expenditure.

e) Language Development: Expenditure incurred on the Direction and the Administration, Promotion of the Modern Indian Languages, Promotion of the Literature and Sanskrit Education, Special Component Plan for Scheduled Castes, Tribal Area Sub-Plan, and Other Expenditure.

f) General: Expenditure incurred on the Direction and the Administration, Scholarships, Research, Assistance to the Gram Panchayats, Special Component Plan for Scheduled Castes, Tribal Area Sub-Plan, International Co-operation and Other Expenditure.

2. Technical Education: Expenditure incurred on the Direction and the Administration, Training, Assistance to the Universities for the promotion of the Technical education, Polytechnics, Engineering/Technical colleges, Institutes, Special Component Plan for Scheduled Castes, Tribal Area Sub-Plan, and Other Expenditure.
3. Sports and Youth Services: Expenditure incurred on the Direction and the Administration, Youth Welfare Programmes for Students and Non-Students, Physical education, sports and games, Special Component Plan for Scheduled Castes, Tribal Area Sub-Plan, International Co-operation and Other Expenditure.

4. Art and Culture: Expenditure incurred on Fine Arts Education, Promotion of arts and Culture, Public Libraries, Archives, Archaeological Survey, Museums, Anthropological Survey, Tribal Area Sub-Plan, International Co-operation and Other Expenditure.

B. In Capital Account, Expenditure on Education, Sports, arts and Culture incorporate the following items:

1. General Education: Expenditure incurred on the Elementary education and the Secondary Education, General, University and Higher Education, tribal area Sub-Plan and Other expenditure

2. Technical Education: Expenditure incurred on the technical Schools, Polytechnics, Engineering/Technical Colleges, Institutes and Other Expenditure

3. Sports and Youth Services: Expenditure incurred on Youth Hostels, Tribal Area Sub-Plan, Sport Stadia and Other Expenditure.

4. Art and Culture: Expenditure incurred on Fine Arts Education, Public Libraries, Archives, Archaeological Survey, Museums, Anthropological Survey, Tribal Area Sub-Plan and Other Expenditure.

C. In Revenue Account, Expenditure on health and Family Welfare includes:

1) Medical and Public Health 2) Family Welfare

1. Medical and Public Health: Expenditure incurred on the Urban Health Services, Rural Health Services, Medical education, training and research, Public Health and General.

a) Urban Health Services: Expenditure incurred on the Direction and the Administration, Central Government Health Scheme, Employees State Insurance Scheme, Medical Stores Depots, Hospitals and Dispensaries, Other System of medicine involves and Homoeopathy, special Component Plan for Scheduled Castes and Tribal Area Sub-Plan.

b) Rural Health Services: Expenditure incurred on the Primary Health Centres, Hospitals and Dispensaries, Other System of medicine includes Ayurveda.

c) Medical Education, training and Research: Expenditure incurred on Ayurveda, Homoeopathy, Allopathy, Other systems, Special Component Plan for Scheduled Castes, tribal Area Sub-Plan and Other Expenditure.

d) Public Health: Expenditure on the Direction and the Administration, Training, Prevention, Control of Diseases, drug Control, Prevention of Food Adulteration, Manufacture of vaccine, Public Health Laboratories, Public Health Publicity, Public Health Education, Assistance to the Zila Parishads, Assistance to the Gram Panchayats, tribal Area Sub-Plan, Special Component Plan for scheduled Castes and other expenditure.

e) General: Expenditure incurred on the Health Statistics and Evaluation, Tribal Area Sub-Plan, international Co-operation and Other expenditure.

2. Family Welfare: Expenditure incurred on the Direction and the administration, Research and Evaluation, training, rural and Urban Family Welfare Services, mass Education, reproductive and child Health Programme, Other Services and Supplies, Special Component Plan for scheduled Castes, tribal Area Sub-Plan, International Co-operation and other Expenditure.

D. In Capital Account, Expenditure on Health and family Welfare incorporates: 1) Medical and Public Health 2) Family Welfare

1) Medical and public Health: Expenditure incurred on the Urban Health services, rural Health Services, Medical education, Training and Research, Public Health and General.

a) Urban Health Services: Expenditure incurred on the Direction and the Administration, Central Government Health Scheme, Medical Stores Depots, Departmental drug manufacture, Hospital and Dispensaries, Other Health Schemes and Other expenditure.

b) Rural Health Services: Expenditure incurred on the Health Sub-Centres, Primary Health centres and Other Expenditure.

c) Medical Education, training and Research: Expenditure incurred on Ayurveda, Homoeopathy, Allopathy, Other systems, and tribal Area Sub-Plan

d) Public Health: Expenditure incurred on the Prevention and Control of Diseases, Public Health Laboratories, Public Health Education, Other Programmes and other Expenditure.

e) General: Expenditure incurred on the Investment in Public Sector and Other Undertakings, Tribal Area Sub-Plan and Other Expenditure.

2. Family Welfare: Expenditure incurred on the Urban Family Welfare Services, Services and Supplies, Investment in Public Sector and Other Undertakings, and Other Expenditure.

1.6.6 Definition & Concept

Public Expenditure: Public Expenditure is the expenditure of public authority – central, state and local governments. These expenditures are incurred by the government for its own maintenance, the society and the economy as a whole.

Social Service Expenditure: Social services Expenditure is the allocation of financial resources by government towards providing essential services that improve the well-being and quality of life of individuals and communities.

Public Expenditure Ratio: The Public Expenditure Ratio (PER) is a statistical measure that indicates the proportion of a country's Gross Domestic Product allocated to public expenditure.

Social Allocation Ratio: The Social Allocation Ratio (SAR) is a statistical measure that indicates the proportion of a country's total public expenditure allocated to social sectors, such as education, healthcare, and social welfare.

Social Priority Ratio: The Social Priority Ratio (SPR) is a statistical measure that indicates the proportion of a country's total public expenditure allocated to social sectors, relative to other expenditure categories, such as defence, infrastructure, and debt servicing.

Total Public Expenditure: Total expenditure has been identified differently by different authors over the years. More specifically, however, government expenditure can be defined as the state's expenditure on the supply of goods and services including those for running the day to day administration of the government. In our study government expenditure has been defined as aggregate spending of the government, on both revenue and capital account. It is taken as independent variable to measure the impact of the state's spending on social sectors. We believe that aggregate expenditure should be positively related to the level of economic development and to measures of social welfare.

Revenue Receipts: All receipts of the state government which include receipts from taxes – own taxes and devolution of centrally administered taxes; non-tax receipts which include state's own non-tax receipts and transfers from the central government. Revenue receipts are expected to rise with the rise in the level of economic activity and better outcomes in the social sector which would make it possible to levy user charges on a wider scale.

Revenue Expenditure: All expenditure of the government on revenue account including on the heads of development and non-developmental expenditure; other expenditures which include those on compensation and assignment to local bodies.

Capital receipts: All capital receipts of the government and includes receipts on public account on a net basis. Included in this category are receipts on account of internal debt, loans and advances from the centre, recovery of loans and advances provided by the state and receipts on account of interstate settlement. Receipts on public account are included on a net basis.

Capital Expenditure: Capital expenditure is taken excluding capital expenditure on the public account. It includes total capital outlay, discharge of internal debt,

repayment of loans to the centre, loans and advances forwarded by the state governments for developmental and non-developmental purposes.

Development and Non-Development Expenditure: Developmental expenditure is that which contributes directly or indirectly to the production levels and productive capacity of the state. Developmental expenditures are grouped under two categories i.e., social services and economic services. Social services are concerned with the provision of basic amenities of life to the community including education, medical and public health and other social services. Economic services include all expenditure concerning to promote directly or indirectly productive economic activity within the economy. Expenditure on economic services can play an important part in the promotion of the development of the state. Activity like agriculture and allied activities, rural development, irrigation and flood control, industry, transport and communication and other economic services are included in this category. Industry covers both large and small-scale industries, power development, exploitation of mineral resources, trade and export promotion.

Expenditure on general services like administration, interest payment and debt servicing, pensions and fiscal services are non-developmental in character. Developmental expenditure is both investment and consumption expenditure, but practically all non-developmental expenditure is in the nature of consumption expenditure.

The conceptual difficulties in precisely defining the content of developmental expenditure arise from the fact that the economic development itself assumes different meanings depending upon the stage of economic development of a country and the major goals of development planning adopted. The difficulty in demarcating the expenditure which has no impact, direct or indirect, on development poses another problem. A minimum of sound administrative machinery is necessary for accelerating the rate of growth. In this situation, the expenditure on administrative services is set to promote development indirectly, but is put under non-developmental expenditure.

Plan and Non-Plan Expenditure:

The plan expenditure allocates funds for new projects which do not exist before the introduction of a particular plan. On the other hand, non-plan expenditure is the provision of further funds for those projects which were undertaken in the previous plan period but were not completed during the same. The plan expenditure consists of both revenue and capital expenditure and, therefore, does not coincide with the concept of capital formation. It does not correspond to the concept of developmental expenditure as defined above, for the simple reason that the developmental expenditure includes old as well as new expenditure and not the expenditure on new schemes only as included under plan expenditure. For instance, the plan expenditure will include salaries of only newly employed health workers in health sub-centre opened under the current plan and not of the existing health workers, whereas developmental expenditure includes the salaries of all health workers paid by the government.

The difference between plan and non-plan expenditure has no great significance except for having an idea about the resources available for financing the plan. The non-plan expenditure, when added to the plan expenditure, gives the total expenditure and hence its utility lies upon in understanding the growth of government expenditure. However, the desirability of the reduction of non-plan expenditure is questionable. It so happens frequently that schemes included under the plan require recurring expenditure but they cannot be included in the plan expenditure but can be done so under non-plan expenditure.

Infant Mortality Rate (IMR): The number of death per 1,000 live births, of children under one year of age. The rate for a given region is the number of children dying one year of age, divided by the number of live births during the year, multiplied by 1,000.

Gross Enrolment Ratio (GER): The Gross Enrolment Ratio is a statistical measure used to indicate the level of enrolment in education, particularly at the primary, secondary, and tertiary levels. It is calculated by dividing the number of

students enrolled in a particular level of education by the population of the corresponding age group, and then multiplying the result by 100.

1.7 OBJECTIVES OF THE STUDY

The specific objectives of the study are as follows:

1. To study pattern and trend of public expenditure with reference to expenditure on social service. .
2. To examine the funding pattern of public expenditure on social service and its disaggregation to various heads of accounts in Mizoram.
3. To ascertain the extent to which public expenditures on social services affect human development.
4. To investigate the different aspects related to the progress, the status and the indicators on education and health.
5. To analyze the factors responsible for determining the level and size of public expenditure on social services.

1.8 HYPOTHESES

The study formulated the following hypotheses:

1. There is a positive relationship between Net State Domestic Product (NSDP) and expenditure on social services.
2. Resources from shared Tax revenue and Liabilities significantly stimulate public expenditure on Social services.
3. Internal resource Mobilization has a significant relationship with expenditure on social services.
4. Changes in the indicators of Health and Education sector have a significant impact on public expenditure on social services.

1.9 LIMITATIONS OF THE STUDY

1. **Data Constraints:** The study relies on secondary data sources, which may have limitations in terms of accuracy, reliability, and completeness.

2. **Time Period:** The study covers a specific time period of 2005-06 to 2020-21, which may not be representative of the entire history of public expenditure on social services in Mizoram.

3. **Methodological Limitations:** The study uses econometric techniques, which may have limitations in terms of capturing complex relationships between variables and the study uses aggregated data, which may mask important differences at the disaggregated level.

4. **Exclusion of Additional Variables:** The study excluded additional variables that influence public expenditure on social services in Mizoram, such as Centrally Sponsored Scheme in Education sector due some data necessary to estimate the different components were not available in the exact form in which they were desired and National Health Mission in Health sector as it was implemented only after 2013.

1.10 METHODOLOGY

1.10.1 Research Design: This research employed a quantitative and longitudinal research design, performing econometric techniques for time-series data analysis. This design was carefully opted to allow for analysing trends, relationships, and predictive factors related to public expenditure in Mizoram over a period of sixteen fiscal years, spanning from 2005-06 to 2020-21.The research depends heavily on statistical analysis to identify and quantify the relationships between various economic indicators and public expenditure, particularly in social service sectors.

1.10.2 Data Sources: The study was solely based on secondary data. The requisite data were collected from:

- **Annual Financial Statement:** The primary source of data for public expenditure, taxation revenue, and allocations of social sector was collected the Annual Financial Statement and Accounts at a Glance issued by the Government of Mizoram.

- **Handbooks of Reserve Bank of India (RBI):** Handbook of Statistics on State Government Finances and Handbook of Statistics on the Indian Economy published by RBI Data were also utilised to extract key macroeconomic variables, such as Net State Domestic Product (NSDP) Public Expenditure and other fiscal variables.
- **Mizoram Economic Surveys:** Data related to State's economic performance, sectoral growth rates and other socio-economic indicators were collected from the Economic Surveys published by the Government of Mizoram.
- **Government Department Records**: The study also collected education and health statistics from the concerned departments such as Health and Family Welfare, Department of Education, Department of Higher Education, etc.

1.10.3 Tools of Analysis

The study employed a combination of descriptive statistics and econometric techniques to analyse the collected data.

- **Descriptive Statistics:** The study utilised descriptive statistics such as of mean, standard deviation, coefficient of variation, and frequency distributions to summarize and describe the variables.
- **Growth Rates:** Growth rates such as annual growth rates and compound annual growth rates (CAGR) were calculated to analyse and examine the trends in various economic variables over the study periods.
- **Ratio Analysis:** Various ratios such as ratio of tax by type to the Net State Domestic Product, tax-income ratio, ratio of indirect taxes to the Net State Domestic Product, etc were also calculated to compare and assess the allocation of resources to different sectors.
- **Correlation Analysis:** To assess the strength and direction of association between select economic and socio-demographic variables and public expenditure on social services sector, the study also employed correlation analysis.

- **Linear Regression Analysis:** To examine the impact of specific variables on public expenditure especially social service expenditure, simple and multiple linear regressions were also executed in this study. Separate regressions were performed to assess the impact of Net State Domestic Product (NSDP), external financial resources, and internal revenue generation on the expenditure of social service sector as only one specification of multiple regression failed to meet the assumptions the regression.

CHAPTER - II

REVIEW OF LITERATURE

2.1 INTRODUCTION

Research has shown that expenditure of the government tends to increase with increase in economic activities as the economy develops. However, growth may vary from one country to another. In the wake of fiscal crisis in recent years, many of the state Government have increasingly began to restructure their tax system to seek higher revenue or to compress their level of expenditures by re-defining their economic goals and objectives in order to curb the growing budgetary deficits. In a welfare state, the practice of both the propositions becomes a difficult task on the part of the government due to the obvious nexus between the level of public expenditure and the level of taxation. Wagner's (Musgrave A. , 1959) says that there is a positive relationship between per capital income of the citizens in a country with government spending such that the income elasticity of government expenditure is always greater than one. However, other researchers have found that the relationship is not always certain because there are periods when government expenditure in relations to the national income will decline when the elasticity of income to government expenditure is less than one. Even though, public expenditure has increased during the last two centuries, and in spite of its growing role and importance in national economies, the branch of public expenditure as contributing factor of economic growth remains relatively unexplored (Harris, 1958). To him, economists have generally concentrated their attention on the theory of taxation. Mostly, the study of public expenditure confined to that of its effects on employment, inflation and prices etc. This limitedness is being opened up by various studies in the field of the nexus between public expenditure and economic growth.

The major contribution of the conspicuous growth of public expenditure on social sector in the state of Mizoram are the growing population, infrastructural requirements, emphasis on social welfare, economic development, the rising prices etc. many scholars and researchers have conducted several studies to ascertain the extent to which the rate of economic growth explains the rate of growth of public expenditure and examined the inherent nexus between them. Reviewing the various studies on causal effect analysis which used several explanatory variables with

different approaches, enable us not only in understanding the intricacies of public expenditure growth but also give us a better understanding of the mechanism of changes that take place in the quantum of public expenditure in response to a change in social value judgment and its inherent effects on the growth of human development of the economy.

2.2. GROWTH OF PUBLIC EXPENDITURE

The classical economists advocated minimum state interference in the economic affairs of a country as they strongly believe in the policy of laissez faire. The classical economists developed ambiguous arguments to justify the role of public expenditure. They held the market mechanism supreme and considered it a better method through which various activities in the economy could be guided and allocation of resources could be decided in the best possible way. It was argued that each rational economic unit could decide for itself hoe its economic interests could be maximized. They recommended that the state should restrict its activities to "justice, police and arms" which clearly stated that the duty of the state is to protect the citizens against foreign aggression and internal disorders. Hence, public expenditure was treated as waste, and that the money transferred from the people to the government could be of far greater utility for the people than for the government. Likewise, the burden of the tax should be the least on its tax payer was advocated to be the best one.

The classical economics writer were further of the view that the government should restrict itself to the performance of only those activities in which people might not be interested due to low profitability, too long gestation period and which they might not concern oneself to provide due to huge investments and externalities like social overheads and infrastructure like education etc. Also, to function market mechanism properly, active step should be taken by the state to maintain competition and free market, should undertake necessary management of currency and monetary systems, prevention of monopolies, removal of internal barriers to the movement of factors of production and goods.

However, this ideology exploded under the impact of the Great Depression of the 1930s and as the Industrial Revolution progressed, the scope of the state activity as well as intervention widened beyond what was advocated by the classical economists. The newly ideology came in the form of different role assumed by the state, which they called 'Welfare State'. The welfare state aimed at providing protection to domestic industries, labour welfare, social security measures, reduction of inequalities in income and wealth and so on. As all countries badly experienced the limitations of the market mechanism during the Great Depression and also cannot bring high employment, price level stability and socially desirable rate of economic growth, the need for government intervention was increasingly felt by the country. Keynes came out with his great thesis on pumping of investment by the state to combat widespread unemployment and bring economic stability. Ever since, there was an increasing volume of government intervention in the economic activities, public expenditure has been growing in its structure and size, particularly, to meet the objective of price stability, full employment, equity and economic growth. The growth of public expenditure has added to the fiscal responsibilities of the government of raising additional revenue from various sources to meet the mounting pressure of public expenditure.

The increase in income at the community level in relation to the national income leads to an increase in public expenditure as people demand more services which are consistent with their needs (Barra, 2015). After studying the public expenditure patterns of several advanced countries in the 19th century, Adolph Wagner (Wagner, 1883) elaborated on his law of increasing expansion of public expenditure and particularly state activities. Wagner tried to base his Law on the pressure for social progress and resulting changes in the relative spheres of private and public economy, especially compulsory public economy. Adolph Wagner perhaps expected the development of modern industrial society would result rise in public expenditure and further this would increasing political pressure for social progress, and the increased allowance for social consideration would lead to a continual expansion of public expenditure. The prevailing level of public expenditures reflect the requirement of a given historical situation and the changes

in public expenditure reflect the underlying changes in economic structure and development. The justification for increased public expenditure was no doubt conceived in terms of objective criteria such as population growth and social overhead needs. Essentially, Wagner's law implies that public expenditure increases at a faster rate than the national income.

Generally speaking, the empirical findings on Wagner's law applying the concept of co-integration (linear/nonlinear) and causality are mixed and contradictory. While a set of literature found support for the law (Ram, 1986) (Kolluri, B.R., Panik, M.J., & Wahab, M.S., 2000; Bruckner, M., Chong, A., & Gradstein, M., 2012), several others did not found support in favour of the Wagner's law (Iyare, S.O., & Lorde, T., 2004; Wahab, 2004; Narayan, P.K., Prasad, A., & Singh, B., 2008b). In Indian context too, the evidence on Wagner's law has been mixed both at the national level and sub-national context (Narayan, S., Rath, B.N., & Narayan, P.K., 2012; Kaur, K., & Afifa, U, 2017; Nirola , N. & Sahu, S., 2020; Rani, R., & Kumar, N., 2020; Rastigi, R., Chakravarty, S., & Pradhan, B.K., 2021). The growth of public expenditure is affected by three sets of variables, viz. the growth of population, the emergence of strong local opinions and the emergence of strong world opinions (Prest, 1973). Rapid rate of growth of population will set in motion a causal chain process. As a result, the rate of growth of government expenditure as a whole is likely to be faster than that of population. However, great increase in public expenditure has been experience by some countries of the world whose population growth is around 3 per cent per annum. Further, in his study on public expenditure A.R. Prest (Prest, 1973) argues that the emergence of strong local opinion affects the level of public expenditure to a very great extent. With the emergence of strong local opinions, there is always a tendency on the part of the public activities to be concentrated in a range of activities, the demand for which rises as the general standards of living improves that entail higher level of public expenditure (Peters, 1971). This argument appears to have particular weight in respect of education, health and housing which display a high-income elasticity. But the related question of how far the growth of public expenditure on education or health in any given country is due to a government's desire to placate local opinion

or to its wish to conform with or emulate practices in other countries remains unanswered. Lastly, it is argues that world opinion positively affects the levels of public expenditure in a country through a demonstration effect.

In order to study the political economy of government Expenditure in Nigeria, econometric analysis is made used (Ubogu, 1983) to ascertain the trend and variations in the aggregate as well as their composition of government spending and to determine the factors responsible for the growth of public expenditure. The tremendous increase in public expenditure on various functions has been attributed by the study to increases in government revenue from the oil sector and the number of states created in the nation which as a consequence have to be provided with social, economic and welfare services in addition to general administration. Again, factors which influence public expenditure like changes in the level of domestic revenue and foreign aid, changes in ideology, international demonstration effect, rapid growth of dependent population and changes in the level of monetization of the country arises from political, social and economic considerations. (Ubogu, 1983) uses a simple trend and multiple regression analysis in order to examine the changes that have occurred not only in total government expenditure but also in the components. The result established an inverse relationship between education spending and per capita income. The same relationship exists between health expenditure and per capita income. It was found that public expenditure on economic services, there is positive relation between to literacy rate and the degree of monetization of the economy but there is an inverse relation between the degree of urbanization and per capita income. The study reports that in all the regression equations, the expenditure function is found to be positive and significantly related to total spending. However, the primary factors pointed out like taste and preference as inferred from economic and demographic variables that influence expenditure decision making ignores the institution mechanism of political structures, processes and values as well as fiscal policies in representative democracies that facilitate with the transformation of individual and group wants into different types of government action. Based on the above observations, some researchers tried to study the determinants of public expenditure by considering certain institutional factors like

economic development, federal form of government and tax centralization along with selected demographic variables. Among high-income democracies, therefore, institutional variables play an important role for the wide variation in the public expenditure levels (Solano P. , 1983). So, in order to assess more accurately the impact of political and fiscal variables, expenditure should be so disaggregated as to correspond to groupings, which are the basis of government decision-making.

On a discussion of public expenditure and the poor in South Africa, Amoaka argues that Government can contribute most to economic and social progress by focusing on the things that they do best. Sustained living standard improvement requires a strong partnership between governments and the private sector through growth, human capital development. Governments needs to provide goods and services, law and order, national security, and an environment conductive to business and the smooth functioning of civil society, which the state only can provide. Sometimes government has to take necessary step to correct market failures without making vast and costly administrative and bureaucratic structures when and where activities fall in the domain of private economic agents. Public expenditures accounted for more than 30 percent of GNP for Africa as a whole in 1993, ranging between 19 percent for Cameroon and 47 percent for Egypt. The efficient management of these resources is critical to growth, to human capital formation, and to the welfare of the poor. That management requires a cadre of professionals who can formulate and implement government policies, but they are in short supply in many developing countries, especially in most countries of Sub-Saharan Africa. This is part of the reason why public administration is often week, as manifested in ineffective tax collection, poorly managed public expenditure, abandoned public health measures, poor law enforcement. Due to poorly functioning bureaucracies, confliction signals emerge to the private sector, they also damage long-term investment. Building institutional capacity thus needs to figure prominently in any strategy to reduce poverty. Public Expenditures are, therefore, essential for human and physical capital formation and for providing income support for the poor. In recognition of this, the signatories to the Social Summit in Copenhagen committed themselves to increase significantly and or utilize more efficiently the resources

allocated for social development. But governments are not channeling enough resources to these areas. The broad reviews of government expenditure are needed to help governments restructure and make tough choices about the allocation and reallocation of their public expenditures. In the long term, the reform of public spending promises greater benefits for human development, that is to redirect the increased social spending toward services that benefit the poor, especially basic education and essential health services.

A complex of economic, political, psychological, institutional factors and even to certain extent the statistical influences determines the growth of public expenditure (Sandford, 1984). Sanford tried to study the public expenditure patterns of O.E.C.D countries by taking administrative rearrangements variables like technical factors, changes in attitude to public spending, changes in the nature of publicly provided goods, the growth of public sector employment, the inherent characteristics of politicians and bureaucrats and institutional factors. The study concludes that all the explanatory variables have got a positive impact in determining the size, structure and patterns of public expenditure in these countries.

2.3. POLICY STANCE ON ALLOCATION OF PUBLIC EXPENDITURE

The prevailing levels of public expenditures reflect the requirement of a given historical situation and the changes in public expenditures reflect the underlying changes in economic structure and development (Wagner, 1883). Recently two important schools of thought have emerged. One of the school thought that the role of the government as one that emphasizes upon the social sector and devoted to issues that are relevant from the perspective of human development. The other view that government should focus on economic growth which once it takes root would automatically lead to poverty alleviation and combat the high levels of deprivation that condition the experience of most developing countries. The reason that offers for such massive increase in public expenditure is that the services provided by the government such as education and health are highly income elastic demand and in the economy, public sector assumes greater role in checking the

monopoly tendencies of the private sector in the process of economic development. Anand, A., & Ravallion, M, 1993 undertook a study that focused on the relative importance of private incomes and public services in attaining some very basic human capabilities. They undertook a cross section study across 22 developing countries for the year 1985, and a time series analysis for Sri Lanka for the period 1952-81. The variable included in the analysis pertained to real per capita income, poverty ratio, IMR and life expectancy. Positive association between the life expectancy at birth to adjusted per capita income has been founded but, the above result vanished in controlling for public spending on social services and poverty incidence. In the context of Sri Lanka, social indices have been greatly affected by real average income and public health expenditure. Further, public assistance promoted human development, independently of what was happening to income.

Public expenditure on health sector in all probability is an important determinant of human development. Besides, higher growth performance is viewed as conductive to human development (Fan, S., Hazell, P., & Thorat, S.K., 2000; Ravallion M. , Good and Bad Growth: The 1996 Human Development Report, 1996) though there is no guarantee that economic growth would ameliorate the conditions of the poor (Ravallion M. , 1996). Therefore, for raising income levels and to provide for increased allocations to the social sector, public expenditure policy must play a pro-active role. It indicates that public policy must be growth oriented. However, a measure of redistribution and public service delivery may be built into the system as the trickledown effect may not be automatic.

Some of the economist viewed that direct policy action of the public policy is to alleviate conditions of deprivation, with a degree of skepticism. For understanding the impact of policy variables on performance on different counts one needs to incorporate initial conditions into the analysis (Bhalla, S.S., & Glewwe, P, 1986). This may be the outcome of country specific fixed effects and past policy decisions. To that end, (Bhalla, S.S., & Glewwe, P, 1986) employ a model incorporating change-change regression taking countries with income levels similar to that Sri Lanka in the selected base year. Taking account of the variable like per capita income growth, consumption expenditures of alternate quintiles of the

population and six different indicators of living standard, they analyze data for the period 1960-1984. Policy was geared towards mitigating the incidence of poverty, but, the gains in the standard of living and growth in per capita income was exceptional in the first period (1960-78). The second period (1977-84) account for shift to a more growth oriented policy stance. This period witnessed doubling the rate of economic growth, increase in the consumption expenditures of the poor without any significant increase in inequality of expenditures among alternate sections of the population and a number of vital rates continued to improve. So, it may be held that growth oriented policy could be more effective in combating poverty and in improving living standards.

Even though, growth oriented must be the public policy as indicated by the above study, the system should built a measure of redistribution and public service delivery as the trickledown effect may not be automatic. The point is witnesses in the Indian state of Kerala which experienced lop-sided human development path with high levels of attainment in social indices but low levels of growth though the decades spanning 1981 to 2001 (Ghosh M. , Economic Growth And Human Development In Indian States, 2006). This could be the result of priority to social sector expenditures over that for economic growth (Jeromi P. , 2005; Ghosh M. , 2006; Chakraborty P. , Intra-Regional Inequality And The Role of Public Policy: Lesson Learnt From Kerala, 2009).

The relationship between economic development and human development in a series of cross section studies, determined an iterative process between the two (Ranis, G et al, 2000). Particularly, (Ranis, G. & Stewart, F, 2006) studied the two way causal link between economic growth and human development for a clutch of 69 developing countries for a period between 1960 and 2001. They applied the OLS method using lags of the original values to reduce the simultaneity bias. They measured human development by infant mortality shortfall reduction (IMSR) to study the impact of economic growth on human development. To analyze the reverse causation from human development to economic growth their dependent variable was taken to be the per capita GDP growth. They have found that the poverty head count ratio had a significant impact on the infant mortality shortfall

reduction as did the social expenditure ratios specifically public expenditure on health and education, the female primary enrolment ratio and the Gini coefficient. GDP per capita was strongly related to the literacy rate and literacy shortfall reduction as well as life expectancy and life expectancy shortfall reduction for causal link for human development and economic growth. The gross domestic investment rate was strongly significant as was the poverty head count ratio. This would suggest a feedback relationship between aspects of human development on one hand and income growth and reduction of poverty on the other. The two-way causality exist between per capita income and human development indicators and that increase in per capita income would take about two years to translate into improvement in HDIs, whereas the impact lags in the independent variable and interchanging the variable was around eight years in the reverse case. Hence an emphasis on economic growth is likely to address the issue of twin disparities in income and human development in the shortest time.

However, by tremendous increase in public investment in social sectors, higher growth rates with lower regional disparity in the indicators of human development can be achieved. There is a considerable convergence in human development indicators but growing divergence in per capita income levels (Ghosh M. , Economic Growth And Human Development In Indian States, 2006). In India, Kerala state had attained the highest value for Human Development Index without having high per capita incomes, industrialization and urbanization (Jeromi P. , 2003). However, high spending on the social sector seemed to have started paying dividends in terms of higher economic growth. This has been at the cost of extreme fiscal strains and difficulty in maintaining existing assets which has the potential to retard the achievements on the social front (Chakraborty P. , 2009).

So, both economic development and human development are determined simultaneously. But, if policy stances are to be made as sequencing efforts, due to resource constraints, a policy maker must considered human development as an initial focus and then as a subsequent focus on economic growth. If it is not, growing economies are likely to sink into a vicious cycle where low growth

reinforces lower levels of human development (Ranis, G, Stewart, F et al., 2000) (Ghosh, 2006)

When we take up the above study, it is concluded that from the beginning of any reform programme, public policy must focus on human development. When the state tries to influence the process of development, tradeoff between expenditure meant and policy initiatives for human development always exists as against those expressly meant for economic growth. Then, the question relates to the extent to which the spending priority on human development must be extended and how far the degree of emphasis to be laid to either objectives.

Over successive decades of the 20th century, in almost all countries, there has been a substantial rise in government expenditure. The growth in government has attracted critics who view this as an ominous development, endangering the political rights of the society and economic prosperity (Slemod, 1995). There is a great concern when we see developing countries unable to translate growing public expenditures into positive social outcomes while struggling with development imperative. Some economists says that economic growth call forth higher public expenditures because the society demand for those publicly provided goods and the services which have a high and positive elasticity of demand are increased. The question remains as whether public expenditure has its own dynamic or is it fashioned by the need to ensure economic development.

2.4. PUBLIC EXPENDITURE AND ECONOMIC GROWTH

By achieving its potential growth, public expenditure may act as a deterrent to an economy. Some expenditure is productive while some others are not and still others inimical to growth. The distinction has been made by practitioners between ‘productive’ and ‘unproductive’ public expenditure, and show how a country can improve upon economic performance by changing the mix between the two (Devarajan, S., Swaroop, V. & Zou, H, 1996).

It may be mentioned that public expenditure may induce an increase in the rate of return to private capital and, thereby stimulate private investment

expenditure. An analysis centered on the generalized Cobb-Douglas production function for the production technology undertaken by (Aschauer, 1989) related to the behaviour of productivity in the private economy and its synergy with public sector capital accumulation as well as the flow of government expenditures on goods and services. The method of OLS is used to determine the relationship between productivity growth and public expenditure in the US. Data on output, hours, private capital and productivity are the variable used for private sector whereas, public capital stock net of depreciation measured in constant 1982 dollars and total government expenditure are the variables of interest used for public sector. The empirical results show that nonmilitary public capital stock was more important in determining productivity than either the flow of nonmilitary or military spending. The highest explanatory power for productivity is the core infrastructure like streets, highways, airports, sewers and water systems.

Variation in the composition of public expenditure leads to a higher steady state growth rate of the economy and that conditions also depends on the initial shares between current and capital expenditure and not only on the physical productivity of the different components of expenditure (Devarajan et al., 1996). An increase in the share of current expenditure component has positive and statistically significant growth effects. On the other hand, the relationship between the capital component of public expenditure and per capita growth is negative. Thus, composition of public expenditure matter a lot to economic growth in most of the developing countries (John Mudaki and Warren Masaviru, 2012). For example, In Kenya, expenditure on education was a highly significant determinant of economic growth while expenditure on economics affairs, transport and communication also significant albeit weekly. In contrast, expenditure on agriculture was found to have a significant though negative impact on economic growth. However, it seems that excessive use of productive expenditures could become unproductive. Developing country governments have always been misallocating public expenditure in favour of capital expenditures at the expense of current expenditures and the reverse happen in developed country.

The measurement of economic growth as a function of various public expenditures exhibited that there is a positive relationship between aggregate public investment and economic growth over the period. There exist a long-run equilibrium relationship between public expenditure and economic growth (Srinivasan, 2013). Also there is a positive impact of total public expenditure to GDP and vice versa. In other words, an improvement in the public expenditure will cause economic growth to increase However, the disaggregated effects of public expenditure exert different impacts on growth both in terms of signs and statistical significance. Overall government size has a negative influence on per capita Gross domestic Product growth whereas increasing public expenditure on education, health and economic infrastructure have significant positive growth effects (Shivaranjani, 2010). With the merit goods category showing a higher effect than the other, allocation towards these would be more beneficial in view of economic growth.

In a disaggregated analysis of Developing countries, Niloy Bose,M. Emranul Haque and Denise R. Osborn (2003) used over the Regression and Analysis and effects (1970-1980) to analyze 30 developing countries and find that the share of government capital expenditure in Gross Domestic Production is positively and significantly correlated with economic growth, but current expenditure is insignificant. Second, at the disaggregated level, government Investment in education and total expenditure in education are the only outlays that are significantly associated with growth. When testing for causality within a bivariate system of total government spending and economic growth, there is bi-directional causality from government spending to economic growth with a negative long-term relationship between the two variables. However, when testing within a triviriate system, the share of government expenditure of civilian in GDP, military burden and economic growth; civilian government expenditures have positive economic growth, and the military burden have negative effects on economic growth for all the countries (Abu-Bader, S. And Abu-Qarn, A.S, 2003).

There are two contractionary causalities between government size and economic growth (Helledi, L.B. And Andersen, S.H, 2005). Economic growth generates higher income levels which in turns may create a higher demand for public

services financed by higher taxes. On the other hand, higher taxes create a higher stock of human capital, which in turn may generate higher economic growth and therefore higher income levels. By determining the optimal taxation level it is important to consider the initial taxation level. If the taxation level reaches a certain upper bound the possibility for brain drain arises.

Helledi and Andersen analysed how government expenditure financed by different taxation modes affects economic growth in developed OECD countries and Newly Industrialized Countries (NIC). They have distinguishes between government expenditure on investment and government expenditure on consumption, financed by three different taxation modes: capital income taxation, labour income taxation and consumption taxation. In their concluding result, they show that capital income tax dampens most the economic growth, and consumption taxation is the most plausible. In regard to the structure of government expenditure, government investments generate higher economic growth in comparison to government consumption. In the short run, choosing government investment creates negative welfare, but in the long run the welfare turns out to be highly positive. Allocating government expenditure into public capital via investments generates higher capital accumulation, and thereby larger output. The study finds that the best solution for a compensated expenditure is investment financed by consumption taxation.

However, the tax generating capacity of the north-east state of India does not cope with its increasing public expenditure programmes (Mishra, 2006). The pattern and direction of public expenditure of the states has not been able to pursue expenditure policies in consonance with the long run goals of achieving a desirable rate of economic growth. The capital expenditure on an average constituted less than 30 per cent and revenue expenditure constituted more than 70 per cent of the total expenditure. The economic problems of the north eastern states are more concerned with fiscal policy and its operation than finance alone (Chattopadhyay, 2007), they have miserably failed to generate sources of revenue by extension of tax bases. On the expenditure account, expenditure on social sector has bought about improvement in education and health care, etc., but there has not been any positive improvement in employment generation. And as such, there has been face-lift but no real growth.

In terms of investment decisions, state government sometimes followed a lopsided approach by giving lesser importance to the development of physical capital (Suresh, P.S., And Mishra, B, 2010). This has not only slowed down the indicators of human development but also resulted in a slow pace of economic growth of the state.

Responding the development policy debate involving the World Bank and IMF on the use of fiscal policy not only for economic stabilization but also to promote growth and increase of per capita income, Semmler et al. (2006) lays out a research strategy to explore the effects of fiscal policy, including the composition of public expenditure, on economic growth, using a time series approach. In their paper they suggested that a general model on growth and fiscal policy that includes both education and human capital as well as infrastructure investment and explores their impact on the long run per capita income. They also demonstrated the conditions under which fiscal policy is sustainable and explored the impact of foreign aid, the allocation of human and public capital and fiscal expenditure on per capita income. The calibration exercise show that higher investment shares in public expenditure increase per capita income than the other main variables – transfer and public consumption.

In recent years, the development assistance to heavily indebted countries has been made conditional on increased expenditures on categories that are thought to be "pro-poor". On this situations, Paternostro et al.(2007) has investigated the conceptual foundations and the empirical basis for the belief that poverty can be reduced through targeted public spending. They observed that, while it is widely accepted that growth and redistribution are important sources of reduction in absolute poverty, there is lack of an appropriate theoretical framework for assessing the impact of public spending on growth as well as poverty. The authors had proposed a conceptual framework within which questions about broad economic objectives, including growth and poverty reduction, and the appropriate policy instruments can be studied. The framework recommended that a hierarchy of issues to be addressed sequentially prior to focusing on particular questions regarding the contribution of public spending to poverty reduction. Where government justify

their interventions in terms of growth and poverty reduction objectives, such policies should be subjected to rigorous empirical evaluation in terms of their effectiveness in achieving the goals of the stated development strategy. Anyway, the Government policy prescriptions like the need for enhancement of fund allocation for poverty alleviation, for raising the literacy rate of the state, health facilities should not only be expanded but also to ensure that rural centre are made to function with adequate medical facilities and further, there should be convergence of government development activities which would generate in gender equality, better education and improved health and these will transformed into higher level of human development (Nayak, P And Thomas, ED, 2007). There is a positive and significant relationship between government health expenditure and human development index.

The relationship between public expenditure and economic growth has thus continued to generate series of debate among economists. Some scholars argue that increase in total government expenditure contributes positively to economic growth. However, some scholars did not support the arguments, instead they revealed that higher government expenditure may slowdown the overall performance of the economy. They argue that government will increase taxes or resort to borrowing in order to finance the rising expenditure. Higher income tax will discourage individual from working which in turn will reduces income and aggregate demand. Again, higher profit tax tends to increase production costs and reduce investment expenditure as well as profitability of firms. In the same manner, if government increases borrowing in order to finance its expenditure, private sector will be competed away and thus private investment will be reduced. Furthermore, in an attempt to get popularity and ensure that they have continues to remain in power, government officials and politicians sometimes increase public expenditure and investment in unproductive projects. Thus, misallocation of resources and impediment of the growth of national output happens by government activity.

Thus, the available literature on the cause – effect relationship between the growth of public expenditure and the growth of human development reveals that the emergence of two opposing views in this intricate relationship. One is following the Keynesian approach which have argues government expenditure as an important

policy tool to be used to ensure a reasonable level of economic activity, for correction of short-term cyclical fluctuations in aggregate expenditure and to secure an increase in productive investment which will provide a socially optimal direction for growth and development. The opposite view suggests that excessive state intervention in economic activities affects growth achievements in a negative way for two reasons: Government operations are often conducted inefficiently, hence they reduce the overall productivity of the economic system and excessive government expenditure distorts economic incentives and results in suboptimal economic decisions. The above views are indicative of the fact that for designing economic policy, one has to address the question as to whether the rate of economic growth can be taken as a product of the government's conscious efforts of increasing the quantum of public expenditure programs.

The literature suggested that for the north-eastern states, the economic problems are more concerned with fiscal policy and its efficient operation than finance alone. Generally, the north-eastern states have failed to generate sources of revenue by extension of tax bases. On the expenditure side, expenditure in the social sector has brought about improvement in education and health care, etc., On the other hand, positive improvement in employment generation has not been achieved. This situation of high expenditure but low income, low economic growth and higher human development throws up a challenge to see the public expenditure's ability to promote economic growth and to have a better understanding of the changes affecting mechanism which response the dependent to the independent factors.

2.5. DETERMINANTS OF PUBLIC EXPENDITURE

As mentioned in the previous section, the massive growth of public expenditure was viewed with a disfavor by the classicist. They developed ambiguous arguments to justify the role of public expenditure by aiming at restraining government interference in the economics activities. However, this ideology exploded under the impact of the Great Depression of the 1930s. Ever since then, the government is calling for greater intervention in the economics

functioning and so, there is a massive growth of public expenditure in its size and structure to meet the objectives of price stability, full employment, equity and economic growth. Since the determinants of public expenditure implicitly take into account the two dimensions of the problems of the growth and pattern of public expenditure, no doubt, this calls forth for a systematic analysis and understanding of the factors that determine such growth.

The restoration of the economics of public expenditure to the mainstream economics was accomplished by attention to the role of public expenditure in stabilizing the economy. These concerned with the employment of resources, and with the role of public expenditure in influencing the level of aggregate demand (Keynes, 1936). The justification for increased public expenditure was no doubt conceived in term of objectives criteria such as population growth or social overhead needs and the changes in public expenditures reflect the underlying changes in economic structure and development (Wagner, Adolp, 1883).

The state with the higher per capita income would most likely incurred a larger increase in per capita expenditure (Fabricant, 1952). The empirical work on growth, pattern and determinants of public expenditure by Fabricant was mainly concerned with state and local level public expenditure of the United States and he established the functional relationship between them by multiple regression model taking per capita income, population density and per cent of population living in urban places as independent variables.

Change in per capita expenditure resulting from a unit change in one of the predictor variables is the same, no matter what the level of the two other predictors might be. The model explained 72 per cent of the variability in state per capita expenditure. There is an inverse correlation between the level of public expenditure and population density and the existence of a positive correlation between public expenditure and the degree of urbanization and per capita income. However, in the case of urban-local level expenditure, as population represents the demand for local services, it was an important explanatory variable in all cases of specific items of expenditure (Sarma,A., Parek, K.M And Sigh, L.T, 1974). Therefore, the variation

in population density, degree of urbanization and per capita income explain a considerable amount of the variation in per capita state and local governmental expenditure among the states and the degree to which these variables explain differences in expenditure for particular functions varies considerably (Fisher, 1961). However, density of population alone as a factor affecting per capita expenditures of the states is not significant, but the relationship between per capita expenditures and per capita income and urbanazition are extremely significant (Desai, 1976).

The weaknesses of the above analysis are that it tells us nothing about the desirable levels of expenditure. Although the study relies on a multiple regression model to show the significance of population density and the degree of urbanization, the significance of these variables factors sometimes overlooked due to the greater importance of the variable of per capita income. A relatively improved model with higher explanatory power for explaining the determinants of the state and local government expenditures has been developed by Oman (1962). He takes per capita income, percentage of urban population, population density, rate of population growth and federal aid as independent variables and growth of public expenditure as the dependent variable. Per capita income, total federal aid, and the percent increase in population accounts for 68 percent of the variance in general expenditure growth and the rest three variables explain 63 percent of the variance in the public expenditure. Federal aid has the effect of stimulating those function to which it has been directed and expenditure on some functions would increase though federal aid. Nevertheless they are considerable, population density, percentage of urban population and state aid are not so spectacular for explaining the determinants of public expenditure. Federal aid and the state aid remain the major determining factors of public expenditure (Sacks, S and Harris, R, 1964) and federal aid variable is the single significant variable in explaining the inter-state variation (Bahl, Roy W. and Saunders, Robert J, 1965).

The exponential model than the simple linear model is more adequate as regards to the determinant of public expenditure analysis on a priori grounds because the model enable to account for more of the vraibility in per capita state and

local expenditures (Kurnow, 1963). Kurlow, by preferring an exponential model, try to capture the interaction among the independent variables with the same set of database, as used by Fabricant and Fisher. He relies on a model that determines the change in per capita expenditure for any combination of predictor variables rather than the separate effects of each one of them.

There is s severe inter-correlations among the predicator variables under a joint regression model. Fabricant obtained an R^2 of .72 for the additive model (Simple regression model) while the joint regression model (Exponential Model) of this study obtained significantly R^2 of .88. For every 10 per cent increase in the respective predicator variables, there is an increase in per capita expenditure at the rate of 5.6 per cent, 2.2 per cent and 2.6 per cent respectively. The study claims to have a reasonable success in explaining the variation in per capita expenditure. In order to have a more reasonable success in ascertaining the determinants of public expenditure, certain variables like tax receipts, aid payments, budget deficits and lagged values of the dependent variable may be used as predictor variables (Morss, 1966).

However, looking from the outer cell, economic environment is the predominant factor in explaining the variations in all the expenditure function and further the second important variable that effects the level of per capita expenditure is the political or institutional factor. The continuous changes in social and economic environment as measured by density and urbanization might have given rise to continued and predictable pressure for more public services (Adam, 1965).

The above reviewed emphasize about the relationship between the absolute level of government expenditures and the absolute level of other variables, per capita income, population density and urbanization are the most common variables. Such analysis no doubt have important in the direction of pointing out significant relationships, which helped in explaining some of the variation in the magnitude of per capita and or aggregate government expenditure. What have been overlooked in these cross-section analysis is the determination of those factors which influence the changes in the level of state and local government expenditures.

The broad determinants of public expenditure are the economic system, the level of economic development and other influences that include what Musgrave calls 'Conditioning factors' (Pryor, 1968). Besides these variables, social force positively affects the level of public expenditure. The economic, conditioning and social forces exhibits a strong positive relationship with the growth of public expenditure. Per capita income, changes in technology, demographic change, social and cultural values and political structure positively affect the level of public expenditure (Musgrave R. A., 1969). Further, among these variable, even though, per capita income seems to influence government expenditure on some items but on a larger scale, it does not exert any influence at all (Lall, 1969). Meanwhile the economic system where productivity of the public sector always lags behind the productivity of the private sector, it is that productivity lag which explains the growth of public expenditure in recent year (Baumol, 1967). Labour productivity tends to grow less in the public sector than in the private sector and as a result, overall productivity rises less rapidly in the public sector than in the private sector as growth of per capita income continues. At the expense of private sector, public sector expansion takes place and it is this causal effect relationship that increase the level of public expenditure. The inclusion of per capita income variables has broadened the usual analysis of local government expenditures to identify several variables, which have important effects on individual local public services. Likewise, some non-economic variables which does not generally significant, still have larger effects in particular cases. Therefore, dummy variables for certain non-economic factors along with other indices of development may be used as explanatory variables for expenditure determinant analysis (Lall, 1969).

Most of the comparative studies on the determinants of public expenditure stated above nearly stress on a functional relationship between economic development and total national current expenditure among high income and low income countries. The analysis almost ignores the institutional mechanism i.e., political structures, processes and values as well as fiscal policies in representative democracies that facilitates with the transformation of individual and group wants into different types of government action. Institutional variables are mainly

responsible for the wide variations in the public expenditure levels among high-income democracies and therefore, in order to assess more accurately the impact of political and fiscal variables, expenditures should be so disaggregated as to correspondent to grouping, which are the basis of government decision-making (Solano P. , 1983). It was found that fiscal factors are more influential on state expenditure than the political factors (Bosch, Nuria and Pandiello, Javier Suarez, 1995) in a developed country.

However, in most of developing countries, the most important cause of rapid increase in public expenditure is the increasing expenses incurred in the execution of development and the provision of social services. Other causes are the increase in states expenditure on civil administration including security services, hike in the salaries of government employees, debt servicing and extravagant spending on the part of the government (Zahir, 1972). Further, less stable governments have tended to increase significantly higher levels of public expenditure particularly on social and economic services (Rao M. G., 1981). With regards to socio-economic services, there is a difference in the determination of each items of state expenditure at different point of time. Literacy rate, density of population and percentage of scheduled caste and scheduled tribe in total population are the main factors affecting per capita expenditure on social welfare and housing. Again, density of population and percentage of scheduled caste and scheduled tribe in total population mainly influence per capita expenditure on administrative services. Similarly, contribution of primary sector, density of population and percentage of scheduled caste and scheduled tribe in total population mainly influence per capita expenditure on economic services (Bhat, Sham K. and Patnaik, Uma Shankar, 1991). Further, political decision as well as all the revenue variables have a direct relationship with the level of public expenditure (Naresh, 1997). Politicians are sometimes used public expenditure as an instrument by introducing populist measures to capture the vote bank (Bhat, Sham K. and Varalakshmi, S., 1994). From political point of view, tax concessions are difficult due to mounting pressure of public expenditure over a period of time and substantial raising of tax revenue creates displeasure among the

citizens which will result in losing vote. So, therefore, politicians may not able to use tax revenue as a weapon to capture the vote bank.

2.6. PUBLIC EXPENDITURE CONSIDERATION ON MOVEMENT OF SOCIAL INDICES

The central government takes almost all the responsibility for macroeconomic stabilization. Local governments, in contrast, should be responsible for providing public services and redistributing incomes within their jurisdiction (Oates, 1999). This view is at variance with the traditional theory of fiscal federalism which contends that the stabilization and redistributive role of government are better suited to the central government whereas the allocative function is suited to local levels of government (Musgrave R. A., 1969). The decentralization Theorem and the principle of 'Subsidiarity' emphasised on the cleavage between the central and sub national governments with regard to the provision of alternative categories of public goods. The rationale for dependence on sub national governments for performing the allocative function is the perceived efficiency gains in providing public services in conformity with the varying preferences of consumers residing in geographical proximity (Rao M. C., 1991). Nowadays, consideration on incidence of poverty is vested increasingly on the hand of lower level governments and lower level government is expected to play an active role in business development. Achievements on development criteria hinge largely on society's quality of governance (Work, 2002).

Public expenditure is greatly influenced by political and fiscal behavior of the local authorities and fiscal factors are more influential on municipal expenditure than the political factors (Bosch, Nuria and Pandiello, Javier Suarez, 1995). However, though this explanation supports several hypotheses, it miserably fails makes use of a large number of explanatory variables to verify whether the municipal fiscal effort, the ideological factor, the electoral participation, the political concordance between the party in power at the municipal level and the upper levels

of government (regional and central) have got any influence in determining the level of municipal expenditure.

Democratic and decentralised governance are central to the development initiative. The process of decentralisation has the potential to raise allocative efficiency and foster national unity (Tanzi, 1995). However, this expectation fail to give a true impression by the institutional setting and many countries has to resolve the problems of structural fiscal deficits. Even though, social sector reform and decentralisation are closely linked to each other, some constraints are there between underdeveloped local institutions and the host of responsibilities that the process entails in the form of differences. There is a danger of the severe differentiation of outcomes across regions, consequent upon their relative wealth and institutional development levels (Angell, A and Graham, C, 1995; Bardhan, 2002) (Work, 2002). Control rights in governance structures may be decentralized while ensuring political accountability. However, in developing countries, there is no strong local accountability mechanism. There may be frustration in the goals of efficient public delivery of social services, infrastructure facilities and conditions conductive to local business development among elites.

Within social sectors, inter and intra sectoral allocations have a differential impact on social outcomes. For instance expenditure on education is more efficient than expenditure on health as it directly reaching the poor (Van de Walle, 1998). Increased spending on primary education and preventive health care can ensure that benefits of social spending are distributed more equitably while accelerating human development. However, in practice, very large shares of public expenditure for health sector are diverted to higher education are expensive curative care (Mundle, 1998; Gupta, 1998). At the same time, excessive reliance on social sector spending could prove to be detrimental for the growth process (Bhalla, S.S., & Glewwe, P, 1986).

A study on evaluation of the distributive effects of public programme approached and the problem combining intertemporal considerations with the explicit assumption of market failure, Holzman’s (1990) designed to quantify the

welfare and redistributive effects of public programmes in an intertemporal setting under market constraints. From the study, in general, which can really achieved through interpersonal income distribution is less than the welfare effects from public public programmes that aim to remove market constraints. However, the basis for making explicit relationship between public spending and growth and reduction of poverty is an ongoing issue (Paternostro, 2007).

Total quantum of public resources devoted to health spending is crucially important but, the more crucial in deciding health outcomes is the quality of services provided in the country. Total public health expenditure has great impacted on life expectancy (Ahmad, R and Hasan, J, 2016) and efficiency was positively related to health expenditure per capita income, particularly at low expenditure levels (Evans, D., Tandon, A., and Lauer, J., 2001).

Mortality, education and gender gap in school enrolments are the core social targets, which has a positive impact on human development and an important end in itself is achieving these targets (Demery, Lionel, and Michael Walton, 1998). Human capabilities are enhances by the capacity to live a healthy life and to read and write and eliminating differences in education between men and women improves social justice. Economic advance can cause social progress, notably through increased public and private spending out of rising income on factors that improve social conditions. Production is also increased by both better health and education; better education for women has a powerful influence on improving child health and reducing fertility, independent of income. Increased education for women increases household investments in children. However, a case exists for increased discretionary spending by government. While most practitioners believe this, the evidence is more ambiguous; public and societal actions can make a major difference to social outcomes, but the answer does not lie in increased spending alone. One of the important findings was that incomes and other socioeconomic factors are generally much more important than that of public spending in explaining differences in mortality, in both education and health, variation in outcomes are explained more by differences in the efficacy of public action than by levels of public spending (Demery, Lionel, and Michael Walton, 1998). In addition to

ensuring that sufficient budgetary provision is made for good quality, other factors including education, technological change, income and cultural differences have a role to play in health outcomes (Evans, D., Tandon, A., and Lauer, J., 2001). Focusing on the policy and institutional reforms will often be important to achieve well-functioning social sectors.

2.7 SUMMARY AND RESEARCH GAP

Despite the critical role of public expenditure in social services in promoting human development and reducing poverty, there is a dearth of empirical research on the determinants of public expenditure on social services sector in Mizoram. The literature available on the determinants of public expenditure and the relationship between growth of public expenditure and the pace of human development suggested the emergence of two schools of thought that claims two opposing views to this relationship. Firstly, the Keynesian approach which argued government spending as an important policy tool to secure an increased in productive investment and to ensure a reasonable level of economic activity, correct short term cyclical fluctuations in aggregate expenditure (Singh and Sahni, 1984), thus providing a socially optimal directions for growth and development (Ram, 1986). The empirical works that substantiate the above findings relates to the works of Abu-Qarn (2003); Agenorand Neanidis (2006); Bose et al. (2007), Wadad and Kalakech (2009) and many more. Secondly, the other view suggests that excessive state intervention in economic system affects growth performance in a negative way. The reasons is that, the government operations are often conducted and maintained inefficiently, hence there is a reduction in the overall productivity of the economic system. The other reasons for negative effects of excessive government expenditure on growth is that it distorts economic incentives which results in suboptimal economic decisions (see e.g. Barro (1990); King and Rebelo (1990); Devarajan et al. (1996); Roy and Vadlamudi (1998); Haque (2003); Belloc and Pietro (2004); Bayraktar and Moreira (2007)[20]; Dodson (2008)[21]. The two opposing view indicates the fact that for designing economic policy, the question as to whether the rate of economic development can be taken as a product of the government's conscious efforts of increasing the quantum of public expenditure programme remains an open one.

Existing studies on public expenditure have primarily focused on the overall fiscal performance of the state, with limited attention to the social services sector. Moreover, the available research has not adequately explored the factors influencing public expenditure on social services in Mizoram. Several studies have attempted to study and measure the influence of several kinds of determinants on the growth of public expenditure. Some studies focus on economic variables while the others explain ideological and institutional factors. One type of explanation does not seem to prelude the other. Fabricant considered three factors, Reddy considered four factors, Bhatt and Varalaxmi considered ten factors, etc. Many more explanation are possible and several other determinants could be used for improvement of the previous studies to explain the growth of public expenditure on social sector. Hence, the search for the causes of the growth of government expenditure on social services have been going on, some factors being specific and others substantive.

Again, many studies showed that the relationship between public spending for education and measures for education attainment is weak. (see e.g. Noss (1991), Mignat and Tan(1992) and Flug, Spilimbergo and Wachtenheim(1998). Instead, other variables have been found to be important in explaining education attainment. Appleton, Hoddinot and Mackinnon (1996) in their studies made an attempt to include per capita income, the age distribution of the population and family background of parental education. Gallagher (1993) in his study explains that after correction for its quality and efficiency, spending on education has a positive impact on indicators of educational attainment. Similarly, many studies find that the contribution of public health outlays to health status as measured by infant mortality and child mortality is either small or statistically insignificant.

This study aims to contribute to the existing literature by investigating the determinants of public expenditure on social services sector in Mizoram. The finding of this study will provide valuable insights for policymakers and stakeholders to optimize public expenditure on social services and improve human development outcomes in Mizoram.

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CHAPTER – III

GROWTH AND PATTERN OF PUBLIC EXPENDITURE IN MIZORAM

3.1 INTRODUCTION

In recent years, the expenditure of the Mizoram government has steadily increased, driven by both an intensive and extensive expansion of government functions. This surge in public expenditure has often led to budgetary deficits, necessitating the government to resort to substantial public borrowing from both internal and external sources. To understand the complete dynamics of expenditure, it is essential to examine the patterns of public expenditure in Mizoram. This chapter thus aims to explore the expenditure patterns of the Government of Mizoram.

3.2 GROWTH TRENDS IN PUBLIC EXPENDITURE

The substantial growth in public expenditure in the state reflects the accumulated economic and social aspirations of the society. To understand the intricacies of this growth, it is pertinent to first analyse the directional trends.

The government accounts in Mizoram are categorized into three parts. The first part encompasses the Consolidated Fund of the State, the second part entails the Contingency Fund of the State, and the third part consists of transactions in the Public Accounts. Within the Consolidated Fund, there are two main accounts: the Revenue Account and the Capital Account. The Revenue Account comprises income derived from taxes, duties, fees, and non-tax revenues, while the Capital Account includes loans received and disbursements for asset creation.

The Contingency Fund caters to urgent and unforeseen expenditure, while the Public Account handles public money that cannot be booked in the Consolidated Fund. Notably, these funds are distinct from State Government funds and must be repaid or utilized according to specific agreements.

3.2.1 Trends in Total Public Expenditure

Public Expenditure is expenditure incurred by the government to provide public goods and services, and to repay its debts. There has been a remarkable increase in total public expenditure in Mizoram from 2005-06 to 2020-21. Total public expenditure surged from Rs 2172 crores in 2005-06 to Rs 11262 crores in 2020-21. Public expenditure as a percentage of Net State Domestic Product (NSDP)

peaked at 81.02 percent in 2012-13 and plunged to 45.77 percent in 2020-21. However, despite this tremendous expenditure, more than 19.62% of households in Mizoram's continues to live below the poverty line (BPL), with inadequate access to basic amenities indicating that a significant portion of the state population hardly derive any significant benefit from the mounting public expenditure.

Table 3.1: Trends in Public Expenditure as a Percentage of NSDP

Year	State Total Government Expenditure (Rs Crore)	Net State Domestic Product (At Current prices) (Rs Crore)	Per Capita Income (In Rs)	% of Government expenditure to NSDP
1	2	3	4	5
2005-06	2039.39	2664.00	24,417	76.55
2006-07	2183.73	2944.00	25,682	74.17
2007-08	2452.87	3248.00	32,488	75.52
2008-09	2892.06	3858.00	38,582	74.96
2009-10	3275.51	4271.00	42,715	76.69
2010-11	4009.46	5095.00	48,591	78.69
2011-12	4360.15	5765.00	57,654	75.63
2012-13	5267.30	6501.00	65,012	81.02
2013-14	5208.62	7758.00	77,584	67.14
2014-15	6579.94	10304.00	1,03,049	63.86
2015-16	6281.83	11405.00	1,14,054	55.08
2016-17	7141.75	12710.00	1,27,107	56.19
2017-18	8877.12	15522.00	1,55,222	57.19
2018-19	9374.06	16470.00	1,64,708	56.91
2019-20	10826.63	18801.00	1,95,365	57.58
2020-21	9640.77	21062.00	1,73,520	45.77

Source: Reserve Bank of India – Handbook of Statistics on State Government Finances2020, Handbook of Statistics of the Indian Economy 2019-20, State Finances: A Study of Budgets 2019-20, Accounts At a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21&Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23.

Analysis of Table 3.1 reveals a substantial increase in total public expenditure over the study period, with an average annual growth rate of 10.71 percent. Comparatively, the Net State Domestic Product grew at an average annual

rate of 14.95 percent, indicating a lower growth rate in public expenditure. This disparity contradicts Wagner's law of expanding state activity.

Furthermore, the data in Column 4 highlights fluctuations in public expenditure as a percentage of NSDP over the sixteen-year period. While the public expenditure constituted less than 60 percent of NSDP in five years, it exceeded 80 percent in another five years.

The expansion of public sector activities in Mizoram's economy can be attributed to two distinct approaches. Firstly, increasing population growth and urbanization have heightened the demand for public services, necessitating greater investments in infrastructure and developmental activities. Secondly, the public sector has assumed a pivotal role in driving economic growth and stimulating private sector participation through targeted programs and investments in key sectors.

Thus, the growth and patterns of public expenditure in Mizoram reflect a complex interplay of economic, social, and developmental factors, highlighting the need for strategic planning and resource allocation to address the diverse needs of the population.

In analyzing the growth and patterns of public expenditure in Mizoram, it's imperative to examine the variations and trends over time. Despite the consistent increase in total public expenditure, the rates of annual increase vary significantly. Utilizing simple linear regression analysis, the annual trend values of total public expenditure have been calculated over a sixteen-year period, employing the method of least squares.

The analysis utilizes a simple linear regression equation of the form:

$$Y = a + bx,$$

where Y represents total public expenditure, x represents time, and 'a' and 'b' are constants. The resulting trend equation reveals the relationship between Total Expenditure (Te) and time as follows:

Te = - 1355.18 + 0.4631X (285.95) (0.02)

The figures in parentheses indicate the standard error of the estimating equations. Notably, the coefficient of determination (R2 = 0.9545) suggests that the linear relationship explains 95.45% of the variations in total public expenditure, indicating a strong fit to the data.

Table 3.2 Regression Analysis of Variance

Variations	**Total Public Expenditure**
1	2
Explained Variations (%)	95.45
Unexplained Variations (%)	4.55
Total Variations	100.00
R^2	0.9576
R	0.9785
Probable error of r	± 0.007

Note: For finding out the probable error of r, the following formula has been adopted : 0.6745 (1-r2)/ÖN.
The value of Karl Pearson's co-efficient of correlation (*r*) and co-efficient of Determination (*R2*) are shown in Table 3.2.
Source: Own Calculation, 2024

Table 3.2 provides a comprehensive overview of the regression analysis of variance. About 95% of the total variations in total public expenditures are explained solely by the time factor, affirming the effectiveness of the linear relationships in capturing the trends in expenditure over time. The coefficients of determination further stress the positive regression with a high degree of confidence. Additionally, the values of probable error 'r' suggest that the regressions are unbiased and represent the best linear estimators.

3.2.2 Trends in the Share of Revenue Expenditure

The rapid increase in government expenditure in Mizoram can be attributed to the unprecedented growth in revenue or current expenditure of the state government. Over the study period, the percentage share of revenue expenditure to total public expenditure has consistently remained high, reaching its peak at 88.68% in 2015-16 and its lowest at 77.51% in 2017-18. On average, revenue expenditure accounts for 82.99% of total expenditure, while capital expenditure represents merely 17.01%. Revenue expenditure primarily encompasses current consumption, while capital expenditure is directed towards investments. Despite revenue expenditure not being entirely unproductive, a larger share of capital expenditure holds significant implications for the growth prospects of the state.

Revenue expenditure is further categorized into development expenditure and non-developmental expenditure. Development expenditure includes investments in economic development and social and community services. Economic development expenditure encompasses various sectors such as agriculture, rural development, energy, and industry, while social and community services expenditure focuses on areas like healthcare, education, and rural development. Non-developmental expenditure includes general services such as administrative services, tax collection, debt services, and pension.

The growth of public expenditure on the revenue account of the state of Mizoram for the period 2005-06 to 2020-21 is shown in Table 3.3 below.

Table 3.3 Growth of Revenue Expenditure of Mizoram Government

(Rs in Crore)

Year	Revenue Expenditure	Total Expenditure	Net State Domestic Product (At Current prices)	Percentage of Revenue Expenditure to Total	Percentage of Revenue Expenditure to NSDP
2005-06	1588.02	2039.39	2664.00	77.87	59.61
2006-07	1717.29	2183.73	2944.00	78.64	58.33
2007-08	1908.63	2452.87	3248.00	77.81	58.75
2008-09	2313.79	2892.06	3858.00	80.00	59.99
2009-10	2702.70	3275.51	4271.00	82.51	63.28

2010-11	3255.85	4009.46	5095.00	81.20	63.90
2011-12	3723.85	4360.15	5765.00	85.41	64.59
2012-13	4518.91	5267.30	6501.00	85.79	69.51
2013-14	4609.58	5208.62	7758.00	88.50	59.42
2014-15	5652.44	6579.94	10304.00	85.90	54.86
2015-16	5570.86	6281.83	11405.00	88.68	48.85
2016-17	6230.34	7141.75	12710.00	87.24	49.02
2017-18	6880.77	8877.12	15522.00	77.51	44.33
2018-19	7505.59	9374.06	16470.00	80.07	45.57
2019-20	9453.96	10826.63	18801.00	87.32	50.28
2020-21	8514.80	9640.77	21062.00	88.32	40.43

Source: Accounts at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21 Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23, &Economic Survey, Government of Mizoram, 2006-07 to 2020-21

Table 3.3 illustrates the growth of revenue expenditure of the Mizoram government from 2005-06 to 2020-21. During this period, revenue expenditures increased from Rs 1588 crores to Rs 8515 crores, marking a substantial increase of 436.21%. This surge in revenue expenditures can be attributed to higher additional expenditures under general services and social and community services, aimed at poverty alleviation, employment generation, and the provision of basic needs like healthcare, education, and rural development.

Column 5 of Table 3.3 showcases revenue expenditure as a percentage of total public expenditure, indicating that for ten years, revenue expenditure constituted less than 80% of the total, while for the remaining five years, it accounted for more than 80%. Column 6 presents revenue expenditure as a percentage of Net State Domestic Product (NSDP), revealing fluctuations over the study period. Notably, the year 2012-13 recorded the highest percentage of revenue expenditure relative to NSDP at 69.51%.

An attempt has been made to analyse the annual trends in total revenue expenditure over the sixteen-year study period. Using simple linear regression, the trend equation reveals the relationship between Revenue Expenditure (Te) and time as follow;

Te = - 1039.73 + 0.4010X (251.09) (0.02)

With an R^2 value of 0.9564, the linear relationship explains 95.64% of the variations in total public expenditure, signifying a strong fit to the data.

Table 3.4 Regression Analysis of Variance

Variations	Total Revenue Expenditure
1	2
Explained Variations (%)	95.64
Unexplained Variations (%)	4.35
Total Variations	100.00
R^2	0.9564
R	0.9779
Probable error of r	± 0.007

Source: Own Calculation, 2024

Note: For finding out the probable error of r, the following formula has been adopted : 0.6745 (1-r2)/ÖN.
The value of Karl Pearson's co-efficient of correlation (*r*) and co-efficient of Determination (*R2*) are shown in Table 3.4

Table 3.4 further confirms that about 95% of the total variations in total revenue expenditures are explained by the time factor alone, indicating a robust relationship between revenue expenditure and time.

In conclusion, the analysis underscores the significant role of revenue expenditure in shaping government spending patterns in Mizoram. Despite fluctuations in annual rates of increase, revenue expenditure remains a dominant component of total public expenditure, reflecting the state's commitment to economic development and social welfare.

3.2.3 Analysing Trends in Capital Expenditure

This section investigates into the trend of capital expenditure by the Mizoram Government, which is crucial for understanding the state's long-term development planning. Capital expenditure serves as a vital fiscal instrument for

resource transfer, although with a considerable gestation period before its effects are realized. Despite this delay, analysing the trend and pattern of capital expenditure provides insights into the magnitude of resource flow, given its significant implications for the state's revenue account and economic development foundation. Table 4.5 presents the trends in capital expenditure of the Mizoram Government from 2005-06 to 2020-21, showcasing the growth in capital expenditures over the past fifteen years.

Table 3.5 Growth of Capital Expenditure of Mizoram Government

(Rs in Crore)

Year	Capital Expenditure	Total Expenditure	Net State Domestic Product (At Current prices)	Percentage of Capital Expenditure to Total	Percentage of Capital Expenditure to NSDP
1	2	3	4	5	6
2005-06	451.37	2039.39	2664.00	22.13	16.94
2006-07	466.44	2183.73	2944.00	21.36	15.84
2007-08	544.24	2452.87	3248.00	22.19	16.76
2008-09	578.27	2892.06	3858.00	20.00	14.99
2009-10	572.81	3275.51	4271.00	17.49	13.41
2010-11	753.61	4009.46	5095.00	18.79	14.79
2011-12	636.30	4360.15	5765.00	14.59	11.04
2012-13	748.37	5267.30	6501.00	14.21	11.51
2013-14	599.04	5208.62	7758.00	11.50	7.72
2014-15	927.51	6579.94	10304.00	14.10	9.00
2015-16	710.94	6281.83	11405.00	11.32	6.23
2016-17	911.41	7141.75	12710.00	12.76	7.17
2017-18	1996.35	8877.12	15522.00	22.49	12.86
2018-19	1868.47	9374.06	16470.00	19.93	11.34
2019-20	1372.67	10826.63	18801.00	12.68	7.30
2020-21	1125.97	9640.77	21062.00	11.68	5.36

Source: Accounts at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21, Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23,&Economic Survey, Government of Mizoram, 2006-07 to 2020-21

It is evident that capital expenditures have witnessed substantial growth during the study period, albeit with some fluctuations. Capital expenditure increased from Rs 584 crores in 2005-06 to Rs 2747 crores in 2020-21, marking a notable increase of 370.38%. The growth in capital expenditure can be attributed to various factors, including expenditure on debt services due to loan financing of unproductive investments in the capital account. Additionally, expenditures on general services such as public works, printing, stationery, and community and social services have contributed to the continuous rise in capital expenditure.

Column 5 of Table 3.5 shows capital expenditure as a percentage of total public expenditure, revealing insights into the trends of public investment in the state. Notably, for six years out of fifteen years, capital expenditure constituted less than 20% of the total public expenditure, while for ten years, it remained below 30%. Despite substantial investments in infrastructure development, healthcare, sanitation, and other sectors, capital expenditure shows a declining trend compared to revenue expenditure. This trend suggests that Mizoram may not have aligned its public expenditure policies with the long-term goals of creating self-reliance and fostering industrialization to leverage the state's resources effectively and generate employment opportunities.

The result of the analysis thus highlights the importance of capital expenditure in Mizoram's development planning. While capital expenditures have increased significantly over the years, there is a need for strategic alignment with long-term development objectives to ensure sustainable growth and economic prosperity for the state. By prioritizing investments in sectors that promote self-reliance, industrialization, and employment generation, Mizoram can harness its resources more effectively to enhance the well-being of its citizens and foster inclusive economic development.

Despite a continuous increase in the absolute levels of capital expenditure annually during the study period, the rates of annual increase vary considerably. Therefore, to understand these fluctuations, linear regressions of capital expenditures

were fitted using the method of least squares. The estimating equation yielded the following results:

Ce = -315.44 + 0.06X(139.61) (0.02)R2 = 0.6301

The above equation, expressed in simple linear regression form, indicates that 63% of the total variations in capital expenditures are explained, suggesting a good fit to the data. The coefficient of determination (R2) and Karl Pearson's coefficient of correlation (r) are provided in Table 3.6, indicating a positive correlation between the variables

Table 3.6 Regression Analysis of Variance

Variations	Capital Expenditure
1	2
Explained Variations %	63.01
Unexplained Variation %	36.99
Total Variations	100
R2	0.6301
R	0.7938
Probable error of r	± 0.06

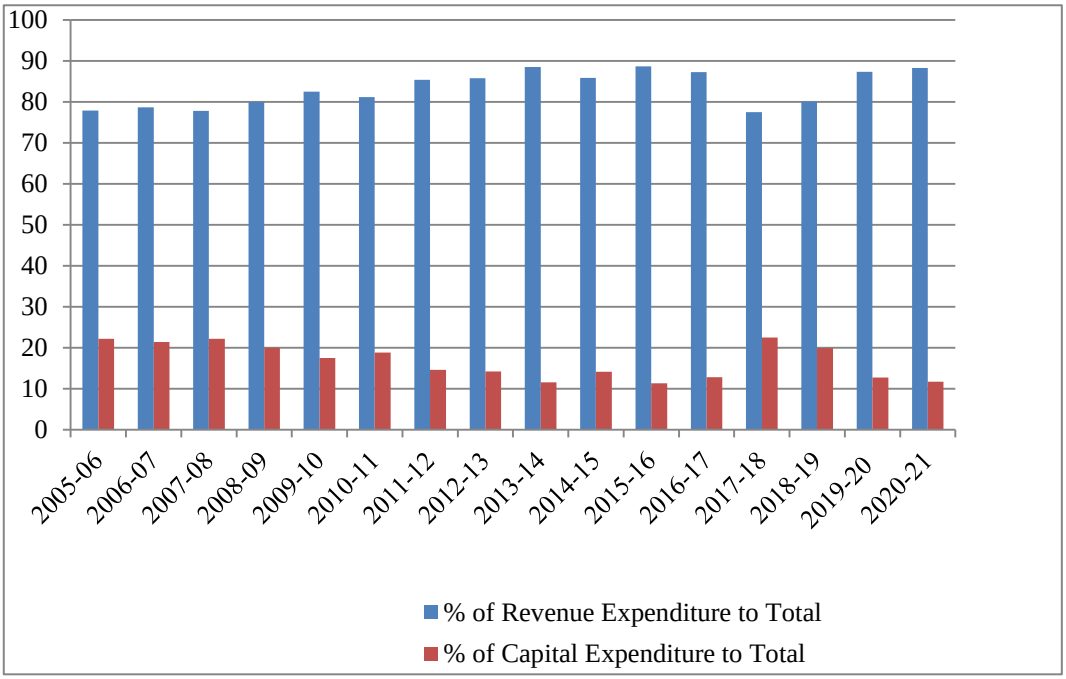
Source: Own Calculation, 2024

The result of the analysis it clear that Mizoram's development objectives encompass both short-term and long-term goals. Revenue expenditure, aimed at maximizing present output and employment, dominates the expenditure landscape. However, capital expenditure, directed towards maximizing future output and employment, plays a crucial role in achieving long-term economic development objectives. Revenue expenditure emerges as more predominant than capital expenditure, contributing to the explosive cycles of public expenditure growth in Mizoram. This dominance reflects the state's focus on short-term economic goals and objectives, possibly at the expense of long-term sustainability. Mizoram appears to prioritize short-term economic goals over long-term objectives, as evidenced by the continuous growth of both revenue and capital expenditures. However, the

predominant focus on revenue expenditure indicates a preference for immediate outcomes rather than long-term strategic investments.

The analysis thus demonstrates the importance of balancing short-term economic imperatives with long-term development objectives in Mizoram's expenditure policies. Figure 3.1 shows percentage share of revenue expenditure and capital expenditure to total public expenditure

Fig. 3.1 Percentage Share of Revenue Expenditure and Capital Expenditure to Total Public Expenditure



Sources : Compiled from Table 3.5

3.3 PATTERN OF PUBLIC EXPENDITURE

To ascertain the shifting trajectory of public expenditure policies within the State Government, a comprehensive analysis of expenditure trends spanning the past 16 years has been conducted. Generally, it is believed that public expenditure plays a pivotal role in achieving the objectives of the state, influencing both the magnitude and pattern of spending. In the federal form of government like India, both central and state governments collaboratively determine the scale and allocation of public funds for the constituent states. The decisions on expenditure reflect the prevailing

societal needs and the governing party's political ideology. Thus, public expenditure objectives fluctuate over time. Nonetheless, in Mizoram, overarching goals have been established, aiming at providing essential social, economic, and physical security services, optimizing human and resource utilization, and stabilizing the economy. The pursuit of these goals has fuelled the remarkable surge in public spending witnessed in Mizoram, propelled by expanding public demands, increasing emphasis on social welfare, population growth, inflation, and a shift towards economic development.

3.3.1 Sector-wise Revenue Expenditure

An analysis of revenue expenditure trends across sectors, such as general services, social services, and economic services, spanning from 2005-06 to 2020-21 has been undertaken. During this period, the state government made several adjustments to its public expenditure policy.

Table 3.7 Sector-Wise Revenue expenditure

(Rs in Crores)

Year	General Services	Social Service	Economic Services	Percentage of Col.2 to TRE	Percentage of Col.3 to TRE	Percentage of Col.4 to TRE
1	2	3	4	5	6	7
2005-06	541.65	547.59	498.78	34.11	34.48	31.41
2006-07	616.91	592.90	507.48	35.92	34.53	29.55
2007-08	645.89	696.78	565.96	33.85	36.52	29.63
2008-09	803.75	898.18	611.86	34.73	38.81	26.46
2009-10	947.76	1105.68	649.35	35.06	40.91	24.03
2010-11	1010.82	1237.35	1007.68	31.04	38.01	30.95
2011-12	1220.04	1345.91	1157.88	32.77	36.15	31.08
2012-13	1430.56	1652.22	1436.14	31.66	36.56	31.78
2013-14	1379.22	1823.64	1406.72	34.30	37.09	28.61
2014-15	1749.65	2160.93	1741.86	30.96	38.23	30.81
2015-16	1917.01	2219.96	1433.89	34.41	39.85	25.74
2016-17	2097.05	2300.85	1832.43	33.66	36.93	29.41

2017-18	2239.14	2606.52	2035.09	32.55	37.88	29.57
2018-19	2695.22	2934.45	1875.91	35.91	39.10	24.99
2019-20	3161.42	3392.73	2899.80	33.44	35.90	30.66
2020-21	3230.94	3177.84	2106.02	37.94	37.32	24.74

Source: Accounts at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21&Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23

Table 3.7 illustrates a significant rise in revenue expenditure across all sectors over the analysed period. Notably, expenditure on general services surged from Rs 541.65 crores in 2005-06 to Rs 3230.94 in 2020-21, marking a 496.50% increase. The compound annual growth rate (CAGR) during this period approximates 11.81%. Similarly, expenditure on social services experienced substantial growth, escalating from Rs 547.59 crores in 2005-06 to Rs 3177.84 in 2020-21, reflecting a 480.33% surge. The CAGR for social services stands at around 11.62%. Furthermore, expenditure on economic services witnessed an upward trajectory, climbing from Rs 498.78 crores in 2005-06 to Rs 2106.02 in 2020-21, representing a growth of 322.23%. The CAGR for economic services approximates 9.42%.

This analysis depicts the prioritization of general services expenditure, followed by social services and economic services. The substantial investment in social services, encompassing education and public health enhancements, aims at bolstering the state's human capital and productivity. Additionally, considerable funds allocated to general services, covering essential state functions, administrative services, and pension disbursements, reflect the government's commitment to effective governance and public service delivery.

3.3.2 Sector-wise Capital Expenditure

Over the study period, the state government's capital expenditure policy has undergone certain changes, reflecting shifts in priorities. From table 4.8, we observe the trend of capital expenditure growth from 2005-06 to 2020-21.

Table 3.8 Sector Wise Capital Expenditure

(Rs in Crores)

Year	General Services	Social Services	Economic Services	Percentage of Col.2 to TCE	Percentage of Col.3 to TCE	Percentage of Col.4 to TCE
1	2	3	4	5	6	7
2005-06	13.46	89.95	347.95	2.98	19.93	77.09
2006-07	24.44	122.03	319.97	5.24	26.16	68.60
2007-08	13.49	105.94	424.80	2.48	19.47	78.05
2008-09	19.78	92.93	465.56	3.42	16.07	80.51
2009-10	25.99	150.21	396.59	4.54	26.22	69.24
2010-11	23.36	125.94	604.31	3.10	16.71	80.19
2011-12	17.04	114.02	505.23	2.68	17.92	79.40
2012-13	42.74	222.41	483.22	5.71	29.72	64.57
2013-14	57.72	207.76	333.92	9.63	34.66	55.71
2014-15	74.20	314.00	539.30	8.00	33.85	58.15
2015-16	34.19	211.94	464.81	4.81	29.81	65.38
2016-17	49.18	313.29	548.93	5.40	34.37	60.23
2017-18	120.34	613.70	1262.29	6.03	30.74	63.23
2018-19	99.31	762.19	1006.96	5.32	40.79	53.89
2019-20	95.22	601.37	676.07	6.94	43.81	49.25
2020-21	42.63	559.92	523.41	3.79	49.72	46.49

Source: Accounts at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21 &Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23

From the data in table 3.8, capital outlay on general services surged from Rs 13.46 crores in 2005-06 to Rs 42.63 crores in 2020-21. The highest expenditure on general services was recorded at Rs 120.34 crores in 2017-18, while the lowest was noted at 13.46 crores in 2005-06. The absolute rate of growth for capital expenditure on general services stands at 216.72%, with a compound annual growth rate of approximately 7.47%.

Similarly, capital expenditure on social services witnessed significant growth, rising from Rs 89.95 crores in 2005-06 to Rs 559.92 crores in 2020-21. This represents a robust increase of 522.48%, with a compound annual growth rate of around 12.11%.

Furthermore, capital expenditure on economic services experienced a steady rise, climbing from Rs 347.95 crores in 2005-06 to Rs 523.41 crores in 2020-21. The approximate annual compound growth rate for capital expenditure on economic services stands at 2.58% over the study period.

The analysis revealed that the maximum growth rate is observed in capital expenditure on social services, followed by general services and economic services. This indicates the government's concerted efforts to bolster social infrastructure, particularly in the education and public health sectors, aimed at enhancing the productivity and well-being of the state's populace.

3.4 RANGE OF FLUCTUATIONS

The range of fluctuations in expenditure, encompassing both revenue and capital accounts of the Mizoram State Government budgets, has been analysed, and the results are presented herein. The ratio of the annual fluctuations' range, or the coefficient of scatter, is illustrated in Table 3.9.

Table 3.9: Ratio of the Range and Percentage Relative Fluctuation

Sl.No.	Fluctuations in	Ratio of the Range	Percentage Relative Fluctuations	Rank
1	Revenue Expenditure	0.7124	71.24	1
2	Capital Expenditure	0.6312	63.12	2

Source : Own Calculation, 2024

From table 4.9, it is evident that fluctuations in revenue expenditure surpass those in capital expenditure. The calculated ratio and percentage relative annual fluctuation for revenue expenditure exceed those for capital expenditure.

3.5 TRENDS OF DEVELOPMENTAL AND NON-DEVELOPMENTAL EXPENDITURE

Government expenditure, both in revenue and capital accounts, is delineated into developmental and non-developmental categories based on expenditure nature. This classification holds paramount significance in assessing the quality of government expenditure. Developmental expenditure denotes spending that directly or indirectly contributes to the state's production levels and productive capacity. It is further categorized into social services and economic services. Social services encompass provisions for basic amenities such as education, healthcare, housing, labour welfare, and employment promotion. Economic services entail investments aimed at directly or indirectly fostering economic activities, including agriculture, rural development, industry, and infrastructure. Non-developmental expenditure, conversely, pertains to general services like administration, debt servicing, pensions, and fiscal services, primarily constituting consumption expenditure.

A concerning trend in the fiscal performance of Mizoram State is the declining share of developmental expenditure within total public expenditure. While developmental expenditure consistently surpasses 60% of revenue account expenditure, the proportion of non-developmental expenditure has gradually increased. Notably, the percentage share of developmental expenditure has exhibited a steady decline, as illustrated in Table 3.10. Specifically, the proportion of developmental expenditure relative to total revenue expenditure decreased from 65.87% in 2005-06 to 62.05% in 2020-21, whereas non-developmental expenditure increased from 34.13% to 37.95% over the same period.

Table 3.10 Share of Developmental and Non-developmental Expenditure in the Total Revenue Expenditure

(Rs in Crores)

Year	Developmental Expenditure	Percentage of Developmental Expenditure to Total Revenue Expenditure	Non-developmental Expenditure	Percentage of Non-developmental Expenditure to Total Revenue Expenditure	Total Revenue Expenditure
2005-06	1046.37	65.89	541.65	34.11	1588.02
2006-07	1100.38	64.08	616.91	35.92	1717.29
2007-08	1262.74	66.14	645.89	33.86	1908.63
2008-09	1510.04	65.26	803.75	34.74	2313.79
2009-10	1754.95	64.93	947.75	35.07	2702.70
2010-11	2245.03	68.95	1010.82	31.05	3255.85
2011-12	2503.80	67.24	1220.05	32.76	3723.85
2012-13	3088.36	68.34	1430.55	31.66	4518.91
2013-14	3230.36	70.08	1379.22	29.92	4609.58
2014-15	3902.79	69.05	1749.65	30.95	5652.44
2015-16	3653.85	65.59	1917.01	34.41	5570.86
2016-17	4133.29	66.34	2097.05	33.66	6230.34
2017-18	4641.63	67.46	2239.14	32.54	6880.77
2018-19	4810.37	64.09	2695.22	35.91	7505.59
2019-20	6292.54	66.56	3161.42	33.44	9453.96
2020-21	5283.86	62.05	3230.94	37.95	8514.80

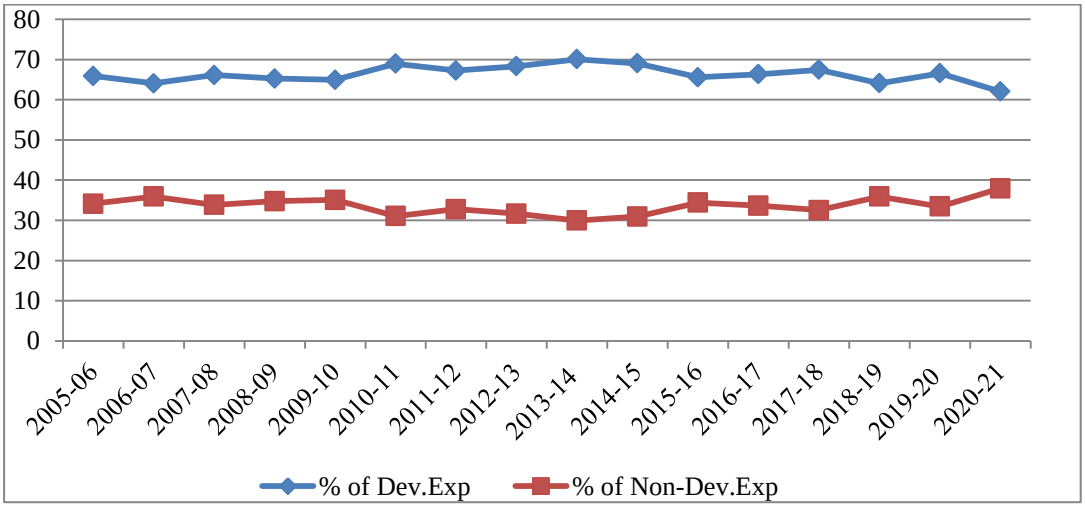
Source: Accounts at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21&Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23

Table 3.10 clearly demonstrates the developmental and non-developmental expenditure trends within Mizoram's revenue account from 2005-06 to 2020-21. Both categories have witnessed absolute expenditure increases in Mizoram. The percentage increase in developmental expenditure stands at 404.97%, while for non-developmental expenditure, it is 496.50%. The highest proportion of developmental expenditure relative to total expenditure was recorded in 2013-14 (70.08%), whereas

the lowest was observed in 2020-21 (62.05%). Conversely, the highest proportion of non-developmental expenditure to total expenditure was in 2020-21 (37.95%), and the lowest was in 2013-14 (29.92%). The compound annual growth rate for developmental expenditure is 8.58%, compared to 11.81% for non-developmental expenditure.

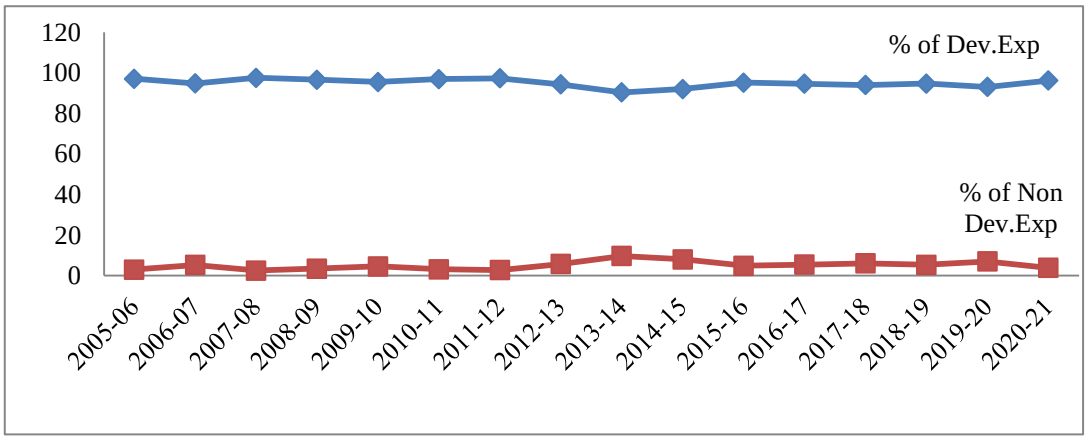
The analysis of Table 3.10 shows a notable increase in both developmental and non-developmental expenditures over time. As developmental expenditure witnessed significant growth, non-developmental expenditure on revenue accounts also escalated steadily. This trend largely stems from the burgeoning administrative burdens of the state to facilitate economic activities. However, to enhance the state's growth efficiency, there should ideally be an inverse correlation between developmental and non-developmental expenditure, implying that with every increase in developmental expenditure, expenditures in the non-developmental category should comparatively diminish.

Fig 3.2 Percentage share of Developmental Expenditure and Non-Developmental Expenditure in the Total Revenue Expenditure



Source : Compiled from Table 3.10

Fig. 3.3 Percentage share of Developmental Expenditure and Non-Developmental Expenditure in the Total Capital Expenditure



Source : Compiled from Table 3.11

Table 3.11 Share of Developmental and Non-Developmental Expenditure in The Total Capital Expenditure

(Rs in Crores)

Year	Developmental Expenditure	Percentage of Developmental Expenditure to Total capital Expenditure	Non-Developmental Expenditure	Percentage of Non-developmental Expenditure to Total capital Expenditure	Total Capital Expenditure
2005-06	437.91	97.02	13.46	2.98	451.37
2006-07	442.00	94.76	24.44	5.24	466.44
2007-08	530.74	97.52	13.50	2.48	544.24
2008-09	558.49	96.58	19.78	3.42	578.27
2009-10	546.81	95.46	26.00	4.54	572.81
2010-11	730.25	96.90	23.36	3.10	753.61
2011-12	619.25	97.32	17.04	2.68	636.30
2012-13	705.63	94.29	42.74	5.71	748.37
2013-14	541.68	90.37	57.72	9.63	599.40
2014-15	853.30	92.00	74.21	8.00	927.51
2015-16	676.75	95.19	34.19	4.81	710.94
2016-17	862.22	94.60	49.19	5.40	911.41
2017-18	1876.00	93.97	120.35	6.03	1996.35
2018-19	1769.16	94.68	99.31	5.32	1868.47
2019-20	1277.45	93.06	95.22	6.94	1372.67
2020-21	1083.33	96.21	42.64	3.79	1125.97

Source: Accounts at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21&Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23.

Table 3.11 illustrates the developmental and non-developmental expenditure trends within Mizoram's capital account from 2005-06 to 2020-21. Both categories have witnessed absolute expenditure increases in Mizoram. The percentage increase in developmental expenditure stands at 147.39%, while for non-developmental expenditure, it is 216.79%. The highest proportion of developmental expenditure relative to total capital expenditure was recorded in 2011-12 (97.32%), whereas the lowest was observed in 2013-14 (90.37%). Conversely, the highest proportion of non-developmental expenditure to total capital expenditure was in 2013-14 (9.63%), and the lowest was in 2007-08 (2.48%). The compound annual growth rate for developmental expenditure is 5.82%, compared to 7.47% for non-developmental expenditure.

The analysis of Table 3.11 shows a notable increase in both developmental and non-developmental expenditures over time within the capital account. This trend largely stems from the escalating administrative burdens of the state in facilitating economic activities. However, the persistent rise in non-developmental expenditure in the capital account is concerning, as a substantial portion of the capital account is expected to finance asset creation, often through debt.

Additionally, the average share of developmental expenditure in the capital account has shown a declining trend, from 97.02% in 2005-06 to 96.21% in 2020-21, while non-developmental expenditure has increased uncomfortably, from 2.98% in 2005-06 to 3.79% in 2020-21. This trend raises concerns regarding the capital account's ability to generate assets, especially given the reliance on debt financing.

3.6 INCOME ELASTICITY OF PUBLIC EXPENDITURE

This section analyses the income elasticity of public expenditure, encompassing revenue expenditure and capital expenditure of the state, aiming to elucidate the extent to which public expenditure responds to changes in the Net State Domestic Product (NSDP).

Table 3.12 Total Public Expenditure Elasticity with respect to NSDP of Mizoram

(Rs in Crore)

Year	Total Expenditure	Net State Domestic Product (At Current prices)	Total Expenditure Elasticity to NSDP*
2005-06	2039.39	2664.00	0.000
2006-07	2183.73	2944.00	0.684
2007-08	2452.87	3248.00	1.193
2008-09	2892.06	3858.00	0.953
2009-10	3275.51	4271.00	1.238
2010-11	4009.46	5095.00	1.161
2011-12	4360.15	5765.00	0.665
2012-13	5267.30	6501.00	1.552
2013-14	5208.62	7758.00	-0.063
2014-15	6579.94	10304.00	0.587
2015-16	6281.83	11405.00	-0.424
2016-17	7141.75	12710.00	1.196
2017-18	8877.12	15522.00	1.098
2018-19	9374.06	16470.00	0.916
2019-20	10826.63	18801.00	1.095
2020-21	9640.77	21062.00	-0.911

Source: Accounts *at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21. &Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23*

*Note: * Calculations are based on Time-point Elasticity*

Table 3.12 presents the income elasticity of total public expenditure in Mizoram from 2005-06 to 2020-21. The table shows considerable variation in the elasticity values for public expenditure. Notably, the income elasticity of public expenditure is negative for two years, namely 2015-16 and 2020-21, reflecting a decline in both revenue and capital expenditure during these periods. Furthermore, during six years, the income elasticity of public expenditure is less than unity, indicating that the growth in total public expenditure is less responsive to increases in Net State Domestic Product. Conversely, in the remaining years, the income elasticity of public expenditure exceeds unity, signifying that total public

expenditure is responsive to increases in Net State Domestic Product for half of the study period. However, the overall trend affirms that the growth of public expenditure in the state aligns with the growth in Net State Domestic Product.

3.7 RESPONSIVENESS OF REVENUE AND CAPITAL EXPENDITURES TO NSDP

This section examines the behaviour of revenue and capital expenditures in relation to changes in the Net State Domestic Product (NSDP) at current prices to ascertain the responsiveness, or income elasticity, of public expenditure. The elasticities of expenditures on revenue account and capital account with respect to NSDP for the period 2005-06 to 2020-21 are calculated using time-point elasticity functions, relating changes in actual revenue and/or capital expenditures to changes in NSDP. This calculation differs from the coefficient of built-in elasticity, which is computed with respect to only the automatic increase in revenue or capital expenditures in response to NSDP growth. The primary objective is to assess whether the total relative increase in revenue and capital expenditures results from changes in their structure.

Table 3.13 Revenue and Capital Expenditure Elasticity with respect to Net State Domestic Product of Mizoram

(Rs in crore)

Year	Revenue Expenditure	Capital Expenditure	NSDP (At Current prices)	Revenue Expenditure Elasticity to NSDP	Capital Expenditure Elasticity to NSDP
2005-06	1588.02	451.37	2664.00	0.000	0.000
2006-07	1717.29	466.44	2944.00	0.774	0.318
2007-08	1908.63	544.24	3248.00	1.079	1.615
2008-09	2313.79	578.27	3858.00	1.130	0.333
2009-10	2702.70	572.81	4271.00	1.570	-0.088
2010-11	3255.85	753.61	5095.00	1.061	1.636
2011-12	3723.85	636.30	5765.00	1.093	-1.184
2012-13	4518.91	748.37	6501.00	1.672	1.380
2013-14	4609.58	599.04	7758.00	0.104	-1.032

2014-15	5652.44	927.51	10304.00	0.689	1.670
2015-16	5570.86	710.94	11405.00	0.135	-2.185
2016-17	6230.34	911.41	12710.00	1.035	2.464
2017-18	6880.77	1996.35	15522.00	0.472	5.380
2018-19	7505.59	1868.47	16470.00	1.487	-1.049
2019-20	9453.96	1372.67	18801.00	1.834	-1.875
2020-21	8514.80	1125.97	21062.00	-0.826	-1.494

Source: Accounts *at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21&Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23*

Note: Revenue & Capital elasticity to net state domestic product are calculated based on income time point elasticity.

Table 3.13 elucidates the income elasticities of revenue expenditure, indicating positive coefficients (greater than unity) for nine years, viz. 2007-08 to 2012-13, 2016-17, 2018-19, and 2019-20 out of the sixteen years of the study period. This suggests a heightened degree of responsiveness of the state's revenue expenditure to NSDP during these periods. This responsiveness could be attributed to significant increases in expenditures on education, water supply, sanitation, housing and urban development, health and family welfare, agriculture and allied services, and other social services. Remarkably, these years witnessed substantial investments in irrigation and flood control, social welfare and nutrition, industry and mineral, transport, and general services to achieve plan objectives.

Negative income elasticities are observed for revenue expenditure in 2015-16 and 2020-21. These negative values stem from declines in revenue expenditure levels despite an increasing trend in NSDP compared to preceding years. This decline is attributed to reduced allocations for economic services, leading to a contraction in revenue expenditure. The negative elasticity in 2020-21 can be primarily attributed to reduced spending on education, sports, arts and culture, water supply and urban development, labour and employment, social welfare, agriculture and allied activities, irrigation and flood control, industry and mineral, and transport and general economic services. The COVID-19 pandemic and subsequent country-

wide lockdowns further exacerbated the decline in revenue expenditure, despite a significant increase (12.02%) in NSDP.

Similarly, examining capital expenditure elasticity with respect to NSDP in table 3.13 reveals negative elasticities in various years, including 2008-09, 2010-11, 2012-13, 2014-15, and 2017-18 to 2020-21. These negative elasticities are attributed to declines in capital outlay on general services, economic services, and social services in different years. However, there are instances of positive elasticity coefficients, demonstrating increased government spending on general services, social services, and economic services. Overall, capital expenditure appears less responsive to changes in NSDP compared to revenue expenditure, suggesting a prioritization of revenue expenditure over capital expenditure in Mizoram, aligning with the state's long-term goals of economic growth, income elevation, and employment generation.

3.8 Concluding Remarks

1. Mizoram's public expenditure growth aligns with NSDP growth, reflecting stabilization efforts, effective resource utilization, and economic development initiatives.
2. Resource constraints persist due to factors like agricultural subsistence, lack of industrialization, and low taxable capacity. Structural and institutional changes are gradually reducing these constraints.
3. Financing revenue expenditure through borrowing raises interest liabilities without creating additional revenue sources. Efficient use of borrowed funds for capital expenditure is crucial to avoid excessive interest liabilities.
4. Managing the growth of public expenditure and mobilizing tax and non-tax revenue to finance it are key challenges. Detailed analysis of public expenditure financing and its relationship with revenue mobilization is necessary for effective governance.

CHAPTER – IV

SOURCES OF FINANCING OF PUBLIC EXPENDITURE ON SOCIAL SECTOR

4.1 INTRODUCTION

The effectiveness of a government's development plans heavily relies on its ability to collect sufficient tax revenues. The government's access to domestic resources plays a crucial role in determining the level of public expenditure on social services, emphasizing the importance of integrating tax policies into its developmental goals. The government's success in implementing development programmes largely depends on the efficiency of its tax system in mobilizing economic surplus.

In India, a state's tax effort is primarily influenced by two key factors: the state's ability to effectively utilize its tax powers and revenue sources, and the types of federal transfers it receives. These factors are closely linked, as excessive federal support may undermine the state's efforts towards financial self-reliance, increasing its dependence on the central government. This can result in a lower tax effort than what the state's taxable capacity would allow. However, determining a specific economic capacity for taxation is challenging due to its variable and contingent nature. M.Douglas argues that “The elements of taxation capacity prove on closer examination to be so contingent, subjective and variable – to be so much a matter of circumstances of time and place, of institutional arrangements, and public attitudes – that they defy generalization, and any conclusion expressed in absolute or final terms is bound to misrepresent the very nature of the problem itself.” In the absence of clear, long-term policy objectives and minimal structural changes in the Mizoram economy, the issue of resource availability remains a major policy concern.

4.2 RESOURCE MOBILIZATION

The absence of clear and comprehensive long-term policy objectives, coupled with a lack of significant structural and institutional changes in the state economy, has resulted in significant resource constraints becoming a crucial economic policy issue.

Efforts have been made to examine the trends in revenue yields from various taxes and their relative importance in the taxation system. An analysis of the overall

composition of tax revenue, including shared taxes of the Government of Mizoram, has been conducted. The goal of this analysis is to study the composition of tax revenues and the relative significance of individual taxes in the tax system, both in terms of their percentage of total tax revenue and their ratio to the net state domestic product (NSDP).

This analysis aims to assess changes in the level and composition of taxation separately to identify crucial factors influencing their interrelationships. The first part reveals differences in the pattern of taxation within the state, irrespective of the level of taxation, while the second part focuses on the proportion of state income derived from various forms of taxation. These two aspects of change are interconnected; a proportional change in tax ratio typically involves, or is accompanied by, a shift in the composition of taxes. Therefore, an inquiry into this matter is believed to be valuable for evaluating both the actual and potential performance of the State Government in resource mobilization for financing expenditure on social services. Furthermore, such an investigation will shed light on the underlying forces influencing resource mobilization efforts.

4.2.1 Tax Effort

The total public expenditure and net state domestic product in current prices provide an overview of the extent to which the state government has invested in the social sector, shedding light on its ability to channel additional income into social sector savings. This reveals the relative tax effort of the government. Table 4.1 illustrates the trend of the state's own tax revenue and the total tax revenue of the government.

Table 4.1: Tax Revenue, Public Expenditure and Net State Domestic Product of Mizoram

(***Rs in Crores***)

Year	State Own tax	Total Tax Revenue	Total Public Expenditure	NSDP*	Col 2 as a % of Col 5	Col 3 as a % of Col 5	Col 2 as a ratio of Col 3	Con 4 as a % of Col 5	Col 2 as a % of Col 4	Col 3 as a % of Col 4
1	2	3	4	5	6	7	8	9	10	11
2005-06	55.05	280.88	2039.39	2664	2.07	10.54	0.19	76.55	2.70	13.77
2006-07	67.62	355.67	2183.73	2944	2.30	12.08	0.19	74.17	3.10	16.28
2007-08	77.52	440.87	2452.87	3248	2.39	13.57	0.17	75.52	3.16	17.97
2008-09	94.62	478.01	2892.06	3858	2.45	12.39	0.20	74.96	3.27	16.53
2009-10	107.58	502.11	3275.51	4271	2.52	11.76	0.21	76.69	3.28	15.33
2010-11	130.44	582.10	4009.46	5095	2.56	11.42	0.22	78.69	3.25	14.52
2011-12	179.07	1006.45	4360.15	5765	3.11	17.46	0.18	75.63	4.11	23.08
2012-13	223.14	1009.10	5267.30	6501	3.43	15.52	0.22	81.02	4.24	19.16
2013-14	229.78	1087.86	5208.62	7758	2.96	14.02	0.21	67.14	4.41	20.88
2014-15	266.52	1177.19	6579.94	10304	2.59	11.42	0.23	63.86	4.05	17.90
2015-16	358.41	2706.52	6281.83	11405	3.14	23.73	0.13	55.08	5.70	43.08

2016-17	441.81	3242.22	7141.75	12710	3.48	25.51	0.14	56.19	6.19	45.40
2017-18	545.91	3642.96	8877.12	15522	3.52	23.47	0.15	57.19	6.15	41.04
2018-19	726.70	4229.66	9374.06	16470	4.41	25.68	0.17	56.91	7.75	45.12
2019-20	730.98	3748.78	10826.63	18801	3.89	19.94	0.19	57.58	6.75	34.62
2020-21	647.56	3658.11	9640.77	21062	3.07	17.37	0.18	45.77	6.72	37.94

*Note: * = Net State Domestic Product figures are in current prices*
Source: Annual Financial Statement, Government of Mizoram: 2005-6 to 2021-22
Accounts at a Glance, Government of Mizoram: 2005-06 to 2020-21.

State Own Tax Revenue Growth: State's own tax revenue increased more than eleven fold over the study period. Calculating the growth rate using the formal formula reveals an annual growth rate of 17.43 per cent. This surge in state own tax revenue is primarily attributed to substantial receipts from various sources such as goods and services tax, sales tax, stamp and registration fees, taxes on vehicles, and taxes on electricity. The expansion of these taxes can be attributed to both an extended tax base and enhanced tax coverage, along with periodic upward revisions in tax rates.

Trend in Total Tax Revenue: Total tax revenue shows an upward trajectory from 2005-06 to 2018-19, but exhibits a declining trend in 2019-20 and 2020-21. This decline is mainly attributed to reduced state shares in central taxes, compounded by the impact of the COVID-19 pandemic and subsequent nationwide lockdown. The total tax revenue has increased more than twelvefold over the study period, with an annual compound growth rate of approximately 20.85 per cent, reflecting the concerted efforts by the Central Government to improve tax mobilisation.

Public Expenditure Growth: Total public expenditure has surged by over three hundred and seventy-three per cent in absolute terms, with an annual compound growth rate of approximately 10.71 per cent. This robust growth in public expenditure underscores the government's vigorous development efforts through comprehensive economic planning, which aims to stimulate simultaneous growth across various sectors of the economy including social sector and explore new sources of revenue for the state.

Net State Domestic Product (NSDP) Trend: NSDP has witnessed an eightfold increase, registering a growth rate of 690.62 per cent and an annual compound growth rate of approximately 14.95 per cent during the study period. The relative increase in contributions from the secondary and tertiary sectors has positively impacted NSDP. However, it's noteworthy that the growth rate of NSDP lags behind that of state own taxes during the study period.

Analysis of Ratios: The percentage of state own tax revenue to NSDP has fluctuated, rising steadily until 2018-19 before declining in subsequent years. This decline is partly due to the rapid growth of NSDP contrasting with state own tax revenue. Similarly, the contribution of total tax revenue to NSDP has varied over the years, experiencing occasional declines due to fluctuations in shared taxes and changes in NSDP growth rates. The state's contribution to total tax revenue remains moderate, highlighting the inherent elasticity and buoyancy of shared taxes, which facilitate larger devolution from the Centre to the State.

Public expenditure as a percentage of NSDP has been consistently high throughout the study period, emphasizing the significant role of the state in economic development. However, despite substantial expenditure, infrastructure and living standards for a sizable portion of the population remain inadequate.

The low contribution of state own resources to mounting public expenditure highlights the need for the state to intensify efforts to generate additional income autonomously and achieve self-sufficiency. Additionally, the contribution of total tax revenue to public expenditure fluctuated, influenced by variations in shared taxes and state own tax revenues. The recent decline reflects the impact of the COVID-19 pandemic, indicating the need for enhanced resource mobilisation efforts to counter rising public expenditure.

Table 4.2 provides a comprehensive overview of the percentage shares of state own tax revenue, non-tax revenue, and shared taxes in the total revenue of Mizoram.

Table 4.2 Percentage Shares of State Own Tax Revenue, Non-Tax Revenue and Shared Taxes of Mizoram

(Rs in Crores)

Year	State Own tax	Non- Tax Revenue	Shared Tax	Total Revenue	Column 2 as a % of Column 5	Column 3 as a % of Column 5	Column 4 as a % of Column 5
1	2	3	4	5	6	7	8
2005-06	55.05	120.09	225.83	400.97	13.73	29.95	56.32
2006-07	67.62	133.38	288.05	489.05	13.83	27.27	58.90
2007-08	77.52	130.30	363.35	571.17	13.57	22.81	63.62

2008-09	94.62	158.67	383.39	636.68	14.86	24.92	60.22
2009-10	107.58	126.51	394.53	628.62	17.11	20.13	62.76
2010-11	130.44	146.72	451.66	728.82	17.90	20.13	61.97
2011-12	179.07	168.03	827.38	1174.48	15.25	14.30	70.45
2012-13	223.14	212.80	785.96	1221.90	18.26	17.42	64.32
2013-14	229.78	194.26	858.08	1282.12	17.92	15.15	66.93
2014-15	266.52	241.96	910.67	1419.15	18.78	17.05	64.17
2015-16	358.41	297.63	2348.11	3004.15	11.93	9.91	78.16
2016-17	441.81	365.22	2800.63	3607.44	12.25	10.12	77.63
2017-18	545.91	390.65	3097.05	4033.61	13.53	9.69	76.78
2018-19	726.70	449.96	3502.96	4679.62	15.53	9.61	74.86
2019-20	730.98	522.35	3017.80	4271.13	17.11	12.23	70.66
2020-21	647.56	561.76	3010.55	4219.87	15.35	13.31	71.34

Source: *Annual Financial Statement, Government of Mizoram: 2005-6 to 2021-22*
Accounts At a Glance, Government of Mizoram: 2005-06 to 2020-21.

Trend in Shared Taxes: The trend in shared taxes shows a significant upward trajectory in the percentage shares of shared taxes within the state's total revenue, increasing by 26.67 per cent over the study period. For fourteen out of sixteen years, the dependence on central taxes exceeded 60 per cent, with none falling below 50 per cent. This indicates a substantial reliance on central taxes for the state's survival, despite efforts to generate internal resources. Although non-tax revenue serve as an internal revenue source, it remain overshadowed by revenue from shared taxes. The fluctuating behaviour of state own tax revenue share in total revenue indicates a growing dependence on central tax devolution.

Implications for Resource Mobilisation: The analysis suggests an increasing dependency on shared taxes for resource mobilisation. The contribution of state own tax revenue to the net state domestic product has not met expectations, potentially necessitating additional taxation to bolster the economy's revenue sources. While the percentage share of state own tax revenue to the net state domestic product has increased, it lags behind the growth rate of total tax revenue. Despite the growth in

net state domestic product, it has not kept pace with the increases in state own tax revenue or total tax revenue. Mizoram's tax-income ratio, fundamentally a measure of tax burden, indicates a subpar performance. Thus, concerted efforts are required to enhance tax revenue and better utilise available resources effectively to manage the rising trend in public expenditure.

4.2.2 Average Tax Rate and Marginal Tax Rate

To conduct a meaningful analysis of the changing tax-income ratio, it is essential to examine the average tax rate in relation to the marginal tax rate. The objective is to understand how these two variables interact in influencing tax revenue over time:

1. **Average Tax Rate (ATR):** This indicates the degree of variation in tax revenue concerning changes in the tax base. A higher average tax rate suggests a more significant proportion of taxes collected relative to the size of the taxable base. It influences the marginal tax rate, making it relatively easy to extract the same fraction from incremental income within a given tax system.
2. **Marginal Tax Rate (MTR):** This determines the increase in tax ratio concerning income growth. It is crucial for assessing how additional national income is distributed among various uses within a country. Higher per capita income often correlates with a higher marginal tax rate.

The average tax rates is calculated by using the formula:

$$\text{ATR} = \frac{Amount of taxes collected}{Size of the taxable base}$$

And the marginal tax rate is calculated by using the formula:

$$\text{MTR} = \frac{Absolute change in Tax Revenue}{\text{Absolute change in Tax Base}}$$

Symbolically,

$$\text{MTR} = \frac{\Delta TR}{\Delta \text{TB}}$$

Where, MTR = Marginal Tax Rate

Δ TR = Change in tax Revenue

Δ TB = Change in Tax Base

The average tax rates and marginal tax rates have been calculated based on Tables 4.1 and 4.2, providing further insights into the changing tax-income ratio over the study period. These calculations reinforce previous findings, indicating consistent movements in average tax rates for state own tax revenue.

A notable shift in the pattern of tax revenue emerges from the analysis in Table 4.3. While there is a moderate rate of increase for state own tax revenue, a substantial jump is observed in the average tax rate for shared taxes. The overall increase in total tax revenue is primarily attributed to the rise in shared taxes. On average, the Central government has collected over 60 per cent of the total revenue, with the state contributing approximately 40 per cent. Throughout the sixteen-year study period, state own tax contribution never surpassed that of shared taxes. Although state own tax revenue exhibits an upward trend, its growth rate lags significantly behind that of shared taxes, particularly evident in the last two years of the study.

Table 4.3 Average and Marginal Rates of Taxes

Year	Average Rate on			Marginal Rate on		
	Total Tax Revenue	State Own Tax Revenue	Shared Tax	Total Tax Revenue	State Own Tax Revenue	Shared Tax
1	2	3	4	5	6	7
2005-06	10.54	2.07	8.48	26.71	4.49	22.22
2006-07	12.08	2.30	9.78	28.03	3.26	24.77
2007-08	13.57	2.39	11.19	6.08	2.80	3.29
2008-09	12.39	2.45	9.94	5.84	3.14	2.70
2009-10	11.76	2.52	9.24	9.71	2.77	6.93
2010-11	11.42	2.56	8.86	63.34	7.26	56.07
2011-12	17.46	3.11	9.15	0.36	5.99	-5.63

2012-13	15.52	3.43	12.09	6.27	0.53	5.74
2013-14	14.02	2.96	11.06	3.51	1.44	2.06
2014-15	11.42	2.59	8.84	138.90	8.35	130.56
2015-16	23.73	3.14	20.59	41.05	6.39	34.68
2016-17	25.51	3.48	22.03	14.25	3.70	10.54
2017-18	23.47	3.52	19.95	61.89	19.07	42.82
2018-19	25.69	4.41	21.27	-20.63	0.18	-51.18
2019-20	19.94	3.89	16.05	-4.01	-3.69	-0.32
2020-21	17.37	3.07	14.29	0	0	0

Note: Calculation are done on the basis of Table 4.1 and 4.2

The calculation of means and measures of dispersion for average and marginal tax rates (Table 4.3) offers further insights into their variability over the study period as shown in table 4.4.

Table 4.4 Means and Measures of Dispersion For Average and Marginal Taxes Rates

Year	Average Rate			Marginal Rate		
	Total Tax Revenue	**State Own Tax Revenue**	**Shared Tax**	**Total Tax Revenue**	**State Own Tax Revenue**	**Shared Tax**
1	2	3	4	5	6	7
Mean	16.6181	2.9931	13.301	25.420	4.3787	19.0167
Standard Deviation	5.2530	0.6187	4.8528	37.8497	4.9063	38.1002
Coefficient of Variation	31.61	20.67	36.49	148.90	112.10	200.35
95% Confidence Level	1.960	1.960	1.960	1.960	1.960	1.960
Margin of Error	± 2.574	± 0.303	± 2.378	±19.155	± 2.483	±19.281

Note: Coefficient of variation is calculated by using Karl Pearson's formula of $C = \frac{\sigma}{u} x\ 100$
Where, C=Coefficient of Variation, σ = Standard deviation, u = mean

The coefficient of variation highlights the consistency or variability of each tax rate, with shared taxes exhibiting the highest variability. This highlights the challenges associated with relying heavily on shared taxes for state revenue.

Conversely, state own tax revenue demonstrates greater consistency, albeit with a slower growth rate. These findings emphasize the need for Mizoram to diversify its revenue sources and reduce dependency on central taxes for long-term fiscal sustainability.

4.2.3 Pattern and Composition of the State's Tax Revenue

Nowadays, states are actively seeking to enhance their revenue streams through taxation. The significance of both direct and indirect taxes has escalated, both in terms of their absolute amounts and their relative importance. It is imperative to scrutinize the changing pattern and composition of taxes and their immediate ramifications on economic growth to evaluate their alignment with the requirements of economic development.

Table 4.5 presents the contribution of direct and indirect taxes to total tax revenue, state-owned tax revenue, and shared taxes. Between 2005-06 and 2016-17, the growth in tax revenue was predominantly driven by indirect taxes, whereas direct taxes emerged as the primary driver from 2017-18 to 2020-21. Over this period, total tax revenue experienced a remarkable thirteen-fold increase, with direct taxes growing more than twenty-four times and indirect taxes expanding nearly six times. Despite some fluctuations, state and shared taxes exhibited a consistent upward trend, barring occasional dips during years impacted by the Covid-19 pandemic.

Studies on economic development suggest that as economies grow, the share of direct taxes in total revenue tends to increase. However, Mizoram's limited reliance on direct taxes can be attributed to its agrarian economy, where about 60% of the population is engaged in agricultural activities. Factors like low tax incentives for capital formation, negligible agricultural income tax contribution, and widespread poverty further hinder direct tax revenue. The shift towards indirect taxation aligns with the recommendations of various commissions and scholars, citing its potential to stimulate economic growth without dampening savings rates, crucial for underdeveloped economies. Mizoram's increasing dependence on indirect taxation stresses its developmental aspirations.

A closer analysis of Mizoram's tax revenue structure reveals a declining trend in direct taxes relative to state-owned revenue, while reliance on shared taxes remains high. Efforts to augment own revenue sources are imperative for fiscal stability. Changes in tax structure, particularly the shift from agricultural to commodity and service taxes, reflect evolving economic dynamics.

Notably, the introduction of GST in 2017-18 reshaped the tax landscape, reducing the dominance of sales tax. While state excise duties fluctuated due to policy changes, taxes on vehicles and goods exhibited declining trends. Conversely, the contribution of GST increased significantly, demonstrating its robust potential as a revenue sources.

The steady rise in the devolution of central taxes highlights Mizoram's substantial reliance on shared taxes. While efforts to achieve self-reliance are ongoing, the disproportionate dependence on central taxes highlights the need for a more balanced revenue structure. Mizoram's journey towards fiscal autonomy amidst developmental imperatives reflects a dynamic fiscal landscape, necessitating continual adaptation and reform.

4.2.4 Ratio of Tax by Type to Net State Domestic Product

To further substantiate the above discussion, the ratio of tax by type to the Net State Domestic Product was calculated. This analysis provides insights into the Government effectiveness in mobilizing resources within the state. An attempt is made to relate specified taxes to the Net State Domestic Product by expressing percentages of different revenue sources in relation to the Net State Domestic Product, as provided in Table 4.6

Table 4.5 Composition of Tax Revenue of Mizoram

(Rupees in Crores)

Year	**Total Taxes**	Direct Taxes	Indirect Taxes	**State Taxes**	Direct Taxes	Indirect Taxes	**Shared Tax**	Direct Taxes	Indirect Taxes
1	**2**	3	4	**5**	6	7	**8**	9	10
2005-06	**280.88**	112.54 (40.07)	168.34 (59.93)	**55.05**	6.12 (11.12)	48.93 (88.88)	**225.83**	106.42 (47.12)	119.41 (52.88)
2006-07	**355.67**	150.34 (42.27)	205.33 (57.73)	**67.62**	5.73 (8.47)	61.89 (91.53)	**288.05**	144.61 (50.20)	143.44 (49.80)
2007-08	**440.87**	199.66 (45.29)	241.21 (54.71)	**77.52**	6.81 (8.78)	70.71 (91.22)	**363.35**	192.85 (53.08)	170.50 (46.92)
2008-09	**478.01**	212.27 (44.41)	265.74 (55.59)	**94.62**	7.57 (8.00)	87.05 (92.00)	**383.39**	204.70 (53.39)	178.69 (46.61)
2009-10	**502.11**	263.91 (52.56)	238.20 (47.44)	**107.58**	10.69 (9.94)	96.89 (90.06)	**394.53**	253.22 (64.18)	141.31 (35.82)
2010-11	**582.1**	284.26 (48.83)	297.84 (51.17)	**130.44**	12.73 (9.76)	117.71 (90.24)	**451.66**	271.53 (60.12)	180.13 (39.88)
2011-12	**1006.45**	505.90 (50.27)	500.55 (49.73)	**179.07**	14.38 (8.03)	164.69 (91.97)	**827.38**	491.52 (59.41)	335.86 (40.54)
2012-13	**1009.1**	468.60 (46.44)	540.50 (53.56)	**223.14**	16.72 (7.49)	206.42 (92.51)	**785.96**	451.88 (57.49)	334.08 (42.51)
2013-14	**1087.86**	498.74 (45.85)	589.12 (54.15)	**229.78**	19.28 (8.39)	210.50 (91.61)	**858.08**	479.46 (55.88)	378.62 (44.12)
2014-15	**1177.19**	571.14 (48.52)	606.05 (51.48)	**266.52**	25.10 (9.42)	241.42 (90.58)	**910.67**	546.04 (59.96)	364.63 (40.04)
2015-16	**2706.52**	1290.88 (47.70)	1415.64 (52.30)	**358.41**	24.28 (6.77)	334.13 (93.23)	**2348.11**	1266.60 (53.94)	1081.51 (46.06)
2016-17	**3242.22**	1549.88 (47.80)	1692.56 (52.20)	**441.81**	24.00 (5.43)	417.81 (94.57)	**2800.63**	1525.88 (54.48)	1274.75 (45.52)

2017-18	**3642.96**	2131.02 (58.50)	1511.94 (41.50)	**545.91**	24.07 (4.41)	521.84 (95.59)	**3097.05**	2106.95 (68.03)	990.10 (31.97)
2018-19	**4229.66**	3079.03 (72.80)	1150.63 (27.20)	**726.7**	23.13 (3.18)	703.57 (96.82)	**3502.96**	3055.90 (87.24)	447.06 (12.76)
2019-20	**3748.78**	2716.03 (72.45)	1032.75 (27.55)	**730.98**	24.43 (3.34)	706.55 (96.66)	**3017.8**	2691.60 (89.19)	326.20 (10.81)
2020-21	**3658.11**	2768.85 (75.69)	889.26 (24.31)	**647.56**	36.37 (5.62)	611.19 (94.38)	**3010.55**	2732.48 (90.76)	278.07 (9.24)

Note: Figures in parentheses indicate the percentage to total
Source: Annual Financial Statement, Government of Mizoram: 2005-6 to 2021-22
Accounts at a Glance, Government of Mizoram: 2005-06 to 2020-21.

Table 4.6 Contribution of State's Own Tax to Total Tax

Year	Taxes on Income & Expenditure	Taxes on Property & Capital Transaction		**Taxes on commodities and Services**						
	Corporation tax, other taxes on income & Expenditure etc	Land Revenue	Stamps & Registra-tion Fees	State Excise	Sales Tax	Tax on Vehicle	Goods & Passenger Tax	Goods & Service tax	Other taxes	**State own tax revenue**
2005-06	4.52	1.59	1.68	1.46	40.09	4.35	0.99	…	0.37	55.05
2006-07	5	0.73	0.21	1.65	53.72	5.01	0.98	…	0.32	67.62

2007-08	5.32	1.48	0.23	1.69	62.04	5.37	1.07	…	0.32	77.52
2008-09	5.93	1.63	0.46	1.87	77.51	5.5	1.44	…	0.28	94.62
2009-10	7.93	2.76	0.39	2.1	85.94	6.71	1.39	…	0.36	107.58
2010-11	8.39	4.33	0.43	2.68	104.7	7.72	1.72	…	0.47	130.44
2011-12	11.86	2.52	0.69	2.51	142.16	16.71	2.05	…	0.57	179.07
2012-13	13.68	3.04	0.65	2.83	175.87	22.83	3.77	…	0.47	223.14
2013-14	14.74	4.54	1.52	3.11	183.34	19.42	2.63	…	0.48	229.78
2014-15	14.04	11.06	3.72	4.91	211.95	17.03	2.55	…	1.26	266.52
2015-16	15.4	8.88	3.57	60.6	247.04	19.44	2.71	…	0.77	358.41
2016-17	15.42	8.58	3.26	72.26	307.81	25.76	7.9	…	0.82	441.81
2017-18	15.78	8.29	3.2	65.83	242.85	31.58	7.83	169.76	0.79	545.91
2018-19	14.49	8.65	4.43	65.34	135.93	38.36	4.71	454.73	0.06	726.7
2019-20	15.37	9.05	5.85	2.73	117.61	40.66	7.44	532.22	0.05	730.98
2020-21	15.63	20.74	4.73	0.96	113.66	29.02	4.85	457.91	0.06	647.56

Table 4.6a Contribution of Share Tax to Total Tax

DEVOLUTION OF CENTRAL TAXES & DUTIES											
Year	Central goods & Services tax	Integrated Goods & services Tax	Corpora-tion Tax	Taxes on income other than corpora-tion tax	Other tax on income & Expendi-ture	Taxes on wealth	Customs duties	Union Excise	Services tax	Other taxes & duties on commodi-ties & Services	**Total shared tax**
2005-06			62.34	43.96	…	0.12	44.03	58.76	16.64	-0.02	225.83
2006-07			89.91	54.6	-0.01	0.11	56.18	59.66	27.62	-0.02	288.05
2007-08			115.32	77.4	…	0.13	68.68	65.57	36.26	-0.01	363.35
2008-09			125.68	78.91	…	0.11	73.3	63.99	41.4	…	383.39
2009-10			162.35	90.5	…	0.37	55.21	44.47	41.63	…	394.53
2010-11			183.19	87.93	…	0.41	75.6	58.56	45.97	…	451.66
2011-12			318.68	171.73	…	1.11	147.06	93.83	94.97	…	827.38
2012-13			282.36	169.04	…	0.48	130.68	88.77	114.69	…	785.96
2013-14			288.62	190.05	…	0.79	140.03	98.9	139.69	…	858.08
2014-15			318.05	227.13	…	0.86	147.3	83.18	134.15	…	910.67
2015-16			744.21	522.28	…	0.1	374.23	306.57	399.66	1.06	2348.1
2016-17			899.01	624.82	…	2.05	386.72	441.6	446.42	0.01	2800.6
2017-18	44.16	312.8	948.82	801.2	…	-0.03	312.7	326.9	350.5	…	3097.1
2018-19	864.63	69	1218.27	897.21	6.34	0.45	248.31	165.03	31.92	1.8	3503

2019-20	856.36	…	1028.94	806.25	…	0.05	191.29	133	…	1.91	3017.8
2020-21	897.91	…	906.03	928.54	…	…	162.09	101.51	12.42	2.05	3010.6

Source: Annual Financial Statement, Government of Mizoram: 2005-6 to 2021-22
Accounts At a Glance, Government of Mizoram: 2005-06 to 2020-21.

As seen in Table 4.7, despite fluctuations in the growth rate of total tax revenue, the share of total tax revenue to Net State Domestic Product increased by 64.80 percent during the study period. Analyzing specific types of tax, it becomes evident that revenue from taxes on income and expenditure remain stagnant, contributing minimally to overall growth. In contrast, the percentage contribution of land revenue demonstrates a clear upward trend, despite fluctuations. For instance, land revenue contributed 0.06 percent of the Net State Domestic Product in 2005-06, rising to 0.10 percent in 2020-21.

The results of the analysis shows that goods and service tax contributed as much as 2.17 percent of the total state own tax revenue, which was 3.07 percent of the Net State Domestic Product. However, since goods and service tax was implemented only from the 2018 financial year, it accounted for only four years of the study period. State sales tax stood as the predominant source of state-owned tax revenue before the introduction of the GST. Tax on vehicles emerged as the most significant revenue source in the state, accounting for 0.13 percent of the Net State Domestic Product in 2020-21. The remaining 0.24 percent of the Net State Domestic Product was contributed by corporation tax, land revenue, stamps and registration fees, state excise, goods and passenger tax, and other taxes. Therefore, these taxes displayed minimal performance in terms of productivity during the study period.

The analysis of the ratio of indirect taxes to the Net State Domestic Product illustrates a significant rise, more than doubling from 6.32 percent in 2005-06 to 13.32 percent throughout the study period. However, this figure witnessed a subsequent decline, reaching 4.22 percent by 2020-21.

Table 4.7 Percentage of State own tax to NSDP

Year	Taxes on Income & Expenditure	Taxes on Property & Capital Transaction		**Taxes on commodities and Services**						
	Corporation tax, other taxes on income & Exp, etc	Land Revenue	Stamps &Registr-ation Fees	State Excise	Sales Tax	Tax on Vehicle	Goods & Passenger Tax	Goods & Service tax	Other taxes	**State own tax revenue**
1	2	3	4	5	6	7	8	9	10	11
2005-06	0.17	0.06	0.06	0.05	1.5	0.16	0.04	…	0.01	2.07
2006-07	0.17	0.02	0.007	0.06	1.82	0.17	0.03	…	0.01	2.3
2007-08	0.16	0.05	0.007	0.05	1.91	0.17	0.03	…	0.01	2.39
2008-09	0.15	0.04	0.01	0.04	2.01	0.14	0.04	…	0.007	2.45
2009-10	0.18	0.06	0.009	0.04	2.01	0.15	0.03	…	0.008	2.51
2010-11	0.16	0.08	0.008	0.05	2.05	0.15	0.03	…	0.009	2.56
2011-12	0.2	0.04	0.01	0.04	2.46	0.28	0.03	…	0.009	3.1
2012-13	0.21	0.04	0.009	0.04	2.7	0.35	0.05	…	0.007	3.43
2013-14	0.18	0.05	0.02	0.04	2.36	0.25	0.03	…	0.006	2.26
2014-15	0.13	0.11	0.03	0.04	2.05	0.16	0.02	…	0.01	2.58
2015-16	0.13	0.08	0.03	0.53	2.16	0.17	0.02	…	0.007	2.33
2016-17	0.12	0.07	0.03	0.57	2.42	0.2	0.06	…	0.006	3.47
2017-18	0.1	0.05	0.02	0.42	1.56	0.2	0.05	1.09	0.005	3.51
2018-19	0.08	0.05	0.02	0.39	0.83	0.23	0.02	2.76	0.0004	4.41

2019-20	0.08	0.05	0.03	0.01	0.63	0.21	0.03	2.83	0.0003	3.88
2020-21	0.07	0.1	0.02	0.004	0.53	0.13	0.02	2.17	0.0002	3.07

Note : Calculation are based on Table 4.1 & 4.5

Source: *Annual Financial Statement, Government of Mizoram: 2005-6 to 2021-22, Accounts At a Glance, Government of Mizoram: 2005-06 to 2020-21.*

Table 4.7a Percentage of Devolution of Central Taxes to NSDP

Year	Central goods & Services tax	Integrated Goods & services Tax	Corpora-tion Tax	Taxes on income other than corpora-tion tax	Other tax on income &Expendi-ture	Taxes on wealth	Customs duties	Union Excise	Services tax	Other taxes & duties on commo-dities& Services	**Total shared tax**
12	13	14	15	16	17	18	19	24	25	26	27
2005-06	...	...	2.34	1.65	…	0.004	1.65	2.2	0.62	-0.001	8.48
2006-07	...	...	3.05	1.85	0.0003	0.004	1.91	2.03	0.94	-0.001	9.98
2007-08	...	...	3.56	2.38	…	0.004	2.11	2.02	1.12	0.0003	11.2
2008-09	...	...	3.25	2.05	…	0.003	1.89	1.66	1.07	…	9.94
2009-10	...	...	3.8	2.12	…	0.009	1.29	1.04	0.97	…	9.24
2010-11	...	...	3.6	1.73	…	0.008	1.48	1.15	0.9	…	8.86
2011-12	...	...	5.53	2.98	…	0.019	2.55	1.63	1.65	…	1.44
2012-13	...	...	4.34	2.6	…	0.007	2.01	1.37	1.76	…	12.09
2013-14	...	...	3.72	2.45	…	0.01	1.8	1.27	1.8	…	11.06
2014-15	...	...	3.09	2.2	…	0.008	1.43	0.81	1.3	…	8.84

2015-16	...	...	6.53	4.58	…	0.009	3.28	2.69	3.5	0.009	20.59
2016-17	...	...	7.07	4.92	…	0.02	3.04	3.97	3.51	0.0001	22.03
2017-18	0.28	2.02	6.11	5.16	…	0.0002	2.01	2.11	2.26	…	19.95
2018-19	5.25	0.42	7.4	5.45	0.04	0.003	1.51	1.002	0.19	0.01	21.3
2019-20	4.55	…	5.47	4.29	…	0.0003	1.02	0.71	…	0.01	16.05
2020-21	4.26	…	4.3	4.41	…	…	0.77	0.48	0.06	0.01	14.3

Note : Calculation are based on Table 4.1 & 4.5

Source: *Annual Financial Statement, Government of Mizoram: 2005-6 to 2021-22*
Accounts at a Glance, Government of Mizoram: 2005-06 to 2020-21.

It is noteworthy to mention that, when assessed in relation to the Net State Domestic Product, the relative significance of various types of taxes has remained relatively stable. However, due to the increasing developmental obligations of the state, there has been a noticeable and widening gap between the state own tax revenue and it expenditure requirements. Consequently, Mizoram heavily relies on the devolution of central taxes and duties, with federal transfers accounting for over seventy-seven percent of the total fiscal resources of the state. Hence, Mizoram remains considerably far from achieving financial self-reliance.

4.3 FINANCING OF PUBLIC EXPENDITURE ON SOCIAL SERVICES

In India, the budget is presented according to the constitutional guidelines in two accounts: the revenue budget and the capital budget. The budget must distinguish between expenditure on the revenue account and other expenditures. In this section, we aim to analyse the sources of public expenditure financed by taxation and loans, which are classified as Revenue Budget and Capital Budget.

The Revenue Budget consists of revenue receipts from tax revenue and non-tax revenue, along with the expenditure made out of these receipts. Revenue expenditure is further divided into plan expenditure, which pertains to the central plan and central assistance for states and union territory plans, and non-plan revenue expenditure, which encompasses a wide range of general, social, and economic services.

The Capital Budget includes capital receipts and capital expenditures of the government. Capital receipts comprise market loans, borrowing from RBI, and other financial institutions, which create liabilities or reduce financial assets, whereas capital expenditure involves government spending that leads to the creation of physical or financial assets.

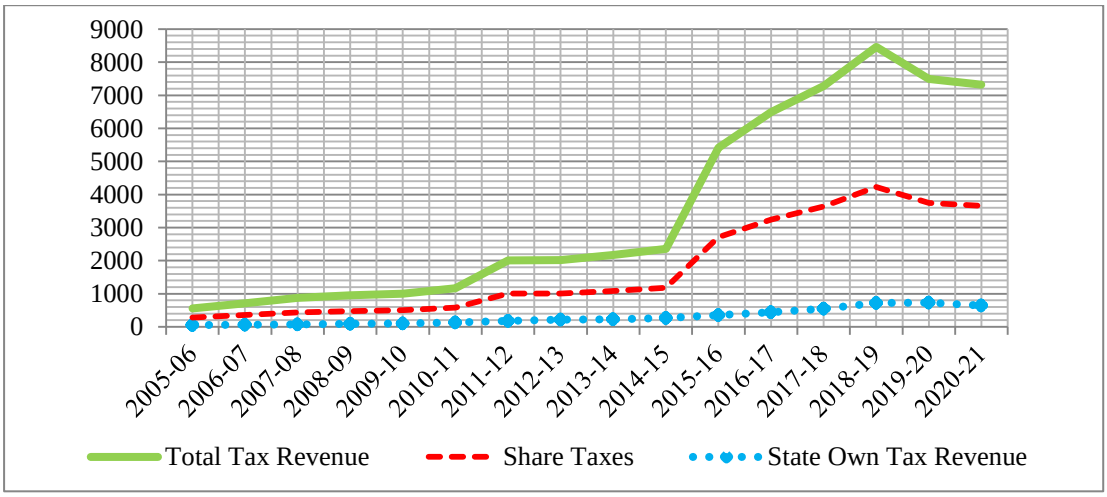
4.3.1 Financing of Public Expenditure by Revenue Budget (Taxation)

The administrative capacity of the tax system to mobilise necessary resources determines the size of the development programme of the government. In underdeveloped economies, with low levels of per capita income, raising the level of

savings is challenging. Therefore, the tax structure in such economies should aim at mobilising economic surplus. Economic surplus refers to the difference between the potential output that could be produced with available resources and what is considered essential consumption. According to F.M Bator (1960), "For a tax increase to be abortive, the tax induced decline in capacity output must be larger than the tax induced reduction in private spending. "Hence, in an underdeveloped economy, in the initial stages of development tax structure should be design to prevent consumption and channeled the increasing income into productive investment.

From previous observations, it's evident that the principal source of tax revenue in Mizoram is the share of the state in central taxes and duties. Sales tax was the most significant revenue source before the introduction of the Goods and Services Tax (GST) in 2018 and now, GST has become the primary source of revenue. Tax revenues in Mizoram are categorised into three sub-heads: (1) Tax on income and expenditure, (2) taxes on property and capital transactions, and (3) taxes on commodities and services. There have been slight fluctuations in these categories during our study period.

Figure 4.1 : Trend of Tax Revenue in Mizoram



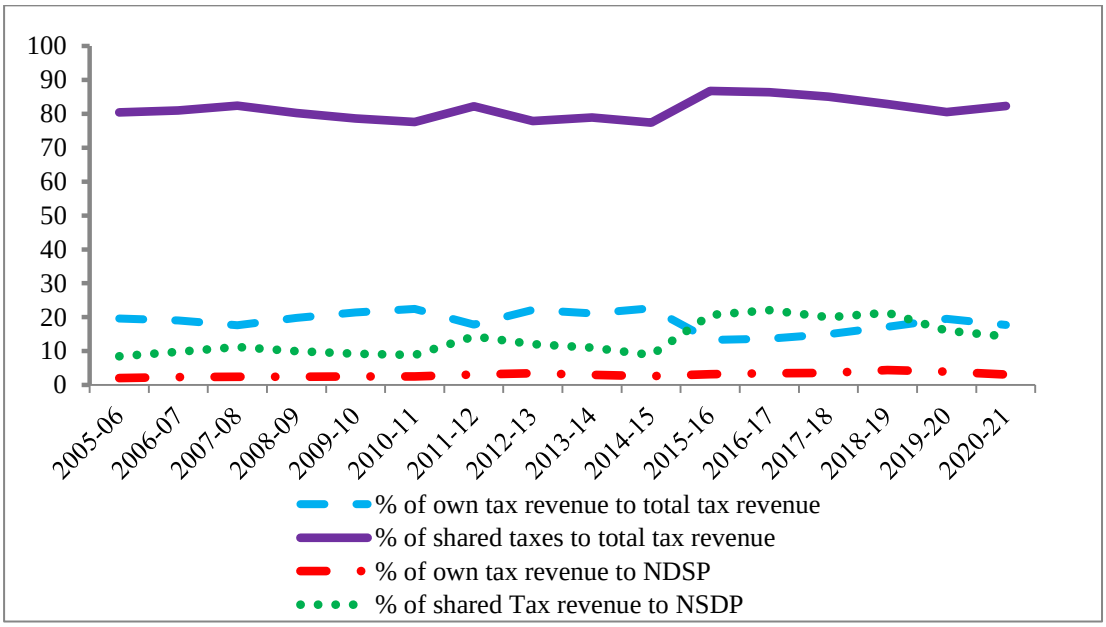
Note : Tax revenue (in Rs Crore) is measures on vertical axis and year on horizontal axis
Source: Table 4.1 &4.2

The rate of increase in the state's own tax revenue has been much slower than the increase in central tax revenue throughout the period. During the first five years of our study, the state's own tax revenue increased by 1.95 times, with an annual average growth of 18.90 percent. This rate slightly improved to 2.04 times during the second five-year period, with an annual average growth of 23.07 percent. However, due to the COVID-19 pandemic and subsequent total lockdown from March 25, 2020, across the country, the state's own tax revenue decreased tremendously. The state government managed to increase state's own tax revenue merely by 1.81 times during the last five years period from 2015-16 to 2020-21, with a per annum average growth rate of 13.83 percent. Over the sixteen-year period under consideration, state's own tax revenue increased by 11.76 times at an average growth rate of 17.43 percent per annum.

Shared tax revenue receipt has been on the rise at a much faster rate than state's own tax revenue, recording an average growth rate of 22.30 percent per annum, with an increase of 13.33 times over the period of our study. Despite this, the growth of state income has been surpassed by the growth of state's own tax revenue and other sources, including total tax revenue. However, the contribution of state's own tax revenue to state income during the study period has not kept pace with the expected or desired additional taxation as a source of revenue for the state. This discrepancy arises because the percentage share of state's own tax revenue in state income has increased at a slower rate than the overall growth rate of total tax revenue, as illustrated in Table 4.8 and Figure 4.2.

Even though there is an increasing trend in the share of state's own tax revenue to the total tax revenue, the percentage share of state own tax revenue has remained in between 13 to 23 percent only. Meanwhile, the percentage share of shared taxes to the total tax remained in between 77 to 87 percent throughout the period under consideration. Additionally, it is observed that while the percentage of total tax revenue and the shared taxes to the Net State Domestic Product has both remained below 26 percent, the percentage share of state's own tax revenue to the Net State Domestic Product has consistently remained below 5 percent only.

Figure 4.2 Percentage of Own Tax and Shared tax to the Total Tax Revenue and NSDP in Mizoram



Note : Vertical axis measures percentages and horizontal axis indicates year
Source : Author's calculation

Table 4.8 Tax Revenue and State Income

(Rs in crores)

Year	State Own tax	Shared Taxes	Total Tax Revenue	NSDP *	Column 2 as a % of Column 4	Column 3 as a % of Column 4	Column 2 as a % of Column 5	Column 3 as a % of Column 5	Column 4 as a % of Column 5
1	2	3	4	5	6	7	8	9	10
2005-06	55.05	225.83	280.88	2664	19.6	80.4	2.07	8.48	10.54
2006-07	67.62	288.05	355.67	2944	19.01	80.99	2.3	9.78	12.08
2007-08	77.52	363.35	440.87	3248	17.58	82.42	2.39	11.19	13.57
2008-09	94.62	383.39	478.01	3858	19.79	80.21	2.45	9.94	12.39
2009-10	107.58	394.53	502.11	4271	21.43	78.57	2.52	9.24	11.76
2010-11	130.44	451.66	582.1	5095	22.41	77.59	2.56	8.86	11.42
2011-12	179.07	827.38	1006.45	5765	17.79	82.21	3.11	14.35	17.46
2012-13	223.14	785.96	1009.1	6501	22.11	77.89	3.43	12.09	15.52
2013-14	229.78	858.08	1087.86	7758	21.12	78.88	2.96	11.06	14.02

2014-15	266.52	910.67	1177.19	10304	22.64	77.36	2.59	8.84	11.42
2015-16	358.41	2348.11	2706.52	11405	13.24	86.76	3.14	20.67	23.73
2016-17	441.81	2800.63	3242.22	12710	13.63	86.37	3.48	22.03	25.51
2017-18	545.91	3097.05	3642.96	15522	14.99	85.01	3.52	19.95	23.47
2018-19	726.7	3502.96	4229.66	16470	17.18	82.82	4.41	21.27	25.68
2019-20	730.98	3017.8	3748.78	18801	19.5	80.5	3.89	16.05	19.94
2020-21	647.56	3010.55	3658.11	21062	17.7	82.3	3.07	14.29	17.37

*Note : * = Net State Domestic Product figures are in current prices*
Source: Annual Financial Statement, Government of Mizoram: 2005-6 to 2021-22
Accounts at a Glance, Government of Mizoram: 2005-06 to 2020-21.

From Figure 4.2 and Table 4.8, it is evident that the state increasingly relies on shared taxes and non-tax revenue for resource mobilisation. The growth rate of the state's own tax revenue lags behind that of shared taxes during the study period, raising questions about the increasing significance of own tax revenue as a component of state income. However, this does not imply that other revenue sources are relatively more important. Non-tax revenue, being an internal source, contributes a larger percentage than own tax revenue from 2005-06 to 2010-11, as supported by Table 4.8. While non-tax revenue outpaced the growth of state's own tax revenue from 2005-06 to 2010-11, the reverse case happens from 2011-12 to 2020-21.

Shared taxes consistently constitute a significant portion of total tax revenue, ranging from 77.36% to 86.76% during the study period. The relative importance of state's own tax revenue shows some erratic behaviour despite an overall upward trend. This suggests that the state government prioritises achieving targets for own tax revenue more than for non-tax revenue and shared taxes.

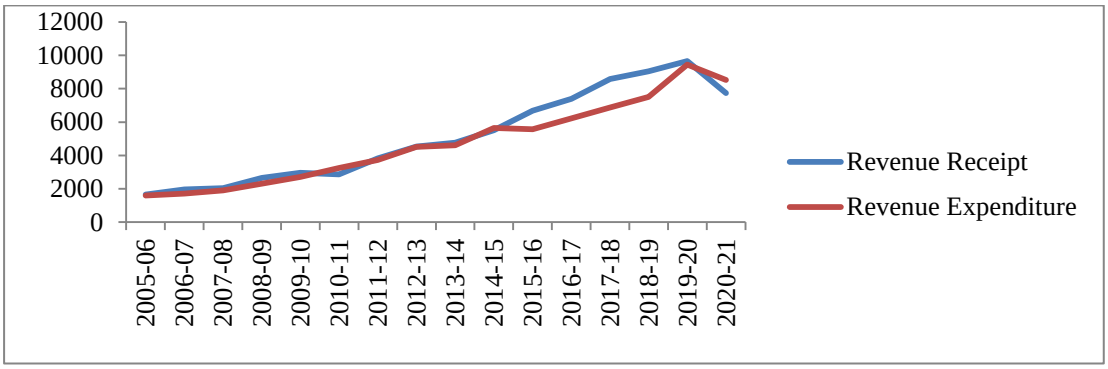
Mizoram, as a special category state with low economic development, faces challenges in revenue generation. One significant factor contributing to the reduction in the magnitude of own tax revenue is the provision of various tax exemptions and holidays granted to the industrial, agricultural, and service sectors. Additionally, the state's small industrial production potential and small market base limit the scope of huge central taxes. Despite recent economic and socio-political developments,

poverty and the state's small revenue base, these activities have remained under taxed in terms of both central and state levied taxes.

4.3.2 Trend of Revenue Receipt and Expenditure

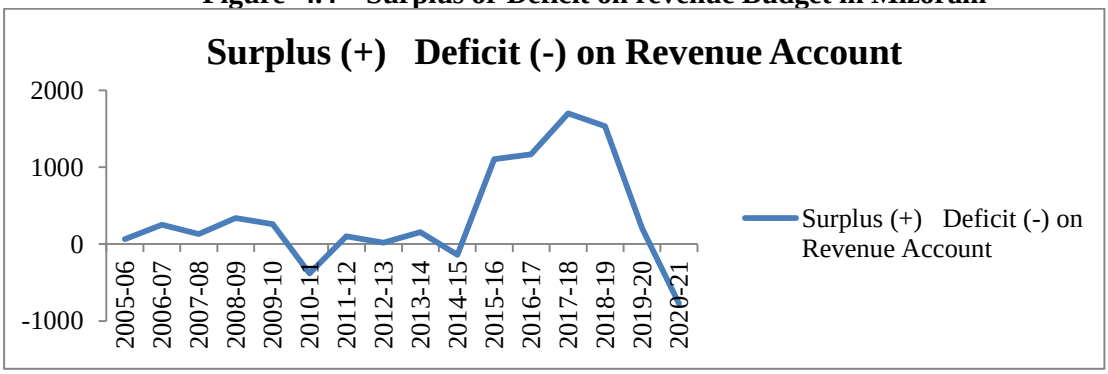
It's observed that an underdeveloped economy like Mizoram should focus on channelling limited resources into productive investment. There has been a consistent increase in both revenue and capital receipts, as well as in revenue and capital expenditures in Mizoram during the period under consideration. In such economies, budget deficits may be filled by loans or deficit financing. As a result, despite deficit budgets or unbalanced budgeting processes, desirable economic development can generally be achieved. In this section, we analyse the trend of revenue budgeting during the study period.

Figure 4.3 Revenue Receipts and Revenue Expenditure



Note*: Horizontal axis indicates year and Vertical axis measures amount in Rs Crore*
Source: Author's Calculation.

Figure 4.4 Surplus or Deficit on revenue Budget in Mizoram



Note: Horizontal axis indicates year and Vertical axis measures amount in Rs Crore
Source: Author's Calculation

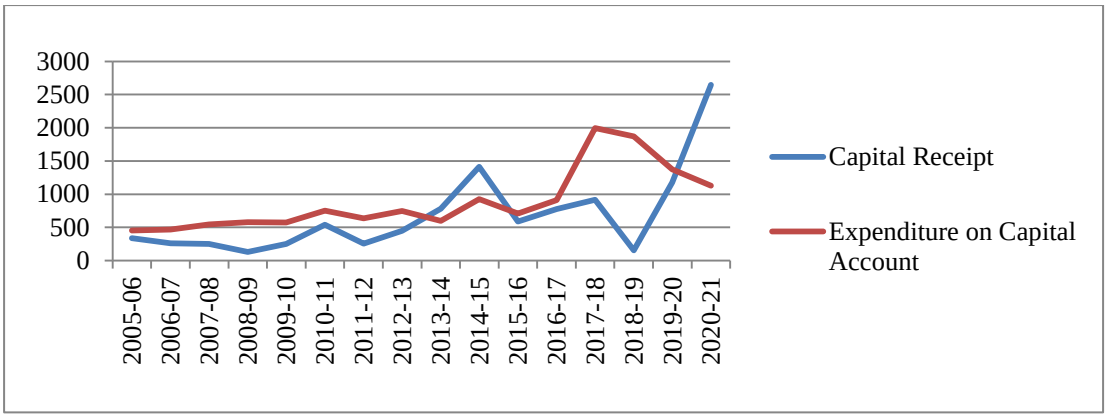
Figure 4.3 illustrates total revenue receipts and revenue expenditure of the Mizoram state government, showing consistent increases over the period. While unbalanced budgeting holds potential benefits for fostering desirable development in underdeveloped economies, a detailed analysis of the trend of revenue budgeting reveals intermittent years characterized by both surpluses and deficits, as shown in Figure 4.4. Over the sixteen-year period, thirteen years witnessed revenue budget surpluses, while the remaining three years encountered deficits.

4.3.3 Financing of Public Expenditure on Social Services by Capital Budget (Loans)

Net capital formation depends on where and how investments are made, as well as the extent to which people value the products that capital goods can facilitate in producing, and how effectively these goods serve future requirements (G.M. Meirs, 1964). Capital formation extends beyond physical capital to include investment in human capital, encompassing education and health expenditures. The effective utilisation of physical capital heavily relies on human capital, as health, education, and research enhance labour productivity and efficiency. Economic growth is influenced not only by investment multipliers but also by education and health multipliers, as noted by J.H. Bruton (1965).

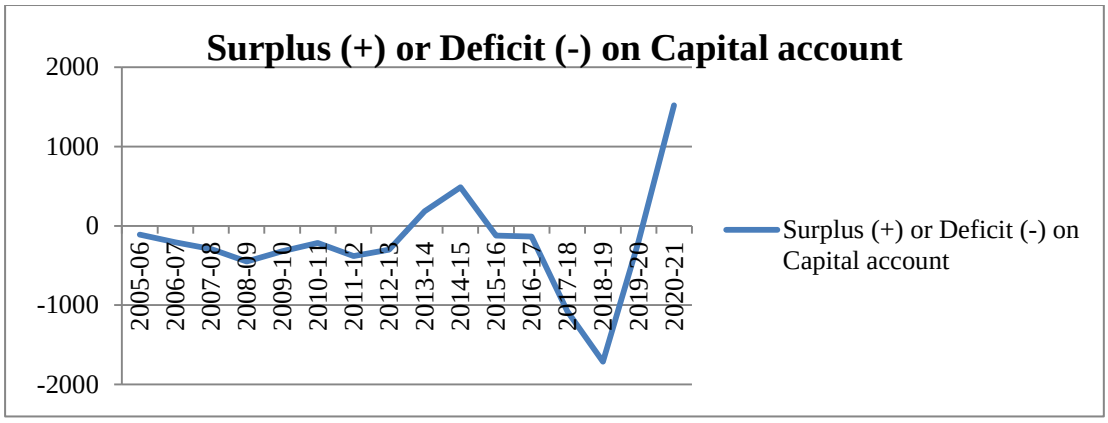
This section analyses how the government of Mizoram addressed capital formation during the study period. Although the patterns of both curves are irregular, there is an overall increasing trend. Until 2013-14, both showed similar growth rates, but capital receipts displayed erratic movement from 2014-15 onwards. A closer scrutiny of the growth trend, depicted in Figure 4.6, reveals intermittent years of surplus and deficits in the capital budget, with wider deficits in 2017-18 and 2019-2020.

Figure 4.5 Trend of Capital Account



Note*: Horizontal axis indicates year and Vertical axis measures amount in Rs Crore*
Source: Compiled from Annual Financial Statement, Government of Mizoram: 2005-6 to 2021-22
Accounts At a Glance, Government of Mizoram: 2005-06 to 2020-21.

Figure 4.6 Surplus/deficit on Capital Budget



Note*: Horizontal axis indicates year and Vertical axis measures amount in Rs crore*
Source: Compiled from Annual Financial Statement, Government of Mizoram: 2005-6 to 2021-22
Accounts At a Glance, Government of Mizoram: 2005-06 to 2020-21.

The capital accounts for the sixteen-year period predominantly showed deficits, with only three years - specifically 2013-14, 2014-15, and 2020-21 - recording surpluses. This trend is the characteristic of underdeveloped economies like Mizoram, where deficits in capital budgets are ordinary, necessitating recourse to loans or deficit financing to bridge financial shortfalls. Throughout the study period, the size of the capital budget consistently remained substantially smaller than that of the revenue budget, both in terms of receipts and disbursements in Mizoram.

Interestingly, the number of years with deficits in capital budgets surpassed those in revenue budgets. Moreover, the absolute deficit amount for capital budgets

was significantly larger compared to revenue budgets. Specifically, the total deficits under the capital budget amounted to Rs 5523.16 crore, whereas for revenue budgets, it stood at Rs 1298.57 crore. This indicates a growing reliance by the Mizoram state government on loan-based financing mechanisms for fostering economic development.

4.4 Conclusion

The above discussions revealed that Mizoram state has failed on internal resource mobilization which gives rise to an explosive cycle of expenditure growth. The capacity of development programmes in Mizoram State Government is deeply depend on its willingness and capacity to generate the necessary resources. As pointed earlier, the state's total public expenditure recorded a growth rate of 10.71 per cent per annum during the period under consideration, state own tax revenue is recorded a growth rate of 17.43 per cent per annum and state's total tax revenue registered a growth rate of 20.85 per cent per annum during the period of our study. This could clearly indicates that in an underdeveloped economy like Mizoram, only the monetary and capital markets are not underdeveloped, but taxation is also underdeveloped in the structure of state economy which is underdeveloped in many respects.

Mizoram has increasingly depends more and more on Union government for its financial resources and so, the financial problems of the state arise due to lack of potential effort to raise additional financial resources from the government. The state needs to divert a large portion of available economic resources into productive investment and also the state needs to make an effort for higher revenues from indirect taxes and non-taxes revenue.

Being a welfare state, public expenditure on social sector of Mizoram is determined to rise with the progress of the society; ways and means resources to meet this increasing expenditure would have to found out.

CHAPTER – V

ANALYSIS OF PUBLIC EXPENDITURE ON SOCIAL SECTORS

5.1 INTRODUCTION

In the previous chapter, we have analyzed the expenditure policies in terms of trends and patterns of the Mizoram total public expenditures and net state domestic product, for a period of our study. And we found that there has been a tremendous increase in expenditure in the state during our study period. It is also observed from our discussion that the growth and pattern of public expenditure is determined by a number of economic and non-economic variables. No doubt, any analysis of the growth and pattern of public expenditure requires an in-depth analysis of the actual growth of public expenditure and the direction in which it has moved over the years. Since, public expenditure on education and health are considered to be the two important indicators of social services, an attempt is made in this chapter to look in to the growth and pattern of public expenditure on education and health. Underneath the policy controversies regarding the socially desirable level of public expenditure and its compositional pattern, vital questions about the actual behaviour of these expenditures and its intricacies await dispassionate analysis.

The government plays an integral role in economic growth and development process, especially in least developed and developing economies, riddled with low per capita income and weak private investment (Folster & Henrekson, 1999). The government may provide goods and services directly or play a supportive role such as maintaining law and order, regulating economic activities, and developing physical infrastructure to stimulate economic growth. The mainstream view is that public expenditure, especially on physical infrastructure and human capital can support economic growth by bolstering productivity in the private sector (Keynes, 1936). The social sector, broadly consisting of education, health, and social protection or security, is one of the major beneficiaries of public expenditure in developing economy like Mizoram. This attributed to the fact that investment in health and education facilitates development of the human capital that every economy needs to achieve its economic growth and development aspirations Romer, 1986).Expenditure on social services like education and health has been justified by reference to the market's failures both to guarantee outcomes that meet society's

equity objectives and to alleviate the possible causes of market inefficiency. In the case of health and education, possible failures of the market are mostly found which have affected public expenditure growth. Market failure may arise out of failure in information, imperfection and incomplete information. There may be many problems with the information system, the stock of information which is available may be incomplete, distorted and even wrong. The uneven information between the two parties (say doctor and patient) may make the cost different from the benefit at the margin. Due to these, the rules of efficiency may not be applied properly (Ghost, 2008). The society's objectives in health care are to guarantee equality of access, cost and outcome for those who equally needed, while ensuring that the delivery system uses resources efficiently. In education, it is correspondingly argued that society's objective is to achieve equality of educational opportunities for those of equal ability, and an efficient allocation of resources.

In developing countries like India, public expenditure plays an important role in the development process. India has a federal structure of government. Indian constitution has divided the powers into three list viz., (1) Central List (2) State List and (3) Concurrent List. In social services, education, welfare and employment come under concurrent list; health and housing come under the state list; food security, broadcasting, information and publicity come under central list; State plays a significant role in many aspects of social development. The state of Mizoram has made a considerable progress in social sector development.

5.2 PUBLIC EXPENDITURE AND SOCIAL SERVICES

The state has major responsibility of social services development. The share of central government on social services is less than 20 per cent. Hence, analysis of state government expenditure on social services is more significant. In this section, an attempt is made to assess the extent and direction of expenditure on the social sector in Mizoram from 2005-06 to 2020-21. The expenditure on social sector includes both revenue and capital expenditure, where capital expenditure makes promotional activity, and revenue expenditure is meant for protective and social security measures. Social services expenditure comprises expenditure on eight items

in the revenue expenditure part. Within the social services, education expenditures include expenditure on sports and youth affairs.

Health expenditure is defined in two broad ways; in one way, it comprises expenditure on the heads of medical, public health and family welfare whereas in the other way it comprises expenditure on water supply and sanitation. These categories were kept separate as expenditure on water supply and sanitation contributes to health indirectly and is not considered as an integral part of health. Generally, people benefit from general public investment and the development spending on a variety of services delivered by the government, including education, health and family welfare, water supply and sanitation, housing and urban development, social security and welfare, and nutrition (Birdsall, 1993).

5.2.1 Trend of Social Services Expenditure

The government of Mizoram had increased its allocations to the social sector quite significantly after 2008-09. The early period of stagnation was attributable to the acute fiscal health crisis that engulfed almost all states, including Mizoram. Even though, the fiscal health has not improved considerably, the situation has changed from 2005-06 as a result of a larger transfer of resources from the union government to the states as recommended by the twelfth finance commission, and the acceleration in economic growth.

Table 5.1 gives an overview of the social sector expenditure, as a percentage of revenue expenditure, and as percentage of total expenditure from 2005-06 to 2020-21.

Table 5.1 Growth of Expenditure on Social Sector, Revenue Account
(Rupees in Crores)

Year	Expenditure on social services	Revenue Expenditure	Total Expenditure	Percentage of Col.2 to Col.3	Percentage of Col.2 to Col.4
1	2	3	4	5	6
2005-06	547.59	1588.02	2039.39	34.48	26.85
2006-07	592.9	1717.29	2183.73	34.53	27.15
2007-08	696.78	1908.63	2452.87	36.51	28.41

2008-09	898.18	2313.79	2892.06	38.82	31.06
2009-10	1105.68	2702.7	3275.51	40.91	33.76
2010-11	1010.82	3255.85	4009.46	38.01	30.86
2011-12	1220.04	3723.85	4360.15	36.15	30.87
2012-13	1430.56	4518.91	5267.3	36.56	31.37
2013-14	1379.22	4609.58	5208.62	37.09	35.01
2014-15	1749.65	5652.44	6579.94	38.23	32.84
2015-16	1917.01	5570.86	6281.83	39.85	35.34
2016-17	2097.05	6230.34	7141.75	36.93	32.22
2017-18	2239.14	6880.77	8877.12	37.88	29.36
2018-19	2695.22	7505.59	9374.06	39.1	31.3
2019-20	3161.42	9453.96	10826.63	35.9	31.34
2020-21	3230.94	8514.8	9640.77	37.32	32.96
CAGR	11.73 %	11.07 %	10.20 %		

Source: Accounts at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21 Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23, &Economic Survey, Government of Mizoram, 2006-07 to 2020-21.

Table 5.1 gives an overview of the social expenditure, as a percentage of revenue expenditure and as a proportion of aggregate expenditure. Column 2 of Table 5.1 gives us the figures on expenditure on social sector under revenue account from 2005-06 to 2020-21. Total revenue expenditure on social services was Rs 547.59 crores in 2005-06, which increased to Rs 3177.84 crores in 2020-21, that is, an increase of about six fold during these years. Expenditure on social sector increased from Rs 547.59 crore in 2005-06 to Rs 3392.73 crores in 2019-20, after that it is shows declining trend to Rs 3177.84 crore in 2020-21. It is to be noted that the annual compound rate of growth of expenditure on social sector under revenue account during the period of our study is approximately 11.73 per cent. The growth in total expenditure on social sector under revenue account happened because of government intensive development efforts through comprehensive economic planning and the subsequence increase in demand for services such as education,

health facilities, etc., from the people with increase in their standard of living has led to steady increase in expenditure on social services.

The ratio of expenditure on social, economic and general services to total expenditure, revenue and capital expenditure of the state is an important indicator to find the pattern or trend and effectiveness of public spending allocation. The percentage of expenditure on social services from revenue account to the total revenue expenditure, which was 34.48 per cent in 2005-06, increased slowly and stood at 40.91 per cent in 2009-10. It came down only to rise again to a level of 39.85 per cent in 2015-16. The trend again came down to 36.93 per cent in 2016-17 and 35.90 per cent in 2019-20. Further, a rise in the percentage share of expenditure on social services is also observed in the year 2020-21. Fluctuations in the percentage share of expenditure on social services might have been due to the changing political and economic setup of the state where people start exploring new economic ventures like business, trade, manufacturing, transport etc, which were under economic sector.

Percentage of expenditure on social services to total public expenditure has been shown on column 6 of Table 5.1. It is shown that there existed a continuous increase during the period under consideration. The figure which was 26.85 per cent in 2005-06 gradually grew to 33.76 per cent in 2009-10. It came down to 30.86 per cent in 2010-11 only to rise again to a level of 35.34 per cent in 2015-16. The trend again came down to 29.36 per cent in 2017-18 and rise again to 32.96 per cent in 2020-21. This sharp decline may be explained by the fact that expenditure on capital account has been increase due to intensive development efforts made by the government through comprehensive economic planning. Revenue account expenditure on social services has increased approximately by 22.76 per cent from 26.85 per cent in 2005-06 to 32.96 per cent in 2020-21. From this angle, the state's revenue account expenditure on social services has been increasing at a very slow rate during the period under consideration.

The above trend is supported by the observations made by our study on the basis of Table 5.2 given below.

Table 5.2 Growth of Expenditure on Social Sector, Capital Account
(Rupees in crores)

Year	Expenditure on social services	Capital Expenditure	Total Expenditure	Percentage of Col.2 to Col.3	Percentage of Col.2 to Col.4
1	2	3	4	5	6
2005-06	89.95	451.37	2039.39	19.93	4.41
2006-07	122.03	466.44	2183.73	26.16	5.59
2007-08	105.94	544.24	2452.87	19.47	4.32
2008-09	92.93	578.27	2892.06	16.07	3.21
2009-10	150.21	572.81	3275.51	26.22	4.59
2010-11	125.94	753.61	4009.46	16.71	3.14
2011-12	114.02	636.3	4360.15	17.92	2.62
2012-13	222.41	748.37	5267.3	29.72	4.22
2013-14	207.76	599.04	5208.62	34.68	3.99
2014-15	314	927.51	6579.94	33.85	4.77
2015-16	211.94	710.94	6281.83	29.81	3.37
2016-17	313.29	911.41	7141.75	34.37	4.39
2017-18	613.7	1996.35	8877.12	30.74	6.91
2018-19	762.19	1868.47	9374.06	40.79	8.13
2019-20	601.37	1372.67	10826.63	43.81	5.55
2020-21	559.92	1125.97	9640.77	49.72	5.81
CAGP	12.11 %	5.88 %	10.20 %		

Source: Accounts at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21 Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23, & Economic Survey, Government of Mizoram, 2006-07 to 2020-21.

Column 2 of Table 5.2 gives us the figures on capital account expenditure on social sector from 2005-06 to 2020-21. Total capital expenditure on social services was Rs 89.95 crores in 2005-06, which increased to Rs 559.92 crores in 2020-21, that is, an increase of about six fold during these years. Capital account expenditure on social sector increased slowly with some fluctuations during the period under considerations. It is to be noted that the annual compound rate of growth of expenditure on social sector under capital account during the period of our study is

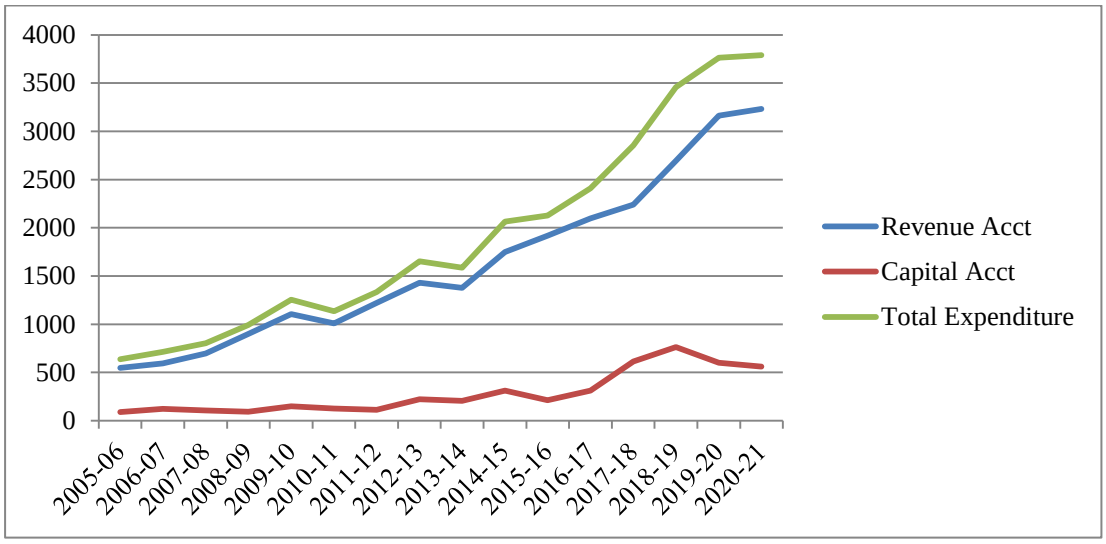
approximately 12.11 per cent. This growth of total expenditure on social sector under capital account may be explained by the extra efforts made by the government through comprehensive economic planning. The increasing demand of services from people for education, health facilities, water supply, sanitation, housing and urban development etc., with increase in the standard of living have greatly resulted to the increasing trend in capital account expenditure on social services . Also, it might have been due to the changing political and economic setup of the state where people start exploring new venture like education system, health status, and sports etc which were quite dismal in the economy of Mizoram before 2000.

Column 5 of Table 5.2 presents the percentage of expenditure on social services on capital account to the total revenue expenditure of the state for the period under considerations. The ratio of expenditure on social, economic and general services to total expenditure, revenue and capital expenditure of the state is an important indicator to find the pattern or trend and effectiveness of public spending allocation. The percentage of capital account expenditure on social services to the total revenue expenditure, which was 19.93 per cent in 2005-06, increased slowly with some fluctuations and stood at 49.72 per cent in 2009-10. The figures in Table 5.2 above, although shows erratic movement in the shares of expenditures on social services, the spending structure was effective and the allocation of funds were made efficient towards human development. However, it is to be noted that, during this period economic services like agricultural and allied activities, industries, animal husbandry, handicraft and creation of assets etc., has been given importance. This is evident from the figure that capital expenditure on economic services has been receiving comparatively larger share amongst the three components of general, social and economic services. Fluctuations in the percentage share of expenditure on social services might have been due to the changing political and economic setup of the state. People of Mizoram start exploring new economic ventures like business, trade, manufacturing, transport etc, which were under economic sector.

Column 6 of Table 5.2 indicates the capital account expenditure on social services as a percentage of total public expenditure. The column shows a distressing feature in that the percentage which was 4.41 per cent in the year 2005-06 remained

more or less stagnant over the year with the per cent of 5.81 per cent in 2020-21. The fact of the stagnant percentage between the capital expenditure on social services to the total public expenditure during the period of our study indicates that the state has not put in extra efforts with the passage of time in raising the human development in a much more efficient way during the sixteen-year period of our study and also has not made any sincere effort to tap more human resource. The figure which was 4.41 per cent in 2005-06 gradually decline to2.62 per cent in 2011-12. It rises again to a level of 4.22 per cent in 2012-13. The trend again came down to 3.37 per cent in 2015-16 and rise again to 8.13 per cent in 2018-19 which is again came down to 5.81 per cent in 2020-21.We may explained these fall in figures is due to the fall in the contribution by the shared taxes and a slight fall in the state own tax revenue. Further these happened because of Covid 19 pandemic across the country and the subsequence implementation of total lockdown in the country. This fluctuation may be explained by the fact that capital account expenditure on others services has been increase as government made an extra effort through comprehensive economic planning. Capital account expenditure on social services has increased approximately by 31.75 per cent from 4.41 per cent in 2005-06 to 5.81 per cent in 2020-21. From this angle, the state's expenditure on social services has been increasing at a slow rate during the period under consideration.

Figure 5.1 Trend in Expenditure on social sector in Mizoram



Source : Author Calculation, Data source Table 5.1 and 5.2

Table 5.3 gives an overview of the social sector expenditure, social sector expenditure as a percentage of gross state domestic product, as a percentage of aggregate expenditure, and as a percentage of development expenditure from 2005-06 to 2020-21.

Table 5.3 Aggregate Expenditure on Social services

(Rupees in crores)

Year	Expenditure on social services	NSDP	Total Expenditure	Development Expenditure	Percentage of Column 2 to 3	Percentage of Column 2 to 4	Percentage of Column 2 to 5
1	2	3	4	5	6	7	
2005-06	637.54	2664.00	2039.39	1484.28	23.93	31.26	42.95
2006-07	714.93	2944.00	2183.73	1542.38	24.28	32.74	46.35
2007-08	802.71	3248.00	2452.87	1793.48	24.71	32.73	44.76
2008-09	991.12	3858.00	2892.06	2068.53	25.69	34.27	47.91
2009-10	1255.9	4271.00	3275.51	2301.76	29.41	38.34	54.56
2010-11	1363.33	5095.00	4009.46	2975.28	26.76	34.01	45.82
2011-12	1545.03	5765.00	4360.15	3123.05	26.8	35.44	49.47
2012-13	1874.64	6501.00	5267.3	3793.99	28.84	35.59	49.41
2013-14	2031.4	7758.00	5208.62	3772.04	26.18	39	53.85
2014-15	2474.93	10304.00	6579.94	4756.09	24.02	37.61	52.04
2015-16	2431.91	11405.00	6281.83	4330.6	21.32	38.71	56.16
2016-17	2614.14	12710.00	7141.75	4995.51	20.57	36.6	52.33
2017-18	3220.24	15522.00	8877.12	6517.63	20.75	36.28	49.41
2018-19	3696.65	16470.00	9374.06	6579.53	22.44	39.43	56.18
2019-20	3994.1	18801.00	10826.63	7569.99	21.24	36.89	52.76
2020-21	3737.76	21062.00	9640.77	6367.19	17.75	38.77	58.7

Source : Author's calculation. Data Source: *Accounts at a Glance, Government of Mizoram, 2006-07;2009-10;2013-14;2019-20;2020-21. Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23, & Economic Survey, Government of Mizoram, 2006-07 to 2020-21.*

The trend shows that social expenditures which were 637.54 crores in 2005-06, rose to 3737.76 in 2020-21 thus recording an average annual rate of increase of

10.14 per cent. This increase of social services expenditures of the state government during the period under consideration was caused by the higher additional expenditures under social and community services which have increased significantly over the period of our study with a view to achieving provision of minimum basic needs like health care, education, drinking water, urban development, social welfare and nutrition.

The share of social sector expenditure has continuously increased from 23.93 per cent in 2005-06 and reaches the highest level at 29.41 per cent in 2009-10, but after 2014-15, it starts to decline and touches its lowest at 17.75 per cent in 2020-21. It is found that out of the total sixteen years of our study, only one year witness expenditure on social services less than 20 per cent of the net state domestic product, while nine years show that social services expenditure constitutes more than 20 per cent of the net state domestic product, while six years show that social services expenditure constitutes more than 25 per cent of the net state domestic product. Martin and Lewis propounded that the government of countries making a special development effort will find themselves spending between 19 and 22 per cent of Gross National Product. Since in the state of Mizoram we find that the share of social services expenditure to the net state domestic product is more than 20 per cent except one year, we can infer that the state of Mizoram has been making effort to develop the economy.

We have calculated expenditure on social services as percentage of total public expenditure so as to be able to find out the trend of social services taking place in the state during the period of our study. It is clearly seen from the above table that expenditure on social services as a percentage of total public expenditure has been increased by approximately 24.02 per cent during the period of our study. It may also be noted that only for five years (2005-06, 2006-07, 2007-08, 2008-09 and 2010-11) out of the total period of our study that social services expenditure constitutes a little less than 35 per cent of the total public expenditure. The rest of the period, that is, for eleven years out of the sixteen years of our study, social services expenditure constitutes more than 35 per cent of the total public expenditure. This also reveals the fact that the government of Mizoram is spending a

substantial amount on the social sectors of the state such as education and public health measures like water supply and sanitation so as to improve the literacy rate of the population and also to improve the productivity of the people of the state. However, in spite of the fact that the state has been spending heavily on medical, public health facilities, sanitation and water supply schemes, special area programmes, expenditure on social services shows some fluctuating trend during the period under considerations. This proves that the state has not been able to pursue public expenditure policies in consonance with the achievement of long term goals and objectives.

It may be noted that from 2005-06 onwards there was a consecutive increase, with some fluctuations, in the level of expenditure on social services to development expenditure. It is clearly seen from the above table that expenditure on social services as a percentage of developmental expenditure has been increased by approximately 36.67 per cent during the period of our study. It may also be noted that only for five years (2005-06, 2006-07, 2007-08, 2008-09, 2010-11, 2011-12, 2012-13, and 2017-18) out of the total period of our study that social services expenditure constitutes a little less than 50 per cent of the total public expenditure. The rest of the period, that is, for another eight years out of the sixteen years of our study, social services expenditure constitutes more than 50 per cent of the total public expenditure.

5.2.2 Pattern of State Government Expenditure on Social Services

Investment in people is now well recognised as the prime motive behind various development and poverty alleviation initiatives. At the international level, several initiatives began in the 1990s aimed at sustainable economic and social development, which have finally culminated in the shape of the United Nations Millennium Declaration of September 2000, setting out several developmental goals influencing the well-being of the people. Education and health sector goals have been recognised as crucial components of the Millennium Development goals. This is attributed to the fact that investment in health and education facilities development of the human capital that every country needs to achieve its economic

growth and development aspirations (Romer, 1986). Human capital refers to the "Knowledge, skills, competences, and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being" (OECD, 2001). Education is critical for human development since it facilitates access to knowledge, skills, and competences. (Schultz, 1961). considers education a cornerstone of economic growth to the extent that it enhances productivity, innovation, and output.

Health is an important aspect of human capital that facilitates participation in market and non-market production at individual level. (Grossman, 2000). The productivity of a healthy workforce is expected to be high since workers in good health have greater physical and mental energy. Further, good health leads to longer life expectancy that may encourage investment in education. Consequently, labour force participation and per capita income may increase. Longer life expectancy due to good health may promote saving for retirement, thereby facilitating increased physical capital accumulation. We can safely say that a state is said to be a welfare state when it spends more on the social amenities of the people.

In this section, an attempt is made to assess the extent and direction of expenditure on the social sector in Mizoram from 2005-06 to 2020-21. It may be noted from Column 2 of Table 5.4 that total public expenditure grew from Rs. 2039.39 crores in 2005-06 to Rs 9640.77 crores in 2020-21 recording that public expenditure has been increased in absolute terms more than three hundred and seventy three per cent, and an average annual rate of increase of 10.71 per cent per annum during the study period.

Table 5.4 Pattern of Expenditure on Social Services (Rs in Crore)

Year	Total Expendi-ture	Expendi-ture on social services	Education	Health	Other Social services
1	2	3	4	5	6
2005-06	2039.39	637.54	291.46	143.54	202.54
2006-07	2183.73	714.93	331.87	89	294.06
2007-08	2452.87	802.71	338.03	100.28	364.4

2008-09	2892.06	991.12	405.66	175.03	410.43
2009-10	3275.51	1255.9	526.85	251.83	477.22
2010-11	4009.46	1363.33	618.62	174.11	570.6
2011-12	4360.15	1545.03	703.74	186.81	654.48
2012-13	5267.3	1874.64	840.17	221.27	813.2
2013-14	5208.62	2031.4	967.69	263.91	799.8
2014-15	6579.94	2474.93	1163.72	345.86	965.35
2015-16	6281.83	2431.91	1157.23	378.42	896.26
2016-17	7141.75	2614.14	1182.44	399	1032.7
2017-18	8877.12	3220.24	1312.14	553.91	1354.19
2018-19	9374.06	3696.65	1468.97	581.95	1645.73
2019-20	10826.63	3994.1	1646.2	586.2	1764.7
2020-21	9640.77	3737.76	1548.11	574.53	1615.12

Source: Computed from Accountsat a Glance, Government of Mizoram, 2006-07-2020-21
Annual Financial Statement (Budget), Governmentof Mizoram, 2007-08 to 2022-23,

Expenditure on social services also increased considerably from Rs 637.54 crores in 2005-06 to Rs 3737.76 crores in 2020-21, recording an annual average rate of growth of 11.69 per cent during the period under consideration. Similarly, expenditure on education, health and other social services increased by about 5 times, about 4 times and about 8 times respectively in the same period.

The factor responsible for expanding social sector activities in the state economy of Mizoram can be explained though the increasing pressure on the demand for social services due to increasing population growth and its corresponding impact on the density of population and urbanization along with the increasing level of money income. The increased in population has increased the demand for educational, health and other basic minimum needs services. At the same time, public sector in the state is compelled to make greater investments in infra-structural and other developmental activities in order to reduce the intense pressure on the subsistence sector. Besides, due to increasing urbanization process in the state, the responsibility of providing more public utility services by the government has also increased.

Table 5.5 shows the pattern of public expenditure on social services and its components as percentage of total expenditure and net state domestic product. The share of social services expenditure in total expenditure of the state government increased from 31.26 per cent in 2005-06 to 38.77 per cent in 2020-21 recording about one fold increase. The share of education increased with some fluctuation from 14.29 per cent in 2005-06 to 16.06 per cent in 2020-21. The highest percentage share of education to total public expenditure is in 2013-14 which is 18.58 per cent. The shares of health expenditure have been increased more or less from 7.04 per cent in 2005-06 to 7.69 per cent in 2009-10. Afterward it decreased to only 4.20 per cent in 2012-13 and slowly increased again to 6.21 per cent in 2018-19 and again decreased to 5.96 percent in 2020-21. On the other hand, the share of other social services has shown an increasing trend with some fluctuation. The share which was 9.93 per cent in 2005-06 is increased to 16.75 per cent which shows an increasing percent of 68.68 per cent.

Table 5.5 Pattern of Expenditure as a percentage of Total Expenditure and as a percentage of NSDP

Year	As a share of Total Expenditure				As a share to NSDP				
	Social Services	Education	Health	Other Social services	Total	Social Services	Education	Health	Other Social services
1	2	3	4	5	6	7	8	9	10
2005-06	31.26	14.29	7.04	9.93	76.55	23.93	10.94	5.39	7.6
2006-07	32.74	15.2	4.08	13.46	74.18	24.54	11.27	3.02	9.99
2007-08	32.73	13.78	4.09	14.86	75.52	24.71	10.41	3.09	11.22
2008-09	34.27	14.03	6.05	14.19	74.96	25.69	10.51	4.45	10.64
2009-10	38.34	16.08	7.69	14.57	76.69	29.41	12.34	5.9	11.17
2010-11	34	15.43	7.34	14.23	78.69	26.76	12.14	3.42	11.2
2011-12	35.44	16.14	4.28	15.01	75.63	26.8	12.21	3.24	11.35
2012-13	35.59	15.95	4.2	15.44	81.02	28.84	12.92	3.4	12.51
2013-14	39	18.58	5.07	15.36	67.14	26.18	12.47	3.4	10.31
2014-15	37.61	17.69	5.26	14.67	63.86	24.02	11.29	3.36	9.37
2015-16	38.71	18.42	6.02	14.27	55.08	21.32	10.15	3.32	7.86

2016-17	36.6	16.56	5.59	14.46	56.19	20.57	9.3	3.14	8.13
2017-18	36.28	14.78	6.24	15.25	57.19	20.75	8.45	3.57	8.72
2018-19	39.43	15.67	6.21	17.56	56.92	22.44	8.92	3.53	9.99
2019-20	36.89	15.21	5.41	16.3	57.59	21.24	8.76	3.12	9.39
2020-21	38.77	16.06	5.96	16.75	45.77	17.75	7.35	2.73	7.67

Source: Computed from Accounts at a Glance, Government of Mizoram, 2006-07; 2009-10;2013-14;2019-20;2020-21 Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23, &Economic Survey, Government of Mizoram, 2006-07to 2020-21.

In case of education, as a share of net state domestic product, the share has been increasing from the initial study period with some fluctuations, but the share decreased from 2014-15 and reached at 7.35 per cent in 2020-21. Health has remained a low priority area for most of the state in India including Mizoram. Health expenditure as a share of net state domestic product (NSDP) was relatively low in Mizoram. The share in initial study period was 5.39 per cent and the share continue to decreased except for 2009-10 during the period under consideration. Other social services expenditure as a percentage of net state domestic product shows an increasing trend from the initial study period until 2012-13. Afterward, the shares have been decreasing and reached 7.67 per cent in 2020-21.

In short, the proportion of net state domestic product spent on social services including education, health and other social services have been decreasing during the period of our study.

Table 5.6 presents the trend of the Compound Annual Growth Rate (CAGR) of net state domestic product, public expenditure, public expenditure on social services, expenditure on education and expenditure on health.

Table 5.6 Compound Annual Growth Rate of Social Sector expenditure (in percent)

Period	NSDP	PE	SSE	Education	Health
2005-06 to 2009-10	9.9	9.94	14.52	12.57	11.9
2010-11 to 2014-15	15.13	10.41	12.67	13.47	14.71
2016-17 to 2020-21	13.05	8.94	8.98	5.99	8.71
2005-06 to 2020-21	13.79	10.2	11.69	11	9.06

Source : Authors Calculation. Data Source Accounts at a Glance, Government of Mizoram, 2006-07 to 2020-21 Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23.

The pattern of social sector expenditure has been different from the public expenditure and declining from 14.52 per cent during 2005-06 to 2009-10 to 12.67 per cent during 2010-11 to 2014-15. During 2010-11 to 2014-15, all the indicators except expenditure on social sector have shown improvement in their growth rate and perform at its best. During 2016-17 to 2020-21, all indicators except NSDP, registered its lowest growth rate. From the above data, it can be perceived that Mizoram government does not focus enough attention towards the social sector from 2010onwards and the state is still lagging behind many states in terms of social sector expenditure.

In order to ascertain the direction in which public expenditure policies changes in the State Government, an attempt is made to study the composition of social sector expenditure for the last 16 years.

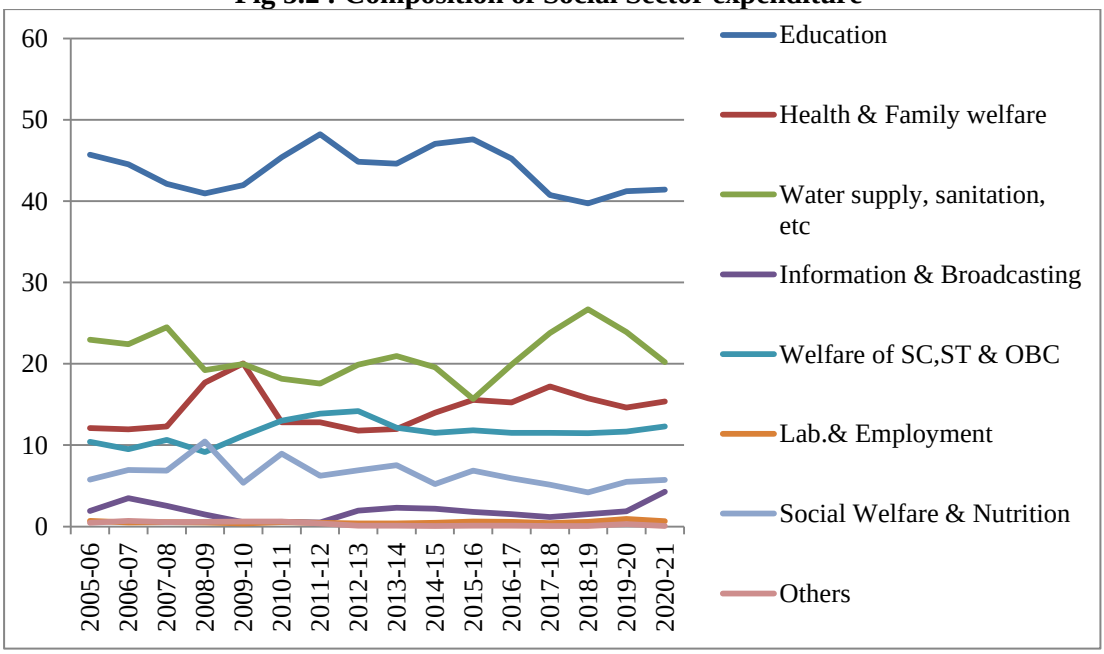
In general, it is believed that for realizing the objectives of the state which tend to determine the magnitude and pattern of public expenditure, public expenditure itself is an important instrument. In federal form of government like India, the magnitude and pattern of public expenditure of the constituent states is determined jointly by the policy of the central government as well as the state governments. The magnitude and pattern of social sector expenditure are determined by the existing requirements of the community and the political ideology of the party in powers. Thus, in the light of the broad decision of legislature, a group of officials who carry out the administration determined a series of value judgment for its operation. Hence, the objectives of public expenditure differ time to time. However, a general pattern of the objectives of public expenditure has been formulated in the state. These general objectives take the form of provision of a minimum of certain services for the social, economic and physical security of the people, promotion of full utilization of human and other resources and the stabilization of the economy. An attempt to implement these objectives in the state of Mizoram has led to the growth in public expenditure. Public wants have been expanding, social welfare emphasis has been rising, population has been rising, price is rising and the direction of public expenditure towards economic development

have all contributed to the stupendous growth of public expenditure in the state of Mizoram.

5.3. COMPOSITION OF SOCIAL SERVICES EXPENDITURE

Table 5.7 show expenditure on various heads as a proportion of aggregate social services expenditure. The share of education (which includes sports, arts and culture) registered a decreasing trend till 2009-10; after that its starts rising and reaches it highest at 48.21 in 2011-12. The share of health and family welfare increases from 11.94 per cent in 2005-06 to 15.37 per cent in 2020-21 with some fluctuations. And the share of water supply, sanitation, housing and urban development recorded a declining trend till 2016-17, it starts rising only from 2017-18 and reaches 26.71 per cent in 2018-19. The share of Information and broadcasting, labour and employment, social welfare and nutrition and others social services expenditure registered more or less constants during the period under considerations. Meanwhile, the share of welfare of SC, ST and OBC registered an increasing trend from 9.5 per cent in 20025-06 to 12.3 per cent in 2020-21.

Fig 5.2 : Composition of Social Sector expenditure



Source : Computed from Table 5.6

Table 5.7 Composition of social Services Expenditure

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Education,Sports, Arts & Culture	45.72	45.51	42.11	40.93	41.96	45.38	48.21	44.82	44.61	47.03	47.59	45.24	40.75	39.74	41.22	41.42
Health & Family welfare	12.09	11.94	12.3	17.7	20.05	12.8	12.79	11.8	12	13.97	15.57	15.26	17.2	15.74	14.6	15.37
Water Supply, Sanitation, Housing & Urban Dev.	22.95	22.4	24.48	19.24	19.95	18.15	17.55	19.9	20.94	19.58	15.68	19.9	23.78	26.71	23.91	20.21
Information & Broadcasting	1.89	3.5	2.52	1.47	0.54	0.57	0.51	1.93	2.3	2.18	1.79	1.52	1.16	1.51	1.88	4.25
Welfare of SC,ST & OBC	10.42	9.5	10.65	9.13	11.15	12.99	13.86	14.17	12.15	11.49	11.82	11.51	11.52	11.47	11.67	12.3
Labour & Emploment	0.69	0.5	0.54	0.51	0.39	0.53	0.45	0.39	0.38	0.45	0.62	0.57	0.4	0.59	0.93	0.66
Social welfare & Nutrition	5.78	6.95	6.85	10.43	5.36	8.97	6.24	6.89	7.54	5.23	6.85	8.92	5.13	4.19	5.49	5.72
Others	0.46	0.7	0.55	0.59	0.6	0.62	0.39	0.1	0.08	0.07	0.08	0.08	0.06	0.05	0.3	0.07
Social Servives (1-8)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source：*Accounts at a Glance, Government of Mizoram, 2006-07 to 2020-21*
Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23

The social sector involves major responsibility in respect of expenditure liability on state governments although in view of significance and importance attached to this sector, the central government remains involved either directly or indirectly by way of both financial and directional or policy support being extended to state government enabling them to extend such services efficiently and effectively to the general public. Expenditure on education is considered as investment on human capital; it increases the earnings of individuals directly and positively affecting their productivity by absorbing new information through education, acquiring new skills, and familiarizing with new technologies. Which in turn increases economic efficiency and social consistency and therefore economic growth and development of the economy. Thus, we may safely state that there exists a strong and positive relationship between investment on human capital and economic growth. It can be inferred from Figure 5.1 that the education sector has absorbed the largest chunk from the social sector expenditure as it is known that education is key to all success and achievements; hence the government is intentionally investing more on the educational front.

The share of health sector is conspicuous by being a neglected sector as compared to education. Health is an important prerequisite for human well being, and sound foundation for prosperity and development of a country. Good health is both the means and end of development. The share of health and family welfare is just half of the share of education expenditure, even though the trend registered an increasing trend, the percentage rate of increase is very small.

5.4 TRENDS OF EXPENDITURE IN BASIC SOCIAL SECTOR/CRITICAL EXPENDITURE RATIOS

In order to have a clearer picture of the growth and trend of social services expenditure in Mizoram, we have analyzed the trend of social services expenditure in terms of net state domestic product and total public expenditure. We also felt the necessity to analyze and tried to find out the four government expenditure ratios, following the United Nation Development Programme methodology. To analyze how public expenditure on social services can be designed and monitored, UNDP suggested four government expenditure ratios, viz., the Public Expenditure Ratio

(PER), the Social Allocation Ratio (SAR), the Social Priority Ratio (SPR), and the Human Expenditure Ratio (HER). These are the indicators of the extent of political commitment of the government.

The public Expenditure Ratio (PER) is the percentage of state income (i.e., NSDP) that goes into public expenditure. UNDP suggested that if a government is to allow for sufficient spending on priority areas, a public expenditure ratio of 20-25 per cent is desirable.

The Social Allocation Ratio (SAR) conveys to what extent the public expenditure is channelized for the development of social sector. It is the percentage of public expenditure earmarked for social services. UNDP suggested that it should be more than 40 per cent of total public expenditure.

The Social Priority Ratio (SPR) is the percentage of social expenditure devoted to priority areas. It is a sub set of SAR and it reflects the funds allocated towards the cause of the most important social services. However, what is considered to be priority will naturally change from one country to another and one state to another state. What is considered priority is also change over time as human development proceeds. In our case, we have taken education, public health, water supply, sanitation, food and nutrition as a priority area. This ratio has to be more than 50 percent as per UNDP report 1991.

The human Expenditure Ratio (HER) is the percentage of the state income devoted to human priority concerns. By definition, HER is the product of the first three ratios. An increase in the SAR, SPR and HER may be viewed as wise allocation of public expenditure which will have positive effect on the welfare of the economy.

The UNDP report 1991 suggested that certain expenditure norms for HER. Five per cent of HER is essential if a country was to do well on the social welfare of the state. This may be achieved in an efficient manner by keeping the PER at a moderate rate, allocating more of public expenditure on social sector and focusing on social priority areas.

The level of social sectors directly affects the rate of economic growth as well as the level of human development of a region. As the development of the social sector starts, quality of life will improve, leading to quality human capital that leads to higher quality labour force and other factors productivity. An analysis on critical expenditure ratio is a powerful operational mechanism that allows policy-makers who want to restructure their budgets to see existing imbalances and the available options. We may safely state that if the government public expenditure is already high but low in social allocation ratio, the budget will need to be reassessed to find out which components of expenditure could be reduced in order to increase social services expenditure. Social sector expenditure ratio should increasingly become one of the principal guides to public expenditure spending policy in the economy. Resources are often tight especially in an underdeveloped economy and in such a situation, more attention must be paid to allocation priorities and efficiency in expenditure.

Table 5.8 Trends of Public Expenditure on Basic Social Sector
(Rs in Crores)

Year	NSDP	Total expenditure	Social Service Expenditure	Expenditure on Social Priority Sectors
2005-06	2664	2039.39	637.54	472.98
2006-07	2944	2183.73	714.93	527.34
2007-08	3248	2452.87	802.71	569.47
2008-09	3858	2892.06	991.12	711.09
2009-10	4271	3275.51	1255.9	904.04
2010-11	5095	4009.46	1363.33	922.07
2011-12	5765	4360.15	1545.03	996.41
2012-13	6501	5267.3	1874.64	1212.56
2013-14	7758	5208.62	2031.4	1454.62
2014-15	10304	6579.94	2474.93	1651.57
2015-16	11405	6281.83	2431.91	1670.38

2016-17	12710	7141.75	2614.14	1774.07
2017-18	15522	8877.12	3220.24	2089.53
2018-19	16470	9374.06	3696.65	2346.89
2019-20	18801	10826.63	3994.1	2537.74
2020-21	21062	9640.77	3737.76	2502.23

Source : *Accounts at a Glance, Government of Mizoram, 2006-07 to 2020-21*
Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23

In this section, we attempt to find out the four government expenditure ratios, viz., the public expenditure ratio, the social allocation ratio, the social priority ratio and the human expenditure ratio as an indicator of the extent of political commitment of the government of Mizoram to the social sector. Firstly, it is important to have a clear picture of the trend of net state domestic product and total public expenditure on social sector along with expenditure on social priority sector from 2005-06.

The expenditure on social priority sectors includes expenditure on education, health, water and sanitation, and nutrition. These four heads absorb most of the expenditure of the social sector. Now by using the above data we have tried to find out the Public Expenditure Ratio (PER), the Social Allocation Ratio (SAR), the Social Priority Ratio (SPR) and the Human Expenditure Ratio (HER) of Mizoram state. Table 5.9 gives us this analysis.

Table 5.9 Critical Social Sector Expenditure Ratio

Year	Public Expenditure Ratio (PER)	Social Allocation Ratio (SAR)	Social Priority Ratio (SPR)	Human Expenditure Ratio (HER)
1	2	3	4	5
2005-06	76.55	31.26	74.19	17.75
2006-07	74.18	32.74	73.76	17.91
2007-08	75.52	32.73	70.94	17.53
2008-09	74.96	34.27	71.75	18.43
2009-10	76.69	38.34	71.98	21.17

2010-11	78.69	34.01	67.63	18.09
2011-12	75.63	35.44	64.49	17.28
2012-13	81.02	35.59	64.68	18.65
2013-14	67.14	39	71.61	18.75
2014-15	63.86	37.61	66.73	16.03
2015-16	55.08	38.71	68.69	14.65
2016-17	56.19	36.6	67.86	13.96
2017-18	57.19	36.28	64.89	13.46
2018-19	56.91	39.43	63.49	14.25
2019-20	57.58	36.89	63.54	13.5
2020-21	45.77	38.77	66.94	11.88

Source: Author Calculations. Data employed from Table 5.7

In Table 5.9, public expenditure ratio is higher than the norm suggested by the UNDP during the study period, recording the highest percentage of 81.02 per cent in the year 2012-13. It varies from a minimum of 45.77 per cent in 2020-21 to a maximum of 81.02 per cent in 2012-13, thus reflecting upon high per capita income and high tax-SDP ration in the state. Further, this signifies that the government of Mizoram have been increasing economic activities during the period under considerations.

The share of social allocation ratio out of total public expenditure has registered a rising trend from the beginning and touched its highest at 39.43 in 2018-19. Thus, we find that social allocation ratio has not fulfilled the standard public expenditure norms of the UNDP in the social services, which is the outcome of fiscal constraints. This fiscal constraint is well explained by the mounting proportion of expenditure being spent on salary, pension, and interest payment in the state. However, the social allocation ration was close to the norm as the social allocation ratio gain momentum from 2013-14.This shows that the government of Mizoram has been trying to increase its expenditure on social services.

Social priority expenditure includes the expenditure on education, health, water and sanitation, and nutrition. As the main part of social sector, these four heads absorb most of the expenditure of the social sector. The social priority ratio

shows a good picture recording more than sixty per cent for all the years of our study which is more than the fifty per cent norm suggested by the UNDP. This shows that the Government's commitment in the recent years to raise the level of human development in the form of education, health etc in the state.

The human priority expenditure as a proportion of net state domestic production in Mizoram has remains well above the UNDP norm of five per cent with the highest percentage of 18.75 in 2013-14. Though social allocation ratio was low throughout the period under consideration but social priority ratio was very high thus leading to high growth of human expenditure ratio in Mizoram. High percentage of human expenditure ratio signifies that the government of Mizoram has been trying to ensure greater human development as well as social sector development in the state.

5.5 CONCLUDING REMARKS

The level of social sector expenditure directly affects the level of human development of a region or a country. However, the social sector can play an important role in affecting the rate of economic growth as well. As the development of the social sector starts, quality of life will improve, leading to quality human capital that leads to higher quality labour and other factor productivity. Therefore, the achievement in the economic core is closely related to and dependent on the social sector.

From the above comprehensive data analysis of social sector expenditure, it can be perceived that Mizoram government focuses some attention towards the social sector from the initial period of our study but still lagging behind the many states in terms of the social sector expenditure. It is found that the share of capital expenditure in total social sector expenditure is improving throughout the period under consideration, although its percentage is minimal as compared to the share of revenue expenditure of the state of Mizoram.

The share of social expenditure to total public expenditure of Mizoram was increasing thereby the long-term growth rate is positive. It can be found from the analysis that the education sector has absorbed the large noteworthy share from the social sector expenditure as it is known that education is key to all success and development; and hence the state government is intentionally investing more on the educational sector. In the meantime, health sector is conspicuous by being the neglected sector as compared to education which has a serious repercussion on health condition of the poor in the state of Mizoram. The share of health is less than half of the education expenditure, and with some fluctuations it continues to decline most of the year. Although, health is one of the determinants of the human development index and is equally important for human resource development, it has experienced a drastic decline in its share too in recent years. Out of four important critical expenditure ratios suggested by UNDP, only one critical expenditure ratio does not fulfill the expenditure norms in Mizoram and the other three is over-investment, which shows a detrimental effect on the overall development of the social sector in Mizoram state.

CHAPTER - VI

PUBLIC EXPENDITURE
ON
EDUCATION AND HEALTH

6.1 INTRODUCTION

This chapter examines the trend analysis of public expenditure on education and health for the period 2005-06 to 2020-21 and tries to perceive the determinants of public expenditure on education and health. Education and health has been considered the most important component for human wellbeing and therefore prominent among social sector indicators. The United Nations Millennium Declaration of September 2000 has recognised education and health sector as crucial segments of the Millennium Development goals. Therefore, education and health services attract significant public expenditure with strong elements of subsidy. The role of public policy is supported on the premise that expansion education, health care and social security directly improve the quality of life, therefore, increased productivity of the workforce which further leads to higher growth and reduce poverty. Further, disparities prevailing equality of opportunity to the masses in education levels and health indicators between rich and poor and between urban and rural populations in several state of India including Mizoram necessitate the need for public sector financing of education and health to take care of such disparities. The importance being attached to these two sectors by the International community is associated with the changing perceptions about the desirability of human capital formation not only as a means, but also as an end in itself.

According to human capital theory, people should invest on themselves in the form of education, training, health, and other activities, which would raise their further income by increasing their lifetime earnings. The economists use the term investment to refer to expenditure on assets, which produces income in future, and they contrast investment expenditure with consumption, which produces immediate satisfaction or benefits, but does not create future income. Assets, which will generate income in the future, are called capital. Thus expenditure on human capital is considered as an investment. The World development Report 2003 also notes that one of the initiatives to promote sustainable development in a dynamic world is to empower underprivileged sections of population by increasing their access to education and health. In developing countries like India, investment in human capital is difficult for larger long gestation; it is also not directly in the monetary

term. Therefore, intervention by government through its budgetary policies is essential.

Over and above the social and welfare concerns, the justification for state intervention in provision of education and health services is based on public goods characters of these services. Education and good health is both the means and end of development. A healthy population is a prerequisite for economic growth; in turn this growth in income can be channeled to improve the human lives through the provision of a decent education, good health care facilities, increased job opportunities, improved job security, good governance and all other requirements for human well being. According to World Development Report 1993, "Improved health contributes to economic growth in four ways: It reduces production losses caused by worker illness, it permits the use of natural resources that had been totally or nearly inaccessible because of disease, it increases the enrolment of children in schools and makes them better able to learn and it frees for alternative uses of resources that would otherwise have to be spent on treating illness. The economic gains are relatively greater for poor people, who are typically most handicapped by ill health and who stand to gain the most from the development of underutilized natural resources" (World Development Report 1993)

6.2 EDUCATION POLICIES IN INDIA

The global agenda for the development of education and health has been reflected in the sustainable Development goals 2030 agenda in India. The sustainable development Goal 3 (SDG3) of the 2030 seeks to ensure healthy lives and promote well-being for all, at all ages and the Goal 4 seeks to ensure inclusive and equitable quality education, and to accelerate lifelong learning opportunities for all by the year 2030. The government, under Kothari Commission, has made recommendation that 6 per cent of the GDP was essential. Consequently, to promote education in the rural as well as in the urban areas, it was resolved by the National Policy on education 1968 in order to raise the investment on education to reach a level of 6 per cent of the GDP. The policy recognized radical restructuring and took various steps related to free and compulsory education for children up to the age of

14, better qualification of the teachers, three language formula i.e., Hindi, English and regional Language, increase in education expenditure to 6 per cent of the national income, equalizing educational opportunity etc. In 1976, as per the 42nd amendment of the constitution, education was under the state list, except for the specified items in the union list, including the determination of the standards in the institutions for the higher education and maintenance of the central universities. A new national policy on Education 1986 was introduced in order to emphasize the removal of disparities and equalizing of educational opportunities. The policy aims to promote the adult education, the development of new institutions, increasing the number of scholarships, expansion of Open University, for encouraging social and economic development in rural areas.

In addition, the National Policy on Education 1992 has focused on all India level common entrance examination for the admission in the professional and technical programmes. The right of children to free and compulsory education (RTE Act 2009) aims to provide free and compulsory education for every child as a fundamental right under the 86th constitutional amendment of India in 2002. The national policy on education 2019 has emphasized centered education system for India that contributes to transform our nation into an equitable and vibrant knowledge society by providing high quality education. The policy aims to strengthen the early childhood care and education, ensuring universal access and retention, equitable and exclusive education system that would benefit every child and to bring the regulation of school education, empower governance and autonomy in the higher education.

6.3 HEALTH POLICIES IN INDIA

According to the World Health Organization, Health Policy refers to decision, plans, and actions that are undertaken to achieve the specific health care goals within a society. India's health structure has an evolutionary history and it can be divided into three phases: (1) First Phase (1947-1983) (2) Second Phase (1983-2000); (3) Third phase (Post 2000). The National Health Policy was not formulated until 1983 but over the last few decades, a significant development has been made

regarding the health infrastructure, and many policies and programmes have been initiated to improve the health status. The government announced the National Health Policy of 1983 and the National Health Policy 2002 to strengthen the Health sector. In addition, the National Health Policy 2017 also introduced a comprehensive integrated mechanism to accelerate the universal health coverage, to combat communicable and non-communicable diseases, and for providing quality health care services to everyone at affordable cost, and subsequent announce of Ayushman Bharat with two components (1) Health and Wellness centres to access primary health care (2) Pradhan Mantri Jan Arogya Yojana to cover poor and vulnerable families for secondary and tertiary hospitalization. The National Health Policy 1983, focused on achieving the target of "Health for All" by the year 2000 by emphasizing to reduce the Infant Mortality Rate, Maternal Mortality Rate, Crude Death Rate, Crude Birth Rate, increasing life expectancy at birth, to attain a target of net reproduction rate at 1 and providing water to rural population. The National Health Policy 2002, emphasized on providing equitable access to health care services and on the utilization of public health facilities across the nation, to raise health expenditure by the government, emphasis on implementing the public health programmes by self-government institutions, to reduce mortality rate related to infant and maternity, to eliminate diseases like TB, Malaria, HIV/AIDS, Blindness, Lymphatic Filariasis etc.

6.4 PUBLIC EXPENDITURE ON EDUCATION

Education is the most important components of social sector. Education is public good and it is included in the concurrent list of Indian constitution, both central and state government has the responsibility to maintain quantity, quality, access and equity in education. The social sector involves major responsibility in respect of expenditure liability on state governments although in view of significance and importance attached to this sector, the central government remains involved either directly or indirectly by way of both financial and directional or policy support being extended to state government enabling them to extend such services efficiently and effectively to the general public. Expenditure on education is considered as investment on human capital; it increases the earnings of individuals

directly and positively affecting their productivity by absorbing new information through education, acquiring new skills, and familiarising with new technologies. Which in turn, increases economic efficiency and social consistency and therefore economic growth and development of the economy? Thus, we may safely state that there exists a strong and positive relationship between investment on human capital and economic growth.

Planning for economic development involves both the allocation of a country's available resources for the production of goods and services and the development of educational system so as to produce the right types and requisite number of skilled labour. Some studies shows that countries spend large money on education grow at faster rate and countries spends less on education grow at a slower rate. Availability of resources is the important determinants for quantitative expansion of education and qualitative improvement in education sector. Education system in Mizoram has severely starved of funds. It requires large flow of funds for its quantitative expansion, qualitatively improvement and for universal access.

The Indian government acknowledged the role of education in the development process just after independence. The government had given to the planning commission the responsibility of making plans for expenditure on elementary and secondary education with the objectives of improving the then deep low of literacy rates in the country. First education reform in the country took place in 1968 on the recommendations of the Kothari commission. Three education reforms policies along with two constitutional amendments have come into effect in India till today. All the education reform policies have recommended raising the expenditure on education up to the level of 6 per cent of GDP. However, the government have not been implemented recommended expenditure on education till today. In 2010-2011, the government spent 3.36 per cent of GDP on education and in 2019-20 government spent around 3 per cent of GDP, which are much below the recommendations. However, public expenditure on education has relatively increased over the period since independence. In India, government spending on education has increased by about 230 times (at current prices) from Rs 344.4 crores in 1960-61 to Rs 78,236.5 crores in 2001. And the share of education in gross

national product, which was 2.1 per cent in 1960-61, increased to 4.2 per cent in 2000-21. Per capita expenditure on education increased considerably from Rs 7.8 to Rs 761.8. Per pupil expenditure also increased significantly from Rs 53 to Rs 3,957.1 during the same period. As a result of government efforts, educational infrastructure as well as educational status of the country has expanded considerably after independence.

In the meantime, equitable resource allocation becomes difficult in a India due to its geographical area and huge diversity in its institutional structure. Consequently disparities are found in most economic institutions, including education. Imbalances in educational infrastructure can be found across the states. Thus, the importance of education has been well recognised by the policy makers as well as academicians. Table 6.1 depicts a brief description of important education policy reforms relating to the expenditure on education.

Table 6.1 Education Reforms Policy

Education Committee	Year	Recommendations
Kothari Commission	1964-66	The Kothari commission had recommended allocation of 6% of GDP on education by the government
National education Policy	1968	Recommendations made by Kothari Commission to increase the investment on education up to the level of 6% of GDP as early as possible were accepted by the government
National Education Policy	1986	NEP 1986 also endorsed recommendations of the Kothari Commission to increase the level of education expenditure so as to reach to 6% of GDP
73rd and 74th constitutional amendment	1992	The amendments mandated the State Governments to enact laws to devolve power to elected bodies in village and urban levels
86th constitutional amendment	2002	Through this amendment Right to education was added to Article 21-A of the constitution as a fundamental right, making provision for free and compulsory education to all children in the age of 6-14 years

Source : MHRD Website and various committee documents

Centre, State and Union Territories government are the main sources of financing education sectors; with state government has lion share. Recently, share of the state government has decline but still contributes more than one third of total expenditure on education.

6.4.1 Trend Analysis of Public Expenditure on Education

Mizoram Government has shown significant efforts to promote education. These facts can be found through its budgetary investment year to year to provide education to the people. The total budgetary allocation for education significantly increased from Rs 291.46 crore in 2005-06 to Rs 1548.11 crore in 2020-21. Therefore, it has been observed that the cost of education has increased in the long run whereas the expenditure on education has declined marginally when compared to the actual increase in net state domestic product.

Table 6.2 Growth Rate of Public expenditure on Education

(Rs in crore)

Year	Education Expenditure	Marginal Increase/ Decrease	CAGR %	Education Exp as % of NSDP
2005-06	291.46	….	….	10.94
2006-07	331.87	40.41	13.86	11.27
2007-08	338.03	6.16	1.86	10.41
2008-09	405.66	67.63	20.01	10.51
2009-10	526.85	121.19	29.87	12.34
2010-11	618.62	91.77	17.42	12.14
2011-12	703.74	85.62	13.76	12.21
2012-13	840.17	136.43	19.39	12.92
2013-14	967.69	127.52	15.18	12.47
2014-15	1163.72	196.03	20.26	11.29
2015-16	1157.23	-6.49	-0.56	10.15
2016-17	1182.44	25.21	2.18	9.3
2017-18	1312.14	129.7	10.97	8.45
2018-19	1468.97	156.83	11.95	8.92

2019-20	1646.2	177.23	12.06	8.76
2020-21	1548.11	-98.09	-5.96	7.35

Source: Annual Financial Statement (Budget), Government of Mizoram, 2007-08 to 2022-23,

The marginal amount has increased from 40.41 in 2005-06 to 177.23 in 2019-20 with some fluctuation and then decreased by 98.09 in 2020-21. Annual growth of public expenditure on education was highest in 2009-10. It has also been observed that public expenditure on education has increased by about 11 per cent at an annual compound growth rate whereas net state domestic product has grown by around 13 per cent. The percentage expenditure to net state domestic product showed an asymmetrical rise and fall. The average public spending on education accounted for 11 per cent of NSDP. Mizoram government policy initiatives have given due focus to education as is evident from the fact that the rate of growth of real expenditure on education almost matched the rate of growth in NSDP during the period 2005-06 to 2020-21. However, the ratio of education expenditure to NSDP resultantly moved down from 2012-13 to 2020-21.

6.4.2 Trend Analysis of Revenue and Capital Expenditure on Education

Generally, the fluctuating trend usually observed because of improper fund allocation in different sector in Mizoram. The education funds allocated in different heads are either revenue expenditure or a capital expenditure. Revenue expenditure neither creates an asset nor reduces the liabilities of the government, e.g salaries of teacher, subsidiaries, pension, education services, health services etc. Capital expenditure, on the other hand, is a onetime investment and either creates an asset like school building, road etc. or reduces the liability of the government.

Table 6.3 presents the actual trend of budgetary allocation on education under revenue and capital expenditures. Based on Table 5.1 and 5.2 the table also shows the revenue expenditure on education as a per cent of total revenue expenditure and capital expenditure on education as a per cent of total capital expenditure. It can be observed that there has been a continuous increase in

government expenditure for education throughout in these years both in revenue expenditures and capital expenditures for the period under considerations.

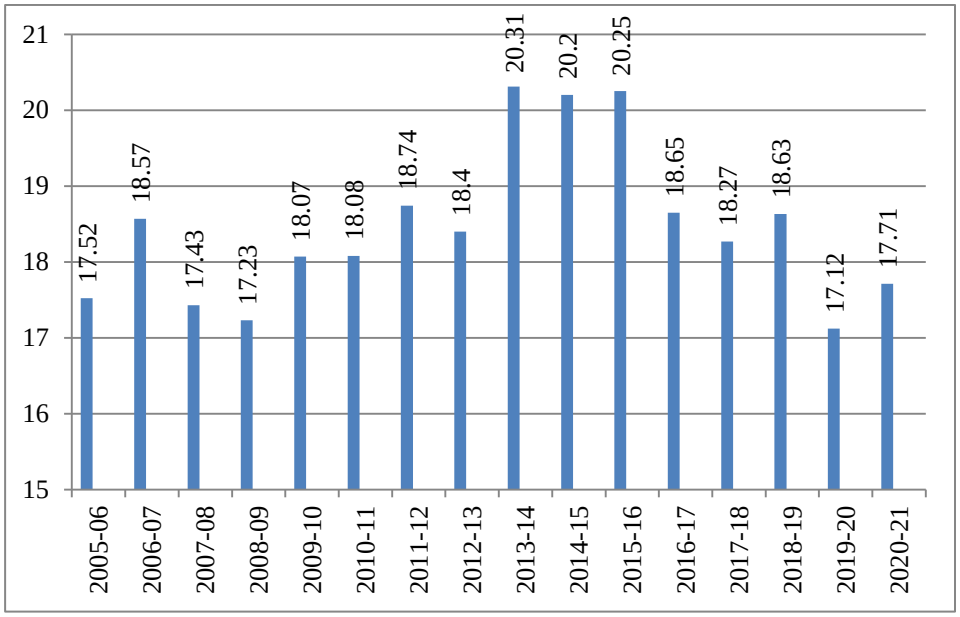
Trend analysis of Revenue expenditure of Mizoram shows that the growth rate of revenue expenditure has more or less been on a stable trend ranging between 17 per cent and 20 per cent. Revenue expenditure on education has grown from Rs 278.25 crore in 2005-06 to Rs 1508.21 crore in 2020-21 which is a 5.42 fold increase. The highest growth rate of revenue expenditure on education is recorded at 20.31 per cent in 2013-14 and the lowest at 17.12 per cent in 2019-20.

Table 6.3 Revenue and Capital Expenditure on Education

Year	Revenue Expenditure on Education	Col.2 as a % of Total Rev. Exp	Capital Expenditure on Education	Col.4 as a % of Total Cap. Exp
1	2	3	4	5
2005-06	278.25	17.52	13.21	2.93
2006-07	318.97	18.57	12.9	2.77
2007-08	332.59	17.43	5.44	1
2008-09	398.76	17.23	6.9	1.19
2009-10	488.5	18.07	38.35	6.69
2010-11	588.68	18.08	29.94	3.97
2011-12	697.92	18.74	5.82	0.91
2012-13	831.45	18.4	8.72	1.17
2013-14	936.08	20.31	31.61	5.28
2014-15	1142.02	20.2	21.7	2.34
2015-16	1127.92	20.25	29.31	4.12
2016-17	1161.85	18.65	20.59	2.26
2017-18	1256.87	18.27	55.27	2.77
2018-19	1398.29	18.63	70.68	3.78
2019-20	1618.9	17.12	27.3	1.99
2020-21	1508.21	17.71	39.9	3.54

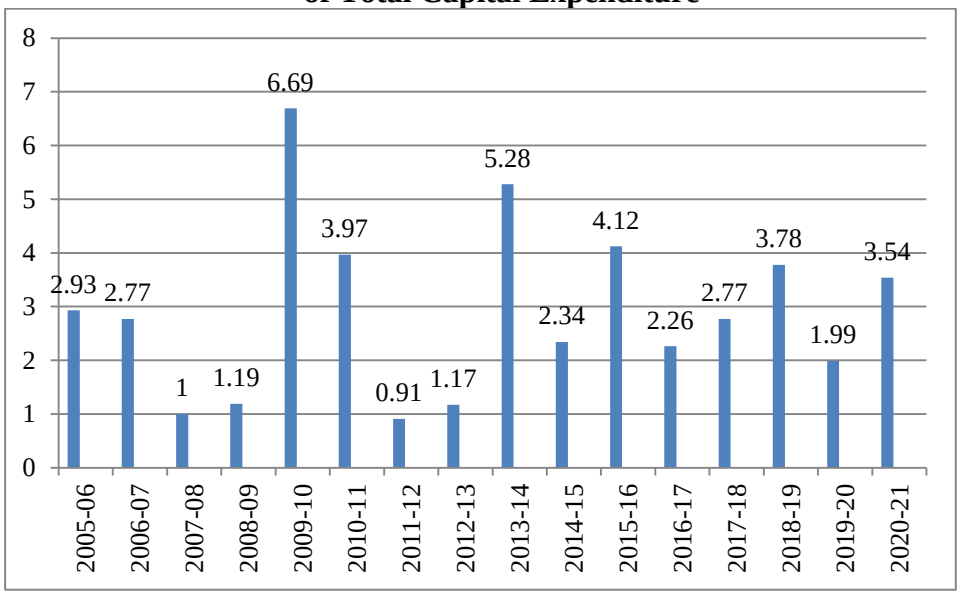
Source: Annual Financial Statement (Budget), Government of Mizoram 2007-08 to 2022-23.

Figure 6.1 Revenue Expenditure on Education as a percentage of Total Revenue Expenditure



Source : Author Calculation

Figure 6.2 Capital Expenditure on Education as a percentage of Total Capital Expenditure



Source : Author Calculator

As again the stable trend of revenue expenditure, the growth rate of capital expenditure on education is found to be fluctuating trend. However, the growth rate of capital expenditure on education has been on a positive path but with a fluctuating trend through the study period. Capital expenditures increased by about 2.06 fold

from Rs 13.21 crore in 2005-06 to Rs 27.3 crore in 2020-21 during the period of study. The capital expenditure on education is highest at 6.69 per cent in 2009-10 while it was minimum at 0.91 per cent in 2011-12.

It can be observed from the table 6.3 that there is an increasing trend of expenditures on education in term of revenue expenditure and the compound annual rate of growth is 11.14 per cent. Similarly, there is an increasing trend of expenditure on education in terms of capital expenditure and the compound annual rate of growth in this respect is 7.15 per cent. Thus it is safe to conclude that there has been an increase in public expenditure for education in Mizoram during the study period and the compound annual rate of growth is 11.00 per cent. It may be noted that revenue expenditures and capital expenditures are usually meant for maintenance of existing establishment and for developmental activities, respectively. The increasing trends of both revenue and capital expenditures may be taken to denote that there is continuous increase in developmental expenditures as well as for the existing state of facilities in Mizoram.

6.4.3 **Composition of Education Expenditure to the Total Public expenditure on Social Services**

The more or less constant share of education expenditure on the social expenditure shows that the government has been paying greater attention in education sector of social services. The share of education on social expenditure is largest with compare to other sector of the social services. We can safely state that government of Mizoram has prioritized attention on education sector. In absolute terms, public expenditure on education has increased by around 5 times, but taken as a proportion of social sector services, education expenditure is around 40 to 45 per cent.

Table 6.4 shows that the composition of education expenditure to total public expenditure on social services.

Table 6.4 Percentage of Education Expenditure to the Total Public Expenditure on Social Services

Rs in Crore

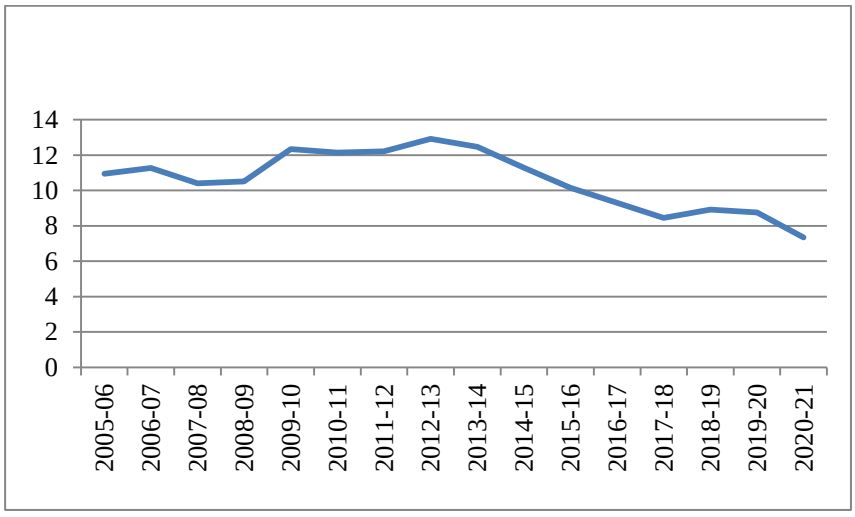
Year	Expenditure on Social Services	Expenditure on Education	Education Exp as % of SSE
1	2	3	4
2005-06	637.54	291.46	45.72
2006-07	714.93	331.87	46.42
2007-08	802.71	338.03	42.11
2008-09	991.12	405.66	40.93
2009-10	1255.9	526.85	41.95
2010-11	1363.33	618.62	45.38
2011-12	1545.03	703.74	45.55
2012-13	1874.64	840.17	44.82
2013-14	2031.4	967.69	47.64
2014-15	2474.93	1163.72	47.02
2015-16	2431.91	1157.23	47.59
2016-17	2614.14	1182.44	45.23
2017-18	3220.24	1312.14	40.75
2018-19	3696.65	1468.97	39.74
2019-20	3994.1	1646.2	41.22
2020-21	3737.76	1548.11	41.42

Source: Annual Financial Statement, Government of Mizoram, 2007-08 to 2022-23,

Total education expenditure as a percentage of total social services was 45.72 per cent in 2005-06. This figure had been decreasing gradually to 40.93 per cent in 2008-09 and after that it shows an increasing trend till it reached 47.59 per cent in 2015-16 and starts declining again till it stood at 41.42 per cent in 2020-21. The declining trend in percentage term in the staring period and the last four years of our study is due to high rate of growth of health expenditure and the decline in share of shared taxes. Even though there is a declining trend with some fluctuation in the

share of education expenditure to the total social services expenditure, the percentage share of education sector expenditure has remained in between 39 to 47 per cent throughout the period under consideration. This clearly indicated that the state government of Mizoram has shown significant efforts to promote education to the people. Importance given to education by the government can also be observed from its share in the total budget. Taking into account of the existing number of government departments which are allotted separate budgets, education occupies an important position across the period under consideration and the percentage share of education on total budget hovers around 15 per cent. The expenditure on education as a percentage of NSDP is more or less the same during the period of our study. It was increased gradually with some fluctuation from 10.94 per cent in 2005-06 to 12.47 per cent in 2013-14, but start declining from the same to 7.35 per cent in 2020-21.

Figure 6.3 Expenditure on Education as a percentage of NSDP



Source: Calculated by Authors

In India, public expenditure on education accounted for around 3 per cent of GDP. At this level, India remained close to the middle income and many European Countries. Even though, the education sector in India has experienced a number of policy initiatives taken by the central Government since 1990, the state government remains to be the major spenders. The central government expenditure on the social

sector is one-fifth of total social sector expenditure and the state government account for a majority share of more than 80 per cent of the social spending. Although, major responsibility in respect of expenditure liability attached on state Governments, in view of significance and importance attached to this sector, the central government remains involved either directly or indirectly by way of both financial and directional/policy support being extended to the state governments enabling them to extend such services efficiently and effectively to the general public. In Mizoram, government policy initiatives have given due focused to education as is evident from the fact that the average expenditure on education accounted for 11 per cent of NSDP. However, although, there is no doubt that there has been an improvement in education performance indicators in general and higher and technical education in particular during the study period, Mizoram remains behind other states in India with regard to educational attainment indicators. Further, Mizoram present condition is not considered good enough against the backdrop of sharp differences across the states and persistence of large rural-urban disparities. We may safely interpret this type of situation as a failure of state initiatives to bring about desired improvements in education performance indicators. Further, we may also say that the strategy adopted for educational expansion has had limited spillover effects.

6.5 GROWTH OF EDUCATION INFRASTRUCTURE IN MIZORAM

The government of Mizoram has shown significant efforts to improve educational infrastructure as well as its status. Excellent educational status may mean access to an optimal mix of high quality education facilities for the community. According to human capital theory, people should invest on themselves in form of education, training, health, and other activities, which would raise their further income by increasing their lifetime earnings. The economists use the term investment to refer to expenditure on assets, which produces income in future, and they contrast investment expenditure with consumption, which produces immediate satisfaction or benefits, but does not create future income. Asset is called capital as it will generate income in the future. Thus expenditure in human capital is considered as investment. Investment in human capital is a difficult task for larger sections of

the people in an underdeveloped economy like Mizoram due to poor financial position. The returns not only have long gestation periods, but also not directly in the monetary term. Therefore, government intervention through its budgetary policies is essential.

As a result of government efforts, educational infrastructure as well as educational status has been expanded considerably in Mizoram. However, due to huge diversity in its institution, equitable resource allocation becomes difficult and consequently disparities are found in most economic institutions, including education. An attempt is made here to analyze development of education infrastructure and status, trend and growth of the social sector expenditure on education in Mizoram during the period under consideration. We believe that a given trend in the development of education infrastructure and growth of public expenditure on education in the state of Mizoram will provide some further insights in understanding the determinants of public expenditures in social sector. Growth of educational facilities in Mizoram is depicted in Table 6.5

Table 6.5 Growth of Educational Institutions in Mizoram

Year	Primary Education		Middle School		High School		Higher Secondary School	
	No. of School	No. of Students	No. of School	No. of Students	No. of School	No. of Students	No. of School	No. of Students
1	2	3	4	5	6	7	8	9
2005-06	1700	130342	1081	58533	500	44322	80	11762
2006-07	1752	134656	1090	57399	508	43675	82	12816
2007-08	1783	151899	1253	64887	502	44576	86	14649
2008-09	1752	156396	1313	66776	521	48811	95	17049
2009-10	1821	166152	1353	69318	538	50252	98	18437
2010-11	1855	161514	1383	87726	543	48741	113	20250
2011-12	1831	161581	1381	89755	584	38870	118	21472
2012-13	1873	165051	1408	94354	612	41945	127	22087
2013-14	1946	157646	1514	94077	610	40711	132	22562

2014-15	1946	159334	1511	93277	614	41534	138	22986
2015-16	1968	149612	1542	88655	640	36529	163	22540
2016-17	1969	145189	1580	88711	669	37407	175	21863
2017-18	1956	150675	1552	90567	689	41198	186	24378
2018-19	1898	148469	1552	90567	689	41198	186	24378
2019-20	1940	148568	1535	92191	706	41599	196	24850
2020-21	1956	110353	1556	93215	712	40037	198	24966

Source: *Economic Survey, Government of Mizoram, 2006-07 to 2020-21*.

Sufficient number of schools is needed for the development of educational status. The state government have been doing extraordinary efforts to improve the number of schools. The number of primary school has been increased from 1700 in 2005-06 to 1956 in 2020-21; middle school increased from 1081 in 2005-06 to 1556 in 2020-21; high school increased from 500 in 2005-06 to 712 in 2020-21 and higher secondary school increased from 80 in 2005-06 to 198 in 2020-21. It is interesting to note that the number of primary, middle, high school and higher secondary schools increased by 256, 475, 212 and 118 respectively during the period of our study. It registered significant growth in the number of education infrastructure which further shows the government concern for education in the region.

To improve the educational level, increase not only in the number of schools is not enough but also in the number of teachers is necessary. Table 6.6 gives the growth in number of teachers in primary, middle, high school and higher secondary school. In 2005-06 the number of teacher-pupil ratio in primary, middle, High school and higher secondary school were 1:25, 1:11, 1:11 and 1:12 respectively. These ratios decreased in subsequent years due to increase in student enrolment and reduction in new appointment of teachers in respect of primary and middle school. Meanwhile the teacher pupil ratio increased marginally in the case of high school and higher secondary school.

Table 6.6 Growth of Teacher and Teacher-Pupil Ratio

Year	Primary	Teacher-Pupil Ratio	Middle	Teacher-Pupil Ratio	High School	Teacher-Pupil Ratio	Higher Secondary	Teacher-Pupil Ratio
1	2	3	4	5	6	7	8	9
2005-06	5210	01:25	7893	01:11	3694	01:11	854	01:12
2006-07	8099	01:16	7271	01:08	3768	01:12	929	01:13
2007-08	8002	01:17	6846	01:08	3935	01:11	941	01:13
2008-09	8716	01:17	7754	01:08	3886	01:11	1058	01:13
2009-10	8477	01:18	7564	01:09	3853	01:13	1224	01:14
2010-11	8310	01:20	7824	01:09	3870	01:13	1224	01:15
2011-12	8488	01:19	9638	01:09	4212	01:12	1367	01:15
2012-13	8703	01:19	9883	01:09	4414	01:09	1468	01:15
2013-14	8717	01:19	10161	01:09	4617	01:09	1518	01:15
2014-15	8428	01:19	10319	01:09	4500	01:09	1520	01:15
2015-16	8330	01:19	10159	01:09	4394	01:09	1536	01:15
2016-17	8510	01:18	10206	01:09	4513	01:08	1661	01:14
2017-18	8459	01:17	9218	01:09	4274	01:08	1714	01:13
2018-19	8182	01:18	9084	01:10	4357	01:09	1782	01:14
2019-20	7897	01:19	9090	01:10	4284	01:10	1876	01:13
2020-21	8397	01:13	9085	01:10	4306	01:09	1900	01:13
CAGR	3.03%		0.88%		0.96%		5.12%	

Source: *Economic Survey, Government of Mizoram, 2006-07 to 2020-21.*

Right to Education (RTE) Act mandates Pupil-Teacher Ratio at primary level at 30:1 and at the upper primary level, it is 35:1. For that indicator, we provide data for Mizoram from 2005-06 to 2020-21. Mizoram has the second best pupil-teacher ratio in the country according to the unified district information system for education (UDISE) 2021-22 released by the Union education Ministry. The high

pupil-teacher ratio can be attributed to low enrolment among the states; the enrolment in Mizoram is 2.68 lakh, which is the third lowest in the country. Secondly, Mizoram has 4422 school which implies that on an average there are 5 teachers and 61 students in each school.

6.6 HEALTH AND PUBLIC EXPENDITURE

Health is an important prerequisite for people of the country and sound foundation for prosperity and development of a country. Good health is both the means and end of development. There is a positive relationship between health and productivity for both unskilled and skilled workers. Health can enhance workers' productivity by increasing their physical capacities, such as strength and endurance, as well as their mental capacities like cognitive functioning and reasoning ability.

The ability of the health system of a country to meet the emerging challenges and cater effectively and adequately to the health needs of the population depends crucially on the financing mechanisms of public health services. Like other sectors, financing of health sector has to be met out of scarce resources of the country. Hence, it was important to review and analyzed the financing pattern of government for facilitating better understanding and prioritizes optimal allocation. The issue of financing health sector has assumed greater significance in the developing world mainly due to the changing role of the state in providing health expenditure and health being a state subject in India, the analysis of health expenditure by states assumes greater significance and provides essential information for health policy planning at the state level. The idea of relative impact of different factors affecting trends in government expenditure on health would help promote fiscal responsibility by giving policy makers some guidance on appropriate cost containment measures, and consequently result in efficient and innovative methods of financing the system (Sen, 2005).

Health is a concurrent subject under the Indian Constitution, but state governments are dominantly responsible for most health provision. For the

improvement of health status of the people, the state requires allocating a larger share of the public expenditure for the health sector and spending them in such a way to ensure easy and affordable access of health services to the people. Even though the size and quality of public expenditure on health sector play a crucial role in the social equity and poverty reduction, the primary goal of public spending on health sector should be to produce healthy manpower for not only economic development of the state but also for overall sectors of the state. Moreover, in the economic development of the state, it is essential to study critically the public expenditure on health and to provide evidence for redesigning health policy and improving budget performances of the state. The objective of this section is to examine the trends, composition and rate of growth with regard to state government expenditure on Health in Mizoram during the period 2005-06 to 2020-21. Expenditure on healthcare by the state government can be broadly categorized into revenue and capital heads of account. Revenue expenditure mostly comprises recurrent expenditure on salaries, supply of equipment and drugs, public health programs, medical education and training, and general operating expenses. Capital expenditure involves non-recurrent expenditure on physical assets and infrastructure, and on-time capital investment in disease control and public health programs.

6.6.1 Trend and Pattern of Health Expenditure

State governments are dominantly responsible for most health provision. The expenditure pattern of state is classified under three major heads: the developmental and non-developmental expenditure (functional classification), plan and non-plan expenditure (budgetary classification), and revenue and capital expenditure (economic classification). Expenditure on health by the state government can be broadly classified into revenue and capital heads of account. Revenue expenditure mostly comprises recurrent expenditure on salaries, supply of equipment and drugs, public health programs, medical education and training along with general operating expenditures. Capital expenditure involves non-recurrent expenditure on physical assets and infrastructure, and one time capital investment in disease control and public health programs. Table 6.7 shows the trend and pattern of health expenditure

of Mizoram under the economic classification for the period from 2005-06 to 2020-21.

Table 6.7 Trends in Health Expenditure

Year	Revenue Health Expenditure	Capital Health Expenditure	Total Health Expenditure
1	2	3	4
2005-06	74.47 (96.70)	2.54 (3.30)	77.01 (100)
2006-07	88.35 (99.26)	0.66 (0.74)	89.01 (100)
2007-08	98.49 (99.82)	0.18 (0.18)	98.67 (100)
2008-09	170.93 (97.65)	4.11 (2.35)	175.04 (100)
2009-10	251.83 (100)	0	251.83 (100)
2010-11	174.06 (99.97)	0.05 (0.03)	174.11 (100)
2011-12	186.66 (99.92)	0.15 (0.08)	186.81 (100)
2012-13	220.26 (99.55)	1 (0.45)	221.26 (100)
2013-14	261.39 (94.27)	15.89 (5.73)	277.28 (100)
2014-15	328.06 (94.85)	17.8 (5.15)	345.86 (100)
2015-16	367.23 (97.04)	11.19 (2.96)	378.42 (100)
2016-17	370.61 (92.88)	28.39 (7.12)	399 (100)
2017-18	468.88 (84.65)	85.02 (15.35)	553.9 (100)
2018-19	490.67 (84.31)	91.28 (15.69)	581.95 (100)
2019-20	551.91 (94.63)	31.29 (5.37)	583.2 (100)
2020-21	549.78 (95.69)	24.75 (4.31)	574.53 (100)

Source: Annual Financial Statement, Government of Mizoram, 2007-08 to 2022-23,

In absolute terms, the total health expenditure in Mizoram shows an increasing trend. It increased from Rs 77.01 crore in 2005-06 to Rs 574.53 crore in 2020-21. Compared to 2005-06, total health expenditure has increased by Rs 497.52 crore in 2020-21. This indicates the relative increase of revenue expenditure and capital expenditure on health. It can be observed that the government of Mizoram is

placing more emphasis on additional capital investment in health in terms of building and procurement of high investment machines and instruments from 2012-13. This can be observed from the fact that the share of revenue expenditure on health has been decreasing while the share of capital expenditure has been increasing tremendously from 2012-13.

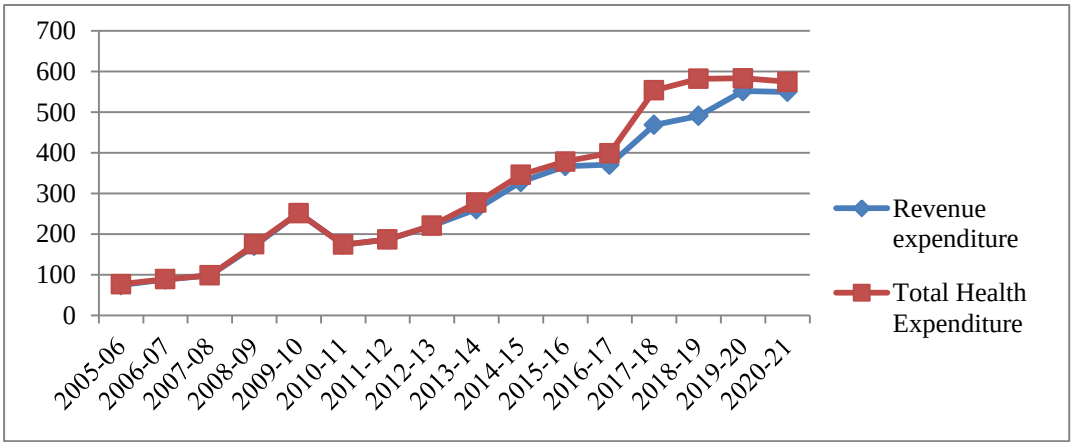
Table 6.8 shows the trend and pattern of revenue expenditure of Mizoram under economic classification for the period under considerations.

Table 6.8 Revenue expenditure on Public Health

Year	Revenue Expenditure	Annual Growth Rate	As % of social Services Expenditure	As % of Total Revenue Expenditure
1	2	3	4	5
2005-06	74.47	….	13.6	3.65
2006-07	88.35	18.64	14.9	4.05
2007-08	98.49	11.48	14.14	5.16
2008-09	170.93	73.55	19.18	7.39
2009-10	251.83	47.33	22.78	9.32
2010-11	174.06	-30.88	17.22	5.35
2011-12	186.66	7.24	15.3	5.01
2012-13	220.26	18	15.4	4.87
2013-14	261.39	18.67	18.95	5.67
2014-15	328.06	25.51	18.75	5.8
2015-16	367.23	11.94	19.16	6.59
2016-17	370.61	0.92	17.67	5.95
2017-18	468.88	26.52	20.94	6.81
2018-19	490.67	4.65	18.21	6.54
2019-20	551.91	12.48	17.46	5.84
2020-21	549.78	-0.39	17.02	6.46

Source: Annual Financial Statement, Government of Mizoram, 2007-08 to 2022-23.

Figure 6.4 Trends in Revenue Expenditure on Health



Calculated by Authors

Revenue expenditure on public health increased by Rs 475.31 crore over the period of study. Revenue expenditure as a percentage of social expenditure increased from 13.6 per cent in 2005-06 to 22.78 per cent in 2009-10 and again declined to 15.4 per cent in 2012-13 and shot up to 17.02 per cent in 2020-21. Revenue expenditure on health as a percentage of social services stagnated at around 17 per cent over the period of time. However, such expenditure as a percentage of total revenue expenditure increased from 3.65 per cent in 2005-06 to 9.32 per cent in 2009-10 and it declined to 6.46 per cent in 2020-21. The decreased in the ratio of health expenditure as a per cent of total revenue expenditure from 2009-10 might have been due to governments' tight fiscal situations and increasing payments for non-developmental needs. Though revenue expenditure showed an increasing trend in absolute terms, it remained more or less stagnant as a percentage of both expenditure on social services and government total revenue expenditure. A number of reasons could be possible for such divergent trends in revenue expenditure of Mizoram. Due to fiscal prudence in recent year, there has been some effort in health, financing policy to reduce excess expenditure on health including the salaries of people working in health sector and other non-essential recurring expenses.

Table 6.9 shows trends in capital expenditure on medical and public health of Mizoram. The table also shows the growth of capital expenditure on health as a

percentage of expenditure on social services and government total capital expenditure.

Capital expenditure on health was irregular both in absolute terms and in terms of percentage change over the period of study. It showed some fluctuations as a percentage of expenditure on social services, and as a percentage of total capital expenditure it stagnated at around 1.5 over the study period.

Table 6.9 Capital expenditure on Health

Year	Capital Health Expenditure	Annual Growth of capital expenditure	As % of Social services expenditure	As % of Total Capital expenditure
1	2	3	4	5
2005-06	2.54	-	2.82	0.56
2006-07	0.66	-74.02	0.54	0.14
2007-08	0.18	-72.73	0.17	0.03
2008-09	4.11	2183.33	4.42	0.71
2009-10	0	-	0	0
2010-11	0.05	-	0.04	0.008
2011-12	0.15	200.00	0.13	0.02
2012-13	1	566.67	0.45	0.13
2013-14	15.89	1489.00	7.65	2.65
2014-15	17.8	12.02	5.67	1.92
2015-16	11.19	-37.13	5.28	1.57
2016-17	28.39	153.71	9.06	3.11
2017-18	85.02	199.47	14.08	4.26
2018-19	91.28	7.36	11.98	4.89
2019-20	31.29	-65.72	5.2	2.28
2020-21	24.75	-20.90	4.42	2.19

Source: Annual Financial Statement, Government of Mizoram, 2007-08 to 2022-23.

Overall, the trends in health expenditure under both revenue and capital heads do not reveal any clear pattern. Moreover, revenue expenditure accounted for a higher percentage in total health expenditure, while capital expenditure was not to the extent of revenue expenditure in Mizoram. As a result of this, the supply of healthcare in rural and remote areas of the state are far from satisfactory, leading to a large scale rural-urban dichotomy.

Table 6.10 and Figure 6.5 show trends in health expenditure in Mizoram. From the Table, it is clear that total health expenditure shows increasing trends in absolute terms. It increased from Rs 77.01 crores in 2005-06 to Rs 574.53 crores in 2020-21 and accounted for about 7.46 fold increase over the period of study.

Table 6.10 Total Health Expenditure

Year	Total Health Expenditure	Annual Growth Rate	As % of Social Services	As % of Total Expenditure	As % of NSDP
1	2	3	4	5	6
2005-06	77.01	-	12.08	3.78	2.89
2006-07	89.01	15.58	12.45	4.08	3.02
2007-08	98.67	10.85	12.29	4.02	3.04
2008-09	175.04	77.40	17.66	6.05	4.54
2009-10	251.83	43.87	20.05	7.69	5.89
2010-11	174.11	-30.86	12.77	4.34	3.42
2011-12	186.81	7.29	12.09	4.28	3.24
2012-13	221.26	18.44	11.8	4.2	3.4
2013-14	277.28	25.32	13.65	5.32	3.57
2014-15	345.86	24.73	13.97	5.26	3.36
2015-16	378.42	9.41	15.56	6.02	3.32
2016-17	399	5.44	15.26	5.59	3.14
2017-18	553.9	38.82	17.2	6.24	3.57
2018-19	581.95	5.06	15.74	6.21	3.53
2019-20	583.2	0.21	14.6	5.39	3.1
2020-21	574.53	-1.49	15.37	5.96	2.73

Source: Annual Financial Statement, Government of Mizoram, 2007-08 to 2022-23,

6.7 CONCLUDING REMARKS

This chapter provides a comprehensive analysis of public expenditure on Education and Health in Mizoram. The government has made significant efforts to

improve education and health sectors, recognizing their crucial role in human well-being and economic development. In education, although the expenditure as a percentage of GDP remains below the recommended 6%, there is substantial increase in budgetary allocations. The growth in educational infrastructure, including the number of schools and teachers, reflects the government's commitment to enhancing educational access and quality. However, disparities in resource allocation and educational attainment indicators persist, indicating the need for more targeted interventions.

In health sector, despite the growth in absolute terms, the expenditure on health as a percentage of total expenditure and NSDP shows fluctuations. The focus on revenue expenditure over capital expenditure suggests a need for more balanced investment to improve healthcare infrastructure and services, especially in rural areas.

This chapter underscores the importance of sustained and equitable investment in education and health to achieve broader social and economic goals, challenges remain in terms of equitable resource allocation and achieving the recommended expenditure level. These calls for continued government intervention and policy support are essential to address existing disparities and enhance the overall quality of life for the population.

CHAPTER VII

DETERMINANTS OF SOCIAL SERVICES EXPENDITURE

7.1 INTRODUCTION

The problem of determining the size or growth of public expenditures on social services has occupied the attention of research scholars and theorists over the decades. In some of the studies, the size of the social sector of the government of the country has been measured in terms of the total government spending of the particular government. This definitely revealed the fact that the growth in total expenditure on social services of the government would represent an index of growth in the size of social sector of the government. This point is contestable in a typical economic and financial debate especially in terms of the representation of economic growth with growth in size of public expenditure; there would be a reasonable measure of consensus that public expenditure is an important variable in explaining economic growth of the country or state.

From the studies reviewed in Chapter II, it is evident that several theories have been advanced to explain the factors which determine the growth of public expenditure. A critical look at these factors will reveal a number of factors that determine the growth and size of public expenditure on social service expenditure. However, all these factors considered in different studies undertaken from time to time cannot be said to influence the growth of public expenditure on social services expenditure positively and significantly.

Rapidly increasing expenditure in recent years has led to concern over the social sectors influence on the economy and fear that public sector spending may even be out of control. The objective of this study is to find out which were the forces that determined the development of social services sector expenditure during the period under consideration. There is no doubt that the role of public expenditure on social services determinants is quite significant. This kind of work is quite necessary not only because the theory of public expenditure on social services has once more occupied worldwide interest, but also on account of the fact that the tremendous growth of Government expenditure in Mizoram has been more striking development in recent years.

Social services sector is a crucial component of a government budget as it is directly related to the quality of life for its citizens through investments in education, healthcare, and social welfare. In the context of Mizoram, understanding the determinants of public expenditure on the social service sector is essential for formulating effective policies that address the unique socio-economic challenges of the state. Despite its relatively small population, Mizoram faces significant issues related to quality education and healthcare, making the allocation of public funds towards social services both vital and complex.

The economic landscape of the state being characterized by a predominance of agriculture and poor industrialization further influences the allocation of public resources. Additionally, socio-political factors, including the role of governance structures and the impact of central government policies, play a significant role in shaping public expenditure patterns. The study aims to explore the various factors that determine public expenditure on the social service sector in Mizoram.

By analysing these determinants, the study seeks to provide a comprehensive understanding of how public funds are allocated to social services in Mizoram. This understanding is critical for policymakers to ensure that resources are distributed efficiently and equitably, ultimately contributing to the overall development and well-being of the state. The findings of this study expected to offer insights into the specific context of Mizoram but also contribute to the broader discourse on public expenditure in developing regions.

7.2 CORRELATION ANALYSIS OF SELECT VARIABLES

In analysing the determinants of public expenditure on the social service sector, it is crucial to consider the relationships between various economic and demographic indicators. Key independent variables such as Gross State Domestic Product (GSDP), projected population, state own taxed revenue, per capita income, shared tax received from the central government, and state own non-tax revenue play significant roles in influencing public spending. However, a significant challenge in this analysis is the high multicollinearity among these independent

variables. Multicollinearity, where independent variables are highly correlated with each other, can distort the results of regression analyses, leading to unreliable and unstable estimates of the coefficients.

To address this issue, it is essential to conduct a correlation analysis to understand the relationships among the independent variables. By examining these correlations, we can identify the strength and direction of the relationships, providing a clearer picture of how each independent variable individually impacts public expenditure on social services. This preliminary analysis is a critical step in ensuring the accuracy and validity of the subsequent regression models and in identifying the most influential factors driving public expenditure in Mizoram's social service sector.

Through this approach, we aim to separate the complex relationship of economic and demographic factors, offering a more precise and reliable analysis of the determinants of social service sector expenditure. This will not only enhance the robustness of the research findings but also provide valuable insights for policymakers to make informed decisions in allocating resources to improve social services in Mizoram. Table 7.1 demonstrates the coefficient of correlations between the expenditure on social services and other selected variables.

Table 7.1: Coefficient of Correlation for Select Variables (2-Tailes)

Correlations

		Expenditure on social services	Liabilities	Shared Tax	State Own Taxed Revenue	State Own Non Tax	NSDP	Per capita Income	Total Expenditure
Expenditure on social services	Pearson Correlation	1	.978**	.923**	.973**	.981**	.989**	.983**	.982**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000
	N	16	16	16	16	16	16	16	16
Liabilities	Pearson Correlation	.978**	1	.885**	.931**	.958**	.983**	.965**	.968**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000
	N	16	16	16	16	16	16	16	16

Shared Tax	Pearson Correlation	.923**	.885**	1	.964**	.942**	.941**	.953**	.928**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000
	N	16	16	16	16	16	16	16	16
State Own Taxed Revenue	Pearson Correlation	.973**	.931**	.964**	1	.976**	.974**	.984**	.977**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000
	N	16	16	16	16	16	16	16	16
State Own Non Tax	Pearson Correlation	.981**	.958**	.942**	.976**	1	.988**	.974**	.959**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000
	N	16	16	16	16	16	16	16	16
NSDP	Pearson Correlation	.989**	.983**	.941**	.974**	.988**	1	.988**	.979**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000
	N	16	16	16	16	16	16	16	16
Per capita Income	Pearson Correlation	.983**	.965**	.953**	.984**	.974**	.988**	1	.992**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000
	N	16	16	16	16	16	16	16	16
Total Expenditure	Pearson Correlation	.982**	.968**	.928**	.977**	.959**	.979**	.992**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	
	N	16	16	16	16	16	16	16	16

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Author's own calculations

The correlation table presents a complex web of relationships between the dependent variable—Expenditure on Social Services—and the various independent variables, as well as between the independent variables themselves. The dependent variable shows very high positive correlations with nearly all of the independent variables. Expenditure on Social Services is particularly strongly correlated with Liabilities (0.978), State Own Non-Tax Revenue (0.981), and NSDP (0.989), indicating that as a state's liabilities, non-tax revenue, and economic output increase, so does its expenditure on social services. Similar high correlations are observed between Expenditure on Social Services and other financial indicators like

State Own Taxed Revenue (0.973), Shared Tax (0.923), and Per Capita Income (0.983). These high coefficients suggest that both internal and external revenue sources, as well as overall economic health, play significant roles in determining how much a state spends on social services.

There is also substantial correlation between the independent variables themselves. Liabilities**,** State Own Taxed Revenue**,** State Own Non-Tax Revenue**,** and NSDP are highly correlated, with coefficients ranging from 0.931 to 0.988. This strong interconnection between variables reflects the fact that a state's economic output, its revenue sources (both own and shared), and its financial obligations are tightly coupled. Similarly, NSDP and Per Capita Income show near-perfect correlation (0.988), reinforcing the idea that economic output and income levels are closely linked in shaping a state's fiscal health.

7.3 THE ISSUE OF MULTICOLLINEARITY

The correlations observed among the independent variables raise significant concerns about multi-collinearity, a situation where independent variables in a regression model are highly correlated with one another. The high correlation coefficients, particularly those between Liabilities**,** State Own Taxed Revenue**,** State Own Non-Tax Revenue**,** and NSDP, suggest that these variables overlap in the information they provide. For instance, Liabilities (which reflects a state's financial obligations) are strongly tied to the other variables such as NSDP**,** State Own Taxed Revenue, and State Own Non-Tax Revenue, all of which are indicative of the state's fiscal and economic performance. This creates a scenario where it becomes difficult to isolate the individual effect of each independent variable on the dependent variable since the variables are not independent of each other. In econometrics, multi-collinearity inflates the standard errors of the regression coefficients, making it difficult to determine the true impact of each variable on the dependent variable. This makes the model less reliable and reduces the ability to interpret the individual effects of each predictor.

7.4 REGRESSION ANALYSIS

The study has explored various strategies to address the multi-collinearity issue, including changing the model specification, applying logarithmic transformations, and standardizing variables through z-scores. However, despite these efforts, the multi-collinearity remains highly problematic, especially when at least three independent variables are included in the model. These attempts to resolve the issue have not been effective in reducing the strong interdependence among the variables, which makes it impossible to isolate the unique effect of each predictor in a multiple regression framework.

Given the multi-collinearity issues present in the correlation table, the study opted to divide the regression analysis into four parts to mitigate the problem. We reject those variables whose covariance is having negative sign and less than 0.5 with the dependent variables. In order to ensure the freedom from multi-collinearity of the co-variances among the independent variables, we reject one of those that has weaker covariance with dependent variable but having more than 0.7 with the other variable concerned. Given that NSDP exhibits the highest correlation with Expenditure on Social Services (0.989), it is clear that the overall economic output of a state is the dominant factor influencing social service expenditure. By focusing solely on NSDP, the study can assess its direct effect on social service spending without the complications introduced by other correlated variables. This approach will provide a clearer understanding of the role of economic performance in shaping fiscal allocations to the social service sector.

The second regression model will focus on external sources of revenue—Liabilities and Shared Tax—which represent the financial resources the state receives from federal transfers and its obligations. By isolating these external factors, the analysis can examine their impact on social service expenditure without the interference of internal revenue variables. The third regression model will focus on internal sources of revenue—State Own Taxed Revenue and State Own Non-Tax Revenue—which reflect the state's own capacity to generate revenue independent of

federal transfers. This separation allows the study to explore how internal fiscal autonomy impacts social service expenditure, without the confounding influence of external resources.

By splitting the analysis in this way, the study avoids the issues of multicollinearity while still examining the separate contributions of both external and internal revenue sources. This approach ensures that the regression models remain statistically sound, interpretable, and capable of providing meaningful insights into the factors influencing state expenditure on social services.

7.4.1 Impact of Net State Domestic Product on Social Service Spending

The relationship between a state's economic performance and its expenditure on social services is a critical area of study, particularly in the context of Mizoram, where socio-economic challenges necessitate effective resource allocation. This analysis focuses on the impact of Net State Domestic Product (NSDP) as a key determinant of public spending in the social services sector. Understanding how NSDP influences social service spending is essential for policymakers aiming to optimize resource allocation, ultimately shaping the policies that enhance the quality of education, healthcare, and welfare for citizens. Table 7.2 presents the model summary, which offers a comprehensive overview of the regression analysis conducted to assess the relationship between Net State Domestic Product (NSDP) and social service expenditure. Meanwhile, Table 7.3 showcases the coefficient table, which details the specific contributions of NSDP to social service spending.

Table-7.2:Regression Model Summary

Model Summary									
				Std. Error	Change Statistics				
Model	R	R Square	Adjusted R Square	of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.989[a]	.978	.977	132.63677	.978	628.931	1	14	.000
a. Predictors: (Constant), NSDP									

Source: Author's own calculations

The model summary reveals a robust relationship between Net State Domestic Product (NSDP) and public expenditure on social services, as indicated by an R-value of 0.989, suggesting an almost perfect correlation. The R-squared value of 0.978 implies that approximately 97.8% of the variance in social service expenditure can be explained by changes in NSDP, highlighting its significance as a predictor. The adjusted R-squared value of 0.977, which accounts for the number of predictors in the model, indicates that the model is well-fitted, as it only slightly decreases when adjusting for sample size. The standard error of the estimate (132.637) suggests a relatively small dispersion of the observed values from the predicted expenditure, and the Durbin-Watson statistic of 1.671 indicates a satisfactory level of autocorrelation, falling within the acceptable range of 1.5 to 2.5, thereby affirming the model's reliability.

Table 7.3: Regression Coefficients Table

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	310.499	61.965		5.011	.000	177.598	443.401
	NSDP	.142	.006	.989	25.079	.000	.129	.154

a. Dependent Variable: Expenditure on social services

Source: Author's own calculations

The coefficients table provides critical insights into the relationship between Net State Domestic Product (NSDP) and expenditure on social services. The unstandardized coefficient for the constant is 310.499, indicating that when NSDP is zero, the baseline expenditure on social services would be approximately 310.50 units. This constant serves as a reference point for understanding the expected expenditure level in the absence of contributions from NSDP. The standard error associated with this coefficient (61.965) reflects the variability of the constant estimate, suggesting a level of uncertainty in this baseline figure.

Focusing on the NSDP variable, the unstandardized coefficient of 0.142 indicates a direct and positive relationship; specifically, for every unit increase in NSDP, expenditure on social services increases by 0.142 units. This coefficient is statistically significant, as evidenced by the t-value of 25.079 and a p-value of 0.000, both indicating a strong confidence that NSDP is a meaningful predictor of social service expenditure. The high standardized coefficient (Beta) of 0.989 further emphasizes NSDP's dominance as a predictor, suggesting that changes in NSDP account for the vast majority of variance in expenditure on social services.

The 95% confidence interval for the NSDP coefficient ranges from 0.129 to 0.154, providing an interval estimate that is statistically significant and indicates that the true value of the coefficient is likely to fall within this range. This confidence interval enhances the robustness of the findings, confirming that the positive relationship between NSDP and social service expenditure is not only statistically significant but also practically relevant. The narrow interval suggests a high degree of precision in estimating the effect of NSDP on social service expenditures. Overall, these results strongly support the conclusion that NSDP is a critical factor influencing public spending in the social services sector, reflecting the importance of economic health in resource allocation decisions.

Wagner's Law posits that as a nation’s economy grows and matures, there is an inherent tendency for public spending, particularly on social services, to increase as well. The strong positive correlation (R = 0.989) between NSDP and social service expenditure aligns with this theory. In Mizoram, as the state's economic output (NSDP) expands, there is a corresponding rise in the government's commitment to funding social services. This relationship underscores the role of economic development in driving higher public expenditure on welfare and social programs, reflecting societal preferences for enhanced public services as prosperity increases.

In conclusion, the regression analysis provides robust empirical support for the influence of NSDP on expenditure on social services in Mizoram. The findings not only confirm the statistical significance of NSDP as a predictor but also align

with Wagner's Law, emphasizing the state's response to economic growth through increased social spending. These insights are crucial for policymakers in understanding the dynamics of public expenditure and planning effectively for sustainable social development in Mizoram.

7.4.2 Impact of Resources from Shared Tax, Liabilities etc.

The impact of resources outside the state, specifically in terms of shared tax revenue and liabilities, plays a significant role in shaping expenditure on social services in Mizoram. Understanding how these external financial sources influence public spending is crucial for policymakers tasked with improving social welfare. In this section, the study examines the relationship between these external resources and social service expenditure, providing valuable insights into how effectively the state leverages available financial support. Given the reliance on external funding, it is essential to analyse how these factors contribute to fiscal allocations, especially in a context where economic challenges persist. By examining the coefficients and overall model fit, we can ascertain the significance of shared tax and liabilities in determining the level of investment in social services, thus informing strategies for better resource management and enhancing the quality of public services. Table 7.4 provide the overall model summary while table 7.5 demonstrates the regression coefficient of outstanding liabilities and shared tax received by the state.

Table 7.4: Regression Model Summary of Shared Tax and Outstanding Liabilities

Model Summary									
				Change Statistics					
R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
.986[a]	.971	.967	157.61248	.971	221.157	2	13	.000	1.637
a. Predictors: (Constant), Shared Tax, Liabilities									
Dependent Variable: Expenditure on social services									

Source: Author's own calculations

Table 7.5: Regression Model Coefficient Table of Shared Tax and Outstanding Liabilities

Coefficients[a]										
		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-377.617	156.595		-2.411	.031	-715.920	-39.314		
	Liabilities	.311	.042	.746	7.395	.000	.220	.402	.216	4.631
	Shared Tax	.183	.070	.262	2.601	.022	.031	.335	.216	4.631
a. Dependent Variable: Expenditure on social services										

Source: Author's own calculations

The model summary indicates a robust fit for the regression model, with an R value of 0.986 and an R-squared value of 0.971, meaning that approximately 97.1% of the variance in social service expenditure is explained by the independent variables, which are liabilities and shared tax. The adjusted R-squared of 0.967 further confirms the model's efficacy in accounting for the number of predictors. The standard error of the estimate, at 157.612, is relatively low, suggesting accurate predictions. The Durbin-Watson statistic of 1.637 indicates that there is no significant autocorrelation in the residuals, supporting the validity of the model.

Examining the coefficients, we find that the unstandardized coefficient for liabilities is 0.311, indicating a significant positive impact on social service expenditure; for every unit increase in liabilities, the expenditure increases by approximately 0.311 units, with a p-value of 0.000 confirming statistical significance. This suggests that higher liabilities correlate with increased investment in social services, highlighting their importance in fiscal policy. The shared tax shows an unstandardized coefficient of 0.183, also indicating a positive effect on expenditure, with a p-value of 0.022, demonstrating its significance as well. The standardized coefficients (Beta) reveal that liabilities have a more substantial impact on expenditure (0.746) compared to shared tax (0.262). Furthermore, the collinearity statistics show a tolerance of 0.216 and a Variance Inflation Factor (VIF) of 4.631

for both predictors, indicating moderate multicollinearity, which suggests that while these variables are related, they still contribute uniquely to explaining social service expenditure. Overall, these findings underscore the critical influence of external resources on public spending in Mizoram, emphasizing the need for effective fiscal management strategies to enhance service delivery.

7.4.3 Impact of Internal Revenue Generation

The examination of internal revenue generation's impact on social service expenditure in Mizoram is critical, especially given the state's heavy reliance on external resources and central government transfers. This analysis focuses on how state-owned taxed and non-tax revenue contribute to public spending on social services. While a robust regression model indicates potential relationships, the statistical insignificance of the results raises concerns about the meaningfulness of these findings. Specifically, this may suggest that the state is not sufficiently leveraging its internal revenue sources to finance essential services, highlighting a significant dependency on external funding. Understanding these dynamics is essential for policymakers aiming to develop sustainable fiscal strategies that reduce reliance on external revenue and enhance internal revenue generation capabilities.

Table 7.6: Regression Model Summary of State Own Non-Tax and Own Taxed Revenue

Model Summary[b]									
				Change Statistics					
R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
.984[a]	.967	.962	168.18707	.967	193.430	2	13	.000	.756
a. Predictors: (Constant), State Own Non-Tax, State Own Taxed Revenue									
b. Dependent Variable: Expenditure on social services									

Source: Author's own calculations

The model summary reveals a strong fit with an R value of 0.984 and an R-squared value of 0.967, indicating that approximately 96.7% of the variance in social service expenditure can be explained by the independent variables, which

include state-owned taxed and non-tax revenue. The adjusted R-squared of 0.962 suggests that the model is robust, although caution is warranted due to the p-values associated with the predictors. The Durbin-Watson statistic of 0.756 indicates potential autocorrelation in the residuals, which may affect the reliability of the results.

Table 7.7: Regression Coefficient Table of State Own Non-Tax and Own Taxed Revenue

Coefficients[a]									
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tole-rance	VIF
(Constant)	248.262	126.518		1.962	.072	-25.064	521.589		
State Own Taxed Revenue	1.185	.828	.329	1.432	.176	-.603	2.973	.047	21.076
State Own Non- Tax	3.842	1.336	.660	2.875	.013	.955	6.728	.047	21.076
a. Dependent Variable: Expenditure on social services									

Source: Author's own calculations

Looking at the coefficients, the unstandardized coefficient for state-owned taxed revenue is 1.185, and while this suggests a positive relationship with social service expenditure, the associated p-value of 0.176 indicates that it is not statistically significant. This lack of significance implies that the state-owned taxed revenue does not play a meaningful role in determining expenditure levels. Conversely, the state-owned non-tax revenue has an unstandardized coefficient of 3.842, which indicates a more substantial impact on social service expenditure. However, the p-value of 0.013 suggests significance; yet, it is important to interpret these results cautiously given the broader context of fiscal dependency on the central government. Both predictors exhibit high variance inflation factors (VIF) of 21.076, which raises concerns about multicollinearity, suggesting that they may be measuring overlapping constructs. Consequently, while internal revenue generation

appears to influence social service expenditure, the significance and reliability of these results must be carefully considered, emphasizing the need for strategic improvements in internal revenue collection efforts to reduce dependency on external funding.

7.4.4 Residual and Projection Analysis for Social Service Expenditure

The analysis of residuals and projections is critical for effective fiscal planning and policy formulation, particularly in light of the ongoing challenges associated with funding public services. In this context, we focus on the external sources of revenue, specifically liabilities and shared tax, which have demonstrated significant relationships with social service spending and acceptable levels of autocorrelation and multicollinearity. These external variables provide a robust statistical foundation for forecasting future expenditures, making them essential for understanding how funding sources interact with public spending.

The analysis of residuals, defined as the differences between predicted and actual expenditure values, plays a crucial role in evaluating the accuracy and reliability of these expenditure projections. By leveraging the estimated predicted values based on liabilities and shared tax data, we can assess whether the model adequately captures the underlying dynamics influencing social service expenditures and identify areas where it may fall short. A thorough residual analysis not only highlights the effectiveness of the predictive model but also reveals patterns in expenditure behaviour over time, indicating whether the model systematically underestimates or overestimates actual expenditures.

In the context of Mizoram, where social services are heavily influenced by economic conditions and state revenue capabilities, understanding these residuals is vital for developing more accurate budgeting processes. This analysis serves as an essential tool for refining future projections and enhancing the strategic allocation of public resources. By integrating insights gained from residuals with projections based on liabilities and shared tax, policymakers can better navigate the complexities of funding social services, ensuring that expenditures align more

closely with the state's evolving needs and priorities. Table 7.8 present the residual generated based on liabilities and shared tax.

Table 7.8: Predicted Expenditure on social services and Residuals

Years	Predicted Expenditure on social services	Expenditure on Social Services Sector	Residuals
2005-06	581.00311	547.59	-33.41311
2006-07	636.7688558	592.9	-43.86885576
2007-08	738.3792504	696.78	-41.59925039
2008-09	815.4168145	898.18	82.76318552
2009-10	821.7033699	1105.68	283.9766301
2010-11	1102.48718	1010.82	-91.66718039
2011-12	1187.599124	1220.04	32.44087641
2012-13	1356.039084	1430.56	74.52091615
2013-14	1522.849395	1379.22	-143.6293946
2014-15	1825.293763	1749.65	-75.6437625
2015-16	2044.141327	1917.01	-127.1313271
2016-17	2225.760944	2097.05	-128.7109441
2017-18	2458.877797	2239.14	-219.737797
2018-19	2537.965866	2695.22	157.2541344
2019-20	2872.679119	3161.42	288.740881
2020-21	3245.235002	3230.94	-14.29500171

Source: Author's own calculations

The data presented outlines the projected expenditure on social services in Mizoram alongside actual expenditure figures from the fiscal years 2005-06 to 2020-21. By comparing predicted values with actual spending, the analysis provides insights into the accuracy of the forecasting model as well as the trends in expenditure behaviour over the years.

Initially, in the early years from 2005-06 to 2007-08, the projected expenditure was consistently lower than the actual expenditure, resulting in negative residuals. This trend indicates that the model underestimated the state's spending needs during these years, suggesting that factors driving actual expenditure were not fully captured by the forecasting model. However, from 2008-09 onward, the

predicted values began to exceed the actual expenditures, leading to positive residuals. For instance, in 2009-10, the predicted expenditure of 821.70 significantly overshot the actual expenditure of 1105.68, resulting in a notable positive residual of 283.98. This could reflect an overestimation of growth in social service funding needs based on the economic indicators used in the model.

As we approach the later years, particularly from 2015-16 to 2017-18, the negative residuals indicate a persistent underestimation of actual expenditures by the model. The largest negative residual of -219.74 in 2017-18 suggests a significant gap between projected and actual spending during that period, which may highlight increased demands on the social service sector that were not anticipated in the projections. Conversely, the latter years show a shift towards a more accurate estimation of actual spending, with a relatively small residual of -14.30 in 2020-21. Overall, the analysis of the residuals reveals both the challenges in accurately forecasting social service expenditures in Mizoram and the evolving dynamics of public spending in response to various socio-economic factors. This insight is critical for refining future expenditure projections and ensuring that the forecasting models better capture the nuances of fiscal behaviour in the state.

Table 7.9: **Descriptive Statistics of Predicted and Actual Expenditure on Social Service Sector**

Descriptive Statistics				
	N	Mean	Std. Deviation	Variance
Predicted Expenditure on social services	16	1623.263	855.875	732522.461
Expenditure on social services	16	1623.263	868.362	754051.927
Residuals	16	0.000	146.729	21529.467

Source: Author's own calculations

The mean values for both Predicted Expenditure on Social Services and Actual Expenditure on Social Services are identical at 1623.26, showing that the predictions align very closely with the actual expenditures on average. In contrast, the mean of the Residuals is nearly zero, as expected, since residuals represent the differences between actual and predicted values, which should ideally balance out

around zero in a well-fitting model. The standard deviations for Predicted Expenditure (855.88) and Actual Expenditure (868.36) are similar, indicating that the spread around the mean is comparable for both sets of values, and the model captures the general variability of actual expenditures well. The Residuals have a much smaller standard deviation (36.68), reflecting that the discrepancies between predictions and actual values are generally small. Similarly, the variances of Predicted Expenditure (732522.46) and Actual Expenditure (754051.93) are close, further indicating that both have similar variability. The much lower variance for Residuals (21529.47) suggests that prediction errors are consistently small, highlighting the effectiveness of the model in closely approximating actual expenditure values.

7.4.5 Evaluating the Influence of Health and Education Indicators on Social Service Expenditure

In this section, the study investigates the effects of key health and education indicators on social service expenditure in Mizoram, revealing critical insights into how changes in these sectors influence budgetary allocations. By examining the impact of factors such as infant mortality rate, patient admissions, teacher count, and the Total Population Rate (TPR), this study provides a comprehensive understanding of the relationship between demographic shifts, service demands, and government spending.

Table 7.10 Model Summary of Impact of Health and Education Indicators on Social Service Expenditure.

Model Summary									
				Change Statistics					
R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
.955	.913	.881	299.20968	.913	28.835	4	11	.000	1.871
a. Predictors: (Constant), Patient admitted, School Teacher, TPR, Infant mortality rate									
b. Dependent Variable: Social services expenditure									

Source: Author's own calculations

The model shows a high level of explanatory power, with an R^2 value of 0.913, meaning that 91.3% of the variance in social services expenditure is accounted for by these variables. The adjusted R^2 of 0.881 confirms this robustness even when adjusted for predictor numbers, while a standard error of 299.21 and a Durbin-Watson statistic of 1.871 indicate reliable predictions with minimal autocorrelation. This strong model fit suggests a meaningful relationship between the selected factors and expenditure trends.

Table 7.11: Coefficients Table of Impact of Health and Education Indicators on Social Service Expenditure.

Coefficients[a]									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-2036.862	837.050		-2.433	.033	-3879.197	-194.526		
	Infant mortality rate	-37.373	10.362	-.532	-3.607	.004	-60.180	-14.567	.364	2.745
	TPR	190.561	89.251	.283	2.135	.056	-5.879	387.001	.451	2.219
	School Teacher	.088	.034	.346	2.563	.026	.012	.164	.433	2.307
	Patient admitted	.002	.001	.214	1.444	.177	-.001	.004	.359	2.788
a. Dependent Variable: Social services expenditure										

Source: Author's own calculations

The model shows a high level of explanatory power, with an R2R^2R2 value of 0.913, meaning that 91.3% of the variance in social services expenditure is accounted for by these variables. The adjusted R2R^2R2 of 0.881 confirms this robustness even when adjusted for predictor numbers, while a standard error of 299.21 and a Durbin-Watson statistic of 1.871 indicate reliable predictions with minimal autocorrelation. This strong model fit suggests a meaningful relationship between the selected factors and expenditure trends.

The infant mortality rate has a notable negative impact on social services expenditure, with a statistically significant coefficient of -37.373 and a p-value of 0.004. This negative association implies that as infant mortality decreases, a social service spending tends to increase, which may reflect heightened investment in health initiatives as survival rates improve. Infant mortality thus emerges as a substantial driver of expenditure, indicating the importance of health improvements as a priority area in public spending.

The TPR variable exhibits a positive association with expenditure, suggesting that as population density rises, so does the need for social services funding to meet the demands of a growing population. However, its marginal significance (p=0.056) suggests that this factor, while relevant, might require further examination to fully understand its impact. The number of school teachers also shows a significant positive association, highlighting the role of educational investment in influencing expenditure. A higher count of teachers correlates with increased social services spending, reflecting the significant budgetary commitment required for supporting an educated workforce.

The analysis finds that patient admissions, while positively related to social services spending, do not have a statistically significant impact, indicating that healthcare utilization, as measured by admissions, has a less consistent influence on spending. Overall, the results indicate that social services expenditure in Mizoram is most strongly driven by health and education factors, with infant mortality rate and teacher count being particularly influential. These findings underscore the importance of investing in these areas to ensure that social services are aligned with the state's developmental and public welfare goals.

The findings show that as specific health indicators improve, such as through a reduction in infant mortality, there is an associated increase in expenditure on social services. This trend suggests that targeted investments in health lead to improved outcomes and drive continued financial commitment in these areas. Similarly, the analysis reveals that factors like the teacher count and population

growth significantly influence social services spending, underscoring the importance of educational resources and demographic pressures in shaping fiscal priorities.

Insights drawn from this analysis can guide policymakers in strategically allocating funds within the health and education sectors, ensuring that resources align with Mizoram's demographic needs. By pinpointing the most influential factors, the study supports informed decision-making to strengthen public service delivery, ultimately enhancing the quality of life and promoting sustainable development in the state.

7.5 CONCLUSION

The main trust of this research work is to find out the major determinants of State's public expenditure on social services in Mizoram. As such, the Social services expenditure is taken as the dependent variable while 9 other independent variables namely Net State Domestic Product, Liabilities, Shared Tax, State Own Tax Revenue, State Own Non-Tax Revenue, Infant Mortality Rate, Teacher-Pupil Ratio, Number of School Teacher, Patient Admitted had been used based on their theoretical relevance as well as empirical importance.

The analysis of the results show that the formulated hypothesis, i.e., there is a positive relationship between Net State Domestic Product and expenditure on social service was proved to be correct as NSDP variable was found to be statistically significant in determining public expenditure on social services.

The analysis of the results also show that the formulated hypothesis, i.e., resources from shared tax revenue and liabilities significantly stimulate public expenditure on social services was proved to be correct as the variables of shared tax revenue and liabilities were found to be statistically significant in determining public expenditure on social services.

Further, the analysis of the results also show that the formulated hypothesis, i.e., internal resource mobilization and public expenditure on health and education sector has a significant relationship with public expenditure on social services was

proved to be correct as depicted by the statistically significant variables namely state own tax non-revenue, infant mortality rate, Teacher pupil ratio, number of school teacher. These findings underscore the importance of investing in these areas to ensure that social services are aligned with the state's developmental and public welfare goals.

CHAPTER VIII

FINDINGS, RECOMMENDATIONS AND CONCLUSION

FINDINGS

Findings on Growth and Pattern of Public Expenditure

- **Growth Disparity Between Public Expenditure and NSDP:** Analysis indicates that the average annual growth rate of total public expenditure in Mizoram has been lower than the average annual growth rate of the Net State Domestic Product (NSDP). This suggests that the state income has grown at a faster rate than government expenditure.
- **Factors Driving Public Expenditure Increase:** Mizoram's intensive development efforts, comprehensive economic planning, and increasing money income and population growth have led to successive increases in public expenditure. Additionally, rising urbanization and the need for basic services like education and healthcare have increased pressure on public spending.
- **Trend in Revenue and Capital Expenditure:** Revenue expenditure shows an increasing trend, driven by higher expenditures on general, social, and economic services. This increase is aimed at achieving poverty alleviation and fulfilling basic needs objectives. On the other hand, capital expenditure has a declining trend, indicating neglect of long-term growth objectives like industrialization and infrastructure development.
- **Sector-wise Analysis:** Mizoram's revenue expenditure prioritizes social services, including education and healthcare, to enhance the economy's productive capacity. Capital expenditure focuses on economic services, such as agriculture and rural development, aiming to increase the state's productive capacity.
- **Developmental and Non-developmental Expenditures:** Both developmental and non-developmental expenditures have increased over the study period. Non-developmental expenditures on revenue account have surged, mainly due to increased developmental expenditures, leading to higher administrative burdens.
- **Income Elasticity of Total Public Expenditure:** The analysis shows considerable variation in the income elasticity of public expenditure with respect to NSDP, revenue expenditure and capital expenditure with respect to NSDP.

Revenue expenditure exhibits greater responsiveness to NSDP compared to capital expenditure.

Findings on Major Sources of Public Expenditure on Social Services

- State own tax revenue increased from 55.05 in 2005-06 to 223.14 in 2012-13 and to 647.56 in 2020-21, which showed a compound annual growth rate of 17.43 per cent. This increase of state's own tax revenue may be attributed to the extension of the tax base and tax coverage of these taxes and also due to an upward revision of the tax rates during the period under considerations.
- The trend of total tax revenue of the state during the period under considerations shows that the annual compound rate of growth of 20.85 per cent approximately. Trend on total tax revenue show a rising trend from 2005-06 to 2018-19 but shown a declining trend on 2019-20 and 2020-21. The declining trend on total tax revenue in the last two year of our study period was mainly due to the declining State's share in Central taxes. The total tax revenue includes shared taxes and hence the higher exponential growth rate of the total tax revenue is enhanced by the effort made by the Central Government from time to time for better tax mobilization. Moreover, higher growth of total tax revenue indicates the degree of elasticity and buoyancy that are inherent in the shared taxes resulting in a larger devolution of resources from the Centre to the State by way of higher share in the Central taxes.
- The annual compound rate of growth of total public expenditure is recorded at 10.71 per cent approximately. This growth of public expenditure is resulted by the comprehensive economic planning of the government. The more comprehensive of the plan, the more will be simultaneous developments of sub-sector of the economy and further, the more attention of the government on exploring the new bases and sources of additional resources of the state.
- The net state domestic product registered an annual compound rate of growth of about 14.95 per cent. The relative increased in contribution is may be the result of the relative contribution from the secondary and tertiary sectors in the economy. It is observed from the given exponential growth rates of net state domestic product and of the state's own taxes that the growth rate of net state

domestic product is outpaced by the growth rate of state own taxes during these period of study.

- The percentage of State's own tax revenue to net state domestic product increased slowly with some fluctuations during the period under considerations. Judging the performances of the state own tax revenue on the basis of its contribution towards the net state domestic product, altogether we may concluded that state own tax revenue presents a poor picture of performance. Altogether, the rate of growth of state own tax revenue has been very slow during the period of our study.
- The percentage of total tax revenue to net state domestic product shows the resultant picture of slow growth rate with some fluctuation. The total tax revenue contributes a moderate share in incremental income of the state.
- It is pointed out that the ratio of the state's own tax revenue to the total tax revenues is more or less stagnant during the period under consideration. The true pictures of the stagnant ratio between the state own tax revenue to the state total tax revenue during our study period perhaps indicates that the state is not making any serious efforts in raising its own tax revenue and to tap more available resources in an efficient way during the sixteen years of our study.
- There has been tremendous increase in total public expenditure in Mizoram during the study period. In regards to the percentage of public expenditure to Net State Domestic Product (NSDP), the percentage has been too rapidly expanded during the study period. The expansion of expenditure is due to the change in outlook as regards to the state role in the development of the economy.
- The state's own tax revenue as a percentage of total public expenditure shows that the state own resources contribution to the mounting public expenditure is very low. This indicates that the state has not been able to generate larger income of its own resources so as to be able to finance the mounting public expenditure. The state has to make serious effort to be able to generate larger income of its own resource in order to be self-reliant otherwise it has a long way to go to be self-sufficient.

- The contribution of total tax revenue to the total public expenditure is not high enough due to lower contribution by state own resources. We may again explain that the state has not put an extra effort to mobilize available resources to counter the increasing public expenditure.
- Mizoram has been depending more and more on shared taxes for its resource mobilization which indicates that the state able to generate little of its own resources and that it has to depend almost entirely on the centre. Therefore, Mizoram revenue performance on the basis of its own effort is rather dismal because state raised only a small proportion of revenue in comparison with shared tax revenue.
- In both the sources of tax revenue i.e., direct taxes and indirect taxes, the indirect taxes occupy a predominant position for the first twelve years of our study period and due to the high rate of increments both at the centre and state government, direct taxes take the predominant position for the last four years. Total tax revenue has increased by twelve per cent, direct taxes increased by twenty three per cent and indirect taxes increased by merely four per cent. The state government is not in a position to bring in better elasticity to the overall tax system through direct taxes because taxable capacity is weak over and above already existing tax base. Due to gradual disappearance of agricultural income tax from the scene or implementation without full monitoring, existence of mass poverty and the prevalence of self-employment which kept people from direct tax net, direct tax lost its importance aa source of revenue.
- On the other hand, the observation shows that the increasing reliance of the Mizoram economy on indirect taxation to accelerate the pace of economic development, which is in tune with the stand taken by the Taxation Enquiry Commission and the Planning Commission, regarding the role and effectiveness on indirect taxation in India.
- State own tax revenue pattern has changed in relative terms, i.e., taxes on commodities and services increased tremendously while the percentage contribution of taxes on property and capital transaction more or less constant during the period under consideration. The economy turn itself gradually into the path of commercialization and modernization, then it becomes possible for

the economy to shift from agricultural taxes to taxes on commodities and services.

- Another observation is the changes in the composition of State own taxes on commodities and services. In the case of state Excise, there has been consistent increase for the first thirteen years of our study and after that decrease tremendously. This may be due to the fact that the state implemented the policy of wine shop opening under Mizoram Liquor Prohibition Control (MLPC) Act 2014 from March 16, 2015 till march, 30,2019 and ended by the implementation of Mizoram Liquor(Prohibition) Act 2019 on March, 30.2019. Sales tax potentially got a predominant position on the structure of taxes on commodities and services, due to the extension and expansion of the tax base and the upward revision of tax rate from time to time. The contribution of tax on Vehicle to the state own tax revenue shows a declining trend in most of the year during the study period. The contribution was between eight and less than five for the rest of the study period. The observation on the percentage contribution of goods and passenger tax and other taxes on state own tax revenue also show a declining trends.
- The next observation switched from state own tax revenue to the shared taxes, the total devolution of central taxes and duties has increased steadily, however, there is a declining trends for five years mainly due to a decline in percentage contribution of Union excise duties. The main contributor of the devolution of central taxes and duties was corporation tax which shows an increasing trend throughout the period under study. The same observation can be made in the case of taxes on income other than corporation tax. The only exception was in 2010-11 when it contributed 15.11 per cent of the total taxes revenue of the state. The percentage share of taxes on wealth, custom duties and union excise duties shows a declining trend with some fluctuation during the period of our study. However, the percentage share of services tax shows an increasing trend.

Findings on shared Tax revenue and Others

- The main feature of the state total tax revenue is a phenomenal increase in the contribution of devolution of central taxes and duties to the total tax revenue of

the state. Throughout the period of our study, around eighty per cent of the total tax revenue is from the share of Central taxes. Whereas the overall percentage contribution of the state own tax revenue presents a declining trend with some fluctuations during the period of our study. We may safely conclude that this large and increasingly dependence on the share of Central taxes by the state might be due to pressure of the state on the Central Government to widen the shareable taxes from time to time. Thus, from the healthy fiscal economy point of view, we may conclude that the position of the trend which have been observed from the pattern and composition of the state taxes is not satisfactory. However, the state is making endless efforts to achieve self-reliance with regard to resource mobilization of sufficient resources for implementing various developmental programmes in the state.

- State sales tax has been remains the single most important source of the state own tax revenue before the introduction of goods and service tax during our study period. Tax on vehicle also comes as the most important source of revenue in the state. The remaining over and above sales tax and tax on vehicle to the net state domestic product was contributed by corporation tax etc., land revenue, stamps and registration fees, state excise, goods and passenger tax and other taxes. Therefore, these taxes has merely displayed a minimal performance from the point of view of productivity during our study period.
- The observation of the ratio of indirect taxes to the net state domestic product clearly showed that the contribution of indirect taxes has increased more than two times when calculated as a percentage of the net state domestic product during our study period. However, there is a sign of a decline in 2020-21.
- As a consequence of increasing developmental responsibilities to the state, there has been a growing and widening gap between the state own tax revenue and its expenditure requirements. Therefore, Mizoram depends largely on devolution of central taxes and duties and federal transfers still constitute more than seventy seven per cent of the total fiscal resources of the state, Mizoram is far from the goal of financial self-reliance.
- The administrative capacity of the tax system to mobilize the necessary resources determined the size of the development programme of the

government. The rate of increase in state's own tax revenue has been at much slower pace than the increase in central tax revenue throughout the period. From the observations, it is clear that the principal sources of tax revenue of Mizoram are the share of the states in the central taxes and duties. Of all the taxes on commodities and services, sales tax has been the most important source of revenue before the introduction of goods and services tax in 2018 and now goods and services tax has become the most important source.

- From analysis into the trend of revenue budgeting that has been resorted to during the period of our study, it is clearly indicates that both revenue receipts and expenditure has been increasing consistently throughout the period under consideration. Again, in spite of the fact that unbalanced budgeting help, by and large, the process of desirable development in an underdeveloped economy, a closer scrutiny of the trend of revenue budgeting reveals that there has been intermittent years of surplus and deficits in the revenue budget. Thirteen years out of sixteen years of the revenue budgets were surplus and only the remaining three years were deficits on revenue account during the period of our study.
- It is the normal expected experience of an underdeveloped economy like Mizoram that the capital budgets would turn out to be deficit budget so that the gap in financial resources might be filled in by larger resource to loans or deficit financing as the case might be. It might be safely pointed out that throughout the study period, the size of capital budget has been much smaller than the revenue budget in respect of both receipts and disbursement in Mizoram. The number of years, in respect of which the capital budgets has showed deficits is more than the revenue budget and the absolute amount of deficits has been much larger in the case of capital budgets than in the case of revenue budgets. This may indicates that Mizoram state government has been insisted more and more employment of loan method of financing economic development.

Findings on Analysis of the Changes and Implication of Social Services Expenditure

- The government of Mizoram had increased its allocations to the social sector quite significantly after 2008-09. Even though, the fiscal health has not improved considerably, the situation has changed from the initial period of our study as a result of a larger transfer of resources from the union government to the states as recommended by the twelfth finance commission, and the acceleration in economic growth. The growth in total expenditure on social sector under revenue account may be explained by the intensive development efforts made by the government through comprehensive economic planning. The steady increase in public expenditure on revenue account as well as capital account might have also been due to the increasing demand of services from people such as education, health facilities, etc., with increase in the standard of living.
- Expenditure on social services increased considerably from Rs 637.54 crores in 2005-06 to Rs 3737.76 crores in 2005-06, recording an annual average rate of growth of 11.69 per cent during the period under consideration. Similarly, expenditure on education, health and other social services increased by about 5 times, about 4 times and about 8 times respectively in the same period.
- In case of education, as a share of net state domestic product, the share have been increasing from the initial study period with some fluctuations, but the share decreased from 2014-15 and reached at 7.35 per cent in 2020-21. Health has remained a low priority area for most of the state in India including Mizoram. Health expenditure as a share of net state domestic product (NSDP) was relatively low in Mizoram. The share in initial study period was 5.39 per cent and the shares continue to decrease except for 2009-10 during the period under consideration. Other social services expenditure as a percentage of net state domestic product shows an increasing trend from the initial study period until 2012-13. Afterward, the share has been decreasing and reached 7.67 per cent in 2020-21.

Findings on Growth of Social Services Expenditure in Mizoram

- Larger resource transfers from the central government, particularly after the 12th Finance commission, played a crucial role in increasing social sector spending.
- The factor responsible for expanding social sector activities in the state economy of Mizoram can be explained through the increasing pressure on the demand for social services due to increasing population growth and its corresponding impact on the density of population and urbanization along with the increasing level of money income. The increased in population has increased the demand for educational, health and other basic minimum needs services. At the same time, public sector in the state is compelled to make greater investments in infra-structural and other developmental activities in order to reduce the intense pressure on the subsistence sector. Besides, due to increasing urbanization process in the state, the responsibility of providing more public utility services by the government has also increased.
- Changes in government policies and political priorities have led to fluctuations in public expenditure on social services and the allocation of resources has been influenced by political commitments to social services like education and health.
- 2008-09 onwards saw a significant rise in social sector spending due to improved fiscal policies and central government transfer. However, expenditure patterns fluctuated due to economic downturns, political shifts, and the COVID-19 pandemic, which impacted state revenues and allocation priorities.
- The majority of social services expenditure is on revenue expenditure rather than capital investment. The share of capital expenditure in total social service spending remained low, indicating limited infrastructure development in social services sectors.

Social Expenditure Impact on Human Development indicators

- The study confirms that higher social spending positively impacts human development by improving education and healthcare outcomes. The Human Expenditure Ratio (HER) in Mizoram remained above UNDP's suggested norm of 5%, reflecting high government commitment to human development. However, Social Allocation Ratio (SAR) remained below the UNDP norm of 40%, suggesting fiscal constraints in public spending.

- Diversification of revenue sources and improved financial management are essential to ensure stable social sector funding.

Education and Health Expenditure

- The government's ability to fund education and health depends largely on its fiscal strength, influenced by economic growth and central government transfers. Expenditure on Social services has increased alongside Net State Domestic Product growth, but at an inconsistent rate.
- Education expenditure increased by 5.3 folds during 2005-06 to 2020-21. Despite this increase, the share of education expenditure in NSDP declined from 10.94% in 2005-06 to 7.35% in 2020-21. This declining expenditure-to-NSDP ratio suggests education is not growing in alignment with the state's economic expansion.
- Revenue expenditure (salaries, subsidies, pensions, etc) dominates and has grown at a stable rate, whereas capital expenditure (infrastructure, school buildings, equipment) has been fluctuating. Inconsistent capital investment could impact the long-term quality of education infrastructure.
- Disparities in education access remain between rural areas and urban areas.
- Health expenditure increased by 7.46 folds during 2005-06 to 2020-21. However, the share of health expenditure in NSDP declined from 5.39% in 2005-06 to 2.73% in 2020-21, indicating health sector was a lower priority compared to other sectors.
- Revenue expenditure on health is focusing on salaries, rather than improving healthcare services and accessibility. Capital expenditure on health is highly inconsistent. Low and inconsistent capital investment has resulted in inadequate health infrastructure in rural areas.
- The results and finding shows that social spending rather than economic growth of the state government has greater impact on human development. The value of human expenditure ratio of the state also suggests that there is high degree of political commitment to human priorities of the social sector. This result is in confirmation with the trend that public expenditure on social sector gets transformed to the end results of better human development indicators. Thus,

we can safely state that public policy plays a crucial role in social development in Mizoram.

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Major Determinants of Social Services Expenditure

- The study reveals a high correlation between expenditure on social services and key economic indicators such as liabilities, NSDP, per capita income, and tax revenues.
- The Net State Domestic Product is the major determinants of public expenditure on social services. An R-squared value of 0.978 demonstrates that 97.8% of the variance in social services spending is explained by changes in NSDP, highlighting its critical role in determining expenditure. These results align with Wagner's Law, which suggests that public expenditure increases with economic growth and Keynesian Economics – public spending stimulates economic activity.
- Expenditure on Social Services is also strongly correlated with Liabilities and Shared Tax Revenue, Liabilities and Shared Tax together explain 97.1% of social service expenditure variance, indicating that as a state's liabilities, non-tax revenue, and economic output increase, so does its expenditure on social services. Liabilities (B = 0.311, p = 0.000) have a stronger impact than shared tax (B=0.183, p = 0.022), indicating that government borrowing is a key driver of expenditure. Moderate multicollinearity is present (VIF = 4.631), but the model remains statistically reliable.
- Similar high correlations are observed between Expenditure on Social Services and other financial indicators like State Own Non-Tax Revenue and Per Capita Income. These high coefficients suggest that both internal and external revenue

sources, as well as overall economic health, play significant roles in determining how much a state spends on social services.

- There is also substantial correlation between the independent variables themselves. Liabilities, State Own Taxed Revenue, State Own Non-Tax Revenue, and NSDP are highly correlated, with coefficients ranging from 0.931 to 0.988. This strong interconnection between variables reflects the fact that a state's economic output, its revenue sources (both own and shared), and its financial obligations are tightly coupled. Similarly, NSDP and Per Capita Income show near-perfect correlation (0.988), reinforcing the idea that economic output and income levels are closely linked in shaping a state's fiscal health.
- The forecasting model for social expenditure shows reasonable accuracy, with average residuals near zero. However, significant underestimations and overestimations occur in specific years, pointing to evolving socio-economic dynamics that demand adaptive fiscal planning. Internal revenue sources have weak predictive power, particularly state-own taxed revenue, indicating limited fiscal autonomy.
- Health and education metrics like infant mortality rate and education factors such as the number of teachers, teacher's pupil ratio have a significant influence on public expenditure on social services. Reduced infant mortality corresponds with increased spending, reflecting investments in health improvements. Similarly, higher teacher counts necessitate greater allocations to education.
- The regression model provides reliable long-term expenditure projections, supporting its use for future fiscal planning, though adjustments are needed to improve short-term accuracy.
- The study on determinants of public expenditure on social Services provides strong empirical evidence that economic growth, external funding sources, and demographic factors are the primary determinants of social services expenditure in Mizoram. Additionally, health and education investments remain critical priorities for government spending.

POLICY RECOMMENDATIONS

- Since Net State Domestic Product is a key determinant of public expenditure on social services, policies that boost economic development, particularly in industrial and agricultural sectors, will enhance fiscal capacity for social service expenditure.
- Mizoram has increasingly depends more and more on Union government for its financial resources and so, the financial problems of the state arise due to lack of potential effort to raise additional financial resources from the government. The state needs to divert a large portion of available economic resources into productive investment and also the state needs to make an effort for higher revenues from indirect taxes and non-taxes revenue.
- Being a welfare state, public expenditure on social sector of Mizoram is determined to rise with the progress of the society; ways and means resources to meet this increasing expenditure would have to found out.
- The state should raise the quality of its intervention in the social sectors. Proper training should be conducted to its personnel down the line and civil society groups must be enrolled for their support to state projects and programmes. In medical and health, adequate number of specialist, hospital beds, operation theatres and other infrastructure facilities should be provided across the rural and urban areas. In education sector, education system ought to be reoriented towards a skills based curriculum rather than knowledge based and technical training should be encouraged.

- Financing revenue expenditure through borrowing raises interest liabilities without creating additional revenue sources. Efficient use of borrowed funds for capital expenditure is crucial to avoid excessive interest liabilities.
- Managing the growth of public expenditure and mobilizing tax and non-tax revenue to finance it are key challenges. Detailed analysis of financing public expenditure on social sector and its relationship with revenue mobilization is necessary for effective governance.
- The expenditure mechanism should be streamlined by reprioritizing expenditure both at the sectoral and at the inter-sectoral level keeping in mind on the

effectiveness of each spending category. The goal should be to pick on activities that have the maximum linkages to income growth and social welfare. From the point of view of scarcity of resources one has to derive the maximum available unity while deciding on expenditure priorities. The expenditure leakages must be curbed and expenditure on wasteful activities such as on sacked personnel must be curtailed to the extent possible.

- The long term planning is indeed quite significant in order to attain the desired targets. Therefore, high degree of transparency and accountability for the government expenditure, especially with reference to social services expenditure is essential.

SUGGESTION FOR FURTHER RESEARCH

- Assessment of financial dependency: A study on how dependent Mizoram is on Central government transfers and its long-term implications for fiscal sustainability.
- Impact of demographic Changes: Analyzing how population growth, aging and urbanization trends may influence future social spending needs in Mizoram.

CONCLUDING REMARKS

Public expenditure on social services in Mizoram is largely driven by economic performance, revenue sources and demographic trends. While external funding plays a crucial role, strengthening internal revenue and strategic investments in education and healthcare will be vital for achieving long-term social and economic development. Policymakers must focus on sustainable fiscal strategies that align with Mizoram's unique socio-economic landscape to ensure equitable and efficient public service delivery.

APPENDICES

Appendix – I

Year	Primary Education				Middle School				High School				Higher Secondary School			
	No. of School	No. of Teacher	No. of Student	Teacher - Pupil Ratio	No. of School	No. of Teacher	No. of Student	Teacher - Pupil Ratio	No. of School	No. of Teacher	No. of Student	Teacher - Pupil Ratio	No. of School	No. of Teacher	No. of Student	Teacher - Pupil Ratio
1	2	3	4	5	4		5	5	6		7		8		9	
2005-06	1700	5210	130342	1:25	1081	7893	58533	1:11	500	3694	44322	1:11	80	854	11762	1:12
2006-07	1752	8099	134656	1:16	1090	7271	57399	1:08	508	3768	43675	1:12	82	929	12816	1:13
2007-08	1783	8002	151899	1:17	1253	6846	64887	1:08	502	3935	44576	1:11	86	941	14649	1:13
2008-09	1752	8716	156396	1:17	1313	7754	66776	1:08	521	3886	48811	1:11	95	1058	17049	1:13
2009-10	1821	8477	166152	1:18	1353	7564	69318	1:09	538	3853	50252	1:13	98	1224	18437	1:14
2010-11	1855	8310	161514	1:20	1383	7824	87726	1:09	543	3870	48741	1:13	113	1224	20250	1:15
2011-12	1831	8488	161581	1:19	1381	9638	89755	1:09	584	4212	38870	1:12	118	1367	21472	1:15
2012-13	1873	8703	165051	1:19	1408	9883	94354	1:09	612	4414	41945	1:09	127	1468	22087	1:15
2013-14	1946	8717	157646	1:19	1514	10161	94077	1:09	610	4617	40711	1:09	132	1518	22562	1:15
2014-15	1946	8428	159334	1:19	1511	10319	93277	1:09	614	4500	41534	1:09	138	1520	22986	1:15
2015-16	1968	8330	149612	1:19	1542	10159	88655	1:09	640	4394	36529	1:09	163	1536	22540	1:15
2016-17	1969	8510	145189	1:18	1580	10206	88711	1:09	669	4513	37407	1:08	175	1661	21863	1:14
2017-18	1956	8459	150675	1:17	1552	9218	90567	1:09	689	4274	41198	1:08	186	1714	24378	1:13
2018-19	1898	8182	148469	1:18	1552	9084	90567	1:10	689	4357	41198	1:09	186	1782	24378	1:14
2019-20	1940	7897	148568	1:19	1535	9090	92191	1:10	706	4284	41599	1:10	196	1876	24850	1:13
2020-21	1956	8397	110353	1:13	1556	9085	93215	1:10	712	4306	40037	1:09	198	1900	24966	1:13
CAGR		**3.03%**	**-1.04%**		**2.30%**	**0.88%**	**2.95%**		**2.23%**	**0.96%**	**-0.63%**		**5.83%**	**5.12%**	**4.82%**	

Appendix - II

	No. of Hospital					No.of Beds				No. of Medical Personnels					No. of Patients	
	Hospital					Government			Nursing Home	Doctors	Nurse	Pharmacists	Health Worker	Lab Technician		
Year	Govt.	Private	CHC	PHC	Sub Centres	Hospital	CHC	PHC							**OPD**	**IPD**
2005-06	9	7	9	57	366	911	270	570	827	279	393	108	802	146	467,982	58,982
2006-07	9	9	9	57	367	944	270	570	827	305	393	108	872	146	508,998	127,475
2007-08	9	12	9	57	366	944	270	570	328	305	560	90	844	66	570,391	62,799
2008-09	9	12	9	57	370	1011	270	570	328	300	726	90	992	66	664,082	88,855
2009-10	9	12	9	57	370	931	360	570	871	298	690	85	975	37	604,364	49,168
2010-11	9	15	9	57	370	932	360	570	934	349	686	57	1037	41	633,194	47,677
2011-12	9	15	9	57	370	975	270	570	934	356	1,330	85	1012	37	673,080	49,295
2012-13	9	15	9	57	370	970	270	570	1093	462	1,360	108	1038	37	697,774	50,467
2013-14	9	16	9	57	370	989	270	570	1053	437	1,471	92	1004	58	616,763	46,315
2014-15	9	19	9	57	372	999	270	570	1225	429	1,539	123	969	125	588,371	46,664
2015-16	9	20	9	57	372	1009	270	570	1252	448	1,510	89	1008	56	780,109	96,602
2016-17	9	20	9	57	372	991	270	570	1279	485	1,883	151	1016	52	826,220	94,157
2017-18	9	21	9	57	372	1099	217	570	1274	564	2,243	143	1024	75	859,550	93,769
2018-19	9	21	9	57	372	1366	270	570	1553	595	2,299	139	1066	78	941,601	99,888
2019-20	9	27	9	61	372	1037	270	579	875	597	2236	149	979	87	1,017,619	82410
2020-21	12	28	9	61	370	1267	270	590	1039	786	2,100	140	873	93	710,464	82,410

Appendix -III

Debt & Liabilities of Mizoram (Rs in Crore)						
Year	**Public Debt**	% to GSDP	**Public Accounts**	% to GSDP	**Total Liabilities**	% to GSDP
2005-06	1822.01	61.60	1128.91	38.17	2950.92	99.76
2006-07	1947.61	59.45	1146.05	34.98	3093.66	94.43
2007-08	2027.36	53.32	1348.82	35.47	3376.18	88.80
2008-09	2036.83	43.83	1575.38	33.90	3612.21	77.72
2009-10	1897.39	33.76	1728.48	30.76	3625.87	64.52
2010-11	2162.06	35.69	2333.46	38.52	4495.52	74.21
2011-12	2131.06	30.48	2416.87	34.57	4547.93	65.05
2012-13	2265.59	28.13	2848.94	35.38	5114.23	63.51
2013-14	2263.87	21.99	3344.51	32.48	5608.38	54.47
2014-15	2457.71	23.60	4092.68	39.30	6550.39	62.90
2015-16	2470.50	18.47	3936.89	29.44	6407.39	47.91
2016-17	2913.10	19.15	3811.92	25.06	6725.02	44.21
2017-18	3334.28	18.80	3966.03	22.36	7300.31	41.15
2018-19	3224.27	14.48	4091.28	18.37	7315.55	32.85
2019-20	4018.02	15.16	4660.24	17.58	8678.26	32.74
2020-21	5011.45	17.24	4869.64	16.75	9881.09	33.98

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ABSTRACT

DETERMINANTS OF PUBLIC EXPENDITURE ON SOCIAL SERVICES IN MIZORAM

AN ABSTRACT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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DEPARTMENT OF ECONOMICS

SCHOOL OF ECONOMICS, MANAGEMENT

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DETERMINANTS OF PUBLIC EXPENDITURE ON SOCIAL SERVICES IN MIZORAM

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In partial fulfillment of the requirement of the Degree of Doctor of Philosophy in Economics of Mizoram University, Aizawl.

1. INTRODUCTION

According to World Bank "Public Expenditure is the expenditure of public authority – central, state and local governments" It is the government expenditure incurred by the Central, State and Local Governments for its own maintenance and for the promotion of economic and social welfare of the people of the country. Public expenditure has grown both relatively and absolutely in all the states of the Indian Union. The main objective of public expenditure policy is sustained and equitable economic growth. Public expenditure has been recognized as an effective tool in boosting economic growth in the short run and has played an important role in physical and human capital formation in the long run (Hicks, 1947). The developmental process in any society had then to be conditioned by priorities policy set by the state. Griffin and Mckinly(1992) argued that the composition of public expenditure is more important than its volume. Accordingly, the level and direction of public expenditure allocations were to be designed for their maximum beneficial impact on economic and social sectors in order that income growth and the performance on social indices reinforced each other.

In recent years, considerable attention has been paid to the measurement of the size of the government expenditure as well as expenditure on social sector services and the underlying factors which govern its growth. The government plays an integral role in economic growth and development process, especially in least developed and developing economies, riddled with low per capita income and weak private investment (Folster & Henrekson, 1999). The government may provide goods and services directly or play a supportive role such as maintaining law and order, regulating economic activities, and developing physical infrastructure to stimulate economic growth. The mainstream view is that public expenditure, especially on physical infrastructure and human capital can support economic growth by bolstering productivity in the private sector (Keynes, 1936). The social sector, broadly consisting of education, health, and social protection or security, is one of the major beneficiaries of public expenditure in developing economy like Mizoram. This attributed to the fact that investment in health and education facilitates development

of the human capital that every economy needs to achieve its economic growth and development aspirations Romer, 1986). Expenditure on social services like education and health has been justified by reference to the market's failures both to guarantee outcomes that meet society's equity objectives and to alleviate the possible causes of market inefficiency. The society's objectives in health care are to guarantee equality of access, cost and outcome for those who equally needed, while ensuring that the delivery system uses resources efficiently. In education, it is correspondingly argued that society's objective is to achieve equality of educational opportunities for those of equal ability, and an efficient allocation of resources.

In most of the developing economies, systems are not in place where the private sector can make a remarkable contribution towards the provision of public goods and social welfare. The government has to step up with decisions that impact the economic and social structure in a myriad ways. The context of growth of per capita income, change in the composition of output provided by shifting traditional sector by modern industrial and service sectors, generation of employment and decrease in the number of poverties have shown the economic impact of public expenditure which generally makes provisions on infrastructure facilities and skill development. When government gives priority to social sectors in public expenditure, the social impact will be positive thereby resulting in better nutritional and health situations, higher levels of educational attainments, more and meaningful social security arrangements, which is accompanied by a rise in the living standards. These social and economic impacts revealed themselves in the direction pass through by a number of indices and are therefore feasible to measurement. Likewise, economic outcomes are measured through changes and the rate of growth in absolute income levels and per capita, changes in the sectoral composition of aggregate output with a complementary rise in the modern manufacturing and service sectors, stability in the growth process with a fall in unemployment rates in the economy. Social impacts are measured via higher life expectancy at birth, a fall in maternal and infant mortality rates, higher in the literacy rates and lower poverty incidence.

As far as India is concerned, before independence, no efforts and little planning were made to provide welfare services for the people of India but the

growth of public expenditure has grown rapidly since independence because of the expansion of the social and the economic activities. Public expenditure enhances overall socio-economic development by improving education, health, social welfare and economic growth. Ever since India's independence, India has adopted mixed economy and both central and state governments have been playing an important role towards the social and the economic development.

The significance of public expenditure as an instrument of promoting the socio-economic development of a country is well accepted by the development economists in modern times all over the world, particularly in the developing countries which shelters roughly two-thirds of the world's poverty ridden people. In a socialistic and welfare characterized state, governments directly intervene in achieving an efficient allocation of resources, in achieving an equitable distribution of income and finally in maintaining economic stability in the economy. The growing concern over the necessity of improving the future well-being of the people is of paramount importance, and therefore, has impelled the governments of the developing countries including India to overcome the problems of mass poverty, unemployment, social and economic backwardness etc.

Policy makers in recent years are increasingly interested in the composition of public spending. This attention stems from the recognition that expenditure allocations in favour of education and health can boost economic growth while promoting equity and reducing poverty. This argument has been put forward by many researchers eg. Barro (1997), Chu (1995), Tanzi and Chu (1998).This particular argument will be taken as a starting point for establishing a causal effect relationship between the level of public expenditures and the level of human development. It is difficult task to establish a bivariate link between the growth of public expenditure and growth of human development because there is many socio-economic and policy variable that result in human development.

2. LITERATURE REVIEW

The massive growth of public expenditure was viewed with a disfavor by the classicist. They developed ambiguous arguments to justify the role of public expenditure by aiming at restraining government interference in the economics activities. However, this ideology exploded under the impact of the Great Depression of the 1930s. Ever since then, the government is calling for greater intervention in the economics functioning and so, there is a massive growth of public expenditure in its size and structure to meet the objectives of price stability, full employment, equity and economic growth. Since the determinants of public expenditure implicitly take into account the two dimensions of the problems of the growth and pattern of public expenditure, no doubt, this calls forth for a systematic analysis and understanding of the factors that determine such growth.

The restoration of the economics of public expenditure to the mainstream economics was accomplished by attention to the role of public expenditure in stabilizing the economy. These concerned with the employment of resources, and with the role of public expenditure in influencing the level of aggregate demand (Keynes, 1936). The justification for increased public expenditure was no doubt conceived in term of objectives criteria such as population growth or social overhead needs and the changes in public expenditures reflect the underlying changes in economic structure and development (Wagner, Adolp, 1883).The state with the higher per capita income would most likely incurred a larger increase in per capita expenditure (Fabricant, 1952). The empirical work on growth, pattern and determinants of public expenditure by Fabricant was mainly concerned with state and local level public expenditure of the United States and he established the functional relationship between them by multiple regression model taking per capita income, population density and per cent of population living in urban places as independent variables.

Change in per capita expenditure resulting from a unit change in one of the predictor variables is the same, no matter what the level of the two other predictors might be. The model explained 72 per cent of the variability in state per capita

expenditure. There is an inverse correlation between the level of public expenditure and population density and the existence of a positive correlation between public expenditure and the degree of urbanization and per capita income. However, in the case of urban-local level expenditure, as population represents the demand for local services, it was an important explanatory variables in all cases of specific items of expenditure (Sarma,A., Parek, K.M And Sigh, L.T, 1974). Therefore, the variation in population density, degree of urbanization and per capita income explain a considerable amount of the variation in per capita state and local governmental expenditure among the states and the degree to which these variables explain differences in expenditure for particular functions varies considerably (Fisher, 1961). However, density of population alone as a factor affecting per capita expenditures of the states is not significant, but the relationship between per capita expenditures and per capita income and urbanazition are extremely significant (Desai, 1976).

The weaknesses of the above analysis are that it tells us nothing about the desirable levels of expenditure. Although the study relies on a multiple regression model to show the significance of population density and the degree of urbanization, the significance of these variables factors sometimes overlooked due to the greater importance of the variable of per capita income. A relatively improved model with higher explanatory power for explaining the determinants of the state and local government expenditures has been developed by Oman (1962). He takes per capita income, percentage of urban population, population density, rate of population growth and federal aid as independent variables and growth of public expenditure as the dependent variable. Per capita income, total federal aid, and the percent increase in population accounts for 68 percent of the variance in general expenditure growth and the rest three variables explain 63 percent of the variance in the public expenditure. Federal aid has the effect of stimulating those functions to which it has been directed and expenditure on some functions would increase though federal aid. Nevertheless they are considerable, population density, percentage of urban population and state aid are not so spectacular for explaining the determinants of public expenditure. Federal aid and the state aid remain the major determining factors of public expenditure (Sacks, S and Harris, R, 1964) and federal aid variable

is the single significant variable in explaining the inter-state variation (Bahl, Roy W. and Saunders, Robert J, 1965).

The exponential model than the simple linear model is more adequate as regards to the determinant of public expenditure analysis on a priori grounds because the model enable to account for more of the viability in per capita state and local expenditures (Kurnow, 1963). Kurlow, by preferring an exponential model, try to capture the interaction among the independent variables with the same set of database, as used by Fabricant and Fisher. He relies on a model that determines the change in per capita expenditure for any combination of predictor variables rather than the separate effects of each one of them. There is s severe inter-correlations among the predicator variables under a joint regression model. Fabricant obtained an R^2 of .72 for the additive model (Simple regression model) while the joint regression model (Exponential Model) of this study obtained significantly R^2 of .88. For every 10 per cent increase in the respective predicator variables, there is an increase in per capita expenditure at the rate of 5.6 per cent, 2.2 per cent and 2.6 per cent respectively. The study claims to have a reasonable success in explaining the variation in per capita expenditure. In order to have a more reasonable success in ascertaining the determinants of public expenditure, certain variables like tax receipts, aid payments, budget deficits and lagged values of the dependent variable may be used as predictor variables (Morss, 1966).

Most of the comparative studies on the determinants of public expenditure stated above nearly stress on a functional relationship between economic development and total national current expenditure among high income and low income countries. The analysis almost ignores the institutional mechanism i.e., political structures, processes and values as well as fiscal policies in representative democracies that facilitates with the transformation of individual and group wants into different types of government action. Institutional variables are mainly responsible for the wide variations in the public expenditure levels among high-income democracies and therefore, in order to assess more accurately the impact of political and fiscal variables, expenditures should be so disaggregated as to correspondent to grouping, which are the basis of government decision-making

(Solano P. , 1983). It was found that fiscal factors are more influential on state expenditure than the political factors (Bosch, Nuria and Pandiello, Javier Suarez, 1995)in developed countries.

3. AREA AND SCOPE OF THE STUDY

Mizoram is one of the states of Northeast India, with Aizawl as its capital city. The name is derived from Mi (people), Zo (lofty place, such as a hill) and Ram (land), and thus Mizoram implies *"Land of the hill people"*. Like several other north-eastern states of India, Mizoram was previously part of Assam until 1972, when it was carved out as a Union Territory. It became the 23rd state of India, a step above Union Territory, on 20 February 1987.

The study covers a period of 16 years from 2005-06 to 2020-2021. The subject matter of this study is trends, pattern and determinants of public Expenditure on social services in Mizoram. The study analyses the public expenditure situation in Mizoram including trends and pattern of expenditure on social services to understand the magnitude of human development as a flow concept. There were mild economic reforms introduced in the country from 1980 and intensive economic reforms with the introduction of New Economic Policy at the national level in 1991. The state of Mizoram has been alternatively ruled by two opposing party – the regional Mizo National Front Party and Indian National Congress. During these periods, the state has witnessed substantial changes in expenditure policies due to favourable relations with the centre and some recurrent social and political tensions in the state.

4. OVERVIEW OF PUBLIC EXPENDITURE IN MIZORAM

In recent years, the expenditure of the Mizoram government has steadily increased, driven by both an intensive and extensive expansion of government functions. This surge in public expenditure has often led to budgetary deficits, necessitating the government to resort to substantial public borrowing from both internal and external sources. To understand the complete dynamics of expenditure, it is essential to examine the patterns of public expenditure in Mizoram. This chapter thus aims to explore the expenditure patterns of the Government of Mizoram.

The substantial growth in public expenditure in the state reflects the accumulated economic and social aspirations of the society. To understand the intricacies of this growth, it is pertinent to first analyse the directional trends.

The government accounts in Mizoram are categorized into three parts. The first part encompasses the Consolidated Fund of the State, the second part entails the Contingency Fund of the State, and the third part consists of transactions in the Public Accounts. Within the Consolidated Fund, there are two main accounts: the Revenue Account and the Capital Account. The Revenue Account comprises income derived from taxes, duties, fees, and non-tax revenues, while the Capital Account includes loans received and disbursements for asset creation.

The Contingency Fund caters to urgent and unforeseen expenditure, while the Public Account handles public money that cannot be booked in the Consolidated Fund. Notably, these funds are distinct from State Government funds and must be repaid or utilized according to specific agreements.

Public Expenditure is expenditure incurred by the government to provide public goods and services, and to repay its debts. There has been a remarkable increase in total public expenditure in Mizoram from 2005-06 to 2020-21. Total public expenditure surged from Rs 2172 crores in 2005-06 to Rs 11262 crores in 2020-21. Public expenditure as a percentage of Net State Domestic Product (NSDP) peaked at 81.02 percent in 2012-13 and plunged to 45.77 percent in 2020-21. However, despite this tremendous expenditure, more than 19.62% of households in Mizoram's continues to live below the poverty line (BPL), with inadequate access to basic amenities indicating that a significant portion of the state population hardly derive any significant benefit from the mounting public expenditure.

5. SIGNIFICANCE OF THE STUDY

Despite the critical role of public expenditure in social services in promoting human development and reducing poverty, there is a dearth of empirical research on

the determinants of public expenditure on social services sector in Mizoram. The literature available on the determinants of public expenditure and the relationship between growth of public expenditure and the pace of human development suggested the emergence of two schools of thought that claims two opposing views to this relationship. Firstly, the Keynesian approach which argued government spending as an important policy tool to secure an increased in productive investment and to ensure a reasonable level of economic activity, correct short term cyclical fluctuations in aggregate expenditure (Singh and Sahni, 1984), thus providing a socially optimal directions for growth and development (Ram, 1986). The empirical works that substantiate the above findings relates to the works of Abu-Qarn (2003); AgenorandNeanidis (2006); Bose et al. (2007), Wadad and Kalakech (2009) and many more. Secondly, the other view suggests that excessive state intervention in economic system affects growth performance in a negative way. The reasons is that, the government operations are often conducted and maintained inefficiently, hence there is a reduction in the overall productivity of the economic system. The other reasons for negative effects of excessive government expenditure on growth is that it distorts economic incentives which results in suboptimal economic decisions (see e.g. Barro (1990); King and Rebelo (1990); Devarajan et al. (1996); Roy and vadlamudi (1998); Haque (2003); Belloc and Pietro (2004); Bayraktar and Moreira (2007)[20]; Dodson (2008)[21]. The two opposing view indicates the fact that for designing economic policy, the question as to whether the rate of economic development can be taken as a product of the government's conscious efforts of increasing the quantum of public expenditure programme remains an open one.

Existing studies on public expenditure have primarily focused on the overall fiscal performance of the state, with limited attention to the social services sector. Moreover, the available research has not adequately explored the factors influencing public expenditure on social services in Mizoram. Several studies have attempted to study and measure the influence of several kinds of determinants on the growth of public expenditure. Some studies focus on economic variables while the others explain ideological and institutional factors. One type of explanation does not seem to prelude the other. Fabricant considered three factors, Reddy considered four

factors, Bhatt and Varalaxmi considered ten factors, etc. Many more explanation are possible and several other determinants could be used for improvement of the previous studies to explain the growth of public expenditure on social sector. Hence, the search for the causes of the growth of government expenditure on social services have been going on, some factors being specific and others substantive.

This study aims to contribute to the existing literature by investigating the determinants of public expenditure on social services sector in Mizoram. The finding of this study will provide valuable insights for policymakers and stakeholders to optimize public expenditure on social services and improve human development outcomes in Mizoram.

6. STATEMENT OF THE PROBLEM

In Mizoram state, economic growth under interrupted periods of time has been seen along with political and social upheavals. Currently in Mizoram, economic growth is receiving the attention of government, business, labour, and the different sector of the economy. Economically speaking, during the study period, the state government has been facing a range of challenges in building the foundation for sustainable growth, including lack of infrastructure, week education and health system, high unemployment, weak governance systems. However, in the last decades, the state witnessed an expansion in construction activities such as roads, bridges, houses and other facilities.

With regard to State political scenario, there has been drastic change in the state political scene since the inception of the state. After 1987, there was a competition between non-congress and congress parties to capture the vote bank, which led to a drastic change in their expenditure policy i.e., from economic principle to populist measures. Alternatively, in order to meet the mounting pressure of public expenditure, mobilization of resources has become a herculean task on the part of the state government. The failures on the part of the government to mobilize adequate resources for the purpose may be attributed to the fact that there is a poor tax base in the state. Thus, successive governments in Mizoram have resorted to loan methods of financing its expenditure programmes.

It is against this background an attempt was made in this study to look into the intricacies of the relationship between the growth of public expenditure and the rate of human development in Mizoram. The factors which shows the backwardness of the state is that more than 60 percent of the total population are still engaged in agriculture and rated as one of the lowest in the country in having access to opportunities for a reasonably minimum standard of living. Although certain significant development efforts of the state have taken place in some spheres since attainment of statehood in 1987, the developmental efforts of the state have not been in commensurate with the amount of expenditure that the state has been incurring so far. This might have been due to the failure of the public expenditure pogrammes to address themselves to the right set of objectives that fiscal policy accords. Thus, it is observed that phenomenal growth of public expenditure in the state of Mizoram without corresponding growth in income have brought about an explosive growth of public expenditure in the state.

In Mizoram, public spending on social services such as education, health, and social welfare has increased significantly over the years. However, despite this rise in expenditure, disparities in access to essential services, persistent poverty, and inadequate infrastructure continue to pose challenges to development. A key issue is understanding what drives public expenditure on social services in Mizoram. Various economic, demographic, and institutional factors, such as state income levels, revenue mobilization, political priorities, and central government transfers, may influence the pattern and magnitude of spending. Additionally, the effectiveness of expenditure in achieving intended social outcomes remains a concern. While prior research has explored public expenditure trends, there is limited empirical evidence on the specific determinants shaping social sector spending in Mizoram.

Given the state's financial dependency on central transfers and its limited internal revenue generation, it is crucial to assess how different fiscal and economic factors impact government spending on social services. This study aims to fill this research gap by identifying and analyzing the key determinants of public expenditure on social services in Mizoram, thereby providing insights for policymakers to optimize resource allocation and improve social development outcomes.

7. CONCEPTUAL FRAMEWORK

Social services expenditure refers to the allocation of financial resources by governments towards providing essential services that improve the well-being and quality of life of individuals and communities.

7.1 Importance and Challenges of Social Services Expenditure:

Public Expenditure on social Services is crucial for promoting economic growth, social welfare, and human development. Public expenditure on Social Services helps alleviate poverty and income inequality, ensuring a more equitable distribution of resources. Investing in social services like education improves literacy rates, educational attainment, and cognitive skills, leading to a more informed and skilled workforce which leads to increased productivity. Investing in healthcare services also leads to better health outcomes, increased life expectancy, and reduced mortality rates. Public expenditure on social services promotes social inclusion, its reduced inequality and social unrest by providing essential services to disadvantaged groups, and hence, its provides a safety net, protecting individuals and families from economic shocks which and so promoting economic development.

However, there is some challenges in social services expenditure. Competing priorities and limited financial resources or insufficient funding mechanism always hinder the allocation of sufficient funds for social services. Insufficient coordination among government agencies, NGOs, and private sector organization lead to inefficiencies which further leads to ineffective targeting, duplication, and waste. Further, rural-urban disparities and regional inequalities affect the availability and quality of social services, particularly for vulnerable groups, can exacerbate social and economic inequalities. Inadequate governance structures, corruption, lack of transparency and limited accountability mechanisms can also make it difficult to track the impact and effectiveness of social services expenditure. Moreover, persistent socio-economic inequalities, aging populations, urbanization, and migration can create new challenges for social services delivery. Other challenges like insufficient technological infrastructure, digital divides, natural disasters and conflicts also disrupt social services delivery and create new challenges.

7.2 Characteristics of Social Services Expenditure

A. Economic Characteristics

1. *Non-Rivalry:* Social Services are non-rivalrous, meaning their consumption by one individual does not reduce their availability to others.
2. *Non-Excludability:* Social services often exhibit non-excludability, making it difficult to exclude individuals from consuming them.
3. *Positive Externalities:* Social Services generate positive externalities, benefiting not only the individual consumer but also society as a whole.

B. Social Characteristics

1. *Merit Goods:* Social services are considered merit goods, as their consumption is deemed desirable by society
2. *Social Welfare:* Social services aim to promote social welfare, reducing poverty, inequality, and social exclusion.
3. *Human Development:* Social services invest in human development, enhancing education, health and skills

C. Fiscal and Administrative Characteristics

1. *Government Funding and Redistribution*: Social services are often funded by governments, using tax revenues or by public agencies/institutions and then transfer resources from one group to another
2. *Regulatory framework and Intergenerational:* Social services are subject to regulatory frameworks, ensuring standards, quality. It requires accountability, transparency, efficiency, and effectiveness in resource allocation thereby having intergenerational implications, benefiting future generations.

D. Dynamics and Complexity

Social services are dynamic, responding to changing social needs, demographics and economic conditions. It's also involves complex decision making, balancing competing priorities and interests.

8. OBJECTIVES OF THE STUDY

The specific objectives of the study are as follows:

1. To study pattern and trend of public expenditure with reference to expenditure on social service. .
2. To examine the funding pattern of public expenditure on social service and its disaggregation to various heads of accounts in Mizoram.
3. To ascertain the extent to which public expenditures on social services affect human development.
4. To investigate the different aspects related to the progress, the status and the indicators on education and health.
5. To find out the factors responsible for determining the level and size of public expenditure on social services.

9. HYPOTHESES

The study formulated the following hypotheses:

1. There is a positive relationship between Net State Domestic Product (NSDP) and expenditure on social services.
2. Resources from shared tax revenue and liabilities significantly stimulate public expenditure on social services.
3. Internal resource mobilization has a significant relationship with expenditure on social services.
4. Changes in the indicators of health and education sector have a significant impact with public expenditure on social services.

10. METHODOLOGY

Research Design: This research employed a quantitative and longitudinal research design, performing econometric techniques for time-series data analysis. This design was carefully opted to allow for analysing trends, relationships, and predictive factors related to public expenditure in Mizoram over a period of sixteen fiscal years, spanning from 2005-06 to 2020-21.The research depends heavily on statistical

analysis to identify and quantify the relationships between various economic indicators and public expenditure, particularly in social service sectors.

Data Sources: The study was solely based on secondary data. The requisite data were collected from:

- Annual Financial Statement: The primary source of data for public expenditure, taxation revenue, and allocations of social sector was collected the Annual Financial Statement and Accounts at a Glance issued by the Government of Mizoram.
- Handbooks of Reserve Bank of India (RBI): Handbook of Statistics on State Government Finances and Handbook of Statistics on the Indian Economy published by RBI Data were also utilised to extract key macroeconomic variables, such as Net State Domestic Product (NSDP) Public Expenditure and other fiscal variables.
- Mizoram Economic Surveys: Data related to State's economic performance, sectoral growth rates and other socio-economic indicators were collected from the Economic Surveys published by the Government of Mizoram.
- Government Department Records: The study also collected education and health statistics from the concerned departments such as Health and Family Welfare, Department of Education, Department of Higher Education, etc.

Tools of Analysis

The study employed a combination of descriptive statistics and econometric techniques to analyse the collected data.

- Descriptive Statistics: The study utilised descriptive statistics such as of mean, standard deviation, coefficient of variation, and frequency distributions to summarize and describe the variables.
- Growth Rates: Growth rates such as annual growth rates and compound annual growth rates (CAGR) were calculated to analyse and examine the trends in various economic variables over the study periods.

- Ratio Analysis: Various ratios such as ratio of tax by type to the Net State Domestic Product, tax-income ratio, ratio of indirect taxes to the Net State Domestic Product, etc were also calculated to compare and assess the allocation of resources to different sectors.
- Correlation Analysis: To assess the strength and direction of association between select economic and socio-demographic variables and public expenditure on social services sector, the study also employed correlation analysis.
- Linear Regression Analysis: To examine the impact of specific variables on public expenditure especially social service expenditure, simple and multiple linear regressions were also executed in this study. Separate regressions were performed to assess the impact of Net State Domestic Product (NSDP), external financial resources, and internal revenue generation on the expenditure of social service sector as only one specification of multiple regressions failed to meet the assumptions of the regression.

11. SCHEME OF CHAPTERIZATION

The study is tentatively proposed to be organized in 8 chapters as follows:

Chapter I	:	Introduction
Chapter II	:	Review of Literature
Chapter III	:	Growth and Pattern of Public Expenditure in Mizoram
Chapter IV	:	Sources of Financing of Public Expenditure on Social Sector
Chapter V	:	Analysis of the Changes and Implication of Social Sector Expenditure
Chapter VI	:	Public Expenditure on Education and Health Sector
Chapter VII	:	Analysis of the Determinants of Public Expenditure on Social Sector.
Chapter VIII	:	Summary of Findings, Recommendations and Conclusion.
Bibliography		

12. SUMMARY OF FINDINGS

The main findings of the study are discussed below:

12.1 Growth of Public Expenditure

- **Growth Disparity Between Public Expenditure and NSDP:** Analysis indicates that the average annual growth rate of total public expenditure in Mizoram has been lower than the average annual growth rate of the net state domestic product (NSDP). This suggests that the state income has grown at a faster rate than government expenditure.
- **Factors Driving Public Expenditure Increase:** Mizoram's intensive development efforts, comprehensive economic planning, and increasing money income and population growth have led to successive increases in public expenditure. Additionally, rising urbanization and the need for basic services like education and healthcare have increased pressure on public spending.
- **Trend in Revenue and Capital Expenditure:** Revenue expenditure shows an increasing trend, driven by higher expenditures on general, social, and economic services. This increase is aimed at achieving poverty alleviation and fulfilling basic needs objectives. On the other hand, capital expenditure has a declining trend, indicating neglect of long-term growth objectives like industrialization and infrastructure development.
- **Sector-wise Analysis:** Mizoram's revenue expenditure prioritizes social services, including education and healthcare, to enhance the economy's productive capacity. Capital expenditure focuses on economic services, such as agriculture and rural development, aiming to increase the state's productive capacity.
- **Developmental and Non-developmental Expenditures:** Both developmental and non-developmental expenditures have increased over the study period. Non-developmental expenditures on revenue account have surged, mainly due to increased developmental expenditures, leading to higher administrative burdens.

- **Income Elasticity of Total Public Expenditure:** The analysis shows considerable variation in the income elasticity of public expenditure with respect to NSDP. Revenue expenditure exhibits greater responsiveness to NSDP compared to capital expenditure.

12.2 Major Sources of Public Expenditure on Social Services

- **Tax Revenue and Public Expenditure Growth Trends**

- State own tax revenue increased from 55.05 in 2005-06 to 223.14 in 2012-13 and to 647.56 in 2020-21, which showed a compound annual growth rate of 17.43 per cent. This increase of state's own tax revenue may be attributed to the extension of the tax base and tax coverage of these taxes and also due to an upward revision of the tax rates during the period under considerations.
- The state's own tax revenue as a percentage of total public expenditure shows that the state own resources contribution to the mounting public expenditure is very low. This indicates that the state has not been able to generate larger income of its own resources so as to be able to finance the mounting public expenditure on social services. The state has to make serious effort to be able to generate larger income of its own resource in order to be self-reliant otherwise it has a long way to go to be self-sufficient.
- The contribution of total tax revenue to the public expenditure is not high enough due to lower contribution by state own resources. We may again explain that the state has not put an extra effort to mobilize available resources to counter the increasing public expenditure.
- The higher exponential growth rate of the total tax revenue is enhanced by the effort made by the Central Government from time to time for better tax mobilization. Moreover, higher growth of total tax revenue indicates the degree of elasticity and buoyancy that are inherent in the shared taxes resulting in a larger devolution of resources from the Centre to the State by way of higher share in the Central taxes.

- The annual compound rate of growth of total public expenditure is recorded at 10.71 per cent approximately. This growth of public expenditure is resulted by the comprehensive economic planning of the government. The more comprehensive of the plan, the more will be simultaneous developments of sub-sector of the economy and further, the more attention of the government on exploring the new bases and sources of additional resources of the state.
- The net state domestic product registered an annual compound rate of growth of about 14.95 per cent. The relative increased in contribution is may be the result of the relative contribution from the secondary and tertiary sectors in the economy. It is observed from the given exponential growth rates of net state domestic product and of the state's own taxes that the growth rate of net state domestic product is outpaced by the growth rate of state own taxes during this period of study.
- The percentage of State's own tax revenue to net state domestic product increased slowly with some fluctuations during the period under considerations. Judging the performances of the state own tax revenue on the basis of its contribution towards the net state domestic product, altogether we may conclude that state own tax revenue presents a poor picture of performance. Altogether, the rate of growth of state own tax revenue has been very slow during the period of our study.
- The ratio of the state's own tax revenue to the total tax revenues is more or less stagnant during the period under consideration. The true pictures of the stagnant ratio between the state own tax revenue to the state total tax revenue perhaps indicates that the state is not making any serious efforts in raising its own tax revenue and to tap more available resources in an efficient way during the sixteen years of our study.
- Mizoram has been depending more and more on shared taxes for its resource mobilization which indicates that the state able to generate little of its own resources and that it has to depend almost entirely on the centre. Therefore, Mizoram revenue performance on the basis of its own effort is rather dismal because state raised only a small proportion of revenue in comparison with shared tax revenue.

- Another observation is the changes in the composition of State own taxes on commodities and services. In the case of state Excise, there has been consistent increase for the first thirteen years of our study and after that decrease tremendously. This may be due to the fact that the state implemented the policy of wine shop opening under Mizoram Liquor Prohibition Control (MLPC) Act 2014 from March 16, 2015 tillMarch, 30,2019 and ended by the implementation of Mizoram Liquor(Prohibition) Act 2019 on March, 30.2019. Sales tax potentially got a predominant position on the structure of taxes on commodities and services, due to the extension and expansion of the tax base and the upward revision of tax rate from time to time. The contribution of tax on Vehicle to the state own tax revenue shows a declining trend in most of the year during the study period. The contribution was between eight and less than five for the rest of the study period. The observation on the percentage contribution of goods and passenger tax and other taxes on state own tax revenue also show a declining trend.

▪ **Shared Tax Revenue and Others**

- The main feature of the state total tax revenue is a phenomenal increase in the contribution of devolution of central taxes and duties to the total tax revenue of the state. Throughout the period of our study, around 77 per cent of the total tax revenue is from the share of Central taxes. Thus, from the healthy fiscal economy point of view, we may conclude that the position of the trend which have been observed from the pattern and composition of the state taxes is not satisfactory. However, the state is making endless efforts to achieve self-reliance with regard to resource mobilization of sufficient resources for implementing various developmental programmes in the state.
- The observation of the ratio of indirect taxes to the net state domestic product clearly showed that the contribution of indirect taxes has increased more than two times when calculated as a percentage of the net state domestic product during our study period. However, there is a sign of a decline in 2020-21.
- Due to increasing developmental responsibilities to the state, there has been a growing and widening gap between the state own tax revenue and its expenditure requirements. Therefore, Mizoram depends largely on devolution

of central taxes and duties and federal transfers still constitute more than seventy-seven per cent of the total fiscal resources of the state, Mizoram is far from the goal of financial self-reliance.

12.3 Changes and Implication of Public Expenditure on Social Sector

- **Significant Growth in Social Services Expenditure**

- The government of Mizoram had increased its allocations to the social sector quite significantly after 2008-09. Even though, the fiscal health has not improved considerably, the situation has changed from the initial period of our study as a result of a larger transfer of resources from the union government to the states as recommended by the twelfth finance commission, and the acceleration in economic growth. The growth in total expenditure on social sector under revenue account may be explained by the intensive development efforts made by the government through comprehensive economic planning. The steady increase in public expenditure on revenue account as well as capital account might have also been due to the increasing demand of services from people such as education, health facilities, etc., with increase in the standard of living.
- Expenditure on social services increased considerably from Rs 637.54 crores in 2005-06 to Rs 3737.76 crores in 2020-21, recording an annual average rate of growth of 11.69 per cent during the period under consideration. The largest share of social service spending has consistently gone to education, followed by health and other social services. Expenditure on education, health and other social services increased by about 5 times, about 4 times and about 8 times respectively in the same period.

- **Growth of Social Services Expenditure in Mizoram**

- Larger resource transfers from the central government, particularly after the 12^{th} Finance commission, played a crucial role in increasing social sector spending.

- Another factor responsible for expanding social sector activities in the state economy of Mizoram can be explained through the increasing pressure on the demand for social services due to increasing population growth and its corresponding impact on the density of population and urbanization along with the increasing level of money income. The increased in population has increased the demand for educational, health and other basic minimum needs services. At the same time, public sector in the state is compelled to make greater investments in infra-structural and other developmental activities in order to reduce the intense pressure on the subsistence sector. Besides, due to increasing urbanization process in the state, the responsibility of providing more public utility services by the government has also increased.
- Changes in government policies and political priorities have led to fluctuations in public expenditure on social services and the allocation of resources has been influenced by political commitments to social services like education and health.
- 2008-09 onwards saw a significant rise in social sector spending due to improved fiscal policies and central government transfer. However, expenditure patterns fluctuated due to economic downturns, political shifts, and the COVID-19 pandemic, which impacted state revenues and allocation priorities.

▪ **Revenue vs Capital Expenditure on Social Services**

- The majority of social services expenditure is on revenue expenditure rather than capital investment. The share of capital expenditure in total social service spending remained low, indicating limited infrastructure development in social services sectors.

▪ **Social Expenditure Impact on Human Development indicators**

- The study confirms that higher social spending positively impacts human development by improving education and healthcare outcomes. The Human Expenditure Ratio (HER) in Mizoram remained above UNDP's suggested norm of 5%, reflecting high government commitment to human development. However, Social Allocation Ratio (SAR) remained below the UNDP norm of 40%, suggesting fiscal constraints in public spending.

- Diversification of revenue sources and improved financial management are essential to ensure stable social sector funding.

12.4 Education and Health Expenditure

- The government's ability to fund education and health depends largely on its fiscal strength, influenced by economic growth and central government transfers. Expenditure on Social services has increased alongside Net State Domestic Product growth, but at an inconsistent rate.
- Education expenditure increased by 5.3 folds during 2005-06 to 2020-21. Despite this increase, the share of education expenditure in NSDP declined from 10.94% in 2005-06 to 7.35% in 2020-21. This declining expenditure-to-NSDP ratio suggests education is not growing in alignment with the state's economic expansion.
- Revenue expenditure (salaries, subsidies, pensions, etc) dominates and has grown at a stable rate, whereas capital expenditure (infrastructure, school buildings, equipment) has been fluctuating. Inconsistent capital investment could impact the long-term quality of education infrastructure.
- Disparities in education access remain between rural areas and urban areas.
- Health expenditure increased by 7.46 folds during 2005-06 to 2020-21. However, the share of health expenditure in NSDP declined from 5.39% in 2005-06 to 2.73% in 2020-21, indicating health sector was a lower priority compared to other sectors.
- Revenue expenditure on health is focusing on salaries, rather than improving healthcare services and accessibility. Capital expenditure on health is highly inconsistent. Low and inconsistent capital investment has resulted in inadequate health infrastructure in rural areas.
- The results and finding shows that social spending rather than economic growth of the state government has greater impact on human development. The value of human expenditure ratio of the state also suggests that there is high degree of political commitment to human priorities of the social sector. This result is in confirmation with the trend that public expenditure on social

sector gets transformed to the end results of better human development indicators. Thus, we can safely state that public policy plays a crucial role in social development in Mizoram.

12.5 Major Determinants of Social Services Expenditure

- The study reveals a high correlation between expenditure on social services and key economic indicators such as liabilities, NSDP, per capita income, and tax revenues.
- The Net State Domestic Product is the major determinants of public expenditure on social services. An R-squared value of 0.978 demonstrates that 97.8% of the variance in social services spending is explained by changes in NSDP, highlighting its critical role in determining expenditure. These results align with Wagner's Law, which suggests that public expenditure increases with economic growth and Keynesian Economics – public spending stimulates economic activity.
- Expenditure on Social Services is also strongly correlated with Liabilities and Shared Tax Revenue, Liabilities and Shared Tax together explain 97.1% of social service expenditure variance, indicating that as a state's liabilities, non-tax revenue, and economic output increase, so does its expenditure on social services. Liabilities (B = 0.311, p = 0.000) have a stronger impact than shared tax (B=0.183, p = 0.022), indicating that government borrowing is a key driver of expenditure. Moderate multicollinearity is present (VIF = 4.631), but the model remains statistically reliable.
- Similar high correlations are observed between Expenditure on Social Services and other financial indicators like State Own Non-Tax Revenue and Per Capita Income**.** These high coefficients suggest that both internal and external revenue sources, as well as overall economic health, play significant roles in determining how much a state spends on social services.
- There is also substantial correlation between the independent variables themselves. Liabilities**,** State Own Taxed Revenue**,** State Own Non-Tax Revenue**,** and NSDP are highly correlated, with coefficients ranging from 0.931 to 0.988. This strong interconnection between variables reflects the fact that a state's economic output, its revenue sources (both own and shared), and

its financial obligations are tightly coupled. Similarly, NSDP and Per Capita Income show near-perfect correlation (0.988), reinforcing the idea that economic output and income levels are closely linked in shaping a state's fiscal health.

- The forecasting model for social expenditure shows reasonable accuracy, with average residuals near zero. However, significant underestimations and overestimations occur in specific years, pointing to evolving socio-economic dynamics that demand adaptive fiscal planning. Internal revenue sources have weak predictive power, particularly state-own taxed revenue, indicating limited fiscal autonomy.
- Health and education metrics like infant mortality rate and education factors such as the number of teachers, teacher's pupil ratio have a significant influence on public expenditure on social services. Reduced infant mortality corresponds with increased spending, reflecting investments in health improvements. Similarly, higher teacher counts necessitate greater allocations to education.
- The regression model provides reliable long-term expenditure projections, supporting its use for future fiscal planning, though adjustments are needed to improve short-term accuracy.
- The study on determinants of public expenditure on social Services provides strong empirical evidence that economic growth, external funding sources, and demographic factors are the primary determinants of social services expenditure in Mizoram. Additionally, health and education investments remain critical priorities for government spending.

13. RECOMMENDATIONS

13.1 POLICY RECOMMENDATION

- Since Net State Domestic Product is a key determinant of public expenditure on social services, policies that boost economic development, particularly in industrial and agricultural sectors, will enhance fiscal capacity for social service expenditure.
- Mizoram has increasingly depended more and more on Union government for its financial resources and so, the financial problems of the state arise due to lack of potential effort to raise additional financial resources from the government. The state needs to divert a large portion of available economic resources into productive investment and also the state needs to make an effort for higher revenues from indirect taxes and non-taxes revenue.
- Being a welfare state, public expenditure on social sector of Mizoram is determined to rise with the progress of the society; ways and means resources to meet this increasing expenditure would have to found out.
- The state should raise the quality of its intervention in the social sectors. Proper training should be conducted to its personnel down the line and civil society groups must be enrolled for their support to state projects and programmes. In medical and health, adequate number of specialists, hospital beds, operation theatres and other infrastructure facilities should be provided across the rural and urban areas. In education sector, education system ought to be reoriented towards a skills based curriculum rather than knowledge based and technical training should be encouraged.

- Managing the growth of public expenditure and mobilizing tax and non-tax revenue to finance it are key challenges. Detailed analysis of financing public expenditure on social sector and its relationship with revenue mobilization is necessary for effective governance.
- The expenditure mechanism should be streamlined by reprioritizing expenditure both at the sectoral and at the inter-sectoral level keeping in mind on the effectiveness of each spending category. The goal should be to pick on

activities that have the maximum linkages to income growth and social welfare. From the point of view of scarcity of resources one has to derive the maximum available unity while deciding on expenditure priorities. The expenditure leakages must be curbed and expenditure on wasteful activities such as on sacked personnel must be curtailed to the extent possible. Efficient use of borrowed funds for capital expenditure is also crucial to avoid excessive interest liabilities.

13.2 SCOPE FOR FURTHER RESEARCH

1. Assessment of financial dependency: A study on how dependent Mizoram is on Central government transfers and its long-term implications for fiscal sustainability.

2. Impact of demographic Changes: Analyzing how population growth, aging and urbanization trends may influence future social spending needs in Mizoram.

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