CHAPTER II

CONCEPTS, REVIEW OF LITERATURE AND METHODOLOGY

This chapter has been devoted to present a brief review of the related literature concerning the study of “An Analysis of Developmental and Non-Developmental Expenditure of the Central Government of India from 1980-81 to 2003-04”, and to explain the methodology adopted in this study. While section A of this chapter deals with the concepts, section B deals with the review of literature and Section C deals with the methodology adopted.

SECTION A

CONCEPTS

INTRODUCTION
The important concepts, which may be interpreted in different ways, are chosen and their specific usages in this study are vividly explained in this section.

**Public Finance**

“Public finance deals with the policies and principles of finance of the public sector, including Federal, State and Local government, that is based upon their revenues and expenditures\(^9\). The word “public” is used to signify the government or State. “Public authorities” include all sorts of governments. Hence, it can be said that public finance deals with the finances of the governments - Central, State and Local that are studied in the science of public finance. Prof. Dalton has defined public finance as one that is concerned with the income and expenditure of public authorities and with the adjustment of one to another\(^{10}\)

Meaning of Public expenditure:

Public expenditure is the expenditure that is incurred by the public authorities like the Central, the State and the Local governments for the satisfaction of the collective needs of their citizens, in promoting their economic and social welfare. The

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Public expenditure has been increasing in almost all the countries of the world, because of the continuous expansion in the activities of the State and the public bodies.¹¹

Classification of Public Expenditure:

Public expenditure may be broadly classified into:

- Development expenditure and
- Non-development expenditure

Flow chart showing the components of Total Public Expenditure:

a) Development Expenditure:

All expenditures incurred on social and economic overheads and grants in aid given to the States are considered as development expenditure. However a rise in the development expenditure is a justifiable one, and we must examine only the heads under which the expenditure had been incurred. Other related aspects, which should also be taken into consideration, are the priorities laid down for the development expenditure, the allocation of the financial resources to the various sectors, the observance of the various canons of public expenditure and the amount of benefits that accrue to the society.

Flow Chart Showing the Components of Development Expenditure:
Agriculture & Allied activities,  
Rural Development, Energy,  
Irrigation & Flood control,  
Industry & Minerals,  
Transport & Communications,  
Science & Technology and  

Education, Sports & Youth Affairs,  
Health & Family Welfare,  
Water Supply & Sanitation,  
Information & Broadcasting,

(i) General Services

This category includes both civil and defence services. Civil services include (a) Organs of State like the Parliament, the President, the Vice-President, and the Council of Ministers, administration of justice, elections, and audit, (b) Fiscal Services like the collection of customs duties, Union excise levies, income tax, wealth tax and other taxes levied by the Government, currency, coinage and minting, (c) Interest Payments on market loans, external loans, and loans from various reserve funds, (d) Administrative Services like the Union Public Service Commission, police, jails, public works, external affairs, pensions and secretariats and attached offices of the Ministries of Finance, Home Affairs, Law, Justice and Company Affairs, Defence and External Affairs. In short,
the expenditure on general services relates to the maintenance of law and order, the
defence of the country, and the upkeep of the general organs of the Government.

(ii) Social and Community Services:

The category of ‘social and community services’ includes expenditures incurred
on the basic social amenities to benefit the citizens as well as the community. It relates to
the expenditure on education, art and culture, scientific services and research, medical
services, family planning, public health, sanitation, water supply, housing, urban
development, information and publicity, broadcasting, labour and employment, and
social security and welfare. The expenditure on the secretariat and the attached offices of
the various ministries dealing with these services is also included under this category.

(iii) Economic Services:

The category of ‘Economic Services’ includes all such expenditures, which
promote productive activity within the economy. In other words, the benefits of
expenditure under this category accrue to the citizens as producers. The major heads of
expenditure of this sector are: (a) General Economic Services like foreign trade and
export promotion, co-operation and secretariats and attached offices of the various
Ministries dealing with the programmes of economic development, (b) *Agriculture and Allied Services* like irrigation schemes, soil and water conservation programmes, animal husbandry, dairy development, fisheries, forestry, community development, food subsidy to the Food Corporation of India and other services related to agriculture, (c) *Industry and Minerals*, which include the large-scale industries, the village and small scale industries, and the development of mines and minerals, (d) *Water and Power Development* including navigation, drainage, flood control and power houses, (e) *Transport and Communications* such as ports, light houses, shipping, civil aviation, roads and bridges, tourism and other transport and communication services.

**(iv) Total Assistance to States and Union Territories:**

The centre also gives assistance to the States to meet their development expenditure on the basis of the recommendations of the Planning Commission. The planning commission recommends assistance by way of grants and loans for the execution of the programmes spelt out in the Five Year Plans. The planning commission was established in the year 1950 by a resolution of the cabinet. Though its constitution has no statutory backing, the Planning Commission has wielded enormous powers and has greatly influenced the inter-governmental relations in India since its inception. The Central government gives additional assistance to the States in the form of grants and loans to enable them to meet the expenditures on certain items like relief for natural
calamities and for the rehabilitation of the displaced persons, which cannot be anticipated by the Finance Commission or cannot be considered by the Planning Commission, as they do not come under development expenditure.

As revealed by Table 2.1 the development expenditure has been increasing in the study period from 1980-81 to 2003-04.
Flow Chart Showing the Components of Non-Development Expenditure

Non-Development Expenditure

- Economic Services
- Interest Payment
- Social Services
- Subsidies
- Defence Services
- General Services
- Other Services

- Agriculture & Allied services, Energy services, Industry & Minerals, Transport & Communications, Science & Technology and Other related services
- Education, Sports, Health & Family Welfare services, Labour & Employment
- Food, Fertilizers & other
- Police, Pensions and other
Interest payments, debt services, defence expenditure, expenditure on administrative services, subsidies and the like are considered as items of non-developmental expenditure. Although over the planning period, the relative importance of the non-development expenditure had declined, the absolute amount of expenditure under the various heads of non-development expenditure had increased. Non-development expenditure is considered as a desirable expenditure from the administrative point of view and it has a tendency to increase with the increase in population and the per capita income. The rise in the non-development expenditure in India over the past 44 years, however, could not be easily justified. The population over this period had increased by two and a half times and the per capita income had also more than doubled. Hence, a rise in the non-development expenditure at constant levels of prices was inevitable, but a ten-fold increase in it could not be fully justified. Defence, interest payments on public debt, tax collection charges and policy implementation expenses roughly account for nearly two-thirds of the non-development expenditure. No doubt, the expenditure under
these various heads serves some useful purpose, but in an underdeveloped country like India where resources are scarce, the expenditure under these heads should certainly be brought down.

i) Interest Payments:

Interest payments constitute the single largest component of the category of non-development expenditure. It is of the nature of the committed items of expenditure, which had arisen out of past profligacy. In the 2003-04 Central budget, the interest payments alone had accounted for Rs. 1,23,223 crores, constituting 42.58 per cent of the total non-development expenditure of the Government\textsuperscript{12}. The increase in interest payment had been due to the increasing reliance on borrowings for expenses. The increased reliance on borrowings had directly increased the debt servicing liabilities of the Government. Fiscal experts warned against an internal debt trap, a situation in which borrowings had to be resorted to, just to fulfill the debt servicing obligations. A reduction in the interest rates is one of the alternatives to arrest the rising debt servicing obligations of the Government.

However, cuts in interest rates will provide relief only for a short-term and for a temporary period of time. For a long-term solution of the problem, the borrowed funds have to be used for more productive purposes and for projects, which could ensure

reasonable rates of returns. This is also considered as the underlying philosophy of public
debt management.

**ii) Defence expenditure:**

The allocation for defence represents the second largest component of the non-
development expenditure. Defence expenditure started increasing steadily after the
Chinese aggression in the year 1962 and after the Indo-Pakistan conflicts in the years of
1965 and 1971. Defence expenditure, which is chiefly determined by the geo-political
situations, is almost a committed expenditure. In view of the growing global tensions
there is very little scope for stabilization and a much less scope for reduction in respect of
our defence expenditure. Defence expenditure is a ‘sacred concept’ in India and any
suggestion to control or reduce it, is construed as an almost unpatriotic act. However,
restraining the defence expenditure should not be misconstrued as weakening the defence
preparedness. It simply relates to the means of exploring the possibilities of achieving the
existing level of defence preparedness, but at reduced costs. As a result of the
implementation of the recommendations of the various pay commissions, the wage
component of the defence budget had also increased to a disproportionately high level.

**iii) Subsidies:**

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New Delhi, 1994, pp.433-434.
Subsidies account for a sizeable proportion of the Center’s overall non-development expenditure. In the 2003-04 budget, they accounted for Rs. 49,907 crores (17.25 per cent) out of a total non-development expenditure of Rs. 2,89,384 crores. Food and fertilizers are the major items subsidized by the Government through budgetary support. In regard to subsidies, the largest chunk is accounted for by food subsidies. These have been going up due to the massive food stocks. Fertilizer and other subsidies have also experienced sizeable increases. A rational pricing approach for the various goods and services provided by the state might help to bring down the expenditure on subsidies\(^{14}\).

iv) Food Subsidy:

Food subsidy is designed to help the producer-farmers and also the consumers of wheat and rice. The Food Corporation of India procures the foodgrains from the open market at prices fixed by the Government (support prices). To these prices are added the handling costs, such as the transport and the storage costs to arrive at the economic cost of procuring the food grains. The procured food grains are then released to the public

through the public distribution system. The issue price of the food grains is fixed at less than the economic cost arrived at by the Government. The difference between the two is reimbursed to the Food Corporation of India by the Central government in the form of subsidy. The major determinants of food subsidy are: (a) the cost of procurement, (b) the storage and distribution costs, (c) the foodgrain stocks and d) the issue price of the cereals. The basic purpose of giving food subsidy is to help the weaker sections of the population to obtain their requirements of cereals at reasonable and affordable prices. Presently, every citizen of India, irrespective of his economic considerations is entitled to purchase the subsidized items (cereals, sugar, kerosene and the like) from fair price shops. It is also true that in the case of this non-discriminatory treatment of every section of the society, some eligibility criteria based on the income levels have also been fixed. The administrative and enforcement costs of implementing such measures should also be borne in mind in giving subsidy. In his 2000-01-budget speech, the Finance Minister had announced that the income tax assesses would be excluded from the purview of the PDS but only in respect of sugar. The same should have been carried out in respect of cereals and kerosene also. The basic purpose of food subsidy is only to help the weaker sections of the population to obtain their cereals at reasonable prices.

(ii) Fertilizer Subsidy:

The use of fertilizers by the farmers is very necessary to improve the yields of the various crops. Fertilizer consumption has been steadily on the increase in India. In
November 1977, the Government introduced the Fertilizer Retention Price and Subsidy Scheme under which fertilizers were supplied at subsidized prices to the farmers throughout the country.\textsuperscript{15} The issue price of fertilizers is being revised from time to time. In spite of this, the subsidy on fertilizers has become an important item of Government non-development expenditure. Though it is desirable that the small and the marginal farmers should continue to enjoy the benefits of subsidized fertilizers, it is highly questionable as to whether such benefits should continue to be extended to the big farmers as well. The Finance Commissions have emphasized, from time to time, the need to curtail the subsidy amounts on fertilizers. The Seventh Finance Commission had assumed a progressive decline in fertilizer subsidies and its complete elimination by the year 1983-84. The Eighth Finance Commission regretted that the stipulations of the previous Seventh Finance Commission had not materialized. The Ninth Finance Commission had also felt that the further growth in the amounts of fertilizer subsidy should be considerably reduced.

The Ninth Five Year Plan had also criticised the present system of subsidies and it had observed “It has therefore, become essential that the Government gradually shifts its expenditure patterns away from that of providing non-transparent and non-targeted subsidies. Unfortunately, the beneficiaries of the present system of subsidies are much more organized and politically more vocal than the vast majority of our common citizens,

who silently suffer from the lack of even the basic amenities of a decent and healthy existence.¹⁶

(iv) **General Services:**

This category includes the capital expenditure on the civil and the defence services. It accommodates capital outlay on all non-residential buildings, such as office and administrative buildings other than those expenses incurred for functional purposes such as for hospitals, schools and godowns. Regarding defence services, the provision for capital expenditure on the acquisition of land and on construction works, on machinery and equipment, on military farms and the like are included in this category of expenditure.

(v) **Social and Community Services:**

The category of social and community services includes all capital expenditures on buildings for schools, on technical institutions mainly in the Union Territories, on scientific research organizations, hospitals, dispensaries, medical stores and research laboratories. Capital outlays on studios, transmitters, machinery and equipment and buildings for All India Radio and Doordarshan are also included in this category. Still further, this sector also accommodates capital outlays and loans granted under various schemes for the resettlement of displaced persons as well as the other schemes for social security and welfare programmes.

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(vi) **Economic Services:**

This category includes capital outlays and loans granted for various schemes of economic development in the field of agriculture and allied services, industry and minerals, petroleum, chemical and fertilizer industries, aircraft and ship building industries, water and power development services, roads and bridges and such other economic services. Table 2.2 shows that the non-development expenditure has been rising very fast in the study period from 1980-81 to 2003-04.
REVIEW OF LITERATURE

Introduction

This section deals with a review of the related studies conducted already. A survey of the available literature reveals the fact that only a limited number of studies have been undertaken in the area of public expenditure in India. Some important research studies which were undertaken in recent years and are very closely connected with the present study, have been reviewed in this chapter.

Best\textsuperscript{17} has given a brief summary of the previous research studies and the writings of the recognized experts in his “Socio-Economic Research System and Methods”. He has stated that there should be clear evidence about what the researcher is familiar with and what he has already known and with what still remains as unknown and untested to him and this aspect of the research process provides the proper background for the development of a particular study.

P.K.Bhargava\textsuperscript{18} in his book “Essay on Indian Public Finance” has stated that a modern government is wedded to the objective of promoting the welfare of its people. According to him, there has been an enormous increase in government expenditure due to a number of factors, such as an increase in population and also in goods to satisfy the creamy layer of the society. The total expenditure of the Government of India and that of the States towards debt services has also been continuously increasing. The increase in debt services indicates that there has been an increasing reliance on loan finance to meet the needs of plan expenditure.

B.R.P. Vithal\textsuperscript{19} in his paper, “Federation Financial Relations” has stated that the divisions of the total revenue expenditure into plan and non-plan aspects and the division of functions and responsibilities between the Planning Commission and the Finance Commission have become important issues in the federal financial relations. The government accounts have classified public expenditure as Revenue and Capital, and Development and Non-Development Expenditures as stated in the Constitution. In the forecasts made between the Planning Commission and the State Governments, the States had underestimated their committed expenditure and had over estimated the yield from their existing sources of revenue, according to him.

“Government Expenditure and Growth” by Jack Diamond examines the various items of government expenditure in relation to the Gross Domestic Product (GDP) of the country. The result shows that the ratio of public spending at the aggregate level and at the total expenditure level had not exerted any major influence on the real growth of the economy. Countries with relatively higher levels of gross domestic product, on an average have not necessarily achieved higher growth rates according to him.

In the article on “An Appraisal of India’s Public Expenditure”, Krishnaveni has explained that the estimated financial allocations to the States and the Union Territories had been increasing at a rapid rate, indicating about the financial weaknesses of the States and the Union Territories. Recently the central government had introduced a package of economic reforms in order to reduce the fiscal deficit and for eliminating the wasteful and unnecessary items of expenditure. To reduce the non-development expenditure, substantial reductions in the magnitude of the subsidies for food, fertilizers and exports had taken place in the Central Budget proposals for the year 1991-92. The

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uncovered costs in the Central Government have increased the financial burden. Hence, many policy makers have appreciated this step of reducing the quantum of subsides. Against this background, some additional precautions have also become important to curtail the abnormal growth of public expenditure in India.

In an article on “India’s Defence Expenditure” Arun Patwari\(^\text{22}\) has analyzed the massive increase in India’s defence expenditure. The main focus of this study was on the distribution share for the various sectors and for various years and it had indicated about the marked increase of 21 percent in the defence expenditure. The defence budget for 1993 had allocated Rs19, 810 crores as pensions for defence services’ personnel, but such expenses were segregated and shown separately after the year 1995 in keeping with the general policy of making allocations for pensions for the Central government employees from the consolidated fund of India. An earlier change in the income policies and the implementation of the recommendations of the Fourth Pay Commission had resulted in a significant increase in the pension bill over a period of years. The gross value of production of the 39 defence factories had been increasing and it had doubled during the five-year period from 1985 to 1990.

Dwivedi\textsuperscript{23} has found that “the ratio of the total public expenditure of the Central, the States and that of the Union Territories to Gross National Product had shot up from 8.1 percent in the year 1950-51 to 21.2 percent in 1970-71 and further to 40.8 percent in 1990-91”. The proportion of public expenditure to the net national product had increased at a much faster rate of 8.5 percent in 1994. The total public expenditure had accounted for nearly one half of the national income of the country.

K.R. Matli\textsuperscript{24} in her paper on “Performance approach to Public Expenditure” has stated that the bulk of the government expenditure had been used for performing essential functions such as that of the maintenance of law and order and with the advent of the planning era, the emphasis had been shifted to a larger amount of expenditure on developmental activities. This had necessitated a change in the yardstick to be used to judge whether a given amount of money was well spent or not. This had led to the introduction of the fiscal tool, called performance budgeting. In her paper, the author has explained the technique of performance budgeting in the light of the practices that were prevailing in other countries and has suggested as to how this tool could be adopted to suit the development needs of India. This would strengthen the decision making process at the various levels of management in the government with an

\textsuperscript{23}D.W. Dwivedi, \textit{India's Financial Performance}, Published By Wiley Eastern Limited, New Delhi, 1994, pp.7-8.

allowance to accommodate changes in the programmes at the time of the formulation of the plan in the succeeding year.

The article on “Health Expenditure” by Ravi Duggal and Sunil Nandraj\(^\text{25}\) have attempted to analyse the impact of the health expenditure, such as health care expenses, educational expenses, housing, old age security and such other social expenses on the well being of the society. Though in India we have a significantly large and wide public health delivery system, they are mostly used for the curative purposes only. To serve the rural population, the States have been setting up primary health centers (PHCs) in the villages and in the rural areas. Finally, the study had analysed the utilization of the funds at the disposal of the public health sector, in terms of input composition; that is, in terms of salaries of the staff and other purchases of commodities. Public health care and such other programmes have a very high proportion of the expenses in respect of salaries. Hence these programmes are bound to have very little effect on the achievement of results, as the other necessary provisions such as equipment and medicines would become grossly inadequate.

Sanjeev Gupta and Edgardo Ruggler in their paper on “World Wide Military Expenditure Appears to Have Leveled off,” have stated that world wide military spending had virtually leveled off since the year 1995. Worldwide military expenditure had declined to 2.3 percent of the GDP in 1996 and 1997 from the 3.5 percent of the GDP level in 1990. Approximately the decline was about three fifty seven billions of dollars in the resources over the years from 1990 to 97. Differences in the coverage and in military spending data are notoriously hard and difficult to obtain completely to enable the direct comparisons of data. Industrial countries have been estimated to have reduced their nominal military expenditure by about 33.8 billions of dollars over the period of 1996 and 1997. The weighted average share of military spending to total public spending in all the countries of the world had remained unchanged at slightly above 10 percent during the years 1996 and 1997 and had declined from the 14 percent level in the year 1990.

Rekha Jegannath in her article on, “India’s Public Expenditure in the 1990s” had focussed mainly on the measures of Government spending and its efficacy. Her study was limited to the 1990s to examine the trend and the magnitude of public expenditure of the Central Government. In her analysis, she has found that the revenue expenditure

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was around four times that of the capital expenditure and the non-plan expenditure was rising much faster than that of plan expenditure. She had argued finally that the country had been spending more in the non-developmental areas than on development avenues. She had suggested various measures to reduce the public expenditure and had pointed out that public expenditure should be raised by 50 per cent, as there was an urgent need to give top priority to health care, sanitation, drinking water supply and education.

Sandeep Shastri\textsuperscript{28} in his paper “Economic Liberalization and Administrative Reforms” has stated that economic reforms had necessitated a second look at the nature and direction of the amount of public expenditure. One of the major factors responsible for the new economic initiative was the fiscal mis-management and the non-viable returns to governmental expenditure under the earlier regimes. In India during the period (1998), federal government expenditure had been reduced by two percent in terms of GNP. It was also found that a significant reduction in the levels of government expenditure had not been achieved in many areas in spite of liberalization, as the profits of privatization had been lost due to the government administrative inefficiency.

S. Srinivasa Gowda\textsuperscript{29} in his paper “Changing Fiscal Policy in India” has stated that Government expenditure as a ratio of GNP had doubled between 1960-61 and 1990-91, from 17 per cent to 34 per cent. The gap between the government expenditure and the revenues as a percentage of GNP had increased from less than four per cent in the sixties to 7 to 8 percent in the nineties. There was a great reliance on the indirect taxes to finance the government expenditure. Heavy dependence on indirect taxes, which is an unhealthy feature, was noticeable in the fiscal policy in India. Bureaucratization of government expenditure was found to be a major obstacle to the discretionary cuts in public expenditure. The expenditure incurred once, had created a bureaucrat’s vested interest and had perpetuated it.

Economic and Political Weekly Research Foundation in a topic on “Union Budget”\textsuperscript{30} has stated that the erosion of public sector investment and in the Government’s development expenditure was due to the large and persistent short falls of Rs. 9568 crores in 1996-97 and Rs. 10,806 crores in 1997-98 and as much as 16,705 crores in 1998-99. One of the important causes for the short fall in expenditure was due to the rapid increase in the salary and the pension bills of the Central government. The size of the proposed outlay on the developmental expenditure in the latest budget


(1999-2000) might at best help to sustain the present level of depressed economic activities. The plan expenditure was expected to rise by 12.6 per cent, which was just the rise expected in the nominal GDP.

Vickram Crishna,\(^\text{31}\) has analyzed the “Tele-communication infrastructure” in the countries of the South Asian region and has stated that the tele-communication infrastructure had been built up entirely by incurring public expenditure. Government owned institutions have also wholly managed the services built upon this infrastructure and with the emergence of the new technologies that have enabled both written and spoken words (and indeed, pictures too) to be conveyed reliably over digitally rendered electronic communications, a major upgradation of the systems in communications. The benefits of such investments were far beyond what was possible earlier, but a great deal of the earlier expenditure had been incurred for the modern infrastructure. The whole purpose of establishing tele communications had to be re-examined in order to maximize the efficiency of every possible medium of transmission, including copper cable, fiber-optic cable, terrestrial radio and satellite communications. It was possible to ameliorate the upward cost of providing for a significant part of the people of the region with the means of digital communication, but this would require a paradigm shift from the traditional funding and management models. Private and non-governmental sectors

should be encouraged to participate, if the benefits have to fructify in a meaningful time frame.

Chatterjee\textsuperscript{32} had analysed public expenditure in a detailed way. An extract from his detailed study is presented below. On the expenditure front, one of the biggest items was found to be the civil servant’s pay roll. Not only was the number of public employees judged by any standards, the salary scale had also been out-of-tune, when compared with the purchasing power of the average citizen of India. Thus, downsizing of the public sector should be given the utmost priority. Secondly, there was a limit to the giving of subsidies. People without proper means and who were living below the poverty line deserved subsidized food, shelter and fuel requirements. But others should be charged according to the cost based and the user price basis. Thus on an overall basis, the government expenditure was set to rise by over 11 percent to reach the level of Rs 338,487 crores in 2000-01. This growth rate of 11 per cent was much higher than the growth rate of the GDP, which was estimated to be in the range of 7.8 per cent as stated in the budget (2000-2001). This higher rate of spending had demonstrated the lack of a creditable framework of fiscal discipline.

Prabakar Sahoo\textsuperscript{33}, in his article entitled “Economic of Public Expenditure in India”, has shed much light on the role of public expenditure in an economy. If public expenditure is not properly utilized, it might lead to economic distortions and government failure in maintaining fiscal discipline. In his study of the 1980s and the 1990s, he examined the trend and the magnitude of the developments of public expenditure. In his analysis, he found that the development components of both the capital and the revenue expenditures had been declining over a period of time, and there was a substantial increase in the non-development expenditure components, particularly in respect of the total revenue expenditure. He had suggested that for a substantial and productive public expenditure, the government should increase its efforts for increasing the tax and the non-tax revenues, and reduce the borrowings to pull down the expenses on interest and subsidies, increase its capital expenditure and capital formation, curtail all kinds of unnecessary subsidies and above all, make sustained efforts to make the growth of capital expenditure faster than that of revenue expenditure.

Economic and Political Weekly Research Foundation\textsuperscript{34} has stated about the “Finances of State governments”. According to it, the central government budgets are


framed along the lines suggested by the Comptroller and Auditor General of India. A four digit accounting classification, with desegregation into the traditional revenue and capital accounts and with an additional decomposition of expenditures into Plan and Non-Plan categories, have been adopted, since the advent of planning in 1951-52. In addition, the RBI has been classifying budget heads into functional categories such as the Development and Non-Development items under public expenditure, from the beginning of the early 1950’s, and also the taxes on incomes and properties and taxes on commodities and services. On the taxes side, the classification from the 1980s had been that all the expenditures under the revenue and capital accounts consisting of capital outlays and loans and advances and had categorised them into general services, social services and economic services. Expenditure on ‘economic services’ consists of agriculture, rural development, industry, physical infrastructure and the like and ‘social services’ consist of education, health, housing, labour welfare, and the like. ‘General Services’, comprise all services, which are of an administrative nature, including pensions as well as interest payments, and they are included under the category of non-developmental expenditure. Again, the category of revenue and capital account as well as that of developmental and non-developmental heads had been divided into ‘plan’ and ‘non-plan’ expenditure categories.
Economic and Political Weekly Research Foundation had explained that “Amongst expenditure items, general services, social services, economic services and grants-in-aid have shown divergent trends up to a moderate extent. In a few consecutive years, the actual expenses under ‘social services’ had been much less than the budgeted amounts indicating, to quote the CAG,(Comptroller and Auditor General of India), that ‘social services’ expenditure might have been cut in the wake of the shortfall in the revenues and the need to contain the fiscal deficit”. On the other hand, the achievements have been in the contrary; broadly, revenue receipts in relation to the GDP had suffered a setback and on the expenditure side, the share of the non-plan expenditure had gradually increased while that of the plan expenditure had fallen. In fact, revenue surpluses have to be generated for investment purposes. But there is a snag in the structure of the budgetary expenditure. The bulk of the ‘social services’ expenditure by its very nature gets included under the ‘revenue’ head. For instance, despite the sizeable increases in the expenditure for infrastructure and rural development, the plan expenditure for the economic services had fallen from 16 percent of the total aggregate expenditure to less than 10 percent, while that for social services it has steadily increased from 3.5 percent to 6.5 percent. The total expenditure for social services and poverty alleviation programmes had aggregated to Rs 58,802

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crores in the budget year 2002-03, which had accounted for over 60 percent of the revenue deficit for the budget year, at Rs 95,377 crores.

S. Mahendra Dev and Jos Mooij\textsuperscript{36}, in their study on “Social Sector Expenditure in the 1990s: An Analysis of Central and State Budgets” have focussed on social sector expenditure in the 1990s, and studied several aspects, including the overall levels of allocation, the expenditure on health and education and disparities in the expenses of the different states. India’s social sector expenditure in the 1990s had been lower than what they were in the 1980s and also lesser than the amounts of most of the other developing countries. With India’s ranking at the 115\textsuperscript{th} in the Human Development Index, it is evident that there is an obvious need to step up the social sector expenditure and improve the utilization of funds. India has made considerable progress since its Independence in reducing poverty and in promoting social development. One of the aims of the economic reform process had been to withdraw the role of the State from some of its economic activities, in order to step up its expenditure on fee exemptions, for distribution of textbooks, for providing noon meals, and the like. Some of the important issues, for example, are the size of the subsidy, the targeting of the beneficiaries versus universalism, and the methods of cost recovery and these issues also have been briefly discussed in the paper. It had been shown that the level of

subsidies in education in India had not been particularly high, and that the rate of cost recovery had also not been low, as compared with that of the other developed and developing countries of the world. It had also been found that some of the specific subsidies on education have fairly been distributed, which have resulted in much progress.

Sinha, Yashwant\(^{37}\), in his article entitled “Financing in India” had emphasized on modernization and upgradation of our defence preparedness and had described it as an area of highest national priority. To quote Yashwant Sinha “I have made a provision of Rs. 65,000 crores for the defence expenditure for the next year (2002-03). In case of need, I shall not hesitate to provide more funds for this purpose. As a measure of welfare of the defence forces and their families and as announced by the Prime Minister in his Independence Day speech, a major programme of house construction for defence personnel is also being taken up. The plan allocation for the department of Science and Technology is being raised to Rs 625 crores in 2002-03, an increase of more than 52 percent over that of the current year. The national innovation foundation was set up in March 2000 with a corpus of Rs. 20 crores, in order to build a national register of outstanding traditional knowledge and grassroot innovations. This initiative has shown good results. In the second annual campaign, The National Innovation Foundation has

received more than 11,000 entries from all over the country, up from 948 entries in the first year. Encouraged by this enthusiastic response, I propose to set up a micro venture capital fund for small innovations to be initiated by the Small Industries and Development Bank of India (SIDBI) in co-operation with the National Innovation Foundation to facilitate the transition of innovations into enterprises”.

The Economic Survey, 2002-2003 has stated, “interest payments” have become the single largest item of expenditure in the revenue account. In the budget for 2002-03, interest payments were budgeted at Rs 1, 17,390 crores accounting for 34.5 percent of the revenue expenditure and for 47.9 percent of the net revenue receipts of the Central government”. There had been a considerable increase in the growth of interest payments over the years. The increase in the interest liability was the outcome of the rising fiscal deficits and the recourse to market determined rates of interest and hence the average costs of borrowings had considerably increased during the 1990s. The weighted average interest rate on market borrowings had also increased from 7 percent in 1980-81 to a peak level of 13.8 percent in 1995-96.

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Jandhyala B.G.Tilak\textsuperscript{39} in his book “Public Subsidies in Education in India” has explained that government subsidies could be used as a powerful welfare instrument of fiscal policy to improve the general welfare of the people. Subsidies could also promote economic growth by increasing the level of health and education of the labour force of the country. Public subsidies in many countries, cover both economic and social goods and social services. Public subsidization of many social and economic services is a common feature in most of the countries of the world. With increasing budgetary constraints in recent years many have started questioning about the rationale of government subsidies and they had argued in favour of a drastic reduction, if not elimination of the subsidies altogether, concentrating on the education sector. Tilak had reviewed some of the well-known arguments and counter arguments advanced about public subsidies. Since much of the controversies centres round subsidies in higher education, he had focussed his attention on the same, though he had discussed also subsidies at the lower levels of education. He had reviewed the recent trends of public expenditure on education in India, and had discussed the available estimates on the rates of subsidy and the rates of cost recovery, expenses towards some specific subsidies in education, such as that of free education, and the involvement of the State in the social sector. A comparison of the expenditure levels in the 1980s with those of the 1990s and the impact of the expenditure on poverty levels or quality of life of the

\textsuperscript{39}Jandhyala B.G. Tilak, “Public Subsidies in Education in India”, \textit{Southern Economist}, Vol. 32, No. 2, January 24, 2004, pp.343-349.
poor had not been discussed by him. The social sector expenditure includes the total of the expenditures on “social services” and rural development as provided in the Central and the State budgets. The items in ‘social services’ include, among other things, education, health and family welfare, water supply and sanitation. The expenditure under the head “rural development’ relates mostly to the various anti-poverty programmes. Since 1993-94, the share of the Gross Domestic Product allotted to the social sector had been increasing compared to the base year of 1990-91, although they were not very different from the percentage shares of the late 1980s. As a proportion of public expenditure and as a proportion of real per capita expenditure there had been a significant increase in the social sector spending since the mid 1990s. The absolute figures were also found to be higher than those of the late 1980s.

‘The Hindu’ has stated that “Defence gets Rs. 25,000 crores non-lapsable upgraded fund,” The government had committed to a sum of Rs 25,000 crores for a non-lapsable Defence Modernization Fund to cater to the procurement needs of the three armed forces. The process of defence procurement often extends to a period, which is beyond a period of three years. Adequate arrangements for the availability of funds, over such a period, for defence modernization and weapons systems acquisition require a strong determination. The fund will be made available to the Ministry of

Defence from the new financial year, 2003-2004. The Defence Ministry often fails to utilize its entire allocation of funds and surrenders substantial portions of funds allotted to it under the capital expenditure account. The expenditure for the year 2004-05 had been projected to touch Rs 66,000 crores, which had included a sum of Rs 22,482-85 crores towards capital expenditure. As a percentage of the Gross Domestic Product (GDP) the country’s projected defence expenditure was about 2.1 per cent.

The Government of India, Budget at a Glance, 2002-03, has recognized that “Medical and Public health Services” was another primary responsibility of the state. The maintenance of good health enables the standard of efficiency of the people to be higher and the production of wealth to be quite large. Hence the provision for medical and health services is of very great importance from the point of view of economic advancement and development. The establishment and maintenance of dispensaries and hospitals, training and maintaining a large number of doctors, and compounders, providing public health services for the prevention of diseases and provision for such other facilities are the responsibility of the government. The expenditure of the States also on medical and public health services had shown a rising trend. In 1951-52, the expenditure on such services was Rs 29 crores, or 7 per cent of the total expenditure. In 1960-61, the expenditure was Rs. 81 crores or 8 percent of the total expenditure. The expenditure on this item was Rs. 15,550 crores and it accounted for

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about 9 percent of the total developmental expenditure as per the 1999-2000-budget proposals.

The article on “Subsidies Tackle Leads to Cut in Non-Plan Spending” by the Finance Minister\textsuperscript{42}, deserves a special appreciation, as it advocates the curtailment of the Central non-plan expenditure. The total fertilizer subsidy had also been limited to a sum of Rs 11,797 crores, which was Rs 923 crores lesser than that of the budget estimates, due to the lower level of imports of the urea and a reduction in the concessional sales of the decontrolled fertilizers. The subsidy on petroleum products was also Rs 1,543 crores which was below the budgetary provision of Rs 8,116 crores, which had been ascribed to the decision to phase out these subsidies over a period of time. The other big expenditure saver was in the field of defence, with the revised estimates of Rs 60,300 crores, which was Rs 5,000 crores less than that of the budget estimates. The contraction in expenses was mainly in the defence capital expenditure, which could not be considered as an encouraging development. Mr. Singh has, in fact referred to the problems arising out of the process of defence procurement, which often extends to a period of over three years and the need to commit sufficient funds for the purpose. He had announced the establishment of a non-lapsable “defence

modernization fund” of Rs 25,000 crores and the defence capital spending for 2004-05 was budgeted at Rs 5,577 crores which was higher than that of the revised estimate of Rs 16,906 crores for the 2003-2004 fiscal year. The expenditure on major subsidies was budgeted at Rs 38,923 crores in 2002-03 as compared to an expenditure of Rs 30,094 crores in 2001-02. The subsidies budgeted for the 2002-2003 year accounted for nearly 16 percent of the net revenues of the Central government and constituted 11.4 percent of the total revenue expenditure. The expenditure on major subsidies that accounted for 1.7 percent of the GDP in 1990-91 had come down to one (1.0) percent of the GDP in 1996-97. Thereafter it had stabilised at around 1.2 percent of the GDP. The expenditure on major items of subsidies budgeted in the current year constituted (2003-2004) was about 1.6 percent of the GDP, which was higher than the subsidies to the GDP ratio that had prevailed in the previous five years.

With the dismantling of the administered price mechanism for the petroleum products from April 1, 2002, the Budget for 2002-03 had made an explicit provision of Rs 6,495 crores towards payment of subsidies for domestic LPG and Kerosene supplied through the public distribution system (PDS) and the freight subsidy for the remote areas. This had raised the budgeted expenditure on the major subsidies in the year 2002-03.
The Reserve Bank of India’s Annual Report of 2003–2004 had observed that the expenditure management strategies adopted by the centre since the second half of the 1990s had begun to yield room for a better fiscal environment, notwithstanding the slippages in terms of the deficit indicators in the recent years. Despite additional expenditures on account of drought relief and plan allocations, the cut in the non-plan expenditure had enabled a reduction in the overall spending by the centre in the year 2002-03\(^43\). The reduction in the non-plan expenditure was an account of the lower level of defence spending, reduced interest payments due to the softening of the interest rates on government securities, lower outgo on pensions as well as grants and loans to the States and Union Territories due to the non-utilization of funds under the “Fiscal Incentive Fund” and the like. The expenditure on subsidies, however, had increased significantly during the year 2002-03 reflecting the impact of the dismantling of the administered price mechanism for petroleum products. It was due to the increase in food subsidies on account of the drought conditions. Till the dismantling of the administered price mechanism, subsidies on various petroleum products were absorbed in the oil pool account. With the discontinuance of the later approach since 2002-03, the subsidies for domestic Liquefied Petroleum Gas (LPG), for the Public Distribution System (PDS), for kerosene and for freight for far-flung areas, had to be provided in the budget. The overall approach of the budget in regard to agriculture and rural development in containing subsidies and in increasing investments should be welcomed. But the real

rationalization of the subsidies required not merely price revisions but also substantial institutional reforms. Similarly, it would require a massive dose of investment in irrigation and research and development before a significant weather-proofing of the Indian agriculture could be achieved and to expect that the proposals contained in the budget for 2000-2001 could put agriculture on a sustainable growth path of 4 percent per annum, is naive.

Jorgenson, Dale W.\textsuperscript{44} has analysed the “Information Technology” in the current phase of globalization, which is closely associated with the information technology revolution involved in the development and production and in the widespread use of computers and software and telecommunication equipment. The introduction of new technology has phenomenally increased the capacity and speed of the storage and transmission of ‘information’.

\section*{SECTION C}

\textbf{METHODOLOGY}

Any serious study requires a well-knit and well-planned methodology. The knowledge of methodology provides a good training, especially to the research worker, and enables him to carry out his research in a better and more scientific manner. It helps the researcher to develop his scientific and disciplined thinking and a proper and inquisitive bent of mind to observe the field and the concerned problems in an objective manner. So to solve a research problem a sound methodology is very essential.

Statement of the Problem:

A continuous increase in the public expenditure is not a desirable feature as it increases the deficits of the annual budgets; and if a reduction in the public expenditure should be allowed to fall below the critical minimum level, it might affect the growth of the economy. Therefore it is very essential to maintain the public expenditure at an optimal level, so as to sustain and encourage the optimum level of economic growth. But in India, public expenditure had been growing at an alarming proportion, which had already drawn the attention of the policy makers. If the public expenditure is diverted towards development activities, it will certainly promote the process of development in the economy. While examining the nature of the public expenditure, it is very necessary
to compare the growth of public expenditure with that of the Gross Domestic Product of the country. Governments in the modern era are actively participating in the allocation, distribution and stabilization processes of the economy. As a result of their active participation in the various economic activities, the government finances have begun to play a crucial role in the social and community development of the country.

In this context, the goals and objectives of the government have to be analyzed carefully. The quantity and the quality of the growth patterns differ from government to government, as these depend, among other things, upon the objectives of the respective governments. Also, the efficiency with which the government services are provided, determines to a greater extent the quantity and the quality of the growth pattern. The pattern of expenditure however, is entirely a product of the pattern of public expenditure over a period of time, and it broadly gets reflected in the changing objectives of the government.

An understanding of the government participation in the economic activities is possible by clearly analyzing the trends and patterns of the development and the non-development expenditures; and a comparison of the expenditure behaviours with that of the other governments would help us in assessing the expenditure behaviour of the government that is being considered.

Period of the Study:
The Period of the study taken up for this analysis is a twenty-four year period, which ranges from the year 1980-81 and extends up to the year 2003-04. This study covers the time span of a twenty-year period of time from 1980-81 to 2003-2004, which includes one full decade of ten years earlier to the adoption of the Economic Reforms and one full decade of the working of the Economic Reform period. The study is an attempt to throw much light on the pattern of Public Expenditure in India with a special emphasis on the Development expenditure and the Non-development expenditure of the Government during the above said time period.

The main reasons for choosing this period were that it covers the sixth to the tenth five-year Plan periods of the country. Another important reason for choosing this period was that there had been many variations in the budgetary policies of the Central government with regard to its expenditure policy and during most of the years of the study period the congress party had been ruling at the centre.

Scope of the Study

In the present study, an attempt has been made to study the trend and composition of the Central government expenditure for a 24 year time period, for which uniform time series data were available. The various other aspects, which had evoked an interest in such a time series analysis, include the facts that the composition of expenditure was the same under the various expenditure related items of activities performed by the government and the changes that had taken place in the composition also had been more or less in the same pattern. An analysis of such items of expenditure in terms of development and also in terms of the growth of the economy and of the
nature of such social, economic and fiscal services would help us to understand the nature of public expenditure.

Area of the Study

The area for this study is the whole of India. India is a sub-continent of Asia and it is a peninsular country. India has a total area of 3,288,263 sq.km, with a land frontier of 15,200 km. It measures 3214 km from north to south and 2933 km from east to west. India’s population as per the 1991 census was 84.63 crores and as per the 2001 census, the population was 102.70 crores.

India has twenty-eight States and seven Union Territories. There have been extensive and intensive increases in the expenditures of both the Central and those of the State governments during the era of economic planning, which is the planned development period. The government generally borrows to meet its budget deficits, to cover the other miscellaneous expenses and to finance its developmental activities.

Objectives of the Present Study

The study is set to meet the following objectives:

1. To analyse the trend, growth and composition of developmental expenditure.
2. To study the trend, growth and composition of non-developmental expenditure.
3. To analyse the determinants of Developmental Expenditure and also that of Non-Developmental Expenditure.
4. To suggest a suitable expenditure pattern for the Government of India.

Data Sources

This study has been carried out with the help of secondary data only. The required data for the analysis were collected from the already published sources. The analysis of the trends and patterns of the Development and the Non-Development Expenditures were based on the annual approvals and the actual amounts of Development and Non-Development Expenditures as collected from the monthly bulletins of the Reserve Bank of India. The determinants for the study were based on the data collected from the Reserve Bank of India Bulletins, Economic surveys and Reports and Hand Books of Statistics on Indian Economy. Since RBI is the ultimate authority in providing Development and Non-Development Expenditure related details, the study depended heavily on the sources of data from the Reserve Bank of India.
Tools of Analysis

Statistical tools are used to analyse the collected data and to interpret the findings of the research study. The following statistical tools have been used.

1. Trend analysis (Time series graphs)
2. Multiple Regression analysis
3. Compound Growth rate analysis
4. Chow test

Trend analysis

One of the objectives of the present study was to analyse the growth and patterns of the development and non-development expenditure in India. For this purpose, two popular forms of trend analysis, namely, the linear trend model and the semi-log trend model have been used.

The following linear trend model has been used to analyse the trend of the development and non-development expenditures.

\[ Y = \beta_0 + \beta_1 t + U_t \]

Where,

\[ Y = \text{Total amount of development and non-development expenditures} \]
expenditures in crores

“t” denoted the time in years. "t" has taken values for 1,2, 3,.....24.

\( U_t = \) Disturbance term.

\( \beta_0 \) and \( \beta_1 \) are coefficients to be estimated. \( \beta_1 \) shows the average annual absolute growth rate in the total amount of development and non-development expenditures in crores.

The above trend model gives only the linear annual growth of development and non-development expenditures. To get the constant annual compound growth rate, another model of the following type has been used in this study.

The semi-log model: Log Linear model:

\[
\log Y = \beta_0 + \beta_1 t + U_t
\]

Compound growth rate = [(antilog b-1) x 100]

The above regression models have been estimated using the principle of least squares. The compound growth rates of development and non-development
expenditure were estimated for the two sub-periods from 1980-81 to 1990-91 and from 1991-02 to 2003-04 and also for the entire period from 1980-81 to 2003-04.

This has helped the researcher to form a comparative picture of the developmental expenditure during the post-reform period and for the pre-reform period, which were just prior to and immediately after the period of economic reforms. To examine whether the growth rates were different between the two sub-periods the following ‘t’-test has been used.

\[
t = \frac{b_1 - b_2}{\sqrt{(SEb_1)^2 + (SEb_2)^2}}
\]

Here \( b_1 \) represented the slope co-efficient obtained in the regression model, which was estimated for the pre-reform period and \( b_2 \) represented the slope co-efficient obtained in the regression model estimated for the post-reform period. SE is the standard error.

**Determinants of Development and Non-Development Expenditure:**
To assess the influence of Gross Domestic Product, Fiscal Deficit, Population, Public Debt, Imports, Exports, Direct Taxes and Indirect Taxes on Development and Non-Development Expenditures the following multiple regression model has been used.

\[ Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 X_{5t} + \beta_6 X_{6t} + \beta_7 X_{7t} + \beta_8 X_{8t} + U_t \]

Where,

\( Y \) = Development and Non-Development Expenditure.

\( X_1 \) = Gross Domestic Product

\( X_2 \) = Fiscal Deficit

\( X_3 \) = Population

\( X_4 \) = Public Debt

\( X_5 \) = Imports

\( X_6 \) = Exports

\( X_7 \) = Direct Taxes

\( X_8 \) = Indirect Taxes

and \( U \) = Stochastic disturbance term

\( \beta_1, \beta_2, \beta_3, \ldots, \beta_8 \) = Regression co-efficients.

Study of the Structural Changes in the Development and Non-Development Expenditures:
To study the structural changes that have occurred in the trends of Development and Non-Development Expenditures between the pre-reform period and the post-reform period, a semi-log model of the form $\log Y = \beta_0 + \beta_1 t + U_t$ has been used.

Here,

$Y =$ Development and Non-Development Expenditures in Crores.

$\beta_0$ and $\beta_1$ represented constants to be estimated $\beta_1 > 0$

$t =$ Time in years represented by 1,2,3 etc

The growth rates were estimated for the pre-reform period (1980-81 to 1990-91), for the post-reform period (1991-92 to 2003-04) and also for the whole period (1980-81 to 2003-04).

Chow’s test\textsuperscript{45} has been carried out using the following F-statistics.

$$F = \frac{S_5 / K}{\text{}}$$

\[ S_4 / (n_1 + n_2 - 2K) \]

Where,

\[ N_1 = \text{Number of years before economic reforms}, \]

\[ N_2 = \text{Number of years after economic reforms}, \]

Degrees of freedom = \( (k, N_1 + N_2 - 2K) \)

\[ S_5 = S_3 - (S_1 + S_4) \]

\[ S_4 = S_1 + S_2 \]

\[ S_1 = \text{Error Sum of Squares obtained in the first equation.} \]

\[ S_2 = \text{Error Sum of Squares obtained in the second equation.} \]

\[ S_3 = \text{Combined Error Sum of Squares.} \]

Computed F-value is compared with table ‘t’ for \( K, N_1 + N_2 - 2K \) degrees of freedom. If computed F is greater than the table F, it indicates the structural changes in the post-reform period as compared with that of the pre-reform period for both development and non-development expenditures.

Wagner’s Law:
An attempt has been made in this study to examine the behaviour of the public expenditure in India, during the study period, so as to test the validity of the Wagner’s Law.

It is true that there are several forms of Wagner’s law, and different forms of regressions are used to test the validity of the law. However in this study in order to test the Wagner’s law, the following regression equation was estimated on the basis of the principle of least squares.

$$\log Y = a + b \log x + U$$

Where

- $Y = \text{Total public expenditure}$
- $a, b = \text{Regression coefficients}$
- $x = \text{Gross Domestic Product}$
- $U = \text{Disturbance term}$.

In the empirical analysis the estimate of ‘$b’ has been used to test the Wagner’s law. The law is valid provided $(b-1)>0$.

**Layout of the Study**
The present study “An Analysis of Developmental Expenditure and Non-Developmental Expenditure of the Central Government of India from 1980-81 to 2003-04” has been presented in six chapters.

- The first chapter covers the Introduction, Importance, the role of public expenditure, the need for the study, the scope of the study, limitations and conclusions.

- The second chapter deals with the Concepts, Review of literature of the earlier studies and the Methodology.

- The third chapter analyses the trend and growth patterns of simple linear, compound growth rate, t-test, and Chow test of the developmental expenditure.

- The fourth chapter analyses the trend and growth pattern of simple linear, compound growth rate, t-test, and Chow test of the non-developmental expenditure.

- The fifth chapter studies about the determinants of the developmental and the non-developmental Expenditures.

- The sixth chapter presents a summary of the findings, conclusions and suggestions.
Research Gap

Though all these earlier studies have thrown much light on the various items of public expenditure from various angles, a systemative analysis of the development and non-development expenditure patterns of the Central government and a comparison of their trend and patterns before and after the liberalization and privatization policy of the government introduced in the year 1990-91 have not been made so far.

It would be of much interest to analyse the public expenditure patterns before and after the adoption of the New Economic Policy. Under two sub-periods of 1980-81 to 1990-91 and 1991-92 to 2003-04 so that it could understand the path of progress and the progress itself. Such a study would be of great significance for purpose of comparison and will be of use for future research programmes and for policy makers also.

CHAPTER III

AN ANALYSIS OF DEVELOPMENT EXPENDITURE