

Role of Government Expenditure in Economic Development: An Indian Experience

**Thesis Submitted to the University of North
Bengal for the Degree of Doctor of Philosophy
(Arts) in Economics**

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Preface

Public expenditure has increased both relatively and absolutely in all the countries of the world. However, the role of public sector in the economy is not free from controversy. The continued controversy over the role of public sector is particularly acute in a mixed economy where there exists difficult and controversial choices in selecting the appropriate composition of government expenditure and in choosing among alternative government programmes that are meant to realize the avowed social goals. Public expenditure is an important instrument to produce desirable effect and at the same time to avoid undesirable impact on the national income, production and employment. Therefore, public expenditure is an important instrument for realizing the objective of government policy. The government formulates programmes and schemes, and undertakes different social and economic activities, the actual implementation of which is done through the act of financial allocation and spending. Thus the expenditure programme largely determines the realization of objective of the government. And at the same time the magnitude and pattern of public expenditure are determined by that objective.

Much less attention has been paid to various aspect of government expenditure despite its significance. Revenue side of public finance has received some attention in our country as it is clear from the several major enquiries conducted by the central and the state government to examine the tax structure. But the enquiries have paid little or no attention to the various questions pertaining to public expenditure. Thus the study of public expenditure assumes special significance in developing countries like India.

It is observed that the public expenditure has been increasing over time. It is the product of a set of decisions made as to what public goods and services should be produced. These expenditures have specific effects upon the different sectors of the economy. Public expenditure also plays an important role in

economic development and in accelerating the pace of economic development. The government policy with respect to economic development and social welfare determines, to a large extent, the allocation of public expenditure between economic and social services. Currently, public expenditure has, apart from fulfilling the traditional obligations, become an instrument of support for the development activities of the state. Thus massive public expenditure as well as the responsibility assumed by the State in recent years for various social and economic objectives, give the activities of a government a far-reaching significance. For this it is important to study the growth and pattern and the impact of public expenditure on economic development.

The main objective of economic policy in India is to accelerate economic development of the country in a climate of social justice. This means that the objective is not only to raise the national income or per capita income but also to ensure that the benefit is equitably distributed, that disparities in income and living standards are not widened if not, narrowed.

The purpose of the present study is to trace out the growth and pattern of public expenditure (Centre, States and Union Territories) during the period of planned development from 1950-51 to 2000-01, in the context of changing socio-economic development after independence as well as to review the role of public expenditure in the context of changed socio-economic needs contingent upon the recent globalization of the Indian economy.

In a federal set-up like India, the magnitude and pattern of expenditure in constituent States are determined jointly by the policy of the Central as well as the State Governments. So the success of the national objectives can not be achieved by the Central Government alone, independently of the States alone. Therefore the attainment of broad objectives of the Centre will be judged by the States' willingness and ability to pursue proper course of action in their own spheres. This signifies the importance of expenditure policy of the State Government.

The present study has been divided into eight chapters. The first chapter deals with the general aspects of problems of public expenditure and provide some issues discussed in the latter chapters. The theoretical core of the study is contained in chapter two which deals with the positive theories of public expenditure and their relevance to this study.

Chapter three analyses the growth of public expenditure in India during 1950-51 to 2000-01 while its pattern and functional components form the subject matter of next three chapter. These chapters present a picture of the time-series data and explain the trends of various category of government expenditure in which chapter four deals with the growth and pattern of defence expenditure, chapter five deals with the growth and pattern of non-developmental expenditure and, chapter six deals with the developmental expenditure during the period under study. As such, all these three chapters are descriptive and non-technical in nature.

In chapter seven an attempt has been made to investigate the impact of public expenditure on economic development. As a background to this, a brief discussion of the role of public expenditure in a developing economy and the pattern of public expenditure in India has been introduced. The discussion will facilitate to find out if any significant changes have been taken place in the economic growth and distribution of income and wealth in India during the last fifty years of planned development up to 2000-01. We admit that it is not possible for a single researcher to cover the entire first decade of the twenty-first century in a complete manner due to physical and time constraint. But we do hope that we shall incorporate the periods, not touched by us, in some other studies to be undertaken in future where we shall also be able to analysis the effect of globalization on the trend and pattern of public expenditure and to study the effect of public expenditure on economic development in a comprehensive manner. In latter part of this chapter, an attempt has been made to analyze the distributional impact of various expenditure policies in India.

The concluding last chapter summarizes the salient points which emerge from the foregoing discussion with a note to prescribe certain policies suggested regarding public expenditure in the context of economic development.

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Chapter 1

Introduction

1.1 Public Expenditure as Economics

In economics, the word 'expenditure' signifies not exactly the coins and currency notes of a country but rather the resources of an individual or a group of persons denominated in terms of money. On the other hand, the word 'public' means a heterogeneous crowd of people having something in common; should possess some common bond uniting them for some purpose for some time (Kumar,V.,1986). Therefore, public expenditure is defined as the expenditure of the public sector where relationships are adequately integrated for a common pursuit. Public expenditure is a branch of public finance, studies how finances both in cash and kind are spent or should be spent to enable the state to perform its activities according to its avowed goal.

Generally speaking, policy choice of a government is reflected through public expenditure. Public expenditure would on the one hand indicate the cost of various types of projects selected by the government and on the other their quality and quantity as decided for the society by the government. In other words, the volume of public expenditure made through government budget would enable us to ascertain the cost of provisions of public goods and services which would generally appear in public sector accounts. It should, however, be mentioned that certain expenditures would result from governmental rules and regulations applied in private sector. Such, expenditures on all accounts, should have been included in public expenditures. However, for our purpose, we shall refrain from adopting such wider definition of public expenditure, although we recognize the importance of such wider definition in ascertaining the 'cost' of government action. Thus, we shall in our analysis use the narrower definition of public expenditure to point out mainly the size and the growth of government.

Public expenditure is catered to satisfy certain wants which individuals in their capacity can not satisfy. They are unable to make appropriate provision for

the satisfaction of certain wants when acting individually. In other words it is observed that very often people may not take as much interest to satisfy those wants as the State or government would generally be. This is the root of assuming importance of the government in the economic sphere and of the increased public expenditure in modern times.

In traditional development economic literature, the justification for growth of government or government expenditure is rooted in market failure arguments. The market does not always live up to competitive norms, and even when it does, it may not secure Pareto Optimal resource allocation when private and social value diverges. Nor can the market bring about appropriate corrections in income distribution. In such cases, the necessary corrections have to be brought about through government expenditure policy.

1.2 Nature and Scope of Public Expenditure:

There are a number of alternative ways of approaching the question of the growth of the government. At present we think in terms of absolute size of public expenditure. The change in public expenditure is related to the change in other economic magnitudes like change in GNP, change in the price level or the population change. Of course, the absolute level as well as the change in public expenditure has to be explained and accounted for. At the same time, it is also important to consider such changes in public expenditure in relation to other quantities.

In national income accounts, public expenditure are represented by two categories of government activities. First we find public expenditure of exhaustive type which would correspond to public/government purchase of current goods and services (e.g. consumables, labour etc.) and capital goods and services (like public sector investment in schools, roads, hospitals etc.). Thus, exhaustive public expenditure consists of public purchase of inputs and arrived at by multiplying the volume of inputs by their prices. These expenditures might be regarded as claims on the resources which also signify the output of the other sectors forgone and hence can be taken as opportunity costs of public

expenditure. In fact, such an opportunity costs set limit to the size of public sector and would determine the efficiency of such expenditures.

The second category of public expenditure is transfer payments which are, in effect, a redistribution of resources between individuals in society, with the resources flowing through the public sector as intermediary.

It should be noted at this point that these two categories of public expenditure (viz, exhaustive and transfer payments) assume importance while we examine the growth of public expenditure. In the present study, we shall begin with data on public expenditure and proceeds to explain the time pattern of public expenditure in terms of broad aggregate variables such as GNP or the rate of inflation. Broadly speaking, we shall try to explain how government expenditure has behaved over the long term. This macro-type of analysis differs from short-term macro economic forecasting analysis where government expenditure is taken as exogenously determined. Our analysis would seek to explain how government has behaved over the long term. In other words, we shall try to analyze 'time pattern' of public expenditure.

Three models have in the past been developed to analyze such pattern of public expenditure. The first such model can conveniently be described as the 'development models of public expenditure growth'. The second is related to the law of expanding state activity and third one is associated with political theory of public expenditure.

The first approach to the problem is related in the work of Musgrave and Rostow. Their analysis give the impression of changes in the relative share of government expenditures and variation in mix of public services over the development cycle. Thus according to them, it is evident that in the early stages of economic growth and development public sector investment as proportion of total investment of the economy is found to be higher. The public sector is seen to provide infrastructure like roads, transportations, sanitation systems, law and order, health and education and other investment in human capital. Such public sector investment is believed to be required for taking the economy from 'take-off'

into the middle stages of economic and social development. In the middle stages of growth, public investment becomes complementary to the growth in private investment.

Adam Smith confined the subject of public expenditure mainly to defence, the administration of justice, and certain public works. In the modern democratic setup the nature and scope of public expenditure has been described by Sahni (Sahni, 1972). According to him public expenditure deals with question relating to the appropriate level and composition of public expenditure development, and the various operational aspects of public expenditure decision-making. A three fold aspect of voluminous literature may serve to provide an over view of the nature and scope of public expenditure viz., a) Normative aspects, b) Positive aspects, and c) Applied aspects (Sahni, 1972).

The 'normative aspect' of public expenditure determines the norms of operations for the satisfaction of social wants. It also examines the effects and consequences of public expenditure and assesses the aims and objectives of public expenditure programmes. This approach is also known as 'welfare approach'. Therefore, 'normative aspect' of public expenditure is concerned with the study of appropriate levels and composition public expenditure.

The concept of 'public good' was revived with the appearance of Samuelson's articles (Samuelson, 1955). The service of public good are provided in such a way that they are consumed equally by all citizens, whether they pay for them or not. These services can not be provided through the normal working of the price mechanism and therefore, provision of these services is to be made by the government. These market failures also give rise to various degree of government intervention. Therefore, the theories of public goods are normative in nature and the interest of economists was confined almost exclusively to determine the expenditure policy of a government. In fact, there is need to shift attention from the problems relating to "what should be" to "what is". For this, answer has to be found as to how expenditure policy will in fact be determined. This leads to development of positive theory of public expenditure. Bird has defined the positive theory of public expenditure as that body of economic and

political analysis which attempts to understand and explain the observed pattern and level of government expenditure and the changes in those expenditures over time⁵. This positive or behavioral approach to public expenditure has a vital role to play in the policy making. It deals with the formulation and verification of relevant behavioral hypotheses. There are two widely debated hypotheses in this regard – Wagner’s “Law” and the “Displacement effect” of Peacock and Wiseman which represent a major part of the literature dealing with the positive aspect of Government expenditure analysis (Gandhi, 1971).

Adolph Wagner (1835-1917) was a famous German economist who based his law of Increasing State Activities on historical facts . According to Wagner, there are inherent tendencies for the activities of different layers of a government to increase both intensively and extensively. He hypothesized a functional relationship between the growth of an economy and government activities with the result that governmental sector grows faster than the economy. Statistics of public expenditure of various counties are very often analyzed to prove the validity of Wagner’s “Law”. Some researchers have found the so called Wagner’s “Law” imprecise and vague. However, in spite of its vagueness, Wagner’s ideas have continued to be influential (Bird, 1970).

The second thesis dealing with the growth of public expenditure was put forth by Wiseman and Peacock in their study of public expenditure in UK for the period 1890-1955 (Wiseman and Peacock, 1961). *The main thesis of the authors is that public expenditure does not increase in a smooth and continuous manner, but in jerks or step like fashion.* In their study they suggested growth of public expenditure by way of the ‘displacement effect’ which signifies that public expenditure grows over time, not at a constant rate, but roughly stepwise on an ascending spiral. At times, some social or other disturbance takes place, creating a need for increased public expenditure which the existing public revenue cannot meet. While earlier, due to an insufficient pressure for public expenditure, the revenue constraint was dominating and restraining an expansion in public expenditure. Now under changed requirements such a restraint gives way. The public expenditure increases and makes the inadequacy of the present revenue quite clear to every one. The movement from the older level of expenditure and

taxation to a new and higher level is the *displacement effect*. The inadequacy of the revenue as compared with the required public expenditure creates an *inspection effect*. The government and the people review the revenue position and the need to find a solution of the important problems that have come up and agree to the required adjustments to finance the increased expenditure. They attain a new level of tax tolerance. They are now ready to tolerate a greater burden of taxation and as a result the general level of expenditure and revenue goes up. In this way, the public expenditure and revenue get stabilized at a new level till another disturbance occurs to cause a displacement effect. Thus each major disturbance leads to the government assuming a larger proportion of the total national economic activity.

A number of empirical studies have been undertaken to test the hypotheses of Adolph Wagner, Peacock-Wiseman since the early 1950s. These studies can be classified into – a) expenditure-determining studies, and b) expenditure-determined studies. In the expenditure-determining studies one or more independent variables have been used to study the growth and pattern of public expenditure, the latter being the dependent variables. The most frequently used variables are – a) the level of economic development, b) the shift in the public expenditure during major social upheaval like war and economic depressions, and c) the type of the economic system. A very large number of studies have been made to relate the pattern and growth of public expenditure to the level of economic development. But in a very few studies have been used shift in public expenditure and economic system as independent variables. Peacock-Wiseman have used the shift in government expenditure as an independent variable in their study, while Pryor (Pryor, 1968) has made a pioneering study by analyzing public expenditure of a group of nations with different economic system.

In the expenditure-determined studies specific components and /or the aggregate measure of public expenditure constitute the independent variable. Sahni (Sahni, 1972) has noted that “*these studies attempt to determine the effect of public expenditure in terms of some measures of efficiency*”. Bird has pointed out that “the positive theory of public expenditure for present purposes may be

considered to encompass study of the following subjects: a) the determinants of the volume of public expenditure; b) the determinants of the composition of public expenditure – what goods and services are financed through the public sector and how the 'mix' of expenditure changes overtime; and c) such 'behavioral' properties of public expenditure as centralization and stability (Bird, 1970).

At present there is a trend of 'programme budgeting' which is also known as planning, programming, budgeting system (PPBS). PPBS help decision-makers to allocate resources efficiently and fool-proof manner. According to Burkhead and Miner (Burkhead and Minar,1971) Programme budgeting in its recent evolution, has three partially separable objectives – a) classification of government activity by goals and objectives, b) the comparison of cost with outcomes and the exploration of alternative means of achieving outcomes and c) long-range planning of government programme. It attempts to bring together in a coherent way the planning activities of the government and the budget process. Another essential element of PPBS is the careful comparison of benefits and costs of various programmes and alternative means of attaining the objectives. Benefit-cost analysis seek to take all benefits and costs, direct and indirect, into consideration and to evaluate alternative approach as well as the over-all projects in the light of objectives. This analysis of public expenditure programmes is an attempt to achieve the most effective distribution of scarce public resources. Benefit-cost analysis is based on estimation of present value of expected benefits of a programme compared to the present value of programme cost in order to help public official decide on alternative government programmes, or weigh alternative methods of accomplishing a given programme at the least cost. This different programme might be selected according to their value of return by comparing net benefits with costs. However, benefit-cost analysis is not free from difficulties and limitations. Apart from valuation difficulties, estimation of benefits is always coloured by uncertainty about future conditions. The uncertainties associated with some activities are so great that any precisely predictable conclusions are impossible.

In spite of these limitations and difficulties, cost-benefit analysis is being used with considerable success in the field of physical resource development like

investment in highways, transportation and water resource development. It has also been used in the field of investment programme of human resource development like education and health. Therefore, it can make, and also has been making, significant contributions towards governmental decision-making.

1.3 A Brief Survey of Relevant Literature:

Many attempts have been made to study the behaviour of government expenditure in India on the basis of empirical data. Mathews (1958) has analyzed the pattern of public expenditure during the period of 1937 to 1956. He wanted to examine the extent to which the changes in the pattern of expenditure are the result of deliberate policy or whether they have been the outcome of circumstances beyond the control of the government. According to him, the expenditure pattern that emerged at the end of the First Five Year Plan was mostly the result of deliberate policies of the government.

Mukherjee's (1965) study is an attempt to the reconstruction of historical statistics and relates to the development of the first half of the 20th century. Moreover, he did not made any effort to go behind his statistical result to establish a theoretical link between aggregate and economic activity and the activity of the public sector (Mukherjee, 1965) .

Sir Puroshotamdas Thakurdas Research Wing Study (1966) presents a study of finances of the government of India from 1950-51 to 1964-65. This work endeavours to analyse the important issues and focus attention on them in such a manner that further exploration and critical examination may be possible.

Panchmukhi (1967) presented the applied theory of public expenditure. He brings out the importance of cost-benefit analysis in the process of public expenditure. His study represents a step towards clarifying the economic aspects of the effects of expenditure on education and health, the knowledge of which is so essential for making rational decisions in these fields (Panchmukhi, 1967).

Reddy in his first study (1972) has analyzed a secular and time pattern of the growth of public expenditure in India from 1872 to 1968. He has examined the applicability of Wagner's hypothesis to India. He showed the relevance and validity of the concept of 'displacement effect' propounded by Peacock and Wiseman.

Gupta (1977) has examined and evaluated the extent of the impact of the central government expenditure on mitigating economic inequality and poverty and for generation of employment opportunities.

Zahir (1972) has examined the role of public expenditure in the field of income distribution during the period 1951-52 and 1965-66. He concludes that the growing public expenditure in India has made very insignificant contribution towards the achievement of social justice which is very important objective of public policy in our country. Zahir concluded that '*the Welfare State, instead of distributing welfare, has infact, proliferated misery.*'

There are some attempts which have been made at studying the growth and pattern of public expenditure of either an individual State or all States taken together. Madalgi (1966), Toya (1973), Nanjundappa (1976), and Thimmaiah (1977) have studied the public expenditure of different State Governments. Madalagi analysed the trends in State governments' expenditure in India since the five year plans from 1951-52 to 1965-66. He has confined his study to the revenue expenditure only, and as such, not considered capital expenditure.

Toya (1973) has highlighted the major changes that have occurred in the structure of State expenditure during 1955-70 and concluded that significant changes have been taking place within the development component of the total expenditure of the States.

Thimmaiah (1977) has studied the growth and pattern of public expenditure in Karnataka from 1957-58 to 1977-78. He has aimed at testing a few theoretical hypotheses in the context of public expenditure of a particular

state of India and concluded by saying '*the growth pattern of public expenditure in Karnataka State is not linear*' (Thimmaiah G., 1977).

Tapas K. Chakrabarty (1980) highlighted the broad trends in the growth and pattern of expenditure of the government of India during the last three decades, with a view to suggest some areas of expenditure where economies are possible without any adverse effect on the growth of the economy. He finally expressed "the approach of examining the scope for reduction in expenditure in various activities of the government of India has to be essentially micro....." (Chakrabarty, T.K., 1980)

Jag M Chona (1980) has tried to identify certain issues in respect of expenditure of the Central Government, especially the areas of expenditure where reduction and rationalization could be effected without any deleterious effect on efficiency or growth (Chona, J.M., 1980).

Raghbendra Jha (1995) tried to examine the true cost and benefit of public expenditure and enumerate the components of the true cost of public expenditure and highlighted that the dimensions of the costs of public expenditure are several-fold.

Trish Kelly (1997) in his article 'Public Expenditure and Growth' explores the effects of public expenditure on growth among the 73 countries over the period 1970-89 and highlights the contributions that public investment and social expenditure may make to growth. The article's econometric analysis suggests that crowding out and rent-seeking concerns may have been over stated in the literature (Kelly, T., 1997).

Santosh Mehrotra, Jan Vandemoortele and Enrique Delamonica (1998) in their paper 'Reallocating Public Spending for Basic Social Services in Developing Countries' show that not all social sector expenditures play as important a role in supporting economic growth and reducing poverty as basic social services – preventive, and basic curative health services, water and sanitation, family planning, and basic education. They are not only more efficient in terms of

providing 'human capital' but they are also more equitable.....'. This paper (Mehrotra, Jan Vandemoortele and Enrique Delamonica., 1998) estimated the level of public spending on the basis of social services with special emphasis on the need for future work on assessing the possibilities for increasing these expenditures. The relevance to issues in the health and education sector in India is notable.

But almost all of the studies mentioned above failed to make any disaggregative analysis of public expenditure on the basis of functions. The impact of government expenditure on economic development can be comprehended in a better way if such function-wise categorization is made. The present study is an attempt to bridge up the gap in existing studies of public expenditure through incorporating function wise disaggregative analysis.

1.4 Need and Objective of the study:

Public expenditure is not merely a financial mechanism. It is rather a means of securing social objectives. Socialism in any sense, can be realized only through progressive taxation and their distribution afterwards.

The traditional economists held the view that the state should not interfere in the general activity, for the government is merely an agent for the people to keep the political organization intact; hence it should spend public funds discreetly and sparingly.

A new approach to public finances has, however, evolved in the thirties since the Keynesian revolution in economic thought. Modern economists conceive that public expenditure has a positive role to play to achieve definite ends. Its goal is to promote maximum social welfare. In fact, the significance of public expenditure lies in the supply of those essential services by the government for the satisfaction of collective wants, which might not otherwise be provided economically and efficiently by the private sector. Its importance lies in its lubricating quality also, as deficit spending of the government amounts to the creation of additional money, which facilitates trade and exchange and stimulates further production and growth of national income.

In modern era, the need of public expenditure can be underlined by the following objective:

- (a) provision of collective wants in order to optimize society's consumption in a rational way and to maximize social and economic welfare.
- (b) Control of the depressionary tendency in the market economy. Public expenditure should be designed to optimize the level of investment in such a way as to maintain full employment with growth.
- (c) In a backward economy, public expenditure should accelerate the tempo of economic development by constructing the infrastructure of the economy and increasing the capital formation for augmenting industrial activity and allied production of goods and services.
- (d) A better distribution of income is also an equally important goal under socialism. Public expenditure for providing public services should lead to a just distribution of welfare.

Therefore, Public expenditure is an important instrument to produce desirable effect and at the same time to avoid undesirable impact on the national income, production and employment (Patnaik, 1970). It is an important instrument for realizing the objective of government policy. The government formulates programmes and schemes, and undertakes different social and economic activities, the actual implementation of which is done through the act of financial allocation and spending. Hence the expenditure programme largely determines the realization of objective of the government and the magnitude and pattern of public expenditure are determined by the objective. In this context, the study of the growth and pattern of public expenditure in India becomes significant.

In a federal set-up like India, the magnitude and pattern of expenditure in constituent states are determined jointly by the policy of the Central as well as the State Governments. So the success of the national objectives can not be achieved by the Central Government alone, independently of the States. Therefore the attainment of broad objectives of the Centre will be judged by the States' willingness and ability to pursue proper course of action in their own

spheres. This signifies the importance of expenditure policy of the State Government.

But sufficient attention has not been paid to the various aspects of government expenditure despite its significance. Although the questions relating to revenue side have received some attentions as it is clear from the several major enquiries conducted by the central and the state government to examine the tax structure (Tax Enquiry Commission, 1953-54) the enquiries have paid little or no attention to the various questions pertaining to public expenditure. This lack of a comprehensive and impartial study of public expenditure has been well underlined by the Taxation Enquiry Commission (1953-54). The Commission remarked that *'a detailed enquiry into public expenditure from this point of view, however, falls beyond our terms of reference.....such enquiries should be undertaken by sufficiently high powered bodies* (Lakdawala, 1958). The Indian Economic Association at its 41st Annual Conference in 1958, Lakdawala in his report observed that *'painstaking work in the realm of public expenditure has not been undertaken in any appreciable measure*. This remark of Lakdawala (1976) holds good today even after a lapse of five decades. Regarding research in public finance he has observed once again that 'the area of public expenditure has not however, obtained as much emphasis as it deserves in Indian public finance research. On the basis of above lacuna the study of public expenditure assumes special significance in developing countries like India.

The purpose of the present study is to trace out the growth and pattern of public expenditure (Centre, States and Union Territories) in the context of changing socio-economic development after independence as well as to review the role of public expenditure in the context of changed socio-economic needs contingent upon the recent globalization of the Indian economy. Thus, the study would make an attempt to assess first the extent to which public expenditure in India has achieved to fulfill the desired socio-economic well-being of the people after independence when the economy is destined to face certain new challenges in the new economic environment. And hence our analysis purports to answer questions as to whether the last five decades have witnessed a quantitative

growth in the government expenditure and also whether a qualitative changes in terms of its composition has accompanied the size growth.

Taking the above objective in view our main hypothesis of the study can be framed like this –

H₀ : The growth and pattern of public expenditure in India have secured the avowed socio-economic development of the economy.

The present study of public expenditure differs from the earlier studies of public expenditure in several important aspects. The public expenditure policy can be best understood by disaggregating it into its component parts rather than by generalizing overall expenditure in the aggregate. This will facilitate investigation of expenditure choice among the different competing demands for resources. For satisfactory explanation of variations in specific expenditures, different types expenditures have to be given more individual attention. But almost all the earlier studies failed to make any disaggregative analysis of public expenditure on the basis of functions. The impact of public expenditure on economic development can be comprehended in a better way if such a function-wise categorization can be made.

In this study we have proposed to examine the quantitative and qualitative growth of public expenditure (developmental and non-developmental expenditure and its component part) in India from 1950-51 to 2000-01. During these fifty years of development planning a very sizable expenditure has been made by the government. The study of the size, trend and composition of public expenditure is very useful for obtaining a total view of public finance and the national development.

1.5 Methodology and some concept:

Our study is based on secondary data. The data have been collected from different sources such as: Indian Public Finance Statistics – Ministry of Finance, Department of Economic Affairs; Indian Economic Statistics, Ministry of Finance, GOI; Statistics Relating to Indian Economy, GOI. We have also consulted

important articles appeared in various periodicals and journals as well as some observation expressed in the books written by different scholars on the subject.

In our study we seek to have better understanding of structural and behavioural changes in the growth of public expenditure. Here the basic objective is to see what aspects of the real world complexity are most relevant to the determination of public expenditure.

The mass of public expenditure being heterogeneous, aggregate expenditure is broken down into individual categories. Although disaggregation of expenditure is necessary there is no agreed Classification for the purpose (Pryor, 1968, Musgrave, 1969, Bird, 1970, Mahar, and Rezende, 1975,). Bird and Pryor favour functional classification (e.g. economic services, defence, social services and so on) in contrast to Musgrave who has favoured economic classification (e.g. consumption, capital formation, transfer, subsidies, etc.). Each method of disaggregation is expected to reveal something which the other may not reveal. And hence the classifications are complementary (Mahar, and Rezende). However, in our analysis we have attempted for a functional classification for disaggregating public expenditure over time. Of course, the breaking up is very often vitiated by non-availability of data in disaggregative form which made impossible to study every small item of public expenditure. Therefore, only such items which affect economic development have been considered in our analysis.

The Government of India adopted a new accounting classification in 1974-75 and fitted all government expenditure into:

- (a) General Services,
- (b) Social and Community Services, and
- (c) Economic Services

The new system of classification will facilitate an economic and functional analysis of the budget, monitor the programmes and activities and to bring out a closer coordination between the heads of development and heads of account.

The expenditure figures will be first grouped under two broad heads – (i) Developmental expenditure, and (ii) Non-developmental expenditure. Again developmental expenditure will be sub-grouped under two heads – (a) social and community services, and (b) economic services. Non-developmental expenditure will consist of general services. However, this study has not taken each and every item of expenditure for analysis, since for want of more details it has not been possible to spilt up the existing budget heads and to present a complete picture of expenditure according to different functions. In order to show the broad trend, the following items for an in-depth analysis have been selected:

- (1) Total expenditure: Developmental and Non-developmental
- (2) Defence expenditure.
- (3) Non-development expenditure as a whole
- (4) From the category of non-development expenditure, the administrative expenditure, tax collection charges, debt services (interest payment) and relief for natural calamities have been taken for detailed consideration.
- (5) Developmental expenditure as a whole
- (6) From the category of Social and Community services, education and medical and public health services have been selected for detailed analysis
- (7) From the category of Economic services, agriculture and allied services; industry and minerals, water and power development, and transport and communication have been selected for analysis.

1.6 Some Concepts:

In social accounting there are two important definitional categories of national income, namely, Gross National Product (GNP) and Net National Product at factor cost (NNP). As all data relating to public expenditure are related to net, we have taken NNP at factor cost for our study of public expenditure.

The comparison between the growth of total government expenditure over time and the growth of aggregate community output indicates the variation in the influence of government in the community economic life. And the comparison of government expenditure as a proportion of national income signifies to a great

extent about the nature and consequence of governmental intervention or participation in the economic system. The relation between government expenditure and national income reflects the importance of the government in the total life of the community.

The elimination of price changes is a conceptual problem because there is no perfect method of choosing the deflator. A common method used for adjusting the government expenditure and national income for changes in the purchasing power of money, consists in deflating them by using appropriate price indices. Government expenditure and national income is composed of expenditure not only on goods but also on services. However, for our purpose we have adopted a single index for deflating government expenditure and national income. A special index is prepared on the basis of whole sale price index, arranged by the office of the Economic Adviser, Ministry of Industry, Government of India, from 1950-51 to 2000-01. In our study we have used this index for deflating both government expenditure and national income.

Reference:

Bird, R.M., *Growth of Government Spending in Canada.*, Canadian Tax Foundation, Toronto, 1970, p.6

Burkhead J. and Minar, J., *Public Expenditure*, Aldin-Atherton Inc., Chicago, Aldin-Atherton Inc., 1971, p.174.

Chakraborty, T.K. " Expenditure of the Central Government", *Economic and Political Weekly*, September 6, 1980, p.1527.

Chona, J.M., "Expenditure of the Central Government", *Economic and Political Weekly*, July 5, 1980. p. 1144.

Jack Wiseman and Allan T. Peacock, *The Growth of Public Expenditure in the United Kingdom 1890-1955*, Princeton University Press, 1961

234965

Gandhi V.P., "Wagner's Law of Public Expenditure: Do Recent Cross-section Studies Confirm It"? *Public Finance*, XXVI(I), 1971, pp. 44-56.

Government of India, Report of Taxation Enquiry Commission (1953-54), Vol. 1, p.34

Kelly, T. "Public Expenditures and Growth", *The Journal of Development Studies*, vol.34, No.1, October 1997, pp.60-84.

Kumar, V. *Government Expenditure and Economic Development*, Criterion Publication, New Delhi, 1986, p.2

Lakdawala, D.T., "State of Theories of Public Expenditure: Rapporteur Report", *Indian Economic Journal*, Conference Number, December 1958, p. 193

Madalgi S.S., "State Government's Expenditure, 1951/52-1965/66", *Reserve Bank of India Bulletin*, June 1966, p. 624.

Mehrotra, Jan Vandemoortele and Enrique Delamonica , " Reallocating Public Spending for Basic Social Services in Developing Countries", *Economic and Political Weekly*, July 4, 1998.vol.33 N0.27 .

Mukherjee, R., *Level of Economic Activity and Public Expenditure in India : A Statistical and Quantitative Study*, Asia Publishing House, Bombay 1965). P. vii,.

Panchamukhi, P.R., "Measurement of the Effects of Public Expenditure (with Special Reference to public Education and Health Expenditure in India)" *Bambay University*, 1967, p. 376.

Patnaik, S.C., *Orissa Finance in Perspective (1951/52 to 1965/66)*, People's Publishing House, New Delhi, 1970, p. 162.

Pryor, F L., *Public Expenditure in Communist and Capitalist Nations* George Allen & Unwin Ltd., London, 1968

Raghbendra Jha, "True Cost of Public Expenditure", *Economic and Political Weekly*, November 18 1995.p.2933.

Reddy, K.N., *Growth of Public Expenditure in India 1872-1968, (A Secular and Time Pattern Analysis)*., Sterling Publishers Pvt. Ltd., 1972, P.11.

Sahni, B.S, (ed.), *Public expenditure Analysis: Selected Readings* ,Rotterdam University Press, Rotterdam, 1972,

Samuelson, P.A "The Pure Theory of Public Expenditure" *Review of Economics and Statistics*, XXXVII, November, 1955, pp.350-56.

Sri Purshotamdas Thakurdas Research Wing, Union Budget- *A Factual Study of Finances of Government of India.*, IMC, Economic Research and Training Foundation, Bombay, 1966., p.vi.

Thimmaiah G. "Growth of Public Expenditure in Karnataka" *Southern Economist*. 1 November 1977, p. 17

Zahir, M., *Public Expenditure and Income Distribution in India.*, Associated Publishing House, New Delhi 1972, p. ix.

Chapter 2

Positive Theory of Public Expenditure

Public expenditure reflects the policy choices of governments. Once governments have decided upon which goods and services to provide and the quantity and quality in which they will be produced, public expenditures represent the costs of carrying out these policies. Historically, public expenditure has recorded a continuous increase over time in almost every country. While a private economic unit was guided by its own economic interests, the public sector had no motivation. Because welfare State could not ignore problems of economic growth and social justice, it could not remain silent spectator of the miseries of the people. This resulted in the acceptance of several versions of socialist and welfare philosophy.

There are two important explanations of government expenditure dominated by two general hypotheses. The first one is known as Wagner's Law and second one is known as the "*Displacement Effect*", introduced by Alan T. Peacock and Jack Wiseman. Both Wagner's Law and Displacement Effect have been tested statistically in various efforts to identify separately the determinants of government expenditure. In this chapter we have proposed to analyse in detail the Wagner's Law and Displacement Effect and the relevance of these two hypotheses will be analysed in the latter section of this chapter.

2.1 Wagner's Law:

Adolph Wagner a German economist of the latter half of the 19th century, who based his Law of Increasing State Activities on historical facts, primarily of Germany, which reflected the growing importance of government activities and expenditure as an inevitable feature of a "*progressive*" state. He tried to establish a direct link between economic development and growth and the relative size of public sector and consequently public expenditure.

According to Wagner, there is an inherent tendency for the activities of different layers of a government (e.g. Central and State governments) to increase both intensively and extensively. Prevailing public expenditure reflects the requirement of a given historical situation. Any change in the public expenditure reflects the underlying changes in the economic structure and development. He justified public expenditure in terms of objective criteria, such as population or transportation needs.

Wagner's Law was based upon historical facts. It did not reveal the inner compulsions under which a government has to increase its activities and public expenditure as time passes. It was applicable only to modern progressive governments which were interested in expanding public sector of the economy for its overall benefits, and public expenditure would grow faster than output. This general tendency of expanding state activities had a definite long-term trend, though in the short-run, financial difficulties could come in its way. "But in the long-run the desire for development of a progressive people will always overcome these financial difficulties (Musgrave, R.A. and Peacock, A.T., 1958) .

According to Wagner, there is an inherent tendency for the activities of the government of different layers e.g. central and State government to increase extensively and intensively. As the time passes, various levels of government undertake new functions. This means that the range of activities carried on within the public sector is extended. This process of adding new activities may be termed as extensive growth in government services. On the other hand the tendency of the governments to perform both old and new functions more efficiently and completely is called intensive growth in public activity.

Wagner hypothesized that as per capita income increases due to industrialization, there is a secular growth in public sector economic activity. The growth of public sector is attributed to three factors: (i) Most countries have registered increasing urbanization. Urbanization implies a much larger per capita expenditure on civil amenities that are needed to deal with the increased population and urbanization, (ii) Societies are experiencing a growing population which leads to the increase in 'cultural and welfare' expenditures, particularly for

education and the redistribution of income because of elastic nature of income elasticity of demand for cultural and welfare expenditures, and (iii) rise in public investment activity because of market failure and because of the monopolistic trends which require state intervention in the form of nationalization or monopoly control.

Therefore, Wagner's Law refers only to those states in which income is rising as a result of industrialization and excludes explicitly the 'non-progressive' societies. In this connection Bird (1971) has pointed out that "the conditions under which one might expect the 'Law' to operate would therefore, seem to be (i) rising per capita income; (ii) technological and institutional changes of a particular sort; and (iii) at least implicitly, democratization in the sense of wider political participation of the polity" (Bird, 1971)

Wagner's model, while containing many insights, suffered from the drawback that it did not contain a well articulated theory of public choice. Indeed, Wagner assumed away the problems of public choice by employing an organic theory of the state'. According to him the state was assumed to behave as it were an individual existing and making decision independently of the members of society (Bird., 1971).

In spite of criticism of Wagner's Law, it continues to play an important role in the study of public expenditure behaviours. According to Wagner's Law, there is a functional relation between the growth of an economy and the government activities with the result that the government sector grows faster than the economy. From the original version of this theory it is not clear whether Wagner was referring to an increase in (a) absolute level of public expenditure, (b) the ratio of government expenditure to GNP, or (c) proportion of public sector in the total economy. Musgrave believes that Wagner was thinking of (c) above.

Wagner's Law has been interpreted in terms of the concept of elasticity. It suggests greater than unity income elasticity for a number of public goods.

According to this Law, the percentage change in the public expenditure is greater than percentage change in GNP or national income.

2.2 Empirical Testing of Wagner's Law:

If a long-time period is taken, Wagner's Law seems to be quite sound and researchers using time series data have accumulated evidence to support the contention that the relative size of the public sector has increased over time in almost all the developed countries of the world. But different cross-section analyses have come out with conflicting empirical results. In this connection Gandhi (1971) remarks that a major cause of conflicting findings of cross section studies on government expenditure-shares might be the compositions of the samples used in those studies (Gandhi, 1971)

F. S. Nitti (1903) not only supported Wagner's thesis but also concluded with empirical evidence that it was equally applicable to several other governments which differed from each other. All Kinds of governments, irrespective of their levels (Central or State), intentions (Peaceful or Warlike), and size, etc, had exhibited the same tendency of increasing public expenditure. Most of the other writers on this subject have agreed with this conclusion, including even those who have, on varying grounds, criticized the rationale offered by Wagner or the suitability of the available evidence for testing his proposition (Bird, 1971).

2.3 Wiseman-Peacock Hypothesis:

According to Wagner's Law the principal determining force for the rise in public expenditure is the growth of real per capita income or in other words increased public demand for new public services arising out of the growth of real per capita income. There have been some recent attempts at the positive theory of public expenditure stressing the supply side operating through tolerable limits to taxation on the financing of public expenditure as the more important determinant of the growth of public expenditure. Of the supply side theories of public expenditure, the displacement hypothesis of Peacock and Wiseman has received deepest attention.

Peacock and Wiseman's empirical study of the growth of public expenditure in the United Kingdom from 1890 to 1955 is probably one of the best-known analyses of the 'time pattern' of public expenditures. They founded their analysis upon a political theory of public expenditure determination, namely that governments like to spend more money but citizens do not like to pay more taxes, and that governments need to pay some attention to the wishes of their citizens. Thus they opened up public expenditure to the influence of the ballot box. Peacock and Wiseman make the following assumptions about the nature of the state: (i) decisions about public expenditure are taken politically, and so can be influenced through the ballot box or by whatever media citizens can bring pressure to bear upon the government, (ii) political choices about the use of resources differ from choices made through the market system, and (iii) citizens can have ideas about desirable public expenditure which are quite different from and incompatible with their ideas about tolerable burden of taxation. Peacock and Wiseman viewed the voter as an individual who enjoyed the benefits of public goods and services but who disliked paying taxes. Thus the government when deciding upon the expenditure side of its budget keeps a close watch on the voters' reactions to the implied taxation. They assumed that there is some tolerable level of taxation' which acts as a constraint on government behaviors.

As the economy grows, tax revenue, at constant tax rates, would rise, thereby enabling public expenditure to grow in the line with GNP. In normal times, therefore, public expenditure would show a gradual upward trend, even though within the economy there might be a divergence between what people regarded as being a desirable level of public expenditure and desirable level of taxation. During the period of social upheaval, however, this gradual upward trend in public expenditure would be disturbed. These periods would coincide with war, famine or some large-scale social disaster which would require a rapid increase in public expenditures. In order to finance the increase in public expenditures the government would be forced to raise taxation levels. This raising of taxation levels would, however, be regarded as acceptable to the electorate during the periods of crisis.

Peacock and Wiseman referred to this as the 'displacement effect'. Public expenditure is displaced upwards and for the period of the crisis displaces private expenditure for public expenditures. The process represents an upward shift in the trend line of public expenditure. Following the period of crisis public expenditure does not, however, fall to its original level. A war is not fully paid for from taxation; no nation has such a large taxable capacity. Countries therefore borrow, and debt charges have to be met after the event.

Another effect that they thought might operate was the '*inspection effect*'. This effect arises from the voters' keener awareness of social problems during the period of upheaval. The government therefore expands its scope of services to improve these social conditions, and because the electorates' perception of tolerable level of taxation does not return to its former level the government is able to finance these higher level of expenditure originating in the expanded scope of government and debt charges.

Along side the displacement effect, there is another influence, called the '*concentration process*' (Peacock and Wiseman, 1967). This concentration effect refers to the apparent tendency for the central government economic activity to grow faster than that of state and local level government. British data are consistent with this hypothesis. Moreover, this aspect of concentration effect is also closely connected with the political set up of the country.

Peacock and Wiseman's theory has not gone without criticism. Gupta (1967) argued that the concept of the tolerable burden of taxation would rather suggest a shift in the downward direction depending on the prevailing situation. During the depressions public expenditure expands, but it becomes difficult for the government to raise the level of taxation. Higher public expenditure is incurred without increasing the burden of taxation. For meeting revenue needs, government resorts to deficit financing. Therefore, if the concept of the tolerable burden were expanded so as to include not only that of taxes but also that of other methods of financing government expenditure, it would provide a better explanation of the growth of public expenditure.

2.4 Empirical Testing of the Hypothesis:

Peacock and Wiseman hypothesis has been carried out in a number of studies. Some of the studies using econometric techniques have reached conflicting conclusion. On the whole, the studies have more or less extended support to the hypothesis.

Reddy's (1972) Study of the growth of public expenditure in India, from 1872 to 1968, supports the 'displacement effect' hypothesis. Goffman and Mahar (1971) in their study of the growth of public expenditure in six developing Caribbean Countries have found definite evidence of the displacement effect hypothesis. But the source of this 'displacement' appears to differ from those observed in developed countries. Bird (1970) and Rosenfeld (1973) in their study of Canada have found little empirical evidence in support of the displacement hypothesis. Auld and Miller (1977) observed that when war and related expenditure are deducted from total expenditure for United Kingdom, for the period from 1890 to 1955, the displacement effect vanishes. They, therefore, concluded that the empirical evidence therefore, suggests that wars do not cause displacements but only temporary peaks on a rising trend.

Nagrajan (1978) makes an attempt to test the displacement effect hypothesis for central government expenditure In India as a consequence of less pronounced political-social upheaval which he called 'non-global crisis' like the Sino-Indian hostilities of 1962. He observation that the crisis did not affect public expenditure in 1961-62, but the impact of the crisis was felt from 1962-63 onwards. Therefore, he finds empirical support for the displacement effect hypothesis in public expenditure associated with hostilities of 1962.

In the development models of Musgrave and Rostow, public expenditure growth reflected the role of government in the process of development as a supplier of infrastructure, capital and social investment, and especially to overcome market failure. Wagner on the other hand concentrated more on the income elasticity of demand for public outputs and again recognized the market failure type arguments that have been used since. Peacock and Wiseman's

approach was to look at the underlying politics of the fiscal system in an attempt to account for the time pattern of public expenditures that they had observed. They concentrated especially on the shift points in the relative scale of public expenditure which coincided with periods of catastrophe such as wars.

2.5 Relevance of Wagner's Law and Peacock-Wiseman Hypothesis in Present Study:

If we assume that the government admits the need and worthwhile ness of economic development, public expenditure and economic development are dependent on each other at any given time. In developing countries like India, Wagner's Law is not directly capable of being applied, but is often felt indirectly in the estimation of income elasticity of public expenditure, which is central to Wagner's scheme of thought. With the process of economic development, public expenditure increases on social and economic services, such as education and health, which have a higher income elasticity of demand. Since mass of public expenditure is not homogeneous, income elasticity of public expenditure has a tendency to vary widely from category to category.

The present study is designed to deal with time-series analysis in order to verify Wagner's Law in the case of Indian Union. This will contribute to a better understanding of the relation between public expenditure and economic growth in India.

Now one basic question arises and this is – to what extent does the Peacock and Wiseman hypothesis be tested to a country like India as it was established for great Britain. In fact, it is an answer to this question that our study set out to find. In India, the growth of public expenditure can not expect the applicability of 'displacement effect' hypothesis of Peacock and Wiseman in the same sense in which the hypothesis has been used by them. But in course of our study, we should be able to say whether or not the growth in public expenditure in a developing country is likely to follow the same path as that in a developed economy.

Like any Western democratic country, India follows the constitutional procedure for the increase in the real national income and since independence, India follows the same parliamentary form of government is obtained in the United Kingdom. People in India can influence indirectly the national policy through the ballot box. The electorate in India enjoys a considerable vote power over the formulation of national policy, and broad freedom to dissent and to organize peaceful opposition. Therefore, the assumptions about the nature of the State made by Peacock and Wiseman do hold well in the case of India.

India is a developing country and has passed through all the important social disturbances as were witnessed in the United Kingdom. Britain had to face two social upheavals – World War-I & II, similarly, India passed through four social upheavals e.g. the Sino-India War of 1962, Indo-Pakistan War of 1965, Bangladesh Freedom War of 1971 and Kargil War of 1999 since Independence. Therefore, the growth of public expenditure in India can be analysed in the context of social upheavals such as the wars of 1962, 1965, 1971 and 1999.

Further, the government has set before itself very impressive economic and social goals of achieving higher level of income, employment and out put and reduction of income inequality which are to be achieved through the Five Year Plans. The government has become the biggest buyers of certain product and the greatest employers in the construction business. Thus estimation of the size and composition of public sector and distribution of limited real resources among the different alternative use is of great analytical use to the policy-makers.

Reference:

- Auld, D.A.L. and Miller, F.L., *Principles of Public Finance*, Toronto, 1977.
- Bird. R. M., "Wagner's Law of Expending State Activity", *Public Finance*, XXVI (I), 1971, .
- Gandhi, V.P., "Wagner's Law of Public Expenditure: Do Recent Cross-section Studies Confirm It"? *Public Finance*, XXVI (1), 1971.
- Goffman, I.J. and Mahar, D.J., "Growth of Public Expenditures in Selected Developing Nations : Six Caribbean Countries 1940-65", *Public Finance*, XXVI (1), 1971.

Gupta, S.P., "Public Expenditure and Economic Growth: A Time Series Analysis," *Public Finance*, XXII (4), 1967.

Musgrave, R.A. and Peacock, A.T. (eds.) *Classics in the Theory of Public Finance*, Macmillan and Co. Ltd., London, 1958.

Peacock, A.T. AND Wiseman, J., *Growth of Public Expenditure in the United Kingdom*, Rev edn., George Allen & Unwin Ltd., London.,1967.

Chapter 3

The Growth of Public Expenditure in India

In the previous chapter we dealt with the positive theories of public expenditure. In this chapter, it is proposed to review the qualitative and quantitative growth of expenditure of the government since 1950-51 to 2000-01. It would document the empirical evidence with respect to the growth of changing composition of public expenditure: and then test the validity of the positive theories advanced by Wagner and Peacock-Wiseman to explain the growth of public expenditure.

All the head of expenditure is the combined revenue and capital expenditure of the centre, states and Union Territories and have been proposed to be analyzed at both current and constant prices. Comparison of per capita expenditure has also been undertaken.

The growth of expenditure has been analysed with the help of some measure of growth. These are – (i) compound growth rate of expenditure with respect to time and (ii) the elasticity of expenditure with respect to national income.

In the past governments restricted themselves to the problems of maintenance of law and order and external defence. This was due to the mistaken belief of the maxim of Adam Smith. But J.M. Keynes's '*General Theory*' provides a theoretical basis for the recent developments in public expenditure programmes assumed by the government. The tendency of a persistent and continuous increase in public expenditure in countries all over the world was widely observed in the 19th century. The emergence and extension of public sector or organization have become unavoidable on account of the severe shortcomings of the private sectors which were witnessed during the period of depression in the thirties and therefore, the restricted concept of state has given

place to the modern concept of welfare state. The main objective of this welfare state is to promote the economic and social well-being of the people as a result of which new functions are being performed by the state involving huge increase in public expenditure. It should be pointed out that much of the increase in public expenditure was due to the increasing participation of the governments in economic activities.

3.1 Growth of Public Expenditure in India

In money terms: Public expenditure in India has been showing a remarkable growth and expansion during 1950-51 to 2000-01. As a result of this, the size of public expenditure has tended to increase and the public sector has acquired a considerable command over the flow of the resources of the economy. It is seen from the table 3.1 that there has been a striking increase in total government expenditure in money terms. The total government expenditure increased from Rs. 967.38 crores in 1950-51 to Rs. 548993.10 crores in 2000-01 in money terms or at current prices. National income in money terms increased from Rs 9142 crores in 1950-51 to Rs. 1765238 crores in 2000-01. Thus government expenditure recorded a percentage increase of 56650.50 and national income recorded a percentage increase of 19209 during the period of 1950-51 to 2000-01. In other words, while the total government expenditure increased by 567.5 times, national income increased far less rapidly by about 193 times during the period under study.

The growth of government expenditure and national income have been deflated by population growth and price change. Let us first remove the influence of population growth and find out the extent of such growth in per head of population.

In money terms, the total government expenditure per head of population increased from Rs. 26.95 in 1950-51 to Rs. 5451.77 in 2000-01. While national income per head of population in money terms increased from Rs. 254.65 in 1950-51 to Rs. 17529.67 in 2000-01. Thus government expenditure per head of population in money terms increased by 20129.2 per cent (202 times) during the

Table 3.1
Total Government Expenditure and National Income at Current and Constant Prices
(1950-51 to 2000-01)

Financial Year	Total Government Expenditure		Per Capita Government Expenditure		National Income		Per Capita National Income		Government Expenditure As % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)	
1950-51	967.38	14006.69	26.95	390.16	9142.00	132367.00	254.65	3687.10	10.58
1951-52	1041.14	14648.91	28.52	401.34	9634.00	135551.00	263.95	3713.73	10.81
1952-53	950.99	13990.72	25.56	376.09	9474.00	139379.00	254.68	3746.75	10.04
1953-54	990.86	14196.39	26.14	374.57	10341.00	148159.00	272.85	3909.21	9.58
1954-55	1226.58	19642.61	31.78	508.88	9628.00	154184.00	249.43	3994.40	12.74
1955-56	1383.55	22361.12	35.20	568.99	9776.00	158001.00	248.75	4020.38	14.15
1956-57	1660.51	23659.79	41.41	590.02	11706.00	166793.00	291.92	4159.43	14.19
1957-58	2039.56	28025.48	49.87	685.22	11928.00	163902.00	291.64	4007.38	17.10
1958-59	2069.71	27465.87	49.51	657.08	13299.00	176483.00	318.16	4222.08	15.56
1959-60	2233.03	28818.22	52.42	676.48	13916.00	179592.00	326.67	4215.77	16.05
1960-61	3120.18	39450.66	71.89	909.00	15204.00	192235.00	350.32	4429.38	20.52
1961-62	3410.13	42202.28	76.80	950.50	15960.00	197514.00	359.46	4448.51	21.37
1962-63	4104.13	48417.36	90.40	1066.46	17029.00	200895.00	375.09	4425.00	24.10
1963-64	4972.16	53812.39	107.16	1159.75	19491.00	210946.00	420.06	4546.25	25.51
1964-65	5185.81	51517.14	109.41	1086.86	22814.00	226640.00	481.31	4781.43	22.73
1965-66	6439.93	58630.69	132.78	1208.88	23752.00	216244.00	489.73	4458.64	27.11
1966-67	7245.85	58527.51	146.38	1182.37	26918.00	217427.00	543.80	4392.46	26.92
1967-68	7126.88	52852.29	143.98	1067.72	31745.00	235418.00	641.31	4755.92	22.45
1968-69	7155.53	51648.88	138.14	997.08	33421.00	241234.00	645.19	4657.03	21.41
1969-70	7665.26	53691.24	144.90	1014.96	36742.00	257359.00	694.56	4865.01	20.86

Financial Year	Government Expenditure		Per Capita Government Expenditure		National Income		Per Capita National Income		GE as % National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)	
1970-71	16735.54	116212.97	309.34	2148.11	38968.00	270597.00	720.30	5001.79	42.95
1971-72	10397.51	68474.67	187.68	1236.00	41340.00	272252.00	746.21	4914.30	25.15
1972-73	12098.13	71978.17	213.37	1269.46	45392.00	270061.00	800.56	4762.98	26.65
1973-74	12890.07	65276.16	222.24	1125.45	55896.00	283061.00	963.72	4880.36	23.06
1974-75	15171.56	66410.82	255.84	1119.91	65432.00	286417.00	1103.41	4829.97	23.19
1975-76	18555.03	84336.72	305.68	1389.40	69005.00	313643.00	1136.82	5167.10	26.89
1976-77	21482.86	91542.18	346.50	1476.49	74242.00	316358.00	1197.45	5102.55	28.94
1977-78	23265.68	93102.88	366.97	1468.50	85151.00	340751.00	1343.08	5374.62	27.32
1978-79	27727.52	109496.52	427.89	1689.76	91094.00	359732.00	1405.77	5551.42	30.44
1979-80	31800.61	109017.95	478.92	1641.84	98631.00	338124.00	1485.41	5092.23	32.24
1980-81	35379.41	108746.96	521.05	1601.58	118233.00	363417.00	1741.28	5352.24	29.92
1981-82	40546.30	113442.76	585.93	1639.35	137388.00	384392.00	1985.38	5554.80	29.51
1982-83	48014.94	124462.99	678.18	1757.95	151716.00	393274.00	2142.88	5554.72	31.65
1983-84	55693.98	132344.38	770.32	1830.49	178121.00	423265.00	2463.64	5854.29	31.27
1984-85	66733.98	147745.37	903.03	1999.26	198794.00	440119.00	2690.04	5955.60	33.57
1985-86	76415.35	158485.89	1012.12	2099.15	221401.00	459187.00	2932.46	6081.95	34.51
1986-87	91580.83	177590.08	1187.82	2303.37	246064.00	477158.00	3191.49	6188.82	37.22
1987-88	101754.4	179658.74	1291.30	2279.93	279400.00	493312.00	3545.69	6260.30	36.42
1988-89	116139	189535.70	1442.72	2354.48	334302.00	545572.00	4152.82	6777.29	34.74
1989-90 ^{RE}	140031.9	211472.63	1703.55	2572.66	385729.00	582518.00	4692.57	7086.59	36.30
1990-91	155141.5	211684.73	1849.12	2523.06	450145.00	614206.00	5365.26	7320.69	34.46
1991-92	176995.9	212341.34	2067.71	2480.62	514607.00	617372.00	6011.76	7212.29	34.39
1992-93	198489.6	219153.92	2276.26	2513.23	587064.00	648182.00	6732.39	7433.28	33.81
1993-94	225842.2	225842.16	2534.70	2534.70	685912.00	685912.00	7698.23	7698.23	32.93
1994-95	258862.5	235858.81	2850.91	2597.56	805981.00	734358.00	8876.44	8087.64	32.12

Financial Year	Total Government Expenditure		Per Capita Government Expenditure		National Income		Per Capita National Income		Government Expenditure As % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)	
1995-96	293103.5	245163.11	3161.85	2644.69	941861.00	787809.00	10160.31	8498.48	31.12
1996-97	325614.8	253620.98	3452.97	2689.51	1093961.00	852085.00	11600.86	9035.90	29.76
1997-98	372972.8	271240.09	3889.18	2828.36	1224787.00	890712.00	12771.50	9287.92	30.45
1998-99	445980.3	295043.74	4574.16	3026.09	1434456.00	948982.00	14712.37	9733.15	31.09
1999-00 ^{QE}	517056.1	328780.25	5217.52	3317.66	1590301.00	1011224.00	16047.44	10204.08	32.51
2000-01 ^{RE}	548993.1	330744.42	5451.77	3284.45	1765238.00	1063479.00	17529.67	10560.86	31.10

Source: Source: (i) Indian Economic Statistics, Public Finance, December-1988, GOI, Ministry Of Finance, Economic Division

(ii) Hand Book of Statistics on Indian Economy- 2001, Reserve Bank of India, (for income data)

(iii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.

(iv) Data relating to 1950-51 to 1979-80 has been collected from Kumar, V (1986)

period from 1950-51 to 2000-01 and national income increased by only 6783.82 per cent (about 68 times) during the same period.

If we measure total expenditure of the Centre, States and Union Territories as a proportion of national income, it will be found that whereas this proportion was about 10.58 per cent in 1950-51, it increased to about 31.10 per cent in 2000-01 which shows an upward trend with some fluctuations during the period under study.

Development expenditure has been the dominant component of public expenditure which increased from Rs. 353.69 crores in 1950-51 to Rs. 236096.04 crores in 2000-01 in money terms and thus recorded a percentage increase of 66652.25 during the period. On the other hand, non-developmental expenditure in money terms increased from Rs. 516.31 crores in 1950-51 to Rs. 3000363.94 crores and thus recorded a percentage increase of 58075.11 during the period from 1950-51 to 2000-01 (table 6.1).

In real terms: The figures of expenditure and national income mentioned above are at current prices. The per capita figures would be meaningless, if we do not take into account the price changes. But even if the figures be deflated at constant prices (1993-94 prices) the increase would appear to be really remarkable even in real terms. The value of rupee has gone down during the period. The economic history of India makes us realize that the rise in money terms is due largely to the rise in prices. Prices increased by nearly 24 times between 1950-51 and 2000-01. Hence, increase in government expenditure and national income must be attributed partly to the rise in prices. The influence of price change on the growth of government expenditure and national income has been removed by deflating the available figures in terms of changes in the wholesale price-index.

The table 3.1 shows that whereas government expenditure in money terms increased from Rs. 967.38 crores in 1950-51 to Rs. 548993.10 crores in 2000-01 (56650.50 per cent increase), at constant prices (1993-94 prices) it

increased from Rs. 14006.69 crores in 1950-51 to Rs. 330744.42 crores in 2000-01 showing a percentage increase of 2261.33 during the period. Whereas, national income over the period increased from Rs. 9142 crores in 1950-51 to Rs. 1765238 crores in 2000-01 (19209.10 per cent) in money terms. However, in real terms it increased from Rs. 132367 crores in 1950-51 to Rs. 1063479 crores in 2000-01, showing a percentage increase of only 703.43 during the same period.

The government expenditure per head of population in money terms increased from Rs. 26.95 in 1950-51 to Rs 5451.77 in 2000-01, recorded a percentage increase of 20129.20, whereas in real term it recorded a percentage increase of 741.82 only from Rs. 390.16 in 19050-51 to Rs. 3284.45 in 2000-01. Thus the growth in real terms in comparison with the money terms is very slow.

Development expenditure records a growth rate of 66652.25 per cent between 1950-51 to 2000-01 in money terms. If the price effect is eliminated, the developmental expenditure grows by only 2677.49 per cent during the same period. Similarly non-developmental expenditure records growth rate of 58075.11 per cent in money terms during the period from 1950-51 to 2000-01. In real terms however, it records a growth rate of 2898.11 per cent during the same period.

Therefore, government expenditure grows faster than national income both in current prices and constant prices (1993-94 prices) during the period under study and hence evidence of increasing State activities i.e. Wagner's Law is provided by these empirical observations. The State's role in the economic sphere is also expanding as it is evident from the expansion of expenditure on developmental services.

Compound Growth Rate:

In money terms, the compound rate of growth of total expenditure has been 13.23 per cent per annum (table 3.2). The developmental expenditure records a higher growth rate of 13.6 per cent per annum in money terms, whereas the non-developmental expenditure has been growing at a lower rate of 13.80 per cent per annum at current prices. In real terms the developmental

expenditure shows a rate of growth of 6.7 per cent per annum. But non-developmental expenditure shows a rate of growth of 6.4 per cent per annum. Social and Community services show a rate of growth of 14.9 per cent at current prices per annum, and 7.98 per cent per annum at constant prices during the period under study. These figures are higher than that of economic services. The expenditure on economic services shows a growth rate of 12.78 per cent per annum at current prices and 5.96 per cent per annum at constant prices during the period. The relative significance of developmental expenditure is reflected in its rate of growth of 6.7 per cent against the rate of growth of 6.4 per cent in case of non-developmental expenditure.

Table 3.2
Growth of Expenditure (1950-51 to 2000-01)

Head of Expenditure	Compound Growth Rate		Income Elasticity of Expenditure	
	Current Prices	Constant Prices	Current Prices	Constant Prices
Total Expenditure	13.23	6.39	1.17	1.50
Development Expenditure	13.60	6.74	1.19	1.53
A. Social & Community Services	14.93	7.98	1.21	2.65
B. Economic Services	12.78	5.96	1.05	1.31
Non Developmental Expenditure	13.8	6.40	1.06	1.12

Source: Computed on the basis of table 5,7, 9 of Statistical Appendix

Income Elasticity of Public Expenditure:

In money terms income elasticity of total expenditure in India is 1.17. The elasticity of non-developmental expenditure ($e=1.06$) is less than that of developmental expenditure ($e=1.19$). The Expenditure on social and community services ($e=1.21$) in India is more responsive to income change. The expenditure on economic services in India is relatively less responsive to income change ($e=1.05$)

Same conclusion can be drawn if we eliminate the price effect. The relatively higher income elasticity of social and community services validates

Wagner's Law. In real terms, elasticity of total public expenditure is 1.50. It is 2.65 for developmental expenditure. Social and community services show greater responsiveness ($e=2.65$) as compared to economic services ($e=1.31$)

Thus, compound growth rates and elasticities confirm the validity of Wagner's Law in respect of increasing state activities in India.

3.2 Growth of Government Expenditure less War-Related Defence Expenditure

The increase in government expenditure may be entirely due to military and other war-related government expenditure if the government expenditure, even after the removal of "permanent influences" during the war shows a peak.

There are two expenditures which are of direct result of war. These are – (a) defence expenditure; and (b) debt services and other war related expenditures. Now let us eliminate these expenditures and observe whether the trend of government expenditure shows the same pattern as in normal times. However, there is a problem in doing so. The problem is whether we should remove entire defence expenditure or we should remove that part of defence expenditure which is incurred to finance the prosecution of war, since even during the peace time a normal amount of money would be spent on defence. But a problem arises as to how to distinguish between defence and non-defence types of government expenditure during the war time. To solve this problem we have assumed that the per capita defence expenditure in the absence of war would have remained the same. A close observation of the growth of defence expenditure in India tells us that the per capita expenditure on defence in real terms remained more or less same during the peace times (before 1961-62). For the purpose of estimating war-related defence expenditure, the year after 1961-62 i.e. from 1962-63 to 2000-01 are considered as the years of war. Since during these periods there were direct or indirect wars with the neighboring countries as well as against terrorism.

Table 3.3
Total Government Expenditure less War-Related Defence
Expenditure at Constant Prices (1950-51 to 2000-01)

Financial Year	Government Expenditure less War-related Expenditure	Per Capita Government Expenditure less War-Related Expenditure	Financial Year	Government Expenditure less War-related Expenditure	Per Capita Government Expenditure less War-Related Expenditure
1950-51	14006.69	390.16	1976-77	86022.96	1387.47
1951-52	14648.91	401.34	1977-78	88085.92	1389.37
1952-53	13990.72	376.09	1978-79	103816.28	1602.10
1953-54	14196.39	374.57	1979-80	103580.98	1559.95
1954-55	19642.61	508.88	1980-81	102775.62	1513.63
1955-56	22361.12	568.99	1981-82	106455.00	1538.37
1956-57	23659.79	590.02	1982-83	116610.43	1647.04
1957-58	28025.48	685.22	1983-84	123649.36	1710.23
1958-59	27465.87	657.08	1984-85	138383.32	1872.58
1959-60	28818.22	676.48	1985-86	147392.72	1952.22
1960-61	39450.66	909.00	1986-87	162651.86	2109.62
1961-62	42202.28	950.50	1987-88	163247.41	2071.67
1962-63	46780.87	1030.42	1988-89	172166.16	2138.71
1963-64	49021.17	1056.49	1989-90	194318.44	2363.97
1964-65	47640.66	1005.08	1990-91	197943.58	2359.28
1965-66	54799.97	1129.90	1991-92	200185.60	2338.62
1966-67	55499.93	1121.21	1992-93	207336.85	2377.72
1967-68	50077.76	989.68	1993-94	211758.05	2376.63
1968-69	48703.05	940.21	1994-95	222587.75	2451.41
1969-70	50587.73	956.29	1995-96	230773.70	2489.47
1970-71	112597.11	2081.28	1996-97	238853.01	2532.91
1971-72	63254.94	1141.79	1997-98	253937.41	2647.94
1972-73	67085.38	1183.16	1998-99 ^P	277141.26	2842.47
1973-74	61816.28	1065.80	1999-2000 ^{QE}	307480.98	3102.73
1974-75	62329.76	1051.09	2000-01 ^{RE}	309620.27	3074.68
1975-76	78432.04	1292.13			

Source : Computed on the basis of table 5 and 6 of the Statistical Appendix

Another war-related expenditure is the debt services. The removal of this influence on the total expenditure is very difficult. In India, debt services not account for the debt incurred for war purposes only. They include interest on ordinary and unfunded debt and on other obligations as also appropriations for

reduction or avoidance of debt. Even the entire debt does not represent the debt incurred for financing wars; it includes debt incurred for financing wars and the prevention of famines etc. Therefore, it would be more justified in not removing this influence at all to observe the pattern of growth of government expenditure.

Table 3.3 shows the growth pattern of government expenditure after removing war-related defence expenditure. Here peak of total government expenditure is not due to war-related expenditure. The upward trend in total government expenditure did not disappear in the post-war/social upheaval times and it did not come to the pre-war/social upheaval level.

Wagner's Law and Peacock-Wiseman Hypothesis-

The ratio of government expenditure to national income has shown an increasing trend. It has increased from 10.58 per cent in 1950-51 to 31.10 per cent in 2000-01. The increase in national income at constant prices was 703.43 per cent during the period under study; while total government expenditure registered an increase of 2261.38 per cent at constant prices during the same period. The per capita national income at constant prices increased by 186.43 per cent from 1950-51 to 2000-01, whereas per capita total public expenditure at constant prices increased by 741.83 per cent during the same period. It is therefore, evident that the rate of growth of expenditure (both total and per capita terms at constant prices) was faster than that of national income. The compound rate of growth of the above variables also supports the above conclusion.

National income at constant prices increased by 4.17 per cent per annum during the period under study. On the other hand, total expenditure at constant prices increased by 6.40 per cent per annum during the same period. The per capita national income at constant prices increased by about 2.08 per cent per annum during 1950-51 to 2000-01, whereas per capita government expenditure at constant prices during the same period has increased by about 4.27 per cent per annum. Thus, the behavior of government expenditure for the last 50-years of planned development supports the Wagner's contention that the growth of

government expenditure would be faster than that of national income. The Dis-aggregative components of total expenditure (functional classification) shows that

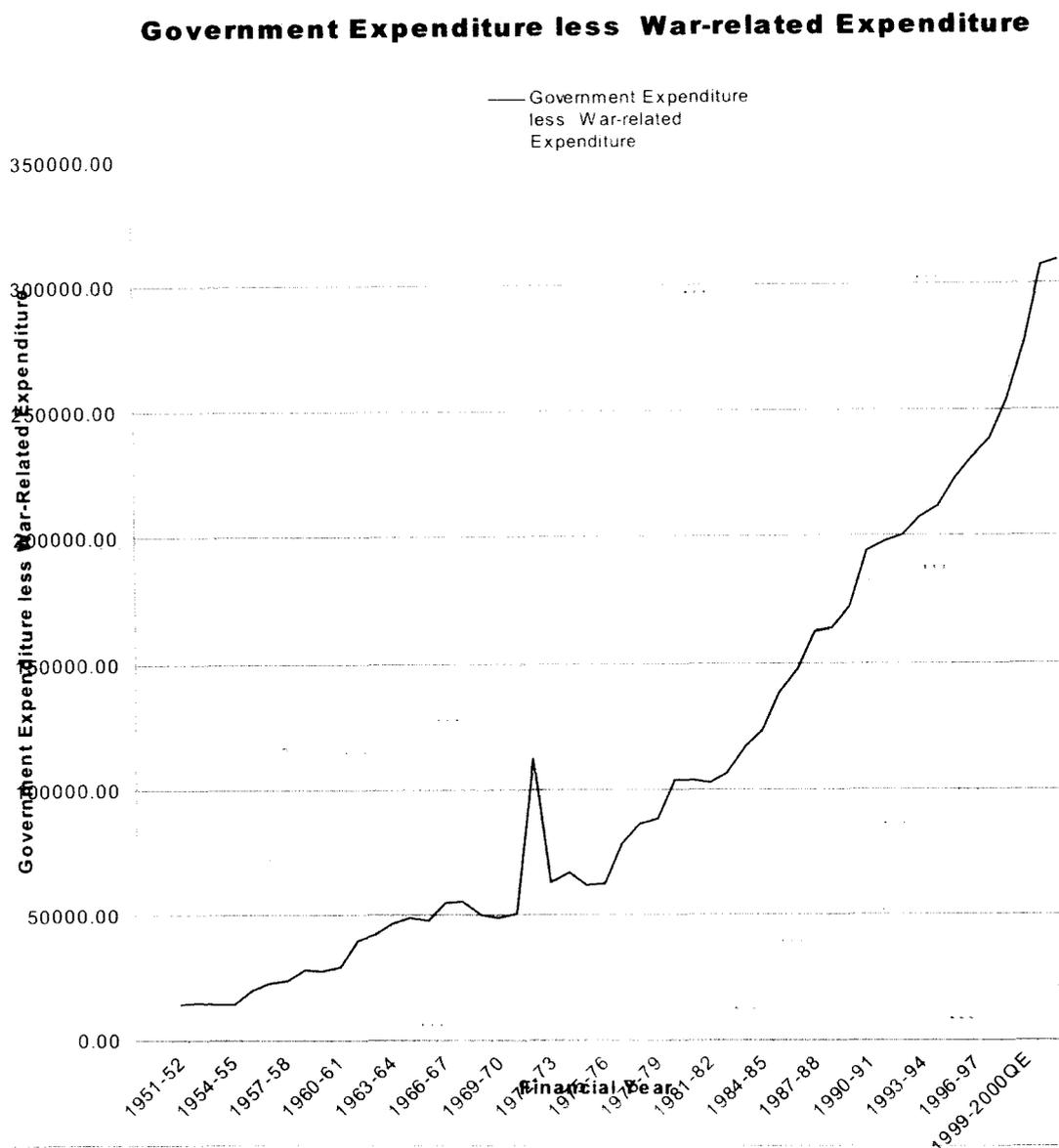


CHART-1

the rate of increase of all the functional heads were faster than that of national income at current as well as constant prices. The expenditure on social and community services at constant prices increased by 7.98 per cent per annum, on economic services at constant prices increased by 5.69 per cent per annum, developmental expenditure at constant prices increased by 6.74 per cent per annum and non-developmental expenditure at constant prices increased by 6.4 per cent per annum, whereas the national income at constant prices grew at the

rate of 4.17 per cent per annum during the period under study. Thus public expenditure has been growing at a faster rate than that of national income.

In money terms income elasticity of total expenditure in India is 1.17. The elasticity of non-developmental expenditure ($e=1.06$) is less than that of developmental expenditure ($e=1.19$). The Expenditure on social and community services ($e=1.21$) in India is more responsive to income change. The expenditure on economic services in India is relatively less responsive to income change ($e=1.05$)

Same conclusion can be drawn if we eliminate the price effect. The relatively higher income elasticity of social and community services validates Wagner's Law. In real terms, elasticity of total public expenditure is 1.50. It is 2.65 for developmental expenditure. Social and community services show greater responsiveness ($e=2.65$) as compared to economic services ($e=1.31$)

Thus, compound growth rates and elasticities confirm the validity of Wagner's Law in respect of increasing state activities in India.

So far as displacement effect hypothesis of Peacock-Wiseman is concerned, there is no direct relevance in India. The hypothesis of Peacock-Wiseman is concerned with social upheavals like war and depression which create a displacement effect escalating both public expenditure and revenue. But our study is concerned with combined public expenditure of Centre, States, and Union Territories. Defence services are taken care of by the Central Government. The State Governments are not directly concerned with war or defence of the country. Thus as regards to the war of 1962, 1965, 1971 and 1999, the State Governments did not have any direct financial liabilities.

The displacement effect in public expenditure follows the increase in desirable level of public expenditure. This, however, is not clearly visible in case of public expenditure in India. In per capita terms, total expenditure at constant prices increased after 1961-62, and the increase was continued to be observed during the years of war of 1962-63, 1965-66, 1970-71 and 1999-2000. But the

peak of total expenditure during the years of war is not due to war-related expenditure. The peak of government expenditure did not disappear after the removal of war-related defence expenditure and the total government expenditure did not come to the pre-war level.

We can also indirectly test the displacement effect by testing concentration process and inspection effect. The concentration process is particularly relevance to federal States. Each major social upheavals leads to the government assuming a larger proportion of the total national economic activity. In other wards, there is a concentration effect. The concentration effect also refers to the apparent tendency for the Central Government economic activity to grow faster than that of State and local level governments. As such, there is no clear indication as to the working of concentration process during the years of war.

The inadequacy of the revenue as compared with the required public expenditure (due to social upheavals/war) creates an inspection effect. The government and the people review the revenue position and the need to find a solution of the important problems that have come up and agree to the required adjustments to finance the increased expenditure. They attain a new level of tax tolerance. They are now ready to tolerate a greater burden of taxation and as a result the general level of expenditure and revenue goes up. The achievement of full-fledged statehood since independence and the spirit of nation-building and self-reliance has created a favorable environment for inspection effect for pushing up the rates of existing taxes in India. The changing attitudes towards the role of the government and public expenditure in the furtherance of social and economic changes have brought a significant upward shift in the growth of public expenditure in India.

All these factors contributed significantly towards bringing about growth and also change in the pattern of public expenditure. The working of demonstration effect is very strong and this leads the public expenditure to catch up with other relatively developed countries. The wider the gap between the more developed and less developed countries, the greater is the upward thrust on public expenditure in a backward country. The short-term attempts to alleviate

social and economic problems have an even greater stimulating effect on the growth of public expenditure in India. These factors tend to alter the growth and pattern of public expenditure with greater emphasis on social and community services.

Note :

Compound Growth Rate has been computed by using following fomula:

$$E_n = E_0(1+r/100)^n$$

where, E_n = Expenditure in the nth year
 E_0 = Expenditure in the base year
 r = Rate of Growth of expenditure
 n = Number of years.

Therefore,

$$r = \{(E_n/E_0)^{1/n} - 1\} \times 100$$

Elasticity is defined as a ratio of percentage change in expenditure to percentage change in NNP. This has been calculated using the log-linear relationship: $\log E = \text{Log} \alpha + \beta \log Y$

Estimate of β gives the elasticity of expenditure with respect to income

Chapter 4

Analysis of Defence Expenditure

Defence expenditure is one of the most important single items of expenditure in all countries of the world. Defence expenditure ensures national freedom and gives rise to many advantages that arise from it; These advantages are affording security to life, property and trade on which prosperity of the nation depends. In the early stages of human civilization people were living in constant fear of one another. In the absence of any collective security, they depended entirely on individual physical valour, fighting skill. But with the progress of human civilization state has come into existence to grant protection to all its inhabitants as a result of which this danger to life and possession has been minimized. Defence is thus the most important duty of the state. According to Adam Smith '*Defence is better than affluence*'..... This dictum is still considered a safe doctrine for every government. Because although society has progressed, the danger of war has not yet vanished from this world. In spite of repeated attempts to end wars for ever, the world to day is as much probably more in danger of war as ever. Because of this constant danger of war and a threat to the territorial integrity and independence all the countries of the world, they are spending a high percentage of their total expenditure on national defence.

4.1 Determinant of Defence Expenditure:

Defence expenditure of a country depends upon a number of factors among which i) The population, ii) the geographical area and location, iii) the degree of economic development, iv) The state of scientific and technological progress, and v) The political conditions existing inside and outside the country are the most important. Each of these factors influences the size and composition of defence expenditure. We propose to examine this theoretically here under.

- (i) **The Population:** The population is generally regarded as a parameter of the Defence system for all practical studies. The population of a country may show a tendency to rise or fall or remain stationary. Population growth, generally, widens the scope for greater degree of division of labour. The specialization in various material pursuits, in its turn facilitates the technological innovations which might immensely affect the every pattern of defence expenditure. Therefore, we can conclude that the expenditure on defence services and population growth are positively correlated.
- (ii) **Geographical area and location:** The geographical area and location of a country plays vital role in the matter of national defence. For example, if a country is circumscribed by vast oceans and high mountains the expenditure on defence of the country, under normal conditions, will be less than that the others without these natural sentinels will have to do. In India the Himalayan range standing guard over the northern borders of India is a case in point. We can also cite another example from the world history that, it is the winter climate which is purely a product of geographical condition which guarded Russia against foreign invasions, such as by Napoleon of France and Hitler of Germany. Geographical condition of a country remains unaltered unless it happens by nature. So also is the case with the size of the country which does not usually undergo changes. Hence the area and geographical conditions are treated as a constant factors which account for changes in defence expenditure.
- (iii) **Degree of Economic Development:** It is to be noted that defence expenditure is not only different in different country because of the variation in different factors but also different in the same country at various stages of economic development. Therefore, the extent of economic development is regarded as a variable in the determination of defence expenditure. The growth of any economy is measure in terms of

its per capita income. Defence potentialities of country move with the rising per capita income. Let us take, for example, two countries – developed and the other less developed both the countries spend the same percentage of national income on defence services so, the sacrifice involved in such expenditure is greater in the case of less developed country than the developed one. This is so because the expenditure on the latest armaments and ammunition is unduly and roughly impinges upon the standard of living of the masses, which area already at low level.

- (iv) **Scientific and Technological Advancement:** Advancement of science and technology play a vital role in the determination of defence expenditure in two ways. On the one hand, the advancement of science and technology accelerate the economic growth which in turn promotes higher rate of spending on defence services, on the other hand it opens a new ground for increased, defence expenditure by way of technological and scientific innovations. The size and composition of defence expenditure has been undergoing changes as newer and newer developments take to the progress of science and technology.
- (v) **Political Condition:** Political condition prevailing in the country and abroad plays an important role in the determination of defence expenditure. A country definitely will increase expenditure on security measure whenever a war is taking place in its vicinity. It can also be noticed that the defence expenditure is also an increasing function of similar expenditure in some or all other countries, i.e. the rise in spending in defence in one country will generally lead to a similar rise in defence expenditure in other countries.

For example, during the immediate post-Independence days both India and Pakistan kept their defence expenditure high. Political instability within a country also leads to higher spending on security measures. During emergencies, defence expenditure increased

substantially, is a case in point. Thus, political conditions prevailing with in or outside a country have an important role to play in varying the volume of defence expenditure.

Out of the above five factors that determine the volume and composition of defence expenditure. The last one, political factors is most relevant to our study as this will enable us to study the nature and growth of defence expenditure from the year 1950–51 to 2000–01. The events like Indo–China War (1962), Indo–Pak War (1965) and Bangladesh Independence War 1971 and Kargil War (1999) and many other military operations had played important role in altering the very mode of expenditure on defence services in India.

4.2 Growth of Defence Expenditure:

Defence expenditure in money terms increased from Rs. 168.32 crores in 1950-51 to Rs 49622.04 crores in 2000-01, showing a percentage growth of 29380.77 during the period. On the other hand, at constant price (1993-94 prices), the expenditure on this head increased from Rs. 2437.10 crores in 1950-51 to Rs. 29895.12 crores in 2000-01 and recorded a growth of 1126.65 percent during the period under study.

Defence expenditure per head of population in money terms increased from Rs. 4.68 in 1950-51 to Rs. 492.77 in 2000-01 which records a percentage growth of 10410.03 during the period. In real terms however, defence expenditure per head of population increased from Rs 67.88 in 1950-51 to Rs 296.87 in 2000-01 with some fluctuations during the period. This shows a growth of only 337.31 percent during the period under study. It should be pointed out in this connection that the rise in defence expenditure was associated with wars, it can not be overlooked that the periods of war were also the periods of inflation. The major portion of this rise in defence expenditure can be accounted for by the rapid rise in prices.

Table 4.1
Defence Expenditure at Current and Constant Prices
(1950-51 to 2000-01)

Financial Year	Total Expenditure		Per Capita Expenditure		As % of total Government Expenditure	AS % of NI
	At Current Prices (in crores)	At Constant Prices (in crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1950-51	168.32	2437.10	4.69	67.89	17.40	1.84
1951-52	196.45	2764.06	5.38	75.73	18.87	2.04
1952-53	198.34	2917.93	5.33	78.44	20.86	2.09
1953-54	208.22	2983.24	5.49	78.71	21.01	2.01
1954-55	209.81	3359.92	5.44	87.04	17.11	2.18
1955-56	205.96	3328.75	5.24	84.70	14.89	2.11
1956-57	231.55	3299.24	5.77	82.28	13.94	1.98
1957-58	206.95	2843.69	5.06	69.53	10.15	1.73
1958-59	297.79	3951.79	7.12	94.54	14.39	2.24
1959-60	258.72	3338.89	6.07	78.38	11.59	1.86
1960-61	280.94	3552.12	6.47	81.85	9.00	1.85
1961-62	312.49	3867.24	7.04	87.10	9.16	1.96
1962-63	473.91	5590.82	10.44	123.15	11.55	2.78
1963-64	816.12	8832.65	17.59	190.36	16.41	4.19
1964-65	805.8	8005.02	17.00	168.88	15.54	3.53
1965-66	884.76	8055.07	18.24	166.08	13.74	3.72
1966-67	908.59	7339.03	18.36	148.26	12.54	3.38
1967-68	968.43	7181.79	19.56	145.09	13.59	3.05
1968-69	1033.19	7457.60	19.95	143.97	14.44	3.09
1969-70	1100.88	7711.10	20.81	145.77	14.36	3.00
1970-71	1199.29	8327.97	22.17	153.94	7.17	3.08
1971-72	1525.29	10045.07	27.53	181.32	14.67	3.69
1972-73	1652.46	9831.36	29.14	173.39	13.66	3.64
1973-74	1680.8	8511.68	28.98	146.75	13.04	3.01
1974-75	2112.27	9246.09	35.62	155.92	13.92	3.23
1975-76	2462.29	11191.65	40.56	184.38	13.27	3.57
1976-77	2562.54	10919.43	41.33	176.12	11.93	3.45
1977-78	2633.64	10539.11	41.54	166.23	11.32	3.09
1978-79	2867.63	11324.33	44.25	174.76	10.34	3.15
1979-80	3273	11220.41	49.29	168.98	10.29	3.32
1980-81	3866.77	11885.43	56.95	175.04	10.93	3.27
1981-82	4651.8	13015.07	67.22	188.08	11.47	3.39

Financial Year	Total Expenditure		Per Capita Expenditure		As % of total Government Expenditure	AS % of NI
	At Current Prices (in crores)	At Constant Prices (in crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1982-83	5408.3	14019.24	76.39	198.01	11.26	3.56
1983-84	6309.17	14992.34	87.26	207.36	11.33	3.54
1984-85	7136.01	15798.73	96.56	213.79	10.69	3.59
1985-86	8519.37	17669.22	112.84	234.03	11.15	3.85
1986-87	11166.49	21653.63	144.83	280.85	12.19	4.54
1987-88	13182.29	23274.81	167.29	295.37	12.96	4.72
1988-89	14939.64	24381.10	185.59	302.87	12.86	4.47
1989-90 ^{RE}	16100	24313.81	195.86	295.79	11.50	4.17
1990-91	15426.47	21048.84	183.87	250.88	9.94	3.43
1991-92	16347.05	19611.49	190.97	229.11	9.24	3.18
1992-93	17581.79	19412.19	201.63	222.62	8.86	2.99
1993-94	21844.72	21844.72	245.17	245.17	9.67	3.18
1994-95	23245.43	21179.74	256.01	233.26	8.98	2.88
1995-96	26856.22	22463.58	289.71	242.33	9.16	2.85
1996-97	29505.12	22981.50	312.89	243.71	9.06	2.70
1997-98	35278.08	25655.57	367.86	267.52	9.46	2.88
1998-99 ^P	39897.58	26394.73	409.21	270.72	8.95	2.78
1999-00 ^{QE}	47070.79	29930.88	474.98	302.03	9.10	2.96
2000-01 ^{RE}	49622.04	29895.12	492.77	296.87	9.04	2.81

Source: Defence expenditure at current prices:

- (i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division.
- (ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.

Figures of other column are computed on the basis of the data given in Table 1, Table 2, Table 3 and Table 5.

Defence expenditure as a percentage of total expenditure however shows different picture. Defence expenditure in India formed a higher percentage of 17.39 in 1950-51, 18.87 percent in 1951-52, 20.87 percent in 1952-53 and 21.01 percent of total govt. expenditure in 1953-54 perhaps because of conflicts with Pakistan immediately after partition. Later, it started falling and reaches to 9.00 percent in 1960-61. This was because of discount of the possibility of a Chinese attack. But as the attack was to materialize the country forced to increase its

expenditure on defence. As a percentage of total expenditure it galloped to 15.53 in 1964-65. After that it started decreasing with some fluctuations and finally reached to 9.04 percent of total government expenditure in 2000-01.

Defence expenditure as a percentage of national income was roughly around 2 percent during the period from 1950-51 to 1961-62. It was after the Chinese attack in 1962, parliament had to vote a supplementary grant of Rs 100.4 crores in Nov. 1962 for defence front. In 1963-64, 4.18 percent of national income was devoted to defence. In 2000-01, 2.81 percent of national income was devoted to defence.

Therefore, it is seen from the table that before 1961-62, total defence expenditure in real term was roughly constant. After 1961-62, total defence expenditure in real terms has been growing year after. During the period under study, while total defence expenditure in real terms increased to 12 times, per capital expenditure on defence in real terms increased to 4.33 times only.

4.3 Impact of Defence Expenditure on Economic Development:

Following the above data relating to defence expenditure, let us now see the impact of defence expenditure on economic development. We have to see whether defence expenditure is a drag on and/or stimulant of economic development.

We can classify consumption as: (a) Consumption for development, or industrial consumption; (b) Consumption for the defence of the country or it may be termed as military consumption; (c) high mass consumption- it is the consumption beyond the consumption for basic food, shelter and clothing. The basic consumption needs are to be satisfied all time to keep the economy in good health, so it will be justified if we put it in the first category, i. e. consumption for development. If we analysis the present stage of Indian development, India is faced with the problem of reconciling all the above three consumption needs simultaneously. For the every process of accelerated economic development the need for industrial consumption is required while defence preparations assume

the basic and first priority shadowing all other issues because of the 'trigger-happy' and big stick policies followed by two belligerent neighbours. The need for high mass consumption is rooted in maldistribution of income in the society where great inequalities of income have existed.

There is also a problem of feeding a big size of population increasing at a very fast rate, who contributes nothing to the national production. On the basis of above fact, when we talk of transformation and modernization of the Indian economy we must recognise that what we want is the simultaneous strengthening of the material and technical bases of the economy along with defence and the means of increasing private consumption. How far can these claims, which are apparently conflicting be reconciled and in what manner presently, this is the big question.

On the basis of above analysis in the underdeveloped countries, industrial consumption has to be given top priority as it is through this that the economy can expect to develop a potential for military consumption and increased mass consumption. For purely economic reasons defence expenditure is a 'leakage' at of the income stream, and unlike the capital goods mark a remarketed rise in the production of defence goods can not enlarge the productive capacity of the economy. This clearly shows that at any point of time in respect of the given limited resources the nation is faced with the choice of production more or less of either defence goods or consumer goods. On the other hand if the resources are diverted to the building of the productive capacity for preparing defence goods, particularly armaments, at the cost of economic development of the country to the extent that such limited resources are not capable of being utilised for purposes other than production of defence goods. Thus due to the diversion of resources away from development to defence, the net result of this diversion will be the scarcity of consumer goods for civilian consumption and if this civilian demand is not met in check, an undue price rise is likely to upset the entire situation.

If we consider the average figures of defence expenditure before and after the year 1962 – 63, it will be seen that an additional amounts of Rs 1,223.21

crores on revenues account and Rs. 146.93 crores a capital account are being regularly diverted per year to finance the need of defence of the country. Had the country been free to utilize the resources for the betterment of the living condition of the masses of Indians or had this amount been regularly made available for financing the economic development of the country, not only would it have relieved Indian to a large content from present pressure of scarcity of goods and services but would also have augmented the productive capacity of the economy and to a considerable extent the pressure on price would also have been reduced.

The above fact, resulted in the failure of the Third Five year plan to such an extent that ever since the resulted trauma has gone to destabilize the entire planning process and programme of the country. It had also impact on a number of other factors which are not to be over looked. During this period our foreign exchange reserves have been just the minimum necessary required under legal obligation. Throughout there has been severe pressure of imports. This is one of the reasons which explain the existence of unutilised surplus capacity in a number of industries including also industries catering to defence needs. The agricultural sector was not seen up to the expectation. The result of all these, has been reflected in the unprecedented rise in prices which touched a higher level of 409.9 in 1979 – 80 in the rise of index number of whole sale prices of all commodities compared to 116.1 in 1961–62, the year immediately after which the defence expenditure was stepped up.

The level to which the defence expenditure has grown is causing concern, as is evident from a number of observations made by eminent economist as well as politicians. To answer the question as to what extent will defence expenditure affect development, professor D. R. Gadgil commented that 'we must choose a certain level as being the compromise between what we can afford and what we think we must have. Such a level will be consistent with our need both of defence and development. Any extension of defence expenditure beyond the present level will surely be at the expense of development. Ashok Mehta did not relish the enormous amount of money being spent on the country's

arm forces (*Economic Times*, December, 22 1968). These indicate the debit side of the defence expenditure. On the basis of their arguments it may be stated that defence expenditure does work as a drag on development.

Samuel B. Griffith (Griffith, S.B., 1966) enumerates the many diverse elements that makes a country military potential. A large number of these elements such as standard literacy, the capacity of its indigenous science, technology and industry to develop its basic resources advantageously, the quality of its dealership at the directive levels; its communications and transport and such other factors, are created, built and developed in a country in the every process of growth of the economy and that is why it is said that in the modern era the defence of a country is rooted in its economic strength. As the defence of a country is strengthened, it is but natural to expect that these constituents of defence potential also improve. To the extent defence expenditure brings about these improvements, it works as a stimulant of economic development.

The well-known fact of human nature is that it exerts itself to the maximum possible extent in situations of emergency like war or threat of war. We have seen in our country that the resources that were lying idle with the people in the form of contribution to the gold bonds to meet the need of foreign exchange, for the defence preparations people who were protesting against a number of tax measures in peace time, gladly accepted new tax measure even though these measure further reduce disposable incomes. If enemies of India can create trouble for us at any time on our frontiers, created a psychology of developing our military potential at the earliest on a competitive level. This in tern, led to efforts at devising new techniques of production, large-scale import substitution, especially in the industries which provided raw materials and components for use in the defence sectors, development of the air force including manufacture of various types of air craft, rapid strides in the production of electronics, construction of ships, production of jeeps, trucks and other motor vehicles, constant and continued research to improve technical skill and efficiency, large-scale training of technicians and technical personnel; development of roads in the border areas which have been lying unknown and hence unutilized and

unexplored regarding their content of resources and development of the means of transport and communications. Above all there was the strongest possible incentive to prepare the nation to undergo privations not only for the defence of the economy but also its development. It can not be denied that all these have had their contributions to make towards the economic development of the country. Therefore, national defence and development effort should not only go hand in hand, but should also be viewed as interdependent to a large extent. It would be unwise to counterpoise defence and development – they in fact reinforce one another in many areas and activities.

Reference:

Griffith, S.B., "Communist China's Capacity to make War," *The American Review*, April 1966, p.26

Pedersen, J.D. (1992), "State, Bureaucracy and Change in India", *Journal of Development Studies*, vol 28, No. 4, p. 616-39

Chapter 5

Analysis of Non-Developmental Expenditure

In this chapter we have proposed to discuss the causes of the growth of non-developmental expenditure over time. Thereafter we shall try to study the growth of non-developmental expenditure and examine its relation to the national income and total government expenditure. In the process the growth pattern of the distribution of non-developmental expenditure will also be examined.

5.1 Determinants of Non-Developmental Expenditure:

There are some apparent and real factors which cause the growth of non-developmental expenditure. These are – population growth, money supply and the like. Apart from them, there are also some basic factors, namely, a proper appreciation of socialist ideas and democratic way of life which manifest in the concept of welfare state. The laissez-faire doctrine which regained supreme over the domain of public finance until the first quarter of the twentieth century gradually gave way to the modern ideas about the role of state in the promotion of growth and economic stability . But so-called orthodox views could not withstand the passage of time . With the passage of time , the range of administrative services grew larger as the state begin to assume new functions previously unknown . These factors contributed to a great deal for the rise of the growth of non-developmental services.

There are two sets of factors which led to the expansion of non-developmental services. These are –

1. the increasing complexity of modern life due to rising industrial civilization , and
2. the growing recognition of industrial dignity and freedom .

Needless to say, the division of labour is a key to economic prosperity of a nation . The great deal of specialization in various material pursuits gave rise to

the problem of economic interdependence. This phenomena of economic interdependence necessitating the redefinition of some of its concepts , such as political sovereignty , and also created a situation where most of the countries in the present day world stand mutually dependent so far as economic matters are concerned . In the present day context, it is sufficient to say that this phenomenon contributes towards the expansion of non-developmental services by widening its range of functions.

It has been rightly felt in a modern industrial civilization that State intervention in day-to-day life is unavoidable. The problem of adverse terms of trade, inflation, depression and the like which are increased by modern industrial civilization urgently called for government intervention to set thing right. The government can encounter these problems only through an expansion of administrative machinery i.e. an additional expenditure on non-developmental services.

Secondly, the importance of individual dignity and freedom had an important role to play in the process of expansion of non-developmental services . In the modern industrial civilization modern democracy and its strong emphasis on individual rights and security have entailed a remarkable extension of the area of State activity. In most of the nations of the world, fundamental rights have now beed guaranteed to the people for which they fought an unending battle with the State. Representation to the Parliament, State Assemblies etc. and conducting elections are debited to the account of general administration. A considerable number of welfare provisions have been made through the above institution. The motive force behind the individual dignity and freedom has provided considerable fillip to the growth process of non-developmental services through the creation of democratic institutions appropriate for the expression of common will.

Above all population growth factor made significant contribution to the growth of non-developmental services in India during the years under study. Population is rising throughout the period of study as shown in Table 1 of appendix. Increasing population growth gives rise to the problem of administration. With the growth of population, industrial civilization draws more

people to the town from the rural areas. As a result new cities will spring up. Additional police station, law courts etc. are required to be established in the new cities to ensure minimum conditions of peace and security . Therefore, the expenditure on non-developmental services such as general administration, police, justice, jails, etc. will rise at least absolute terms with the growth of population.

India has been facing a multitude of economic problems since independence. Since then national income has been exposed to the cruel caprices of nature as agriculture becomes the main source of national income . India has been facing the problem of vicious circle of poverty and low productivity. Population growth also aggravated the misery of the people by keeping down the living standards of masses. Under these conditions State had to take up the task of building social and economic overhead , such as education , health , scientific research , transport and communication , irrigation and power projects , community development projects and so on which were essential fuel of the dynamic force into the economy . To make planning a success, changes in the nature and composition of administrative were effected. Hence, expenses on non-developmental and developmental services moved upward hand in hand.

It is thus, clear from the above analysis that the expansion of non-developmental services is a joint product of the social, political, economic forces at work.

The table 5.1 shows the growth of non-developmental expenditure in money terms. During the period 1950-51 to 2000-01 the non-developmental expenditure increased from Rs. 347.99 crores to Rs. 250741.90 crores in 2000-01 showing an increase of 71954 per cent . The index of non-developmental expenditure, talking 1950-51 as base, it increased by 722 times during the same period. Non-developmental expenditure per head of population increased by about 25596 per cent from 1950-51 to 2000-01.

Table 5.1
Decadal growth of non-developmental expenditure at Current & constant prices (1950-51 TO 2000-01)

Financial Year	At Current Prices		At Constant Prices		Non-dev. Expenditure as % of total Govt. expenditure	Non-dev. Expenditure as % of national income
	Total non-developmental expenditure (Rs. In crores)	Per capita non-developmental expenditure (In Rs.)	Total non-developmental expenditure (Rs. In crores)	Per capita non-developmental expenditure (In Rs.)		
1950-51	347.99	9.69	5036.03	140.28	35.97	3.80
1955-56	363.24	9.24	5868.17	149.31	26.25	3.71
1960-61	765.55	17.63	9678.25	223.00	24.53	5.03
1965-66	1346.33	27.75	12261.65	252.81	20.90	5.66
1970-71	2493.08	45.32	17313.05	320.02	14.89	6.39
1975-76	4670.24	76.56	21228.36	349.72	25.16	6.76
1980-81	9013.41	132.74	27707.99	408.07	25.47	7.62
1985-86	22611.53	299.49	46892.43	621.09	29.59	10.21
1990-91	54319.36	647.42	74115.65	883.38	35.01	12.06
1995-96	127354.64	1373.83	106528.35	1149.17	43.45	13.52
2000-01	250741.90	2489.98	151058.44	1500.08	45.67	14.20

Source: Statistical Appendix, Table 7

It also revealed from the table 5.1 that the expenditure on non-developmental services increased gradually from 1950-51 to 1963-64 and it increased sharply thereafter. The reason of increase in non-developmental expenditure sharply after 1963-64 may be explained interms of (a) increasing activities of the government. in view of welfare and developmental needs of the country , (b) upward revision of pay scale and dearness allowances , and (c) increasing law and order problem in the country .

Non-developmental expenditure as percentage of total government. expenditure moved interestingly during the period under study. It declined from 35.97 per cent in 1950-51 to 26.25 per cent in 1955-56 , 24.53 per cent in 1960-61 , 20.90 per cent in 1965-66 , 14.89 per cent in 1970-71 , and thereafter it increased to 25.16 per cent in 1975-76 , 25.47 per cent in 1980-81 , 29.59 in

1985-86 and 45.97 per cent in 2000-01. The table 5.1 also shows that the proportion of national income devoted to non-developmental expenditure increased from 3.80 per cent in 1950-51 to 14.20 per cent in 2000-01.

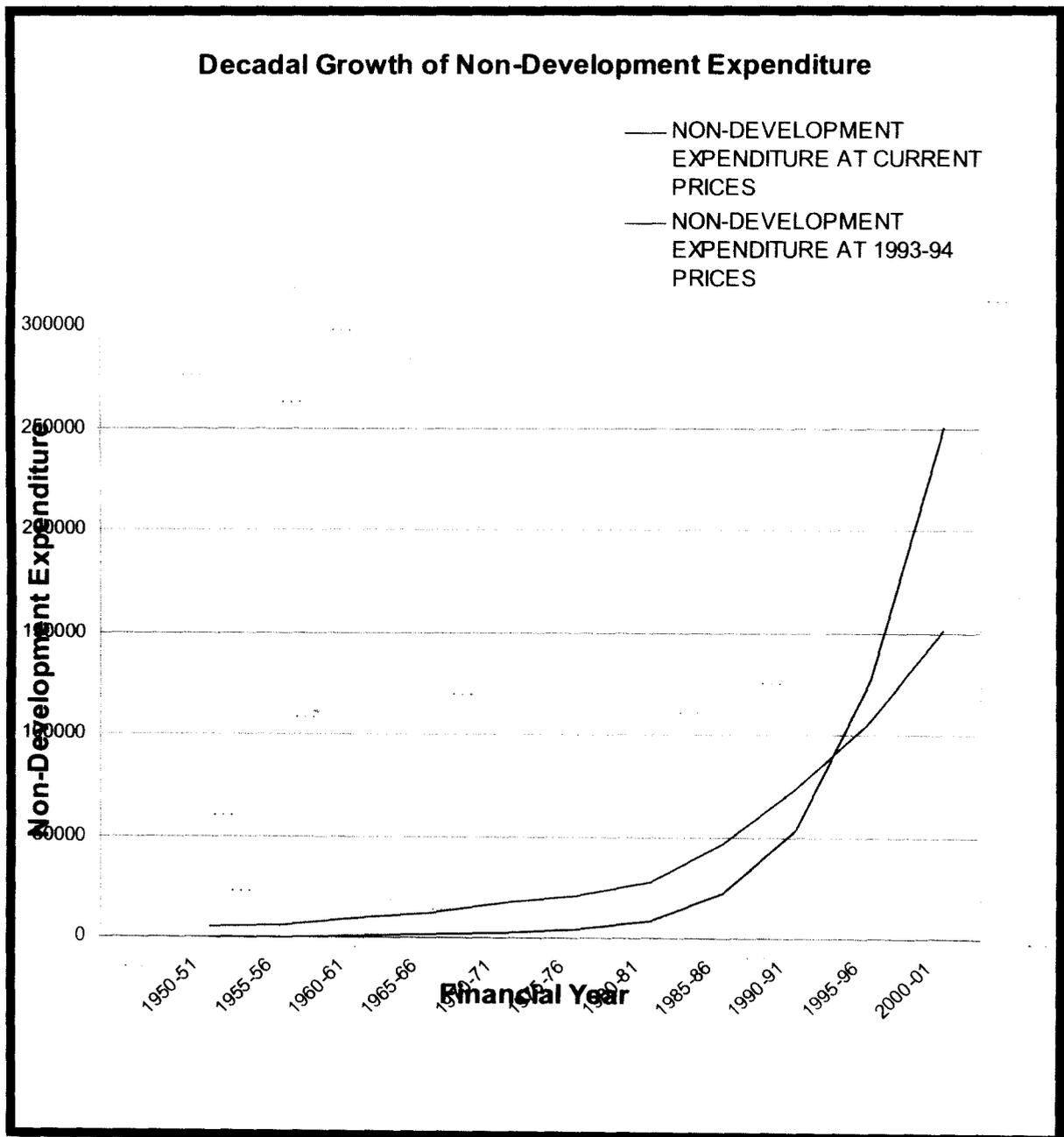


CHART-1

Decadal Growth of Per Capita Non-Developmental Expenditure

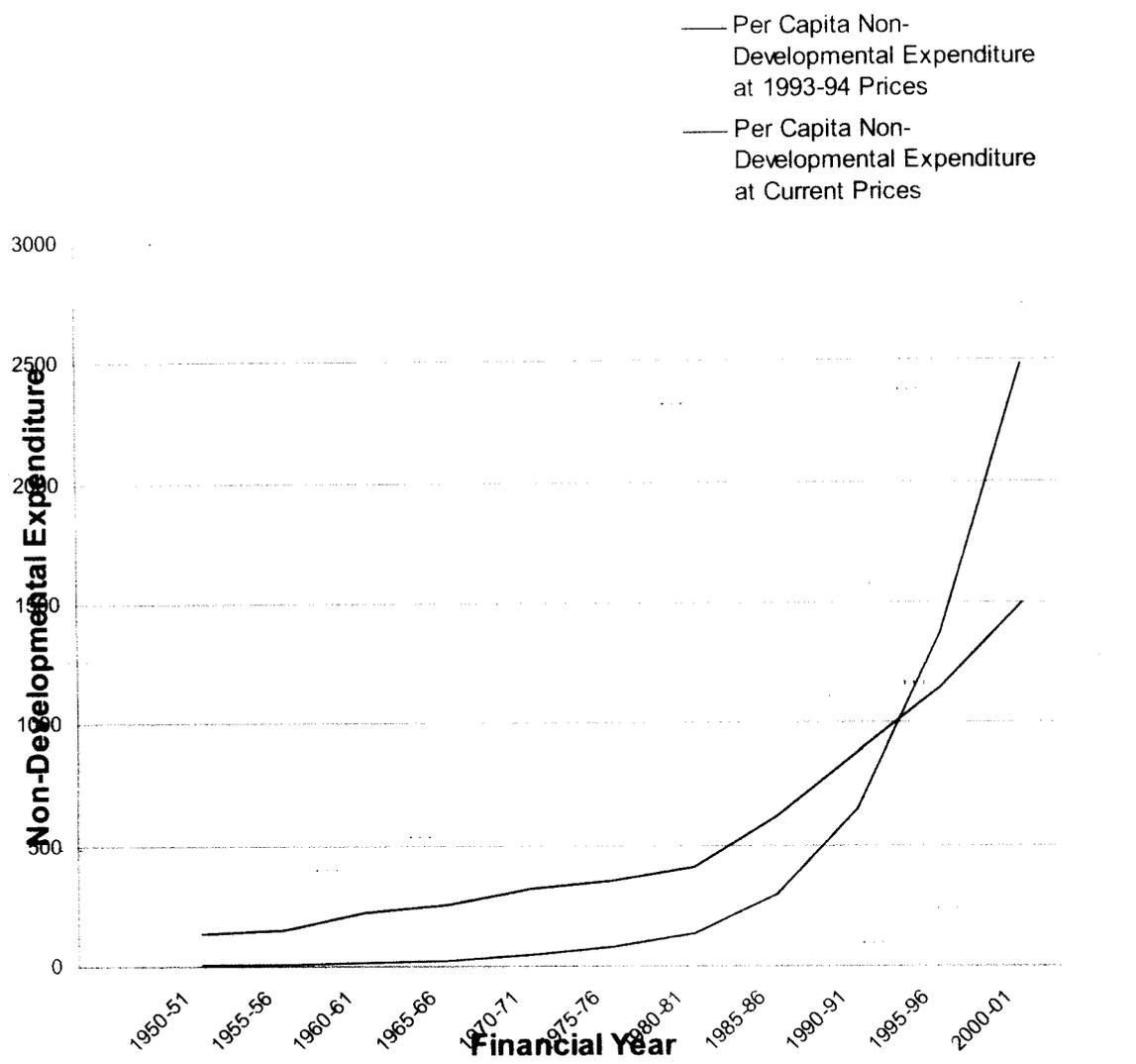


CHART - 2

Thus during the period (1950-51 to 2000-01), non-developmental expenditure has shown a marked increase both in terms of expenditure per head of population and as a proportion of national income.

5.2 Dis-aggregative analysis of non-developmental expenditure:

Let us now study the growth and pattern of non-developmental expenditure in a disaggregate way. Total non-dev. Expenditure have been disaggregated on the basis of functions each component performs i.e functional component of non-developmental expenditure. Here the term 'function' signifies

services such as general administration, police, tax collection charges etc. For this purpose of function wise analysis of non-developmental expenditure, non-development functions of the government are grouped under five heads:

1. Administrative services ,
2. Cost of collection of taxes
3. Debt servicing ,
4. Famine relief , and
5. Others.

Each category of expenditure is analysed separately below.

5.2.1 Administrative Services and its Dis-agregative Analysis:

Administrative services include an intricate networks of functions of the organs of state and different departments of government. Its scope of functions is very wide.

The government under takes various programmes of social and developmental activities, maintains of law and order. The people of India enjoy certain fundamental rights for which they are fighting an unending battle with the state. The judiciary system safeguards these rights if any one encroached upon these rights. The judiciary system also decides whether the law has been violated and punishes the offenders. The convicts are put in jails not only to deter them from future crimes but also to try to reform them. Therefore, the expenditure on administrative services is very important to ensure the rule of law against violence and anarchy.

Expenditure on administrative services includes expenditure on general administration, police, administration of justice, jails and convict settlements, audit, external affairs etc. of the central government and general administration and police, administration of justice and jails and convict settlements of the state governments.

The table 5.2 shows that the expenditure on administrative services increased gradually from year to year. The per capita administrative expenditure in money

terms increased almost hundred times between 1950-51 and 2000-01. If we assume that administrative expenditure of 1950-51 equals 100 then the index of total administrative expenditure increased three hundred times between the period under study. The table also shows that the proportion of administrative expenditure to the national income increased very slowly from 1.32 per cent in 1950-51 to 2.21 per cent in 2000-01. The percentage national income devoted to administrative services shows a decreasing trend throughout the period.

Table 5.2
Decadal Growth of Administrative Expenditure at
Current & Constant (1993-93) prices (1950-51 to 2000-01)

Financial Year	At Current Prices		At 1993-94 Prices		Total Administrative Expenditure as % of total Expenditure	Total Administrative Exp. as % of total non-developmental Exp.	Total Administrative Exp. as % of NI
	Total Administrative Exp. (Rs. in crores)	Per Capita (in Rs.)	Per Capita (in Rs.)	Per Capita (in Rs.)			
1950-51	120.76	3.36	1747.61	48.68	12.48	34.70	1.32
1955-56	144.64	3.68	2336.67	59.45	10.45	39.81	1.47
1960-61	221.45	5.10	2799.62	64.51	7.09	28.92	1.45
1965-66	371.30	7.65	3381.60	69.72	5.76	25.57	1.56
1970-71	681.22	11.24	4730.69	87.44	3.69	24.79	1.74
1975-76	1321.84	21.68	6008.36	98.98	7.12	28.30	1.91
1980-81	2323.06	34.21	7141.28	105.17	6.56	25.77	1.96
1985-86	4782.17	63.34	9917.39	131.36	6.25	21.14	2.15
1990-91	10463.9	124.71	14277.39	170.17	6.74	19.26	2.32
1995-96	21083.17	227.43	17635.44	190.24	7.19	16.55	2.23
2000-01	39158.12	388.86	23590.65	234.27	6.94	15.61	2.21

Source: Statistical Appendix, Table 8

Disaggregative analysis of Administrative Expenditure:

Now we are in a position to study the distribution of administrative expenditure. We will proceed by disaggregating the administrative expenditure into its component parts. A deeper insight into the nature of the administrative expenditure can be obtained by showing it separately under five sub-heads e.g., general administration, police, jails and justice, external affairs and audit.

Decadal Growth of Administrative Expenditure

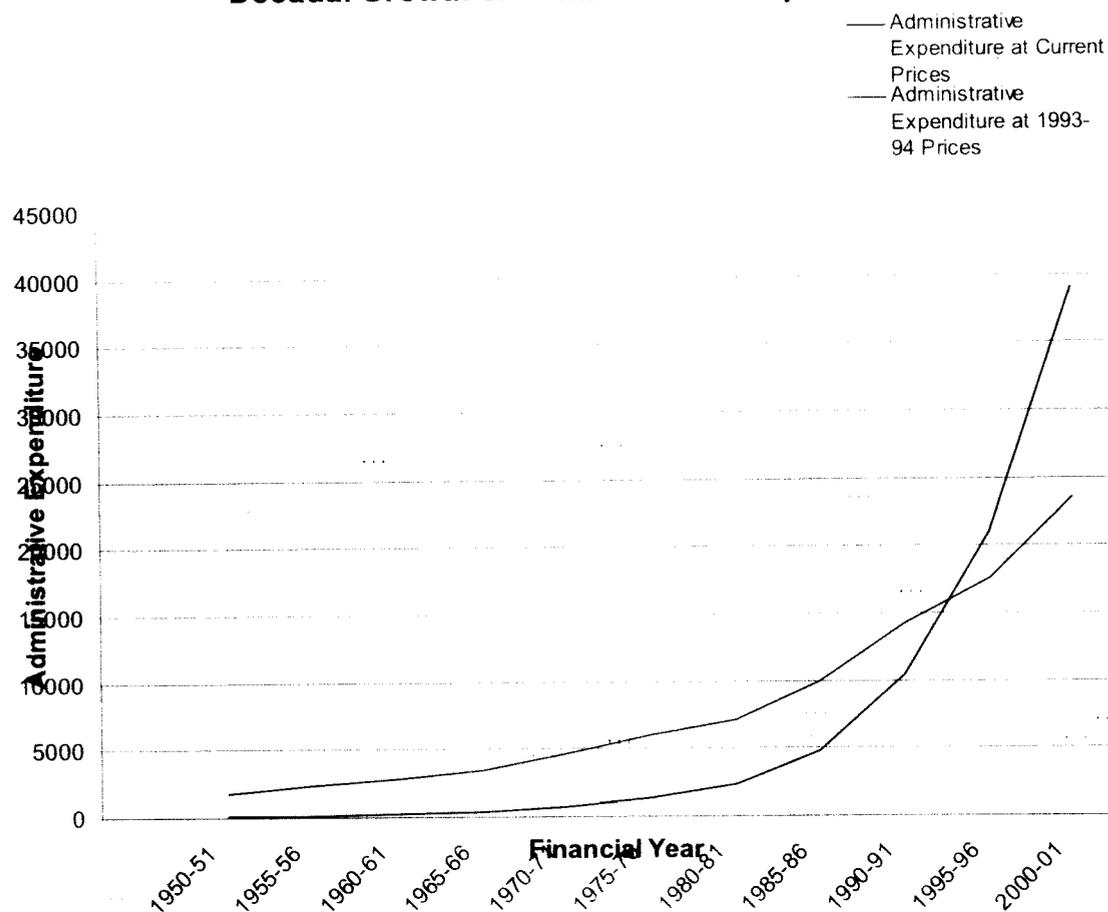


CHART - 3

5.2.1.1 General Administration:

The expenditure under this head relates the expenditure for headquarters administration and also to the cost of district administration. The allowances of the President, Head of the States, Cabinet Ministers, and expenditure connected with Rajya Sabha, Legislative Assemblies and the expenditure on account of Secretaries, Board of Revenue Commissioners, District officers and their establishments constitute the main items of expenditure under this head. The expenditure relating to the village establishment in several states is also account under this head.

Table 5.3 shows that the expenditure on general administration rose considerably, and this is on account of expansion of various departments and establishment and creation of new departments. The expenditure on this sub

head has also increased due to increase in dearness allowances granted to government employees and revision of their pay scales time to time. The expenditure on general administration in money terms increased more than hundred times during the period under study. During the same period the index of expenditure on general administration has increased to more than hundred times.

Table 5.3
Expenditure on General Administration at Current & Constant Prices (1950-51 to 2000-01)

Financial Year	At Current Prices		At 1993-94 Prices		Gen. adm. Exp. As % of total Adm. Exp.	Gen. adm. Exp. As % of total govt. exp.	Exp. On gen. admin. as % of NI
	Total exp. on general administration (Rs. In crores)	Per capita General Administrative exp. (in Rs.)	Total exp. on general administration (Rs. In crores)	Per capita General Administrative exp. (in Rs.)			
1950-51	39.64	1.10	573.661	15.98	32.59	4.09	0.43
1955-56	62.55	1.59	1010.50	25.71	43.29	4.52	0.63
1960-61	78.83	1.81	996.58	22.96	35.59	2.52	0.52
1965-66	117.92	2.43	1073.95	22.14	37.16	1.83	0.50
1970-71	182.50	3.37	1267.36	23.43	46.41	1.09	0.47
1975-76	160.92	2.65	731.45	12.05	12.17	0.86	0.23
1980-81	284.53	4.19	874.67	12.88	12.24	0.80	0.24
1985-86	511.60	6.77	1060.97	14.05	10.69	0.66	0.23
1990-91	1088.09	12.96	1484.64	17.70	10.39	0.70	0.24
1995-96	2646.02	28.54	2213.32	23.88	12.55	0.90	0.28
2000-01	4260.71	42.31	2566.85	25.49	10.88	0.77	0.24

Source: Expenditure on General Administration at current prices:

(i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division.

(ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.

Figures of other columns are computed on the basis of the data given in Table 1, Table 2, Table 3, Table 4 and Table 8 of Statistical Appendix

The expenditure on general administration per head of the population in money terms also shows an upward trend. It has increased from Rs. 1.10 in 1950-51 to Rs. 1.81 in 1960-61 to Rs. 3.37 in 1970-71 to Rs. 6.19 in 80-81 to Rs. 12.96 in 90-91 to Rs. 42.31 in 2000-01. During the same period under study, the expenditure on general administration per head of the population in money terms increased by 3746.36 per cent.

The expenditure on this sub head as a proportion of total administrative expenditure and as a proportion of total government expenditure marked a reverse trend, it decreased throughout the period under study . But the expenditure on general administration as a proportion of national income remained more or less stable.

Decadal Growth of General Administrative Expenditure

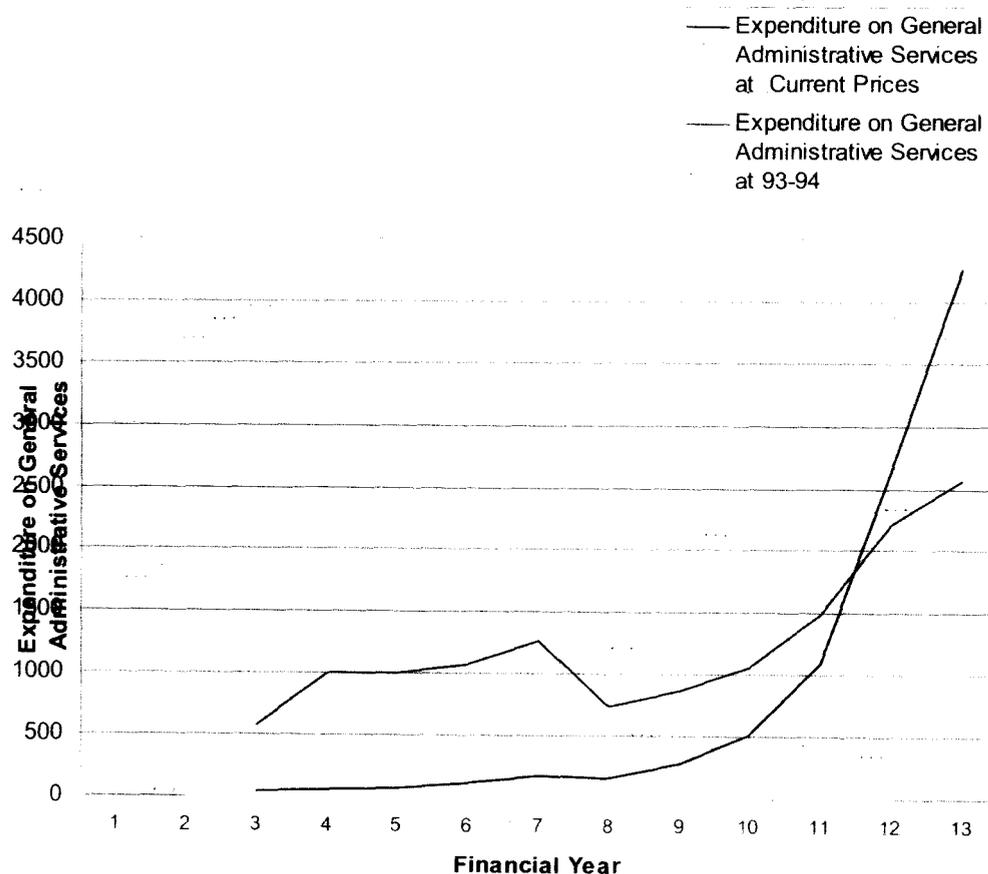


CHART - 4

5.2.1.2 Police:

The expenditure on police is important for maintaining law and order in the country. According to the Constitution, the maintenance of law and order is primarily a state subject. The centre is directly responsible for law and order in the union territory only. So it is incurred both by the Central and State Governments. Further more, the centre has to undertake the policing of the country's international borders.

It is clear from the above table 5.4 that the expenditure on police in money terms increased from Rs. 55.97 crores in 1950-51 to Rs. 21342.95 crores in 2000-01 showing an increased of 38032.83 per cent.

Table 5.4
Expenditure on police at current prices (1950-51 to 2000-01)

Financial Year	At Current Prices		At Constant Prices		Exp. on police as % of Total Admin. Exp.	Exp. on police as % of Total govt. exp.	Exp. on police as % of NI
	Total exp. on police. (Rs. in crores)	Per capita Exp. on police (in Rs.)	Total exp. on police. (Rs. in crores)	Per capita Exp. on police (in Rs.)			
1950-51	55.97	1.55	809.98	22.56	46.34	5.78	0.61
1955-56	62.91	1.60	1016.32	25.86	43.49	4.54	0.64
1960-61	99.08	2.28	1252.59	28.86	44.74	3.17	0.65
1965-66	189.51	3.90	1725.96	35.58	51.03	2.94	0.79
1970-71	334.51	6.18	2322.98	42.93	54.10	1.99	0.85
1975-76	653.67	10.76	2971.23	48.95	49.45	3.52	0.94
1980-81	1163.43	17.13	3576.48	52.67	50.08	3.28	0.98
1985-86	2543.91	33.69	5275.63	69.87	53.19	3.32	1.14
1990-91	5657.25	67.42	7718.99	92.00	54.06	3.64	1.25
1995-96	11240.88	121.26	9402.66	101.43	53.31	3.83	1.19
2000-01	21342.95	211.94	12857.97	127.69	54.50	3.88	1.20

Source: Expenditure on Police at current prices:

- (i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division.
- (ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.

Figures of other column are computed on the basis of the data given in Table 1, Table 2, Table 3, Table 4 and Table 8 of Statistical Appendix

It is also clear from the table 5.4 that the expenditure on police as a proportion of total administrative expenditure shows an upward trend. The expenditure on police represented 5.78 per cent of total government. expenditure in 1950-51 , but it decreased to 3.88 per cent in 2000-01 . If we assume the expenditure on police in 1950-51 equals to 100 we get an index which also shows an upward trend showing 38132.83 per cent increase from 1950-51 to 2000-01.

The expenditure on police per head of the population in money terms increased from Rs. 1.55 in 1950-51 to Rs. 211.94 in 2000-01 which recorded an

increased of Rs. 13573.54 per cent . The expenditure on police as per cent of NI in 1950-51 was 0.61 per cent and it increased to 0.94 per cent in 1975-76 and 1.20 per cent in 2000-01.

5.2.1.3 Justice and Jails:

The expenditure on Justice and jails consist of expenditure on i) justice and ii) jails. The expenditure on justice consists of the payments made to judges, civil and criminal courts, and of magistrates and their establishments with some charges on account of administration. This also includes the general and law officers of several State Governments. On the other hand the expenditure on jails consists of the maintenance charges of the jails population and the cost of production of jail manufacturers, together with pay and allowances of the necessary establishments .It should be pointed out that before 1974-75, expenditure on administration o f justice formed the part of administration of justice and j ails. But from 1974-75 it is included under the '*organ of State*'. This reflects the awareness that the judiciary is an important organ of the government. and expenditure on this head is very essential to sustain the confidence of the public.

It can be seen from the table 5.5 that the exp. on justice and jails in money terms shows an increasing trend and an increase of 14422.83 per cent during the period under study. If we adjust the expenditure on justice jails and convict settlement assuming the expenditure on the same, of the year 1950-51 equals to 100, we shall get an index which also shows an upward trend reflecting about 145 times increase during the period . The expenditure on justice, jails and convict settlement per head of the population was Rs. 0.49 in 1950-51 and it increased to Rs. 25.82 in 2000-01 showing an increase of 5169.38 per cent. These expenditure as per cent of total administrative expenditure, total government. expenditure and national income shows a decreasing trend.

Table 5.5
Expenditure on Justice, jails and convict settlement at Current & Constant prices
(1950-51 to 2000-01)

Financial Year	At Current Prices		At Constant Prices		Total exp. on justice , jails and convict settlement as % of total Administrative exp.	Total exp. on justice , jails and convict settlement as % of Total govt. exp.	Total exp. on justice , jails and convict settlement as % of NI
	Total exp. on justice , jails & convict settlement (Rs. In crores)	Per capita exp. on justice , jails & convict settlement (in Rs.)	on justice , jails & convict settlement (Rs. in crores)	Per capita exp. on justice , jails & convict settlement (in Rs)			
1950-51	17.91	0.49	259.19	7.22	14.83	1.85	0.19
1955-56	19.18	0.48	309.85	7.88	13.26	1.38	0.19
1960-61	25.47	0.58	321.99	7.42	11.5	0.81	0.16
1965-66	35.73	0.73	325.41	6.71	9.62	0.55	0.15
1970-71	55.33	1.02	384.24	7.1	8.94	0.33	0.14
1975-76	88.75	1.49	403.41	6.65	7.78	0.58	0.13
1980-81	167.79	2.47	515.8	7.59	7.22	0.47	0.14
1985-86	336.91	4.46	698.69	9.25	7.04	0.44	0.15
1990-91	714.43	8.51	974.799	11.62	6.82	0.46	0.15
1995-96	1427.98	15.4	1194.46	12.89	6.77	0.48	0.15
2000-01	2601.04	25.82	1566.98	15.56	6.64	0.47	0.14

Source: Expenditure on Justice, jails and convict settlement general administration at Current prices:

(i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December-1988, GOI, Ministry of Finance, Economic Division.

(ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.

Figures of other columns are computed on the basis of the data given in Table 1, Table 2, Table 3, Table 4 and Table 8 of Statistical Appendix

5.2.1.4 External Affairs :

The expenditure on external affairs includes expenditure on Embassies and Missions abroad , High Commissioners and Agents in Commonwealth countries , Emigration (outside India) subsidies , Entertainment charges , special diplomatic expenditure , refugees and State Prisoners , Central Department (charges on account of diplomatic and consular services in India) and contribution to United Nations Organization , etc.

Table 5.6
Expenditure on External affairs at current prices
(1950-51 to 2000-01)

Financial Year	At Current Prices		At Current Prices		Total exp. on external affairs as % of total Administrative expenditure	Total exp. on external affairs as % of Total govt. exp.	Total exp. on external affairs as % of NI
	Total exp. on external affairs (Rs. in crores)	Per capita exp. on external affairs (in Rs.)	Total exp. on external affairs (Rs. in crores)	Per capita exp. on external affairs (in Rs.)			
1950-51	3.65	0.10	52.82	1.47	3.02	0.37	0.03
1955-56	5.99	0.15	96.76	2.46	4.14	0.43	0.06
1960-61	9.77	0.22	123.51	2.85	4.41	0.31	0.06
1965-66	15.48	0.31	140.98	2.91	4.16	0.24	0.07
1970-71	22.21	0.41	154.23	2.85	3.59	0.13	0.06
1975-76	49.05	0.80	222.95	3.67	3.71	0.26	0.07
1980-81	64.73	0.95	198.98	2.93	2.78	0.18	0.05
1985-86	131.52	1.74	272.75	3.61	2.75	0.17	0.05
1990-91	444.98	5.30	607.15	7.24	4.25	0.28	0.09
1995-96	851.35	9.18	712.12	7.68	4.03	0.29	0.09
2000-01	1380.54	13.70	831.70	8.26	3.52	0.25	0.07

Source: Expenditure on External affairs at Current prices:

(i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division.

(ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.

Figures of other columns are computed on the basis of the data given in Table 1, Table 2, Table 3, Table 4 and Table 8 of Statistical Appendix

During the period under study, the expenditure on external affairs in money terms increased from Rs. 3.65 crores in 1950-51 to Rs. 1380.54 crores in

2000-01 which reflects an increase of 37723.01 per cent . There are two reasons responsible for this increase in expenditure on external affairs pointed by the Committee on the Indian Foreign Service. These are - a) increase in the number of countries having diplomatic relations with India, and b) revision of allowances and the effect of devaluation. The table 5.6 also shows that the expenditure on external affairs per head of the population increase from Rs 0.01 in 1950-51 to Rs. 13.70 in 2000-01. This shows an increase of 13600.00 per cent during the period under study. The proportion of total administrative expenditure and total government. expenditure devoted to external affairs remained more or less the same.

5.2.1.5 Audit:

The expenditure on audit includes the expenditure on the Comptroller and Audit General and his officers on the maintenance and audit of accountants of both the Central and State Governments.

Table 5.7
Expenditure on Audit at Current & Constant Prices (1993-94)
(1950-51 to 2000-01)

Financial Year	At Current Prices		At Constant Prices		Total exp. on Audit as % of total Administrative expenditure	Total exp. on Audit as % of Total govt. exp	Total exp. on Audit as % of NI
	Total exp. on Audit (Rs. in crores)	Per capita exp. on Audit (in Rs.)	Total exp. on Audit (Rs. in crores)	Per capita exp. on Audit (in Rs.)			
1950-51	3.50	0.09	50.65	1.41	2.89	0.36	0.03
1955-56	5.45	0.13	88.04	2.24	3.76	0.39	0.05
1960-61	8.30	0.19	104.93	2.42	3.74	0.26	0.05
1965-66	12.66	0.26	115.30	2.38	3.40	0.19	0.06
1970-71	23.67	0.43	164.38	3.04	3.82	0.14	0.06
1975-76	47.42	0.79	215.55	3.55	4.15	0.31	0.07
1980-81	63.63	0.93	195.60	2.88	2.73	0.17	0.05
1985-86	129.60	1.71	268.77	3.56	2.71	0.16	0.05
1990-91	243.81	2.90	332.66	3.96	2.33	0.15	0.05
1995-96	415.41	4.48	347.48	3.75	1.97	0.14	0.04
2000-01	819.06	8.13	493.44	4.90	2.09	0.14	0.04

Source: Expenditure on Audit at Current prices:

(i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division.

(ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.

Figures of other columns are computed on the basis of the data given in Table 1, Table 2, Table 3, Table 4 and Table 8 of Statistical Appendix

It is seen from the above table 5.7 that the expenditure on audit over the period from 1950-51 to 2000-01 increased from Rs. 3.5 crores in 1950-51 to Rs. 819.06 crores in 2000-01 which shows an percentage increased of 23301.71 . The expenditure on Audit as per cent of total administrative expenditure shows that it remained almost the same during the period. If we calculate expenditure on audit as percentage of national income, we can also conclude the same. The slight increase in the Audit expenditure (as % of NI and administrative expenditure) is due to the growing tempo of economic development outlay of the central and State Governments

5.2.2 Tax Collection Charges:

The expenditure on collection of taxes represents the charges in respect of collection of the various revenue heads and the administration thereof.

The table 5.8 shows the growth and trend of expenditure on collection of taxes and duties at current and constant prices. It reveals that the expenditure on collection of taxes and duties has been continuously increasing in money terms; it increased from Rs. 33.08 crores in 1950-51 to Rs. 6569.73 crores in 2000-01, showing an increase of 19760 per cent (199 tomes). At 1993-94 prices however, it increased from Rs. 478.73 crores in 1950-51 to Rs. 3957.91 crores in 2000-01 showing an increase of only 726 per cent (8 times only). At current prices the per capita expenditure on tax collection has increased from Rs. 0.92 in 1950-51 to Rs. 65.24 in 2000-01 - an increase of 6991 per cent (70 times) where as it registered a increase of only 195 per cent (3 times) in real terms from Rs. 13.33 in 1950-51 to Rs 39.30 in 2000-01.

In absolute terms the expenditure on tax collection maintains a steady upward trend. But the share of the expenditure on tax collection in total development expenditure over the period under review has shown interesting trends. It increased from 9.51 per cent in 1950-51 to 16.10 per cent in 1955-56 and thereafter shows a decreasing trend.

Table 5.8
Decadal Growth of Expenditure on Tax Collection Charges at
Current & Constant (1993-94) prices

Financial Year	At current prices		At constant prices		Exp. on Tax collection charges as % of total non-dev. Expenditure	Exp. on Tax collection charges as % of total Govt. Expenditure	Exp. on Tax collection charges as % NI
	Total (in crores)	Per capita (in Rs)	Total (in crores)	Per Capita (in Rs)			
1950-51	33.08	0.92	478.73	13.33	9.51	3.42	0.36
1955-56	58.49	1.48	944.91	24.04	16.10	4.23	0.59
1960-61	72.56	1.67	917.32	21.14	9.48	2.33	0.48
1965-66	98.62	2.03	898.18	18.52	7.33	1.53	0.42
1970-71	184.32	3.35	1280.00	23.66	7.39	1.10	0.47
1975-76	360.53	5.91	1638.77	27.00	7.72	1.94	0.52
1980-81	504.05	7.42	1549.49	22.82	5.59	1.42	0.43
1985-86	985.60	13.05	2043.97	27.07	4.36	1.29	0.45
1990-91	1973.32	23.52	2692.48	32.09	3.63	1.27	0.44
1995-96	5223.70	56.35	4369.47	47.14	4.10	1.78	0.55
2000-01	6569.73	65.24	3957.91	39.30	2.62	1.19	0.37

Source: Expenditure on Tax Collection Charges at Current prices:

(i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division.

(ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.

Figures of other columns are computed on the basis of the data given in Table 1, Table 2, Table 3, Table 4 and Table 7 of Statistical Appendix

It is important to note that the expenditure on collection of taxes would increase as the quantum of taxation increases. As more taxes are imposed or the tax base is widened, there would be an addition to the cost of collection of taxes. Therefore, it is prudent to analyse the change over the period in the cost of collection of taxes. For this we have to take into account the ratio of cost of collection of taxes to tax yield.

The table 5.9 shows the growth of cost of collection of taxes, tax yield, and the ratio of cost of collection in terms of revenue. It is seen from the table that in 1950-51, 5.27 per cent of tax yield was spend on the collection of taxes. It increased to 7.61 per cent in 1955-56, and thereafter, the figure shows a decreasing trend. Therefore, it is clear that a relatively higher percentage of tax revenue was spent on the collection of taxes in the earlier decades of our period

Table 5.9**Tax Collection Charges, Total Tax Revenue and Ratio of Tax Collection Charges to Tax Revenue**

Financial Year	Total Tax Collection (Rs. in Crores)	Total Tax Revenue (Rs. in Crores)	Tax Collection Charges as % of Tax Revenue
1950-51	33.08	627.00	5.27
1955-56	58.49	768.00	7.61
1960-61	72.56	1350.00	5.37
1965-66	98.62	2922.00	3.37
1970-71	184.32	4752.00	3.88
1975-76	360.53	11182.00	3.22
1980-81	504.05	19844.00	2.54
1985-86	985.60	43267.00	2.28
1990-91	1973.32	87722.00	2.25
1995-96	5223.70	175259.00	2.98
2000-01	6569.73	305320.00	2.15

Source: Computed on the basis of data provided by

(i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division.

(ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.

under review because of higher fixed cost of tax collection. It was thus natural that when the tax revenue collection was relatively small, the cost of collection of tax would be higher. It is also seen from the table that the tax revenue increased by 48,595.37 per cent where as cost of collection of tax increased by only 19,760.12 per cent during the period from 1950-51 to 2000-01.

On the basis of above observation we can conclude that it is not necessary that cost of tax collection had increased with the tax yield and the proportionate increase in cost was lower than the proportionate increase in tax yield and hence the ratio of cost of collection to the tax yield showed a declining trend.

5.2.3 Debt Services:

After Independence, earnest efforts were made by the Central and States Governments to develop the nation economically. To strengthen the foundation of Indian economy, various irrigation projects, power projects, key and ancillary

industries and other public works were undertaken by the State. But the Governments could not finance it from the general revenue of the governments. Hence the public borrowing programme was launch by the Central and State governments.

According to the classification adopted in the government account, debt services comprise interest charges on: (i) ordinary debt, (ii) unfunded debt, (ii) other obligations, and (iv) appropriations for reduction or avoidance of debt. Interest charges on ordinary debt represent all cash payments on account of interest on permanent, temporary and floating loans of the Central and State Governments in India and abroad including in the case of State Governments in India and abroad including in the case of State Governments, payments of interest on any loans from the Central Government. Interest charges on unfunded debt include all cash payments of interest on funds deposited with the government for special purposes: (a) deposits in post offices savings bank and certificates, (b) special loans, (c) deposits of various provident funds, and (d) deposits of service funds. Interest on other obligations include payments of interest on certain special funds held with the government, e.g., the railway reserves and depreciation reserve and other reserve funds of the commercial departments and undertakings of the governments.

It is seen from the table 5.10 that expenditure on debt services in money terms increased from RS. 82 crore in 1950-51 to Rs. 119660.36 crores in 2000-01, showing an increase of 145827 per cent indicating an growth of 13.35 per cent per annum (compound growth rate). The expenditure on debt services in real terms increased by 5974 per cent during the same period indicating a growth of 8.38 per cent per annum.

Thus, expenditure on debt services exerts a heavy strain on revenue, and continues to absorb an increasing amount of total tax revenues. The expenditure on debt services as a proportion of total tax revenue was 13.07 per cent in 1950-51 whereas, in 2000-01, debt servicing accounted for 39.19 per cent of total tax revenue. The debt servicing has substantially increased primarily because of a progressively increasing amount of debt incurred.

Table 5.10
Expenditure on Debt Services At Current and Constant Prices
(1050-51 to 2000-01)

Financial Year	At Current Prices		At Constant Prices		Tax	Debt	Debt
	Total Debt Services (in crores)	Per capita (in Rs)	Total Debt Services (in crores)	Per capita (in Rs)	Revenue (in crores)	Servicing as % of Tax Revenue	Servicing as % of NNP
1950-51	82	2.28	1186.68	33.055	627	13.07	0.89
1955-56	123.92	3.15	2001.94	50.94	768	16.14	1.26
1960-61	263.91	6.08	3336.41	76.88	1350	19.55	1.73
1965-66	488.75	10.08	4451.28	91.78	2920	16.74	2.05
1970-71	926.42	17.12	6433.47	118.92	3979	23.28	2.38
1975-76	1282.56	21.13	5829.82	96.04	11182	11.47	1.86
1980-81	2956.59	43.54	9088.81	133.86	19844	14.90	2.50
1985-86	8606.18	113.99	17847.74	236.39	43267	19.89	3.89
1990-91	25006	298.05	34119.25	406.67	87722	28.51	5.56
1995-96	58944.49	635.86	49305.30	531.88	175259	33.63	6.26
2000-01	119660.36	1188.28	72088.89	715.87	305320	39.19	6.77

Source: Computed on the basis of data provided by –

- (i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December 1988, Ministry of Finance, Economic Division, Government of India
- (ii) Indian Public Finance Statistics-1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs, GOI.

The expenditure on debt services has increased not only in absolute terms but also relative to NNP. In 1950-51, the expenditure on debt services constituted 0.89 per cent and increased to 6.77 per cent in 2000-01 (table 5.10).

The ratio of total debt services to national income shows the proportion of national income redistributed through the servicing of debt, while the ratio of total debt services to tax revenue shows the extent to which revenues are spent on debt servicing in the country. From table 5.10, it can be said that the ratio of total debt servicing to national income increased gradually, while the ratio of total debt services to total tax revenue fluctuated significantly.

If the ratio of total debt services to national income and tax revenue are higher, it would mean that income transfer is taking place on a large scale from the poorer to the richer. This is because when tax revenues are collected, they

are collected not only from the richer but also from the poorer. Therefore, if higher proportion of tax revenues are devoted to the debt services it may signify the relatively lesser emphasis on other services which would redistribute in favour of poorer section. It is seen from the table 5.10 that the ratio of interest payments to national income and tax revenue have an upward bias during the period under review. This fact implies that income inequalities may have increased in course of time.

The burden of interest payments depends upon the character of public debt and the purposes for which the debt is utilized. The interest payments become burdensome when the deadweight debt increases faster than the productive debt. But in India a major portion of public debt was utilized for productive purposes, i.e., for creating interest-yielding assets. Therefore, interest payments ought to have been recovered from the assets created by debt.

However, it does not mean that the debt servicing charges would never be a burden as long as the loans are employed for productive purposes. It would be burdensome if the yields from the invested funds are comparatively low and the government blocks the funds from flowing to the public sector.

5.2.4 Relief for Natural Calamities:

India has an area of 12 lakh sq. miles constituting a little more than 2.4 per cent of world geographical area. Our mother land is characterized by desert and semi-desert conditions in quite sizeable areas, and at many places the water level is much lower in large tracts. Drought and flood are very frequent and therefore, the country is burdened with the responsibility of providing relief on account of such natural calamities. Expenditure on natural calamities includes arrangements for drinking water, fodder migration, relief works for emplotment, distribution of food, etc.

Table 5.11 shows that the expenditure on relief for natural calamities, in money terms was Rs. 1.01 crores in 1950-51. It rose to Rs. 3698.63 crores in 2000-01 showing a percentage increase of 366100 during the period under study.

Whereas in real terms it increased by only 15151 per cent as compared to that of money term during the same period. A sudden huge increase is also noticeable after 1965-66. This was because of the widespread and severe famine or near famine conditions in the different part of country. In 1966-67, 4.16 per cent, in 1970-71, 4.05 per cent of total non-development expenditure was spent under this head and in 1969-70, 1971-72 and 1973-74, the percentage was as high as 7.06, 9.17 and 10.13 respectively and thereafter reduced significantly to 1.47 per cent in 2000-01.

Table 5.11
Expenditure on Relief for Natural Calamities at Current & Constant Prices (1950-51 to 2000-01)

Financial Year	At current prices		At constant prices		Exp. on Relief for natural calamities as % of total non-dev. Expenditure	Exp. on Relief for natural calamities as % of total Govt. Expenditure	Exp. on Relief for natural calamities as % of NI
	Total (in crores)	Per capita (in Rs)	Total (in crores)	Per Capita (in Rs)			
1950-51	1.01	0.02	14.61	0.40	0.29	0.10	0.01
1955-56	16.61	0.42	268.33	6.82	4.57	1.20	0.16
1960-61	21.50	0.49	271.80	6.26	2.80	0.68	0.14
1965-66	17.23	0.35	156.92	3.23	1.27	0.26	0.07
1970-71	101.08	1.86	701.94	12.97	4.05	0.60	0.25
1975-76	118.92	1.95	540.54	8.90	2.54	0.64	0.17
1980-81	215.41	3.17	662.18	9.75	2.38	0.60	0.18
1985-86	745.23	9.87	1545.47	20.46	3.29	0.97	0.33
1990-91	867.17	10.33	1183.20	14.10	1.59	0.55	0.19
1995-96	1780.58	19.20	1489.40	16.06	1.39	0.60	0.18
2000-01	3698.63	36.72	2228.22	22.12	1.47	0.67	0.20

Source: (i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division.
(ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.

Figures of other columns are computed on the basis of the data given in Table 1, Table 2, Table 3, Table 4 and Table 7 of Statistical Appendix

Natural calamities have become the cause of setback to the economy and also involved some loss of revenue. In fact, natural calamities have involved mostly unproductive State expenditure, unless they create community assets. Such expenditure was formerly considered as non-development expenditure. But under

the new classification adopted from 1974-75, this expenditure is classified as developmental expenditure. The budgetarian's logic behind this change is that a major portion of such expenditure is now spent on developmental activities which emphasize the creation of community assets like construction of roads. conservation – oriented earthwork minor irrigation, etc.

The natural calamities further aggravated the deteriorating budgetary position of the state governments. Although some Central loan assistance is made available for the purpose, a major portion of such expenditure is borne by the state themselves. Central assistance has acquired significance in the recent year only.

Chapter 6

Analysis of Developmental Expenditure

6.1 Growth of Developmental Expenditure:

In the preceding chapter, the non-development expenditure has been analysed by breaking its component parts. In this chapter we shall study the growth of developmental expenditure. We follow it up by analyzing the pattern of distribution of developmental expenditure. We also propose to examine the relation of developmental expenditure to national income and total government expenditure.

In modern times, provision of developmental services by the government is increasing day by day irrespective of the nature of the State, i.e. whether it is a welfare one or of any other type. The more the welfare measures are adopted by the govt. the higher will be their proportion of government expenditure on developmental services to national income.

The table 6.1 shows that the developmental expenditure in money terms recorded a percentage increase of 66652.25 however, in real terms (base 1993-94) it is only 2678.83 per cent during the period under study. Developmental expenditure per head of the population in money terms as well as in real terms also shows an increasing trend and shows a percentage increase of 23702.24 in money terms and 890.64 per cent only in real terms during the period of 1950-51 to 2000-01. Thus in real term both total expenditure and expenditure per head of the population on this head is much less than the money terms.

The above table shows that developmental expenditure as a per cent of total government expenditure increased from 36.56 per cent in 1950-51 to 43.00 per cent in 2000-01 with a fluctuating trend. It claimed about 44.46 per cent of total government expenditure during the period under study. During the same period, the non-developmental expenditure comprised about 30.09 per cent of total government

Table 6.1
Growth of Developmental Expenditure at Current & Constant
prices (1950-51 to 2000-01)

Financial Year	At Current Prices		At 1993-94 Prices		Total Developmental expenditure as per cent of total government expenditure	Total Deve. exp.as per cent of NI
	Total Developmental expenditure (Rs. in crores)	Per Capita (in Rs)	Total Developmental expenditure (Rs. in crores)	Per Capita (in Rs.)		
1950-51	353.69	9.85	5118.52	142.58	36.56	3.86
1955-56	751.80	19.13	12145.40	309.04	54.34	7.69
1960-61	1234.72	28.45	15609.61	359.67	39.57	8.12
1965-66	2301.37	47.45	20959.65	432.16	35.73	9.68
1970-71	3537.26	65.38	24564.31	454.05	21.13	9.07
1975-76	8181.45	134.79	37188.41	612.66	44.09	11.85
1980-81	17715.52	260.91	54459.02	802.05	50.07	14.98
1985-86	38442.12	509.17	79722.36	1055.93	50.30	17.36
1990-91	74000.28	882.01	100969.14	1203.45	47.69	16.43
1995-96	126518.42	1364.82	105828.87	1141.63	43.16	13.43
2000-01	236096.04	2344.55	142235.10	1412.46	43.00	13.37

Source: Table 9 of Statistical Appendix

expenditure and increased from 35.97 per cent in 1950-51 to 45.67 per cent in 2000-01 with a fluctuating trend as well. During the period under review, developmental expenditure increased by 66652.25 % whereas non-developmental expenditure increased by 71954.34 per cent . In real terms however, developmental expenditure registered a growth rate of 2678.83 per cent whereas non-developmental expenditure registered a growth rate of only 2899.55 per cent during the same period.

The table also reveals that the proportion of NI devoted to developmental services has varied widely during the period under review. It rises continuously from 3.86 per cent in 1950-51 to 13.37 per cent in 2000-01. During the entire period of 1950-51 to 2000-01 the developmental expenditure averaged at about 11.31 per cent of NI where as non-developmental expenditure averaged at about 7.94 per cent

Growth of Social & Developmental Expenditure at Current and Constant Prices (1950-51 TO 2001)

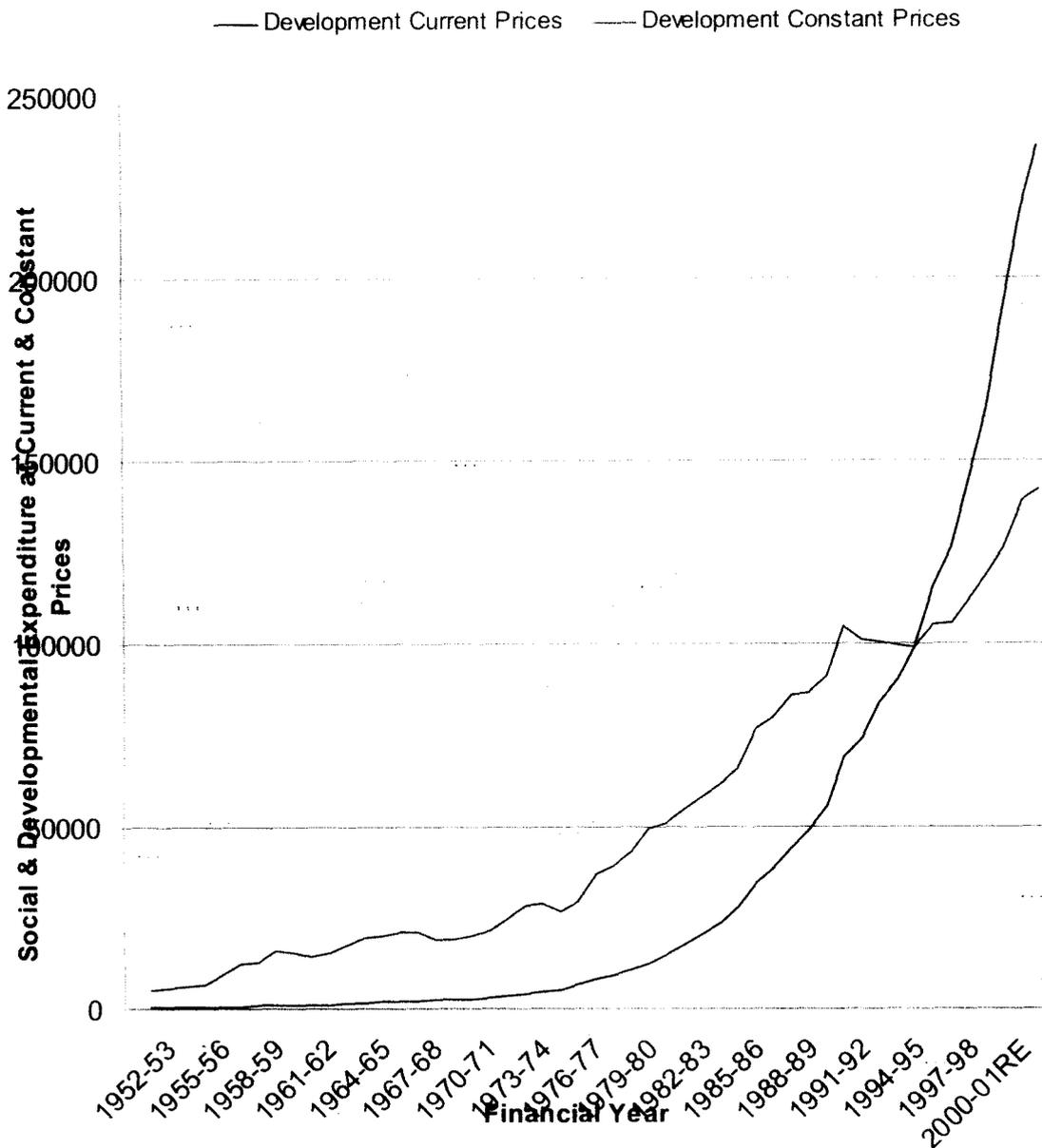
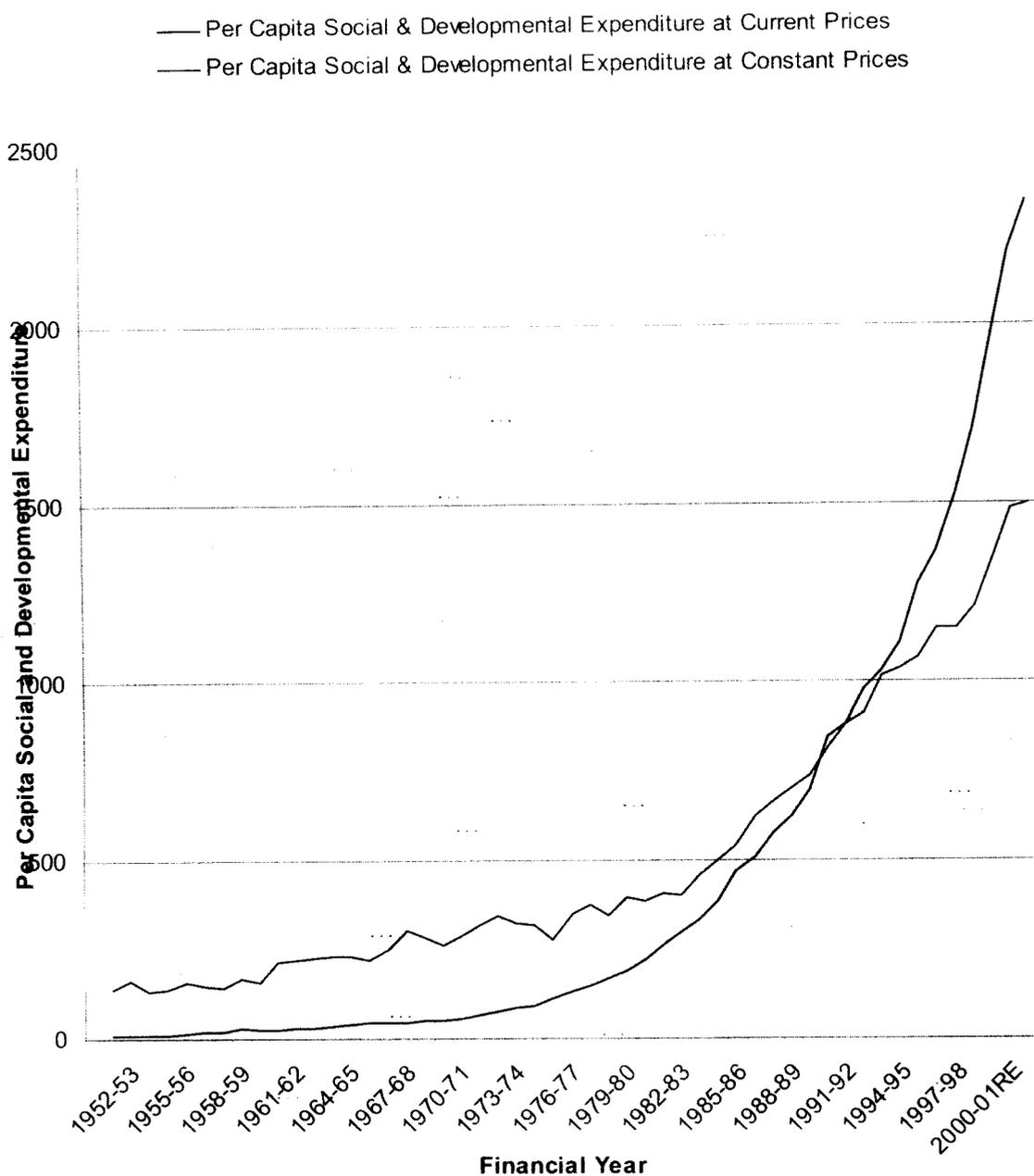


CHART 1

of NI. The proportion of NI devoted to the developmental services increased continuously till 1985-86, but there after it continued to decrease till 2000-01 and stood at 13.37 per cent of NI as compared to 7.69 per cent in 1950-51 and 17.36 per cent in 1985-86.

Growth of Per Capita Social and Developmental Expenditure at Current & Constant Prices



CHART

6.2 Social and Community Services:

The expenditure on social and community services is socially desirable as it would help considerably in achieving the objective of reducing the income inequality in the country. The social and community services, which promotes the welfare of the community, consists of a large number of services like – i)

Education , Art & Culture , ii) Scientific services & research , iii) Medical , public health , water supply & sanitation , iv) family welfare , v) Housing , vi) Urban development , vii) Broadcasting ; viii) Labour & Employment ; ix) Relief on account of natural calamities ; x) social security & welfare and xi) Others . It should be noted that we have restricted our study to an analysis of two important social & community services, viz. education and medical & public health. The expenditure on these two head constitutes about 80 per cent of overall expenditure on social and community services.

6.2.1 Expenditure on Education

The importance of education was recognized by the Independent India from the very beginning, and the govt. of Independent India gave high priority to education for social development. This was very much reflected in the very first Five-Year Plan. The National Policy on Education (1968) considered education as an investment – an indeed a ‘crucial’ investment (National Policy on Education 1986).

Education has to be considered as the birth right of every citizen and hence should be the duty of the State to protect its people against ignorance and illiteracy just as protection against violence and aggression is provided. In 1948, the United Nations General Assembly unanimously declared in the ‘Universal Declaration of Human Rights’: *“Every one has the right to education. Education shall be free at least in the elementary and fundamental stages .Elementary education shall be made compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit.”* (World Survey of Education, 1984, UNESCO)

All economic studies emphasized the role of physical capital in the early stages of industrialization in raising productivity, and many believed that economic growth, depended upon the amount of physical capital which at the same time depends on the rate of savings .But it is not especially in an under developed country where saving and investment are found to be very small, aliased that the govt. has to shoulder a bigger responsibility in fostering economic

growth. It has now been clearly realized that the Technological changes play an important role in increasing output. Schumpeter pointed out, that while increased saving and investment are necessary for development, economic growth is greatly accelerated by using existing resources in a new and improved manner. So we can conclude from the above discussion that the growth of an economy depends on amount of physical capital and the level of technological development. Both these factors themselves depend to a large extent on the education of the people. It has increasingly now been recognized by the economist that human beings are also capital and education is an investment expenditure on human capital. It is also to be emphasized that a profitable return and rapid economic growth are not the only objectives of education. The success of the democratic system depends on a large extent on the education of the people.

Because of its social and private benefits. Education constitutes to be the important social services. It is also regarded as an economic service as it improves the quality of labour force and adds to the productivity of the economy in the long-run.

According to the constitutional division of powers in India, education is the responsibility of the State Governments. However, the central govt. has been increasing its outlay on education for coordination and determination of standards in institutions for higher education, research and scientific and technical institutions.

The expenditure in absolute term on education at national level during 1950-51 to 2000-01 has been constantly increasing. This is evident from the table 6.2. The educational expenditure increased by about 68288.54 per cent from Rs. 144.4 crores in 1950-51 to Rs. 78236.5 crores in 2000-01. But this impressive growth is depreciated by – a) rapid growth in population, b) increase in student numbers and c) rise in prices. As a result of growth of population, while total expenditure on education increased more than 680 times, in per capita terms the increase between 1950-51 to 2000-01 has been about 238 times only.

Table 6.2**Public Expenditure on Education in India at Current & Constant Prices (1950-51 to 2000-01)**

Financial year	At Current Prices			At Constant (1993-94) Prices		
	Total (Rs. in crores)	Per capita (in Rs.)	Per pupil (in Rs.)	Total (Rs. in crores)	Per capita (in Rs.)	Per pupil (in Rs.)
1950-51	114.4	3.2	35.6	1683.8	46.6	524.0
1951-52	124.6	3.4	38.3	1778.7	48.5	546.8
1952-53	137.6	3.8	40.3	2047.4	56.5	599.6
1953-54	147.7	3.9	40.9	2140.5	56.5	592.7
1954-55	165.0	4.3	41.8	2654.7	69.2	672.5
1955-56	189.6	4.8	42.7	3077.4	77.9	693.1
1956-57	206.3	5.1	44.3	2964.7	73.3	636.7
1957-58	240.7	5.9	48.0	3341.0	81.9	666.3
1958-59	266.2	6.4	49.1	3555.2	85.5	655.8
1959-60	300.4	7.0	51.1	3902.1	90.9	663.8
1960-61	344.4	7.8	53.7	4376.4	99.6	682.4
1961-62	388.9	8.9	54.1	4828.4	110.5	671.7
1962-63	441.7	9.7	57.3	5234.2	114.9	679.0
1963-64	484.1	10.4	60.0	5272.3	113.3	653.5
1964-65	534.5	11.3	62.6	5357.4	113.3	627.4
1965-66	622.0	12.8	70.0	5734.9	118.0	645.4
1966-67	697.9	14.1	99.6	5720.9	115.6	816.5
1967-68	811.3	15.7	111.7	6110.8	118.3	841.3
1968-69	898.4	17.3	120.2	6585.3	126.8	881.1
1969-70	1010.4	19.1	132.0	7171.5	135.6	936.9
1970-71	1118.3	20.4	141.7	7837.9	143.0	993.1
1971-72	1237.5	23.2	157.9	8226.2	154.2	1049.6
1972-73	1373.8	24.3	159.8	8272.8	146.3	962.3
1973-74	1590.5	25.0	-	8184.2	128.6	-
1974-75	1807.3	30.5	200.6	8006.7	135.1	888.7
1975-76	2104.7	34.7	230.1	9572.4	157.8	1046.5
1976-77	2304.2	37.9	231.1	9868.1	162.3	989.7
1977-78	2602.0	41.0	284.4	10488.7	165.3	1146.4
1978-79	2853.1	44.1	278.0	11288.4	174.5	1099.9
1979-80	3157.3	47.9	290.7	10843.9	164.5	998.4
1980-81	3640.6	53.3	319.7	11211.9	164.1	984.6
1981-82	4685.8	67.5	426.7	13098.6	188.7	1192.8
1982-83	4912.2	69.3	424.0	12697.9	179.1	1096.0
1983-84	5523.8	76.4	446.2	13113.1	181.4	1059.2
1984-85	6353.8	86.1	491.1	14046.9	190.3	1085.7
1985-86	7456.9	98.9	564.6	15359.3	203.7	1162.9
1986-87	8450.3	109.6	604.1	16262.2	210.9	1162.6
1987-88	10439.2	132.5	723.4	18352.9	233.1	1272.9
1988-89	12408.7	154.5	824.7	20146.4	250.8	1339.0
1989-90	15044.2	183.5	960.4	22555.0	275.1	1439.9

Financial year	At Current Prices			At Constant (1993-94) Prices		
	Total (Rs. in crores)	Per capita (in Rs.)	Per pupil (in Rs.)	Total (Rs. in crores)	Per capita (in Rs.)	Per pupil (in Rs.)
1990-91	20491.2	243.0	1071.6	27828.7	330.0	1455.3
1991-92	22393.7	261.4	1144.7	26730.6	212.0	1366.4
1992-93	25030.3	237.2	1206.8	27481.9	260.4	1325.0
1993-94	28279.7	317.0	1308.0	28279.7	317.0	1308.0
1994-95	32606.2	295.4	1548.9	29751.0	269.5	1413.3
1995-96	38178.1	411.4	1710.8	31952.2	344.3	1431.8
1996-97	43896.5	382.9	1937.7	34224.9	298.5	1510.8
1997-98	48954.9	507.6	2639.5	35757.8	370.8	1927.9
1998-99	62019.5	631.1	3262.2	41937.5	426.8	2205.9
1999-2000 ^R	77545.8	774.6	3990.5	50661.6	506.1	2607.0
2000-01 ^B	78236.5	761.8	3957.1	49208.7	479.2	2488.9

Growth Rate (%)

1950s	11.49	9.30	3.78	5.58	3.51	-1.72
1960s	12.77	10.26	11.97	4.78	2.44	4.03
1970s	12.64	10.30	8.98	4.37	2.20	0.98
1980s	16.21	13.84	11.68	7.47	5.28	3.28
1990s	15.61	13.78	15.91	6.57	4.89	6.84
1950-51 / 2000-01	13.65	11.32	9.67	6.84	4.67	3.10

Source: PUBLIC EXPENDITURE ON EDUCATION IN INDIA: A Review of Trend and Emerging Issues, Jandhyala B.G.Tilak, Financing Education in India, Edited by B.G Tilak.

R=Revised estimate

B=Budget estimate

On the other hand the expenditure per pupil increased only by 111 times during the same period, from Rs. 35.6 in 1950-51 to Rs. 3957.1 in 2000-01. These figures are at current prices and the impressive picture remains no more impressive, if they are converted into constant prices (1993-94 prices). After adjusting these figures with the help of national income deflator, it can be seen that the real rate of growth in total, per capita and per pupil expenditure on education are very small. For example, as compared to a rate of growth of 13.65 per cent in current prices, total expenditure on education increased at a rate of 6.84 per cent only in terms of real prices during the period 1950-51 to 2000-01. The real rate of growth of per capita expenditure on education was about 4.67 per cent and in per pupil terms the real growth was less than one third of the growth at current prices during the same period.

As a percentage of total government expenditure, educational expenditure increased from 11.82 per cent in 1950-51 to 14.25 per cent in 2000-01. Thus its shares have increased by 2.43 percentage point only whereas in most developing countries spend between 15 to 20 per cent of their total public expenditure on education. As a percentage of NNP educational expenditure constituted 1.25 per cent in 1950-51 and 4.43 per cent in 2000-01 indicating an increase of 254.4 per cent. In general most developing countries spend between 3 and 6 per cent of national income. In India the rate of increase of educational expenditure (68288.54 % from 1950-51 to 2000-01) is higher than that of total government expenditure (56650.51 %) which is also higher than the rate of increase in NNP (19209.1) . As a result expenditure on education as a per cent of total government expenditure and NNP continues to increase at a steady rate.

Share of education in GNP is the most standard indicator of national efforts on the development of education in a given society. This would reflect the relative priority being given to education in the national economy. On the recommendation of the Education Commission (1966), the govt. of India in 1968 fixed a target of investing six per cent of national income in education from the public exchequer by 1986. The table 6.4 shows that over the year it has increase remarkably. At the inception of Planning (1950-51) India was spending 1.2 per cent of GNP and by 2000-01 , it increased to 4.2 per cent even though the growth is not Smooth , it is indeed a remarkable increase.

Table 6.3
Expenditure on Education at current prices

Financial year	Total exp. on education (Rs. in crores)	Total exp. on education as % of total developmental exp.	Total exp. on education as % of total Govt. Exp.	Total exp. On education as % of NI (NNP at factor cost)
1950-51	114.4	32.34	11.82	1.25
1955-56	189.6	25.21	13.70	1.93
1960-61	344.4	27.89	11.03	2.26
1965-66	622.0	27.02	9.65	2.61
1970-71	1118.3	31.61	6.68	2.86
1975-76	2104.7	25.72	11.34	3.05

Financial year	Total exp. on education (Rs. in crores)	Total exp. on education as % of total developmental exp.	Total exp. on education as % of total Govt. Exp.	Total exp. On education as % Of NI (NNP at factor cost)
1980-81	3640.6	20.55	10.29	3.07
1985-86	7456.9	19.39	9.75	3.36
1990-91	20491.2	27.69	13.20	4.55
1995-96	38178.1	30.17	13.02	4.05
2000-01	78236.5	33.13	14.25	4.43

Source: Data of 2nd column has been taken from table 6.2 and data of other column has been computed on the basis of table 3, 5 and 9 of Statistical Appendix

Table 6.4
Share of Education in GNP (%)
(1950-51 to 2000-01)

Year	Per cnt	Year	Per cnt	Year	Per cnt
1950-51	1.2	1967-68	2.4	1984-85	2.9
1951-52	1.2	1968-69	2.5	1985-86	3.0
1952-53	1.4	1969-70	2.6	1986-87	3.1
1953-54	1.4	1970-71	2.7	1987-88	3.3
1954-55	1.6	1971-72	2.8	1988-89	3.3
1955-56	1.8	1972-73	2.8	1989-90	3.5
1956-57	1.7	1973-74	2.6	1990-91	4.1
1957-58	1.9	1974-75	2.5	1991-92	3.9
1958-59	1.9	1975-76	2.8	1992-93	3.8
1959-60	2.0	1976-77	2.8	1993-94	3.7
1960-61	2.1	1977-78	2.8	1994-95	3.6
1961-62	2.3	1978-79	2.9	1995-96	3.6
1962-63	2.4	1979-80	2.9	1996-97	3.6
1963-64	2.3	1980-81	2.8	1997-98	3.6
1964-65	2.2	1981-82	3.1	1998-99	3.9
1965-66	2.4	1982-83	2.9	1999-2000	4.5
1966-67	2.4	1983-84	2.8	2000-01	4.2

Source :PUBLIC EXPENDITURE ON EDUCATION IN INDIA : A Review of Trend and Emerging Issues , Jandhyala B.G.Tilak

Cause of Growth of Educational Expenditure:

There are many factors which are responsible for the phenomenal growth in educational expenditure. These are as follows-

- i) India's population has been growing at fast rate and this adds to the phenomenal increase in educational expenditure i.e. this expenditure is governed by demographic changes.
- ii) Proportion of students in the different age groups and at different levels of education has increased due to growing population.

- iii) It is generally found that the demand for education is income elastic. The community wishes to spend an increasing proportion of income on education as it becomes economically better off.
- iv) From sixties onwards it has been recognized that education is an important instrument for economic growth. This recognition results in a high growth in educational expenditure.
- v) The expenditure on education is regarded as an essential tool for achieving political socialization, occupational status, modernization and other social objectives.
- vi) Education expenditure has been continuously increasing with the acceptance of the recommendations of the Education Commission (1966) regarding minimum salaries of school-teachers and UGC's pay scale for College and University teachers on the recommendation of the Sen. Committee (1973). The same has been the case with the govt.'s implementation of the recommendations of various committees . Further, in recent years, the policy of free and compulsory education is being extended to cover children beyond the primary stages and tuition fees are being exempted on a large scale along with provision of free mid-day meals to school students.

Education in Five-Year Plans :

Five-Year Plans are an important instrument of development strategy adopted by the independent India. Hence, it is important to examine the priority given to education in the Five-Year Plans. Expenditure on education in the First Five-Year Plan has shown a rapid rise since the inception of the first five year plan. The absolute outlays for education have increased by more than 350 times between First Five-Year Plan to the ninth Five-Year Plan. The First Five-Year Plan invested Rs. 153 crores on education. The expenditure rose to Rs. 7700 crores in the seventh Five-Year Plan. The allocation for the eighth Five-Year Plan was more than doubled further to reach a level of Rs. 25000 crores , which again doubled in the ninth Plan . Thus increasingly larger resources are being allocated to education as shown from the table below.

Table 6.5
Expenditure on Education in the Five-Year Plans

(Rs. in crores)

Five-Year Plan Period	In Current Prices	In 1993-94 Prices *	Real Increase(%)	% of Total Plan Expenditure
First Five-Year Plan (1951-56)	153	2325	-	7.86
Second Five-Year Plan (1956-61)	273	2966	27.57	5.83
Third Five-Year Plan (1961-66)	589	6408	116.05	6.87
Fourth Five-Year Plan (1966-74)	786	5018	-21.69	5.17
Fifth Five-Year Plan (1974-79)	912	3876	-22.76	3.27
Sixth Five-Year Plan (1980-85)	2619	6833	76.26	2.70
Seventh Five-Year Plan (1985-90)	8540	15144	121.63	3.55
Eighth Five-Year Plan (1992-97)	27458	25410	67.79	4.50
Ninth Five-Year Plan (1997-2002)	52173	34215	34.65	6.23

Note : * based on National income deflators

Source: Five-Year Plan(s) , Annual Plan(s) , Economic Survey(s) ; Annual Financial Statistics of Education Sector, 1997-98, New Delhi.

But when we look at the figures in real prices, expenditure on education declined from the third five-year plan onwards up to the fifth five-year plan. The expenditure on education in real prices in the fourth five-year plan was less than four-fifths of the expenditure in the third five-year plan and the expenditure in the fifth five-year plan was about three-fourths of the expenditure in the fourth five-year plan. It is only in the sixth five-year plan this trend was reversed and the expenditure in the sixth five-year plan was about double the expenditure in the fifth five-year plan and is slightly above the expenditure in the third five-year plan in real terms ; and the expenditure seventh five-year was about 1.8 times the expenditure in the sixth five-year plan .

The relative importance given to education in the five-year plans has declined gradually over the years, from 7.9 per cent in the first five-year plan, to 2.7 per cent in the sixth five-year plan . It is only during seventh five-year plan, and later in the eighth and the ninth five-year plans this declining trend was reversed.

Not only has the relative importance given to education in the plan expenditure gradually declined until the sixth five-year plan , but also the relative share of education in any five-year plan , including the seventh , the eighth , and the ninth five-year plans , has been the lowest. The closest figure is three per cent allocated to health in the seventh five-year plans. Several major sectors received much higher than the allocation made to the education sector.

It is also seen from the table 6.5 that there are three important phases in the allocation of resources to education in the five-year plans. During the first three five-year plan-period, the allocation to education as a proportion of total five-year plan expenditure has been more than five per cent. Even though it declined in the second five-year plan, the decline was immediately checked in the third five-year plan. The second phase, consisting of the fourth, fifth and the sixth five-year plans, was characterized by a consistent decline in the relative share of education. The Seventh, the eighth and the ninth five-year plans forms the Third Phase when efforts are made to check the declining trend and to substantially increase the allocation to education. This Phase refers to the post-1986 policies period , and the positive effort of the Policy could be noted .

6.2.1.1 Critical Appraisal: With the recognition given to education as an integral part of social and economic development and the outlay provided in the every sphere of educational activity, there has been a considerable increase in the number of educational institutions, pupils and teachers. The number of the primary / junior basic schools alone has increased from 209671 in 1950-51 to 528872 in 1985-86 and to 603646 in 1996-97 showing an increase of 187.9 per cent. The number of students in primary junior basic level of education (I – V) was 19154457 in 1950-51 and it increased to 108288142 in 1996-97 showing an increase of 465.3 per cent . The number of students in primary junior basic level of education increased by 465.3 per cent during the period 1950-51 to 1996-97 whereas percentage increase of primary or junior basic schools is about 187 per cent which is lower than the former . The percentage of school-going children of the total population in the age-group 6 – 11 years was 43.1 per cent in 1950-51, it

rose to 99.6 per cent in 1988-89 . The number of middle schools / senior basic schools (VI – VIII) increased from 13596 in 1950-51 to 134846 in 1985-86 and further to 180293 in 1996-97 showing a per cent increase of 1226.0 (13.2 times) . The number of pupils in middle school /senior basic schools was 3119958 in 1950-51 and it increased to 27309855 in 1985-86 and further increased to 38153808 in the year 1996-97 (1122.8 %). The percentage of school-going children of the total population in the age-group 11 – 14 years was 56.9 per cent in 1988-89 as compared to only 12.9 per cent in 1950-51 . The number of students in high / higher Secondary level of education was 1441254 in 1950-51 and it increased to 23987892 in 1996-97 . On the other hand the no. of high / higher Secondary school was 100212 in 1996-97 as compared to 7416 in 1950-51. In 1984-85, 23.5 per cent in the age-group 14 – 17 years (IX – XI / XII) used to go to school as compared to 5.3 per cent in 1950-51 . The number of universities was 193 in 2000-01 as compared to 28 in 1950-51 . The number of institutions deemed to be universities were only 3 in 1960-61 , and it increased to 52 in 2000-01 . The number of institutions of national importance which were established under State Legislative Act, increased from 3 to only 11 during the period 1950-51 to 2000-01 . The number of degree colleges also increased by a considerable amount, though not sufficient.

The number of arts, science & commerce colleges increased from 540 in 1950-51 to 8640 in 2000-01. Agriculture degree college increased from 16 in 1950-51 to 102 in 2000-01 . The number of law colleges increased from 22 in 1950-51 to 335 in 2000-01.

The number of medical college was only 34 in 1950-51 and it increased to 1069 in 1994-95. The no. of veterinary science college was 50 in 2000-01 as compared to only 7 in 1950-51 . The no. of Teachers' Training College was 694 in 2000-01 as compared to only 36 in 1950-51 . The no. of Engineering /Technical / Arch. College increased from from 31 in 1950-51 to 678 in 2000-01 . The number of other colleges offering degree in music / fine arts and physical education was 412 in 2000-01 as compared to only 1 in 1950-51.

Table 6.6
Achievement at different levels of education:

Primary Level (I – V) , Age Group : 6 – 11						
1	2	3	4	5	6	7
Year	No. of pupils	No. of schools	% of (2) to total population in the age group	No. of teachers	No. of trained teachers	% of trained teachers to total teachers
1950-51	19154457	209671	43.1	538784	316678	58.8
1960-61	34993829	330399		745521	477791	64.1
1970-71	57045441	408378		1376176	1124587	81.7
1980-81	74194739	494503		1372734	1186464	86.4
1985-86	87440514	528872		1516144	1285335	84.8
1987-88	90459726	539002	97.8	-	-	-
1988-89	91271161	542647	99.6	-	-	-
1989-90	92351058	548131		1602774	1370120	85.5
1990-91	97375300	560935		1639357	1395642	85.1
1991-92	100939202	566744		1643701	1402227	85.3
1993-94	97029235	570455		1623379	1396267	86.0
1995-96	107095049	593410		1774143	1525200	86.0
1996-97	108288142	603646		1796638	1538528	85.6
Middle / Sr. Basic (VI – VIII) , Age Group : 11 – 14						
1950-51	3119958	13596	12.9	85000	45475	53.5
1960-61	6704810	49663		243145	152716	62.8
1970-71	13315170	90621		463063	384309	83.0
1980-81	20724364	118555		851537	758767	89.1
1985-86	27309855	134846		968348	863415	89.2
1987-88	29286948	142565	55.1	-	-	-
1988-89	29949987	144715	56.9	-	-	-
1989-90	30888821	147159		1044791	926728	88.7
1990-91	34025987	151456		1072911	944327	88.0
1991-92	35647631	155926		1079034	952213	88.2
1993-94	34071058	162805		1129747	992032	87.8
1995-96	37520440	174145		1181541	1024482	86.7
1996-97	38153808	180293		1200480	1039769	86.6
High / Higher Secondary (IX – XI / XII) , Age Group: 14 -17 *						
1950-51	1441254	7416	5.3	212000	113549	53.6
1960-61	3345197	17329		296056	189829	64.1
1970-71	7600543	37051	In	629200	473724	75.3
1980-81	11871161	51573	1984-85=	912112	809420	88.7
1985-86	16497525	65837	23.5%	1112589	1003137	90.2
1987-88	15837280	70997		-	-	-
1988-89	16254960	72602		-	-	-
1989-90	17366177	74654		1234068	1115812	90.4
1990-91	19057399	79803		1311564	1170748	89.3
1991-92	20338186	82576		1356978	1207608	90.0
1993-94	20684546	89226		1444429	1282851	88.8
1995-96	22856731	99274		1531852	1360581	88.8
1996-97	23987892	100212		1540887	1370324	88.9

Source: Statistical Abstract 1997 and 2002, Central Statistical Organisation, Ministry of Statistics and Programme Implementation, GOI, New Delhi.

Table 6.7
Number of Recognised Educational Institutions

Year	No. of Universities	Institute deemed to be University	Institute of National importance *	DEGREE COLLEGES		
				Arts , Sc. , & Com. Colleges	Agriculture Colleges	Law Colleges
1950-51	28	-	3	540	16	22
1960-61	44	3	8	1161	37	40
1970-71	84	9	9	2587	57	91
1980-81	112	11	10	3393	54	163
1985-86	132	17	10	4132	63	199
1989-90	146	28	10	4755	74	228
1990-91	147	29	10	4877	79	241
1991-92	151	31	10	5162	82	274
1992-93	155	31	10	5325	83	279
1994-95	159	38**	10	5885	83	298
1995-96	167	41**	11	6171	90	319
1996-97	172	42**	11	6770	90	324
2000-01	193	52**	11	8640	102	335

* Includes Library Science and Social Work Colleges

** It includes four institutions Established under the State Legislative Act .

Source: Statistical Abstract 1997 and 2002, Central Statistical Organisation, Ministry of Statistics and Programme Implementation , GOI , New Delhi .

Table 6.8
Number of Recognised Educational Institutions
(Degree Colleges)

Year	Medical Colleges	Veterinary Science Colleges	Teachers Training Colleges	Engineering /Technical/Arch. Colleges	Other Colleges *
1950-51	34	7	36	31	1
1960-61	80	20	125	76	5
1970-71	176	23	258	107	79
1980-81	262	25	331	149	71
1985-86	320	30	403	242	106
1989-90	425	37	450	285	135
1990-91	441	37	506	289	153
1991-92	482	38	526	298	169
1992-93	518	39	531	300	187
1994-95	621	51	535	323	267
1995-96	643	45	565	355	305
2000-01	1069	50	694	678	412

*Other Colleges includes Music/Fine Arts & Physical Education

Source: Statistical Abstract 1997 and 2002, Central Statistical Organisation, Ministry of Statistics and Programme Implementation , GOI , New Delhi

Table 6.9
Number of Teachers in Education Institutes
(Colleges & Universities)

Year	Technical and Special School *	College for General Education	Technical and Special College
1950-51	28284	16512	4752
1960-61	58851	40311	15149
1970-71	33454	98329	30547
1975-76	39544	126567	41056
1980-81	30055	143184	50157
1985-86	40524	168035	61601
1989-90	256934	186976	68189
1990-91	252374	193046	70773
1991-92	214278	199566	73098
Year	Technical and Special School *	College for General Education	Technical and Special College
1992-93	272957	206693	75099
1993-94	579737	213454	77594

Source: Statistical Abstract 1997 and 2002, Central Statistical Organization, Ministry of Statistics and Programme Implementation, GOI, New Delhi.

* Professional and Special education include institutions imparting instructions in Diploma/Certificate Courses at school level in Agriculture/Forestry, Medicine(Nursing & Midwifery), Teachers' Training, Industrial(Arts & Crafts), Music and Fine Arts, for Handicapped, Certified & Reformatory, Oriental Studies, Social and Adult Education and other institutions imparting such courses in Diploma and Certificate.

Table 6.10
Enrollment According to Faculty and Stage

Year	B.A /B.Sc/B.Com	M.A/M.Sc/M.Com	Research	Diploma/Certificate
1950-51	100687	18484	2434	1199
1960-61	348496	52836	4674	3632
1970-71	1435909	144023	11177	18788
1980-81	1913126	238916	27398	23089
1985-86	2596097	293794	33819	25644
1989-90	3332813	370088	39412	32954
1990-91	3566107	395994	42175	35265
1991-92	3813042	423416	45090	37705
1992-93	4012104	443071	46801	39208
1993-94	4191182	476681	52486	43382

Source: Statistical Abstract 1997 and 2002, Central Statistical Organization, Ministry of Statistics and Programme Implementation, GOI, New Delhi.

The no. of students enrolled in B.A, B.Sc and B.Com increased from 100687 in 1950-51 to 4191182 in 1993-94. The no. of students enrolled at the university stage (M.A, M.Sc & M.Com) was 476681 in 1993-94 as compared to 18484 in 1950-51. The number of researchers at different branch was only 1434 in 1950-

51 and it increased to 52486 in 1993-94 . The number of students enrolled for diploma / certificate course was 43382 in 1993-94 as compared to 1199 in 1950-51 . The number of primary / junior basic (I – V) teachers increase from 538784 in 1950-51 to 1796638 in 1996-97 . In 1950-51 only 58.8 per cent of the total primary teachers was trained whereas in 1996-97 , 85.6 per cent of the total primary teachers was trained . The number of teachers in middle school was 85000 in 1950-51 and it increased to 1200480 in 1991-92 . In 1950-51 , 53.5 per cent of the middle school teachers was trained where as in 1996-97 , 86.6 per cent of the teachers was trained . At high / higher Secondary level of education the number of teachers was 212000 in 1950-51 and it increased to 1540887 in 1996-97 . In 1996-97 , 88.9 per cent of the teachers in high / higher secondary level (IX-XI / XII) was trained as compared to 53.6 per cent in 1950-51 . The number of teachers in technical & special school was 28284 in 1950-51 and it increased to 579737 in 1993-94 . The number of teachers in colleges for general education increased from 16512 in 1950-51 to 213454 in 1993-94 . The number of teachers in technical & special colleges also increased from 4752 in 1950-51 to 77594 in 1993-94

Share of education in gross nation product is the most standard indicator of national efforts on the development of education in a given society. This reflects the relative priority being accorded to education in the national economy. On the recommendation of the Education Commission (1966), the government of India (1968) quantitatively fixed a target of investing six per cent of national income in education from the public exchequer by 1986 . A glance at the figures of expenditure on education as a proportion of GNP given in Table 6.4 shows that over the years it has increased remarkably. However, it needs to be underlined that this proportion is less than

- i) the requirements of the education system to provide reasonable levels of quality education to all the students enrolled presently ,
- ii) the requirements of the system to provide universal elementary education of eight years for every child of the age-group 6 -14 , and consequent growth in secondary and higher education , as universalisation of elementary education in a comprehensive sense ,

includes universal provision of resources universal enrolment , and universal retention (Tilak and Varghese ,1990) ,

- iii) the recommendations of the Education Commission (1966) , the resolve made in the National Policy on Education 1968 , reiterated in the National Policy on Education 1986 (govt. of India) , and the revised Policy (1992) to invest six per cent of GNP in education , and
- iv) the proportion of GNP invested in education in many other developing , leave alone developed , countries of the world , including Africa (Table No.11)

According to the Human Development Report 2001, India ranks 104th with respect to share of public expenditure on education in GNP , among the 143 countries for which such data are available . India was devoting 3.2 per cent of her GNP to education (1995-97). In comparison a large number of countries spend more than six per cent, some more than eight per cent and a few more than ten per cent . Some of the countries, which spend more than four per cent of GNP on education, include countries, which are economically poorer than India. India had set a long time ago a target of six per cent of GNP to be spent on education. This target still eludes, and may continue to elude in the near future. The need to raise this proportion considerably needs no overemphasis.

Universalisation of elementary education has been a Constitutional Directive, and the two national policy statements on education in 1968 and 1986 and the revised 1992 laid special emphasis on the fulfillment of this objective .Five-year plans repeatedly promised to take the nation towards achieving this goal. Elementary education was also included in the 'National Programme of Minimum Needs' in the five-year plans, and this inclusion has significant implications for allocation of resources, and for diversion of resources away from elementary education .But even after five decades of development planning, and four decades after the deadline stipulated by the Constitution, the goal of universal elementary education is still elusive. It is strongly felt that elementary

Table 6.11
Public Expenditure on Education, Selected Countries

	As per cent of GNP				Per inhabitant at current prices (US \$)			
	1980	1985	1990	1994	1980	1985	1990	1994
World	4.8	4.8	4.8	4.9	126	124	202	252
Africa	5.3	5.7	5.6	5.9	48	40	41	41
America	4.9	4.9	5.2	5.3	307	375	521	623
Asia	4.0	3.9	3.7	3.6	37	39	66	93
Europe	5.1	5.1	5.1	5.4	418	340	741	982
Oceania	5.6	5.6	5.6	6.0	467	439	715	878
Developing Countries	3.8	4.0	4.0	3.9	31	28	40	48
Sub-Saharan Africa	5.1	4.8	5.1	5.6	41	26	29	32
Arab States	4.1	5.8	5.2	5.2	109	122	110	110
Latin America and the Caribbean	3.8	3.9	4.1	4.5	93	70	102	153
Eastern Asia and Oceania	2.8	3.1	3.0	3.0	12	14	20	36
Southern Asia	4.1	3.3	3.9	3.4	13	14	30	14
Less Developed countries	2.9	3.0	2.7	2.5	9	7	9	9
Developed countries	5.1	5.0	5.0	5.1	487	520	914	1211
India	2.9	3.1	2.5	3.4	319.7	564.6	1071	1549

Source: UNESCO Report (1997)

education suffered in India, due to, apart from several factors, insufficient allocation of financial resources .While finances are an important constraint, they are however, not the only constraint, but one among many. Resources provide a necessary, but not a sufficient condition in achieving universal elementary education.

It is clear from the above review of educational development programmes based on various short and long term social and economic objectives during the Five-Year Plans that, the educational system has not been able fully to gear itself to meeting the need of our growing economy. In spite of several achievements , as noted above , we can see that 56.9 per cent of the children between the age-group 11 to 14 years in 1988-89 and 23.5 per cent of children of the age-group 14 -17 years in 1984-85 went to school , which is certainly not a high figure for this age group . Thus the State has yet to go a long

way to achieve the goal of free and compulsory education for all children as set by the constitution.

The main barrier to a scheme of compulsory primary education in India is economic. At very early age the children / boys assist their family in earning small bits of money because people are poor and can not afford to pay for education of their children. Most of the boys and girls in spite of attending a school they work to supplement the income of their families. It is impossible for boy and girl to study on an empty stomach. An unhealthy or ill fed child who is made to attend school has to be paid the cost of medicines. Mid-day meal has to be assured for them. Children in the slum areas who have no clothes to wear, leave alone money books, have to be provided with school uniforms. Thus, a very large number of children join the ranks of the illiterate every year.

According to some economists literacy is the one of broad indicators of development. In 1951, 16.6 per cent of the population in India could read and write . The per centage go up to 29.4 per cent in 1971 and to 36.1 per cent in 1981 and to 52.2 per cent in 1991 and 65.4 per cent in 2001. Thus 34.6 per cent of India's population is still illiterate. Schooling was inadequate under British rule .Thus development of primary education was certainly an urgent necessity at the time of Independence. National Literacy Mission campaign had taken to fight illiteracy. But the condition had not improved a lot. Still the condition of primary schools in villages is bad. There are many schools running without any infrastructure and adequate number of teachers. If teachers are there, then at many places, still there is no provision of classrooms. Recently, Sarba Siksha Aviyam campaign has been taken to fight illiteracy. Let us see what it achieves in near future.

Although at higher level and professional education level India has made very significant progress by allowing private Entrepreneur to establish private Institutions, a large number of graduates and post graduates go with out suitable employment. Those who continue their education are not sure what sort of studies it would be best for them to engage in.

In spite of all progress in the field of education, Indian educations need a drastic reconstruction.

6.2.2 Expenditure on Medical and Public Health Services

Good health is essential for happiness and efficient work. Disease reduces efficiency and increases number of absentees from work. It is due to ill-health, earning capacity of the worker becomes lower which hinders the process of economic development. In a welfare state, it is the primary duty of the government to ensure adequate medical facilities to its people.

The main objective of the health and family planning programmes is to expand health services, to bring about progressive improvement in the health of the people, in general, and particularly, poor or low income people in the country whose low income can be supplemented in this way. A certain minimum physical well-being is to be ensured for - a) the lower-income group's earnings will be supplemented and, b) favourable conditions for greater efficiency and productivity will be created.

During the colonial period India's health situation was very poor. Mortality rate was among the highest in the world (27.4 in 1941-51) and major epidemics were very frequent. Medical services in the rural areas were totally inadequate and primitive. Infant mortality rate was very high. Expectation of life at birth was precariously low. The working capacity of the population was considerably reduced because of above factors.

It is seen from table 6.12 that the total expenditure on medical and health in money terms increased from Rs .28.22 crores in 1950-51 to Rs 24360.35 crores in 2000-01 showing an increase of 86223 per cent. In per capita computation, expenditure on medical and public health services in money terms was Rs. 241.91 as compared to only Rs. 0.78 in 1950-51 which registered an increased of 30914 per cent (310 times). However, in real terms total expenditure on medical and health increased from Rs. 408.39 crores in 1950-51 to Rs. 14675.79 crores in 2000-01 showing an increase of 3493.57 per cent only during the same period.

Table 6.12
Expenditure on Medical and Public Health at current & constant
Prices

Financial Year	At Current Prices		At 1993-94 Prices		Exp. on Medical & public Health as % of total developmental expenditure	Exp. on Medical & public Health as % of total govt. expenditure	Exp. on Medical & public Health as % of NI
	Total Expenditure on Medical & public health (Rs. in crores)	Per capita (Rs.)	Total Expenditure on Medical & public health (Rs. in crores)	Per capita (Rs.)			
1950-51	28.22	0.78	408.39	11.38	7.97	2.91	0.30
1955-56	48.45	1.23	782.71	19.92	6.44	3.50	0.49
1960-61	97.65	2.25	1234.51	28.45	7.90	3.12	0.64
1965-66	179.66	3.70	1636.25	33.74	7.80	2.78	0.75
1970-71	349.81	6.46	2429.24	44.90	9.88	2.09	0.89
1975-76	702.66	11.51	3193.91	52.62	8.58	3.78	1.01
1980-81	1617.66	23.82	4972.82	73.24	9.13	4.57	1.36
1985-86	3469.93	45.95	7196.03	95.31	9.02	4.54	1.56
1990-91	6563.81	78.23	8955.94	106.75	8.86	4.23	1.45
1995-96	12452.80	134.33	10416.40	112.37	9.84	4.24	1.32
2000-01	24360.35	241.91	14675.79	145.73	10.31	4.43	1.38

Source : Expenditure on Medical and Public Health

- (i) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.
- (ii) Data relating to 1950-51 to 1979-80 has been collected from Kumar, V (1986)
- (iii) Data of other columns have been computed on the basis of table 1, 2, 3, 5, & 9 of Appendix Table

In per capita terms the figure deteriorated further to 1180.58 per cent from Rs. 11.38 in 1950-51 to Rs. 145.73 in 2000-01. The expenditure on medical and public health as percentage of total social and developmental expenditure increased from 7.97 per cent in 1950-51 to 10.31 per cent in 2000-01. The expenditure on the services as a proportion of total govt. expenditure increased from 2.91 per cent in 1950-51 to 4.43 per cent in 2000-01. In 1950-51 only 0.35 per cent of national income was devoted to medical and public health services and this proportion increased to 1.38 per cent in 2000-01. Total expenditure as proportion of total developmental expenditure recorded an increase of 29.3 per cent during the period under study. During this period this expenditure as per cent of total govt. expenditure also shows an upward trend and increased by 52.20 per cent.

To build human capital, the public expenditure on both education and medical services play an important role. In improving the conditions of medical services in less developed countries , a large proportion of their NNP is required to be devoted to these services . According to the Constitution of India “the state

Table 6.13
Health expenditure in developed and less developed countries
in 1973

Countries	Health budget as % of National budget .	Health budget as % of GNP	Per capita Govt . exp. on health(US\$)
Burma	6.2	1.1	0.85
Malaysia	6.7.	2.5	7.18
Srilanka	8.1	3.6	3.76
Inadia	4.9	0.9	0.91
Iran	2.5	0.6	2.60
USSR	5.8	3.4	47.04
Japan	1.9	0.3	5.45
UK	9.5	4.3	105.16

Source: World Bank (1975), Health Sector Policy Paper (1974-75)

shall regard the raising of the level of nutrition and living of its people and the improvement of public health as among its primary duties ”. To give effect to this directive, health has been given priority . It should be noted in this connection that the developed countries are spending more on medical and health services than the less developed countries which actually need larger expenditure on this count.

In 1973, India devoted 5.8 per cent of its total public expenditure and 0.9 per cent of its GNP to medical and health services. In per capita terms the health expenditure of India was far less than that of Malaysia, SriLanka , Iran ,USSR , UK and Japan . This comparatively low Per capita expenditure is due to India's large population.

6.2.2.1 Critical Appraisal: The expenditure on medical and health services have resulted in vastly improved health facilities. To promote medical education 1069 medical colleges in 2000-01 as against 34 medical colleges in 1950-51 are functioning in the country. The establishments of new medical colleges have

raised the numbers of beds from 117000 in 1951 to 904000 in 2001 . The doctor-population ratio, which was 1: 5840 in 1951 improved to 1: 1749 in 2001. In rural areas, there was 20537 primary health centre in 1989, which were none existed before in 1951. The no. of beds in hospitals and dispensaries increased from

Table 6.14
Number of Hospitals , Beds , Doctors , Nurses and patients treated

Item	1951	1961	1971	1976	1981	1986	1991	1996	2001
Hospitals	2694	3054	3862	5025	6804	8067	11571	15097	17952
Dispensaries	6515	9406	9087	12274	16751	25193	27994	28225	22306
Beds(all type) in thousand	117	230	349	487	569	694	806	870	904
Doctors	61480	80084	148523		268707		393640		575647
Nurses	16550	35584	80620	113455	150396	207430	340208	565696	776355

Source:

- 1 .CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1972-73, December, 1974
2. CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1975-76, August, 1977
3. CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1978-79, July, 1980
4. Statistical Abstract, CSO, GOI, Department of Statistics, Ministry of Planning and Programme implementation, New Delhi . 1997 and 2002.

1.17 lakhs in 1951 to 5.69 lakhs in 1981 and further it improved to 9.04 lakhs in 2001 . There are 17,952 hospitals and 22,306 dispensaries in 2001 as against 2,694 hospitals and 6,515 dispensaries in 1951 . Malaria , TB , and Cholera which used to take a heavy toll of life have been controlled to varying degrees . No case of plague has been reported in the country since 1967. Small-pox which was a dreaded disease , has been eradicated in a large extent . Death rate which stood at 18 per thousand in 1951-60 came down to 8.5 per thousand in 2000 . As against it , the birth rate showed a slight decline . As a consequence of the family planning derived birth rate also registered a decline to 25.8 per thousand in 2000 in comparison to 40 per thousand in 1951-60. Consequently , the gape between high birth rate and falling death rate widen with a passage of time and this was reflected in a high survival rate . Life expectancy at birth has increased from 41.2 years in 1951-61 to 65.3 years in 2001 . On the basis of these observations we can conclude that increasing public expenditure on health and medical services has considerably improved the survival rate . In 1970 , infant mortality rate per 1,000 live birth was 127; it has been brought down to 67 in 2001 . Similarly, under-five infant mortality rate has been reduced 202 per 1,000 live births to 93 in 2001 . These are healthy developments. Likewise, maternal mortality rate per

1,00,000 live births have been brought down to 540 during 1985-2001. Control of diseases and improvement in hospital facilities has contributed to improvements in survival rate.

The increasing public expenditure on public health and medical services has also provided both preventive and curative medical facilities. In the field of public health, the centre and the state governments are making serious efforts at providing drinking water facilities in many urban and rural areas. But it can be said that despite increase in expenditure on public health, not enough is spent to cope with the present situation. In rural areas where major portion of the population lives, public health amenities are still hopelessly inadequate. Hospitals in cities are over crowded. About 40 to 50 per cent of our rural population goes without medical facilities.

Life expectancy at birth has shown a continuous improvement from 32.1 years in 1950-51 to 41.3 years in 1960-61, to 45.6 years in 1970-71, to 54.4 years in 1980-81, to 58.7 years in 1990-91 and further to 65.3 years in 2000-01 (Government of India, Economic Survey, 2002-2003) .One important factor depressing life expectancy was the high level of infant mortality. During the period under study, infant mortality has shown a significant decline from 180 per thousand live birth in 1950-51 to 129 per thousand live birth in 1970-71, to 110 per thousand live birth in 1980-81, to 80 per thousand live birth in 1990-91 and further to 63 per thousand live birth in 2003.(Dreze, and Sen, 1995). This is largely the result of an improvement of maternity services and large scale vaccination to control epidemics and improved hygiene and better care of the children. Therefore, India has to improve health facilities as well as nutrition levels so that it can reduce the probability at birth not surviving to the age 40 at the level of China (7.1 per cent) which is half that of India .Several medium human development countries (e.g. Philippines, Thailand, Malaysia and Srilanka) have much better survival rates. National Human Development Report (2001) also revealed that 47 per cent of the children under five years old were under weight in 2001. In absolute terms, 178 million children under five were under weight. Therefore, more is to be spend to support a programme of improving nutrition in poor families to reduce this massive number of underweight children.

In India, population not using improved water sources was 16 per cent in 2000. This is indeed a very healthy development, but in absolute terms 165 million persons are unable to make use of improved water sources and thus become victims of all kinds of water –borne diseases. Similarly, improved sanitation facilities were not available to 72 per cent of the population. In absolute terms, 740 million persons were living under unsanitary conditions. India's record in the sphere of sanitation is, to say the least, tragic. Even in medium human development countries, population using adequate sanitation facilities ranged from 70 per cent to 99 per cent, but the proportion in India is palpably low at 28 per cent in 2000. Therefore, India has a long way to go in this area of access to health services.

It is really distressing that 49 per cent of the Indian population did not have access to essential drugs in 1999. This implies that 527 million persons were without effective medical cover. This reduces the survival rate in India. The proportion of under-nourished people in India in 2000 was 24 per cent. This implies that 244 million people were under-nourished. This under-nourishment is primarily due to existence of poverty. This is a need to strengthen poverty eradication strategies to reduce under-nourishment.

The survival rate has considerably improved in India. In 1950-51, infant mortality rate per 1,000 live births was 180; it has been brought down to 110 in 1980-81, 80 in 1990-91 and 67 in 2001. (Dreze, and Sen, 1995). Similarly, under-five infant mortality rate has been reduced from 202 per 1,000 live births in 1970 to 93 in 2001. Likewise, maternal mortality rate per 1,00,000 live births have been brought down to 540 during 1985-2001. Control of diseases and improvement in hospital facilities has contributed to improvements in survival rates.

The above observation is true, but it is not the mal-allocation of resources that attributed to the inadequacy of medical and health services in India. It is the lack of funds that limits access to the modern medical care and, as a result, a large number of cases escape the attention of medical services. It is also a fact

that services in government hospitals are of a poor quality in terms of both treatment and lack of concern for patients. It has been emphasized by the World Bank Paper , more resources need to be devoted to staffing the lower levels of health services in areas with very few facilities or none at all . The services should focus primarily on improving environmental and public health, personal health practices and nutrition . The demand for curative care, however should not be over looked. Thus, a more economical balance should be struck between measure to treat disease and measure to control its incidence.

On the basis of above observations it is significant to remember that the amount of money available for medical and public health services is an important determinant of the quality and quantity of such services . The State Governments have allocated their limited resources among many competing and different kinds of public health programmes. Thus, the absolute amount of public expenditure available for health services is quite low. Therefore, it would be very unrealistic to expect that a sharp increase in funds for medical and public health services would improved the entire situation.

6.3 Developmental Expenditure: Economic Services

The modern welfare state has to participate in the economic development of a country in more than one way. For this purpose the modern welfare state has to create and maintain basic infrastructural facilities like transport and communications network, as also canal irrigation system and power generation and distribution. Govt. would have also to develop such industries which have failed to attract sufficient private investment. India is a very backward agricultural economy. Therefore, the state is to make intensive effort for the transformation of the traditional sector . The economic services which are offered by the government in an agrarian economy, can be categorized as follows –

1. Agriculture and allied services (including minor irrigation) ,
2. Industries and minerals ,
3. Water and power resources development ,
4. Transport and communications ,and
5. Other economic services.

Separate analysis of each of the above categories of economic services is attempted in the following pages.

6.3.1 Expenditure on Agriculture and Allied Services

The importance of agriculture in Indian economy can never be overstated. It is the back bone of the Indian economy. Despite industrialization in the last five decades, agriculture continues to occupy a place of pride. Its role in the economy can be viewed from four separate but interrelated angles. First, for achieving a high overall growth rate, agriculture needs to grow strongly both to meet the growing requirements of food and to supply the necessary raw materials for industries. A strong industrial growth rests on agricultural growth through both demand and supply routes. Second, agriculture continues to contribute a significant proportion of the national income, though this proportion has come down at the all-India level from 52 per cent in 1950s to 26.5 per cent currently. However, in the case of several states, the contribution of agriculture to the state domestic product is close to 40 per cent . Therefore, in any programme of

balance regional development, agriculture has an important role to play. In fact, a high growth rate in agriculture in the long run can be sustained only by broadening the regional base of agriculture. Third, being the largest industry in the country, agriculture provides employment to around 65 per cent of the total work force in the country. To absorb the growing labour force and to reduce the backlog of unemployed, a strong growth in agriculture becomes almost imperative. Four, several studies show that a major factor contributing to the reduction of poverty ratio is agricultural growth. Latest estimates show that the overall poverty ratio in 1993-94 was 36 per cent with the rural ratio at 37.3 per cent and the urban ratio at 32.4 per cent. The number of poor people in rural areas was 244 million and 76.3 million in urban areas. A significant dent in the rural poverty ratio can be made only by a strong growth in rural incomes which can come only through a strong growth in agriculture. Expenditure on agriculture and allied service includes not only expenditure on agriculture but also those incurred on services like veterinary / animal husbandry , cooperation ; rural development , community development , and even forestry.

It is seen from the table 6.15 that the expenditure on agriculture and allied services in money terms increased from Rs. 32.78 crores in 1950-51 to Rs. 35140.39 crores in 2000-01 , showing an increase of 107100.70 per cent (1072 times) . The per capita expenditure on agriculture and allied services in money terms increased from Rs 0.91 in 1950-51 to Rs. 348.96 in 2000-01 an increase of 38247.25 per cent i.e. 384 times only during the period. These figures are no more impressive if they are converted into real terms. In real terms total expenditure in agriculture & allied services increased by only 4362.6 per cent and the figures depreciated further if we convert it in terms of per head of the population. In per capita terms it registered a percentage increased of 1491.44 only during the period. The proportion of total social and developmental expenditure devoted to agriculture and allied services went up from 9.26 percent in 1950-51 to 14.88 percent in 2000-01. In 2000-01, 6.40 percent of total government expenditure was devoted to agricultural and allied services. Where as it was only 3.38 percent of total government expenditure in 1950-51. The expenditure on agriculture and allied services as percentage of national

Table 6.15**Expenditure on Agriculture and Allied services of Centre, States and Union Territories: At Current Prices & Constant prices**

(Rs. in crores)

Financial Year	At Current Prices		At Constant Prices		Exp. on Agri. & allied Services as % of total developmental exp.	Exp. on Agri. & allied Services as % of total govt. exp.	Exp. on Agri. & allied Services as % of NI
	Exp. on Agri. & allied Services (Rs. in crores)	Per Capita	Exp. on Agri. & allied Services (Rs. in crores)	Per Capita			
1950-51	32.78	0.91	474.39	13.21	9.26	3.38	0.35
1955-56	78.39	1.99	1266.40	32.22	10.42	5.66	0.80
1960-61	142.69	3.28	1803.92	41.57	11.55	4.57	0.93
1965-66	274.69	5.66	2501.73	51.58	11.93	4.26	1.15
1970-71	347.72	6.42	2414.72	44.63	09.83	2.07	0.89
1975-76	1484.42	24.45	6747.36	111.16	18.14	8.00	2.15
1980-81	2796.40	41.18	8596.37	126.60	15.78	7.90	2.36
1985-86	5422.15	71.81	11244.61	148.94	14.10	7.09	2.45
1990-91	11714.34	139.62	15983.54	190.51	15.83	7.55	2.60
1995-96	21635.85	233.39	18097.74	195.23	17.10	7.38	2.30
2000-01	35140.39	348.96	21170.18	210.23	14.88	6.40	1.99

Source: For total expenditure on Agriculture at current prices

- (i) Indian Economic Statistics, Public Finance, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division
- (ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.
- (iii) Data relating to 1950-51 to 1979-80 has been collected from Kumar, V (1986)

Figures of other column are computed on the basis of the data given in Table 1, 2, 3, 5 and 9 of Appendix

income increased by 468.57 per cent from 0.35 per cent in 1950-51 to 1.99 per cent of NI in 2000-01 . The first five-year plan accorded top priority to agriculture. And the second and the third plans also emphasized the need for agricultural development and hence allocated increasing amounts of outlay to agriculture and allied services.

6.3.1.1 Critical Appraisal:**Contribution of Agriculture Sector to the National Income:**

The table 6.16 provided by the Central Statistical Organisation reveal that between 1950-51 to 1960-61, the share of agriculture in GDP has been in the range of 55 to 52 per cent , though it was declining , but with the process of

industrialization and economic growth gathered momentum , the share of agriculture indicated a sharp decline and reached a level of 26 per cent in 2000-01 . On the basis of the above observation we can conclude that -

Table 6.16
Share of Agricultural Sector in Total Gross Domestic Product at Factor cost (At 1993-94 Prices)

(Rs. in crores)			
Year	GDP at Factor Cost	Agriculture	% share of agriculture to the GDP at Factor Cost
1950-51	1,40,470	83,150	55.4
1970-71	2,96,280	1,42,580	44.5
1990-91	6,92,870	2,42,010	30.9
2000-01	11,93,920	3,16,690	26.5

Source: Economic Survey 2000-01

- a) agriculture continues to contribute even now a major share of national income;
- b) the share of agriculture in national income, has been decreasing continuously and the shares of manufacturing and service sectors are increasing. In a rapidly developing country, this trend is quite natural.

Table 6.17
Contribution of Agriculture to Employment
(in million)

	1951	2001
Total population	361	1027
Rural Population	299(8.3)	742(72)
Cultivators	70(50)	128(32)
Agricultural Labourers	27(20)	107(27)
Other Workers	43(30)	167(41)
Total working population	140(100)	402(100)

NOTE : Figures in brackets are per centage to the total main works .

Source : Agricultural Statistics at a Glance (2002)

From the table 6.17, it is seen that , whereas in 1951 , about 70 per cent of the total main workers were engaged in agriculture and allied activities , during 2001 , the share of agriculture in total employment decline to 59 per cent . In absolute terms, agriculture provided employment to 97 million persons in 1995 , the number of people working on land (cultivators and agricultural labourers)

increased to 235 million . In terms of percentage however, people working on land came down from 70 to 59. It is really disturbing that the proportion of landless agricultural labourers has increased from 20 to 27 percent between 1951 and 2001 but that of cultivators have indicated a decline from 50 per cent to 32 per cent.

In this context, it should be pointed out that in the United Kingdom and United States, only 2 to 3 per cent of the working population is engaged in agriculture. In France, the proportion is about 7 per cent; and in Australia, this is about 6 per cent. It is only in backward and less developed countries that the working population engaged in agriculture is quite high . For instance, it is 35 per cent in Egypt, 59 per cent in Bangladesh, 50 per cent in Indonesia and 68 per cent in China in 1997, according to the FAO production Year-Book (1997).

Table 6.18
Growth in Area of Principal Crops Since 1949-50 to 2000-01

Item	In million hectares			Annual rate of growth	
	1949-50	1964-65	2001-02	1949-50 to 1964-65	1964-65 to 2001-02
1. All foodgrains	99	118	122	1.4	0.1
of which					
Rice	30	36	45	1.3	0.6
Wheat	10	13	27	1.7	2.0
Coarsecereals	39	44	28	0.9	-1.1
Pulses	20	24	18.14	1.2	-0.5
2. All Non- foodgrains					
of which	23	33	38	2.5	0.3
Oil seeds					
Sugarcane	10	15	23	2.6	1.1
Cotton	1.5	2.6	4.4	2.5	1.4
Patato	4.9	8.4	9.1	3.3	0.1
	0.2	0.4	1.2	4.4	3.5
3. All Crops	122	151	160	1.6	0.1

Source : Economic Survey, Ministry of Finance, 2002-03 .

The table 6.18 shows a broad growth trends in the area under cultivation. During the pre-green revolution period (1949-50 to 1964-65) , additional lands were brought under plough and there was extension of irrigation facilities to barren lands . The annual rate of growth in area under crops during this (1950-

65) period was impressive. For all crops it was 1.6 per cent, for foodgrains it was 1.4 per cent and non-foodgrains it was 2.5 per cent . The above table also reveals that the extension of cultivable area before 1964-65 was experienced by all crops , cultivation was extended to marginal and fallow lands and in many cases , even to waste lands and forest lands . Potato cultivation recorded the highest area-growth in this period (4.4 % per year). Among food crops, area under wheat had recorded annual growth rate of 1.7 per cent.

On the other hand during post-green revolution period (1965 to 2002) , the annual area growth rate was extremely low : For all crops it was 0.1 per cent , for foodgrains it was 0.1 per cent and for non-foodgrains it was only 0.3 per cent . During this period (1965-2002) the increase in area under rice was only by 22 per cent while the area under wheat rose by 92 per cent. As a result, the annual rate of growth of area under rice was a mere 0.6 per cent, while it was 2.0 per cent for wheat. The extension of area under wheat was due to the introduction of bio-chemical technology, but it was at the expense of coarse cereals and pulses. There has been a shift in cropping pattern between the two periods. The share of wheat in total cropped area had gone up from 8.5 per cent to 14 per cent; and the share of wheat in irrigated area had gone up from 15 per cent to 38 per cent (C .H . Hanumantha Rao, et al .Unstable Agriculture and Droughts, p. 44). Under non-food grains, potatoes recorded spectacular progress (200 per cent during the period 1964-65 to 2001-02 and annual rate of growth was 3.5 per cent.

With the introduction of planning in 1950-51 , and with the extension of irrigation and application of intensive methods of cultivation , and after introduction of modern agricultural practices including the adoption of hybrid seeds , there has a steady and continuous increase in yield per hectare of all crops . The table 6.19 illustrates the yield growth rate in India since 1949-50 .During the pre-green revolution period, rice recorded the most impressive growth rate in yield – from 7.1 quintals per hectare in 1949-50 to nearly 11 quintals by 1964-65 at the annual rate of growth of 2.1 per cent . The yield growth rate of wheat during this period was (1.3 per cent per year) modest as compared to rice .Among non-foodgrains cotton and sugarcane recorded modest growth rates during the period.

Table 6.19
Growth in Yield of principal crops since 1949-50 to 2001-02

Item	Yield per hectare			Annual rate of growth	
	1949-50	1964-65	2000-01	1949-50 to 1964-65	1964-65 to 2001-02
1. All foodgrains of which				1.4	2.4
Rice (Quintals)	7.1	10.8	20.9	2.1	1.8
Whea(Quintals)	6.6	9.1	27.7	1.3	3.2
Coarsecereals(Quintals)	4.3	5.1	10.8	1.3	2.2
Pulses(Quintals)	4.0	5.2	6.1	0.2	0.1
2. All Non- foodgrains of which				0.9	1.6
Oil seeds (Quintals)	5.2	5.6	8.6	0.1	1.2
Sugarcane (T0nes)	34	47	67	1.0	1.2
Cotton (Kgs)	95	122	189	2.0	1.5
Patato (Quintals)	66	84	180	1.6	3.1

Source : Economic Survey, Ministry of Finance, 2001-02 .

During 1964-65 to 2000-01, i.e. post green-revolution period however, the most spectacular growth rate was recorded by wheat (3.2 per cent per year) , potato too recorded an impressive growth rate of 3.1 per cent per year . Per hectare yield of wheat in 2000-01 was 27.7 quintals as compared to only 20.9 quintals in the case of rice. Rice registered a steady annual growth rate of 1.8 per cent per year during the period. The productivity of coarse cereals rose by 2.2 per cent per year. On the other hand, pulses recorded a growth rate of 0.1 per cent per year and oilseeds, a mere 1.2 per cent per year. This shows that the new biochemical technology was very much suitable for wheat production compared to other crops.

The total production of agricultural product since 1950 to 2002 reflects the combined of area and yield per hectare. During 1949-50 to 1964-65, food grain production had increased at an impressive annual rate of 3.2 per cent as shown in table 6.20 The major cereals, viz., rice and wheat recorded high rate of growth (3.5 and 4 per cent respectively) ,but coarse cereals and pulses recorded relatively lower growth rates . The output of non-foodgrains (3.5 per cent per

year) was also impressive. This growth rate in agricultural production was due partly to area growth rate and partly to yield growth rate, in this period.

Table 6.20
Growth in Production of Pricipal Crops since 1950 to 2002

(All crops in million tonnes except cotton which is in million bales of 175 kg)

Item	Production			Annual rate of growth	
	1949-50	1964-65	2000-01	1949-50 to 1964-65	1964-65 to 2001-02
1.All foodgrains	55	89	212	3.2	2.2
of which					
Rice	24	39	83	3.5	2.2
Wheat	6	12	72	4.0	5.0
Coarse cereals	17	25	44	2.2	0.6
Pulses	8	12	13	1.4	-0.2
2. All Non-foodgrains					
of which					
Oil seeds	5	9	20	3.3	1.9
Sugarcane	50	122	300	4.3	2.5
Cotton	3	6	10	4.6	1.4
Patato	2	4	22	4.3	4.9

Source : Economic Survey (2002-2003)

After, 1964-65, the Government introduced biochemical technology with the hope of improving agricultural productivity and through it, improves agricultural production. But the new technology did not really bring about a break-through in agricultural production as it is clear from the table 6.20 , barring the production of wheat and potatoes (at an annual growth rate of around 5 per cent) ; the annual rate of growth in output has been low in almost all crops . The rate of increase in the case of coarse cereals and pluses has been marginal.

On the basis of above observation we can draw certain important conclusions:

1. While area expansion contributed significantly to pre-green revolution growth , grains in agriculture productivity was a major factor for realizing output growth in the post -1965 period .

2. Except for wheat , output growth rate could not be maintained despite the adoption of modern agricultural technology .
3. Although in rice , the productivity picked up a little later , but the extension of area under High yielding varieties did not help to boost production of rice after 1980-91.
4. The growth rate in foodgrains was , however , maintained at a level of 2.2 per cent per year mainly because of the high growth rate of 5.0 per cent in wheat .
5. With the introduction of modern technology to areas of assured rainfall or with good irrigation facilities, oilseeds, coarse foodgrains and pulses have been pushed inferior lands . Hence, these crops have not registered much increase in yield or in total production.
6. Even though there has been substantial growth in agricultural production , this has not been smooth ; there has been continuous fluctuations in crop output from year to year .

It will be now useful to make a comparison of yield per hectare in some selected crops in India with that in other countries of the world so as to show how much India lags behind or ahead of other countries of the world.

It is clear from the table 6.21 that against the actual yield of 29.3 quintals , per hectare in rice , India has the potential to produce between 40 to 58 quintals of rice per hectare . In the case of wheat, India can produce up to 60 to 68 quintals, but the average yield is around 26 quintals per hectare. Even if we assume that India could register the minimum of the potential yield, total output of rice in India would be 168 million tonnes per year. But actual production of rice between 1995-96 and 2000-01 ranged between 76.97 and 87.69 million tonnes . Likewise, the total output of wheat in India would be 156 million tones (26 million hectare X 609 quintals) however, the actual production of wheat ranged between 62.09 and 69.68 million tonnes between 1995-96 and 2000-01 . It would thus be clear that if India could achieve the minimum of potential yield of only these two cereals, total production would be around 324 million tonnes. The gap between the actual yield and potential yield in all our crops and the gap between

the average yield in India and the average yield in many other countries of the world --- these pose a challenge and an opportunity for India .

Table 6.21
Actual Yield per hectare in quintals during 1999

	Potential of high-yielding Indian varieties	Actual yield in India	Actual yield of the world's largest producer	Country	World's highest yield	Country
Quintal / hectare						
Food Crops						
Rice (Paddy)	40 to 58	29.3	63.2	China	88.8	Egypt
Wheat	60 to 68	25.8	39.7	China	80.5	UK
Maize	60 to 68	16.7	83.9	USA	96.9	Italy
Non-food crops						
Sugarcane	-	680	686	Brazil	1,190	Egypt
Groundnut(pods)	20 to 30	9.1	27.9	China	30.4	USA
Cotton(Lint)	15 to 20	2.3	10.2	China	12.7	Australia
Jute	25 to 30	20.0	20.0	India	25.2	China

Source : FAO Production Year Book (1999); Agricultural Statistics at a Glance,(2002)

It should be pointed out in this connection that some agricultural economist have expressed their doubts about the possibility of India ever reaching the levels of yield attained in cold countries in respect of wheat ; there is no doubt that some scope of increasing yield exists , but to hope that it can be raised to 3 to 5 times is not feasible due to the fact that the semi-dwarf HYV varieties of wheat in India have a duration of 140 days , while in the cold countries long duration of wheat crop of 10 months duration helps to obtain higher yield .

Table 6.22 shows the per capita availability of cereals and pulses which indicates an over-all improvement in per capita availability of food grains from about 394.9 grams per day to 495.4 grams per day in 1995 and 414.1 grams per day in 2001. The per capita availability of cereals increased from 334.2 grams to 385.1 grams. This indicates nearly 15.23 per cent increase in per capita availability during the 50-year period. But in case of pulses, the per capita availability declined from 60.7 grams per day to 29.1 grams between 1951 and 2001. This indicates a declined of about 52.05 per cent in per capita availability of

pulses. Therefore, while moving towards foodgrains security, India has succeeded in terms of cereals, but has miserably failed to increase the production of pulses consistent with the needs of a growing population.

Table 6.22
Per Capita Availability of Food gains

(Grams Per day)

Year	Cereals	Pulses	Total
1951	334.2	60.7	394.9
1955	372.9	71.1	444.0
1961	384.1	65.5	449.6
1965	418.5	61.6	480.1
1971	403.1	51.9	455.0
1975	365.83	39.7	405.5
1981	379.5	30.9	410.4
1985	415.6	38.4	454.0
1991	435.3	41.1	476.4
1995	457.6	37.8	495.4
2001	385.1	29.1	414.1

Source: Economic Survey 2003-04.

A new strategy of agricultural development was introduced in 1966-67. This new strategy popularly known as "Green Revolution" includes the high yielding varieties of seeds over large areas, development of irrigation facilities, adequate and balanced use of chemical fertilizers as well as pesticides, adoption of need-based plant protection measures and a well-organized and systematic supportive input supply like credit through institutional and other financial agencies. Furthermore, efforts have been made to bring science and technology closer to the farmers through education and training and strengthening the extension set up. Special emphasis was being laid on programmes for the upliftment of the weaker sections of the rural population, particularly the small and marginal farmers in drought-prone areas as well as tribal and hill areas, etc.

But this new agricultural strategy has not been very successful in increasing the over all agricultural production. It brings about dramatic change in the pattern of production in a few selected areas. The majority of Indian farmers are still using traditional inputs, like wooden ploughs inferior quality of seeds, insufficient quantity of fertilizer, etc. The most disheartening feature of the Green Revolution has been the fact that its impact has been limited to a few food grains

leaving the major crops outside its purview. The effects of Green Revolution have been the most spectacular in the case of wheat as it is seen from the table 6.20. The production of wheat which was 6.83 million tonnes in 1950-51, rose to about 36.31 million tonnes in 1980-81 showing an increase of 431.62 per cent.

But the impact of this 'new technology' has been much less dramatic for rice than it has been for wheat. Rice production increased from 20.07 million tonnes in 1950-51 to 53.63 million tonnes in 1980-81 signifying an increase of 167.21 per cent during the same period. Therefore, although the performance of the new technology has been impressive in respect of wheat which accounts for only 12 per cent of the country's agricultural production, it has not been so in the case of rice, which accounts for 34 per cent of India's agricultural production (the biggest crop of India).

In addition to the limited effect on production, the Green Revolution has been instrumental in fostering regional imbalances within the economy. This 'new technology' was initially confined to a few selected areas having assured water supply, these regions have been able to reap the benefits of the technology. The rise in food production, has been taken place in Punjab, Haryana, Western U.P and in some selected districts of M.P, A.P and Tamil Nadu because of well endow with resources and benefited most from the use of modern technology. A recent study based on 19 major crops during 1962-63 and 1972-73 has revealed that rapid agricultural growth is confined to only 17 per cent of the districts in India. Of be 282 districts only 48 (accounting for just 19 per cent of area), recorded a growth rate exceeding 4.5 per cent; another 102 districts had a growth rate between 1.5 per cent and 4.8 per cent and 62 districts between nil and 1.5 per cent. In addition to the above, there were 70 districts amounting to 27 per cent of area, that recorded negative rates of growth it was found that 69 highly productive districts of India accounted for only 20 per of the national agricultural out put. With only 20 per cent of area, they consume 44 per cent of fertilizers, use 50 per cent of the tractors and accounted for 38 per cent of total gross irrigated area. On the basis of above observation we can conclude that a few developed regions swallow most of the resources invested by the government in the agricultural sector, leaving little for the poor regions. As a

result, large part of the country depends for its food supply on a few districts. Thus the 'new technology' has failed to show the initially visualized "spread effect" and has only created highly developed areas surrounded by area with low development and poverty .

Apart from accentuating regional disparities the 'new technology' creates disparities in income distribution. The new agricultural strategy consisting of Intensive Agricultural District Programme (I A D P), and High-Yielding Varieties Programme (HYVP) necessitated heavy investment in seeds, fertilizers, pesticides and water. These heavy investment are beyond the capacity of small and medium farmers. In India, there are about 81 million farm households, but only 6 per cent of the big farmers account for 40 per cent of the land; they alone are making heavy investment in the installation of tube wells, pumping sets, fertilizers and agricultural machineries required for the purpose. On the other hand the small and marginal farmers with low creditworthiness were unable to approach financial institutions for crop loan, which prevent them from adopting the technologies consequently, the new agricultural strategy has helped the growth of the capitalist farming in India and has led to concentration of wealth in the hands of the top 10 per cent of the rural population while major portion still uses outmoded techniques resulting in low productivity per hectare.

Lastly, the high yielding varieties of seeds are prone to diseases, and cultivation of such varieties involves a considerable amount of risk which the small farmer is unable to undertake because of low resource position. Hence, Green Revolution has only served to improve the position of the already better off section of the farmer community.

In spite of the above shortcomings of the new technologies , there is no other way than to embrace the new technology to achieve improved agricultural productivity . To make the new technologies more productive, irrigation should be made more widespread so that the backward areas can avail themselves of the new technology, At the same time efforts should be made to direct scientific research towards the development of HYVs in those crops which have so far been left out-side the purview of the new technology; Research has

also to be initiated towards the disease-resistant and acclimatized seeds. On the other hand, to alleviate income disparities accentuated by the green revolution, apart from institutional reforms, adequate efforts have to be made by all concerned to strengthen the resource base of the farmers; provision of package credit in kind in the form of HYV seeds, pesticides and fertilizers can be provided to small and marginal farmers on a crop insurance basis. Lastly, the use of farm-yard and organic manures should be popularized to cut down fertilizer cost.

6.3.2 Expenditure on Water & Power Development

Agriculture holds the key to the success of India's effort at marching rapidly forward towards a sound economic base. One of the major impediments in the way of full exploitation of intensive agriculture is lack of assured and dependable water supply throughout the year. Over 80 per cent of the country's cropped area is dependent exclusively on rainfall. In about most of the cropped area, the rain fall is low and undependable to permit intensive cultivation even during the main crop season. Irrigation and power are very important for intensive cultivation. Water generates hydel power and the same electricity can be utilised for lifting water for the purpose of further expansion of irrigation. Irrigation can lead to multiple cropping, shift to superior, high-yielding and commercial crops which, in turn, will improve income, standard of living and employment.

Table 6.23
Expenditure on water and power development at current prices

Financial Year	At Current Prices		At 1993-94 Prices		Total exp. on water & power dev. as % of total developmental exp.	Total exp. on water & power dev. as % of total govt. exp.	Total exp. on water & power dev. as % of NI
	Total exp. on water & power dev. (Rs. in crores)	Per Capita (Rs.)	Total exp. on water & power dev. (Rs. in crores)	Per Capita (Rs.)			
1950-51	71.44	1.98	1033.86	28.80	20.19	7.38	0.78
1955-56	133.32	3.39	2153.80	54.80	17.73	9.63	1.36
1960-61	166.44	3.83	2104.17	48.48	13.47	5.33	1.09
1965-66	286.75	5.91	2611.57	53.85	12.45	4.45	1.20
1970-71	418.16	7.72	2903.89	53.68	11.82	2.49	1.07
1975-76	845.69	13.93	3844.05	63.33	10.33	4.55	1.22
1980-81	2290.77	33.73	7042.02	103.71	12.93	6.47	1.93
1985-86	4166.86	55.19	8641.35	114.45	10.83	5.45	1.88
1090-91	5346.26	63.72	7294.66	86.94	7.22	3.44	1.18
1995-96	9969.53	107.54	8339.21	89.96	7.87	3.40	1.05
2000-01	18838.95	187.07	11349.45	112.71	7.97	3.43	1.06

Source: For total expenditure on Water & Power Development at current prices

- (i) Indian Economic Statistics, Public Finance, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division
- (ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.
- (iii) Data relating to 1950-51 to 1979-80 has been collected from Kumar, V (1986)

Figures of other column are computed on the basis of the data given in Table 1, 2, 3, 5 and 9 of Statistical Appendix

The total expenditure in money terms on water and power development increased by about 26270 per cent during the period 1950-51 to 2000-01 and in real terms it registered a percentage increase of 997.77 per cent only during the same period. On the other hand the per capita expenditure on water and power development recorded a per cent increase of 9348.00 current prices however, at constant prices (1993-94) the same has registered a percentage increase of only 291.35 during the same period.

The proportion of total developmental expenditure devoted to water and power development decline by 60.52 per cent. The expenditure on water and power development as per cent of total government expenditure also show a declining tendency during the period . It registered a declined by 53.52 per cent. But the proportion of national income devoted to water & power development increased by 35.89 per cent during the period under review.

6.3.2.1 Critical Appraisal: India's national development plan accord a high priority on irrigation owing to the vagaries of monsoon. In areas where rain fall is plentiful and well distributed over the year, there is no problem of water. But rain fall in certain areas is very scanty as well as uncertain. In these areas, artificial irrigation is absolutely essential, for without it cultivation is almost impossible. In certain regions, rain fall may be abundant but it may be concentrated in a short period of the year, the rest of the year being dry. As a result cultivation may not be possible for whole year. In these regions, provision of irrigation will facilitates growing of more than one crop in the year. During the 50 years since independence, the govt. had spent about Rs. 231,400 crores (at 1996-97 prices) on major, medium and minor irrigation works. As a result, the country's irrigation potential has increased from 22.6 million hectares in pre-plan period (1950-51) to 89 million hectares at the end of 1996-97. With this, India has the largest irrigated area among all countries in the world. This has greatly contributed to the increase in food grains production from 51 million tonnes in 1950-51 to 203 million tonnes in 2001-02. The gross and net irrigated area in India is shown in the following table 6.24.

Table 6.24
Gross and net irrigated area in India

(Million hectare)

Year	Net Irrigated Area	Gross Irrigated Area	Total Cropped Area	Gross irrigated area as % of sown area
1950-51	21	23	133	17
1970-71	31	38	166	23
1990-91	48	62	186	34
1999-2000	57	76	193	39

Source: Agricultural Statistics at a Glance (2002)

The table 6.24 shows that as a consequence of irrigation, about 17 per cent of the cropped area was irrigated in 1950-51 ; this has increased to 39 per cent in 1999-2000, Further , there has been a gradual improvement in area irrigated more than once .In 1950-51 , area irrigated more than once was 1.7 million hectares or 8.1 per cent of net irrigated area ; in 1998-99 , this has increased to 18.6 million hectares or 33 per cent of net irrigated area (Datta and Sundharam, 2003) . Area irrigated more than once is a kind of land augmentation and is, therefore , very crucial in raising agricultural output . It is clear from the above that the progress of irrigation has been quite slow despite the enormous importance given to it during the five-year plans.

By impounding a river's water so as to release it at a controlled rate , a dam acts as a buffer against floods . The so called multi-purpose river valley projects have been constructed to prevent floods in their respective regions. The National Flood Control Programme launched in 1954 has constructed many embankments, drainage channels and town and village protection Schemes. In practice , flood control measures have failed miserably and over the years ,the area affected by floods and the damage to crops, cattle and to human beings has increased sharply despite the multi purpose projects, It is thus clear that the progress of irrigation has been quite slow, despite the enormous importance given to it during the plan period .

Power development was initiated in India as early as 1900 with the commissioning of the hydro-electric power station at Shivasamudram in Karnataka. In spite of this early beginning, the progress was not impressive till 1947. The installed capacity was low as 19 lakhs kws and the development was mainly concentrated around urban centers.

During the Second Plan , emphasis was on the development of basic and heavy industries , and related need to step up power generation . The installed capacity at the end of Second Plan reached 47 lakh kws mark (table 6.25).

Table 6.25
Electricity-Installed Capacity , Generation and Percapita
Consumption (Utility only)

(Installed capacity: Million kws)

(Generation : Crore kwhs)

(Percapita consumption :kwh)

Financial Year	Installed capacity	Generation	Percapita consumption
1950-51	2.3	657.5	17.3
1955-56	3.4	1077.7	23.0
1960-61	4.6	1693.7	37.9
1965-66	10.2	3682.5	61.3
1970-71	14.7	5582.8	89.8
1975-76	22.2	8592.6	109.9
1980-81	30.2	11084.4	132.3
1985-86	-	-	-
1990-91	74.7	26432.9	252.8
1995-96	83.3	37987.7	336.4
1999-00	97.9	48105.5	364.5
2000-01	121.0	-	-

Source: 1. CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1972-73, December, 1974

2. . CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1975-76, August, 1977

3. . CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1978-79, July, 1980

4. Statistical Abstract, , CSO, GOI, Department of Statistics, Ministry of Planning and Programme implementation, New Delhi , 1997 and 2002 .

The emphasis in the Third Plan was on extending power supply to the rural areas. To realize this goal th country was divided into five regions to

promote power development on a regional basis (i.e. Power Grid System) and further a Regional Electricity Board was established in each region . The three Annual Plan that follow the Third Plan aimed at consolidating the programmes initiated during the Third Plan. As a result total installed capacity in 1970-71 stood at 147 lakh kws.

The Fourth Plan envisaged the need for central participation in the expansion of power generation programmes at strategic locations. During the Fifth Plan , the main emphasis was on the speeding up the construction and commissioning of power generation projects and improving the utilization of the available capacities . During this period , Power stations with a total installed capacity of 77.2 lakh kws were commissioned from April 1974 to March 1978 as a result of which total installed capacity in the country reached at about 302 lakh kws in 1980-81.

Power generation programmes , however , made phenomenal progress with the advent of the Five Year Plans . During the First Plan construction of a number of major river valley projects was taken up and these projects resulted in the stepping up of food production and also power generation. At the end of First Plan the generation capacity stood at 34 lakh kws .

During 1998-99 , the Govt. of India announced a policy on Hydro-Power Development with a view to exploiting the vast hydropower potential available in the country at a faster rate . Action has been initiated to add nearly 4,100 MW hydel capacities by 2004-05.

Thermal power which is generated by coal and oil has always been the major source of electric power in India. In absolute terms installed capacity of thermal power had increased from 1,150 MW in 1950-51 to 73,600 MW in 2000-01 ; but in relative terms the share of thermal power had increased from 67 per cent to 73 per cent during this period .

Table 6.26
Power Generation and Achievements

(in MW)

Item	Addition to the installed capacity		Percentage shortfall
	Target	Achievement	
First Plan	1,300	1,100	15
Second Plan	3,500	2,300	36
Third Plan	7,000	4,500	36
Fourth Plan	9,300	4,600	50
Sixth Plan	19,670	14,230	28
Seventh Plan	22,250	21,500	4
Eighth Plan	30,540	16,420	46
Ninth Plan	40,250	19,015	53

Source : Various Five Year Plans

The table 6.26 shows that the targets of power generation were not reached in any of the plans completed so far. In every Five Year Plan there was a shortfall in achievements – 15 per cent in the 1st plan and as much as 50 per cent in the 4th Plan and 53 per cent in the 9th Plan. The cumulative result of slackness in this basic area of planning is that power crisis threatens to choke the growth process of Indian economy. In fact, it seriously damaged the targets of the Fourth and Fifth Plans. Accordingly, the Sixth Plan (1980-85) put maximum emphasis on power generation; even then, there was a shortfall of 28 per cent in the power generation targets.

In the Seventh Plan period, the generation capacity added was about 21,500 MW, as against the targeted figure of 22,250 MW. The shortfall of 4 per cent during the Seventh Plan period was the lowest.

The Working Group on Power of the Planning Commission had initially estimated that, even to maintain the then current level of shortages in power sector – around 20 per cent of demand shortage- the existing capacities would have to be increased by at least 48000 MW during the Eighth Plan . This was latter scaled down to 30,560 MW owing to lack of funds. The actual capacity addition in Eighth Plan was only around 16,420 MW. The main reason for this huge shortfall was the govt. withdrawal of budgetary support for power projects in the expectation that Independent Power Producers (IPP) would come up with the necessary investments.

The Working Group envisaged a capacity addition of 46,820 MW during the Ninth plan (1997-02). However, considering the status of on going projects and other sanctioned ones, the Planning Commission targeted a capacity addition of only 40,250 MW in Central, State and private sector. The whole exercise was indeed farcical.

During the Tenth Plan the Working Group initially estimated a feasible capacity addition of about 46,940 MW. The government has proposed to enhance public funding for the power sector and also encourage public sector undertaking to take up power projects in joint ventures with private Investors and State Governments.

With the setting up of the Rural Electrification Corporation (REC) in 1969 , electrification of villages , and energisation of agricultural pump-sets have considerably increased as shown in the following table 6.27. In 1950-51, only 3 thousand villages were electrified. This number goes up to 250 thousand in

Table 6.27
Progress of Rural Electrification

Year	Number of villages electrified (in thousand)	Number of pumpsets energized (in millions)	Percentage of total villages electrified
1950-51	3	0.02	--
1960-61	22	0.19	--
1979-80	250	4	--
1984-85	370	6	--
2001-02	507	12	--
According to 1981 census	497.745	--	85.9
According to 1991 census	508.035	--	86.76

Source: (i) Statistical Abstract- 1997 & 2002 ,
(ii) Planning Commission, Tenth Five-Year Plan, (2002-07), Vol. II
(iii) Census Report- 1981 & 1991

1979-80 and 307 thousand in 1984-85 and 507 thousand in 2001-02. As per 1981 census, out of total 579132 villages, 497745 villages, constituting 85.9 per cent were electrified. The report of 1991 census revealed that out of total 587258 villages in India 508035 villages, constituting 86.76 per cent were electrified.

In early stages, emphasis was on village electrification. However, the serious famines of mid sixties focused attention on the need to stabilize agriculture through exploitation of ground water resources. For this purpose, the energisation of pump sets was considered important and hence the emphasis shifted from village electrification to energisation of pump sets. The number of pump sets energised in 1950-51 was only 0.02 million whereas in 2001-02 it increased to 12 millions.

According to the Tenth Five-Year Plan (2002-2007), around 80,000 villages in the country are yet to be electrified. 13 States have declared 100 per cent electrification of their villages.

Power development during the last 50 years has been significant. However, there has been chronic power shortage for the last 50 years. The commissioning of new capacity has considerably fallen short of targets. Power cuts and load-shedding have been frequent and have had adverse effect on production and employment. Power cuts have also been due to sub-optimal performance of considerable number of thermal units. The installed turbines and other vital plant parts have often shown a tendency towards breakdown due to manufacturing deficiencies or insufficient handling. The chronic power shortfall

Table 6.28
Gross Irrigated Area in India

(in million hectares)

Year	Gross Irrigated Area	Total cropped area	Gross Irrigated Area as % of sown area
1950-51	23	133	17
1970-71	38	166	23
1990-91	62	186	34
1999-2000	76	193	39

Source : Agricultural Statistics at a Glance (2002)

calls for urgent remedial action. Furthermore, equally important is the better utilization of the irrigation and power facilities already created. So far we have failed hopelessly in getting the maximum benefit out of our investment in irrigation and power development, because irrigated land has not been contributed its maximum to agricultural output. The above table no.6 shows a very painful picture that , even after more than 50 years of independence only 39 per cent of the sown area was irrigated in 1999-2000 . Theoretically, irrigation should make double cropping possible, if not multiple cropping. But the bulk of the irrigated area in India still continues to be single crop area. In 1950-51, only 1.7 million hectares or 8.1 per cent of net irrigated area was sown more than once; the percentage rose to 13.5 in 1960-61 and 23.7 in 1973-74. In 1998-99 this figure had increased to 18.6 million hectares or 33 per cent of the net irrigated area. The full utilization of existing irrigation resources alone can boost food grain production.

6.3.3 Expenditure on Industry and Minerals

Industry has a major role to play in economic development of the underdeveloped countries. The gap in per capita incomes between the developed and under developed countries is largely reflected in the disparity in the structure of their economies; the former are largely industrial economies, while in the latter production is confined predominantly to agriculture. On the other hand minerals are in many ways the foundation of economic progress, because they provide raw materials for heavy industries, engineering, chemical and other industries, the creation, and expansion of which constitute the very essence of economic development. The process of industrialisation was launched by the government of India as a conscious and deliberate policy of economic growth in the early fifties.

Besides the trade gap, the underdeveloped countries are facing a relentless increase of population combined with a likelihood of diminishing return in agriculture which is instrumental in creating the trap of poverty. The net value of output per person is higher in industry than that of agriculture. In industry, the scope for internal as well as external economies is greater than that of other sectors and certainly greater than that of agriculture. Industrialization also leads to the creation of economic surplus in the hands of industrial producers for further investment.

Indian economy is characterized by surplus labour and growing population. To absorb all this surplus labour, as also to provide work/job at a rate commensurate with the addition to the labour force, it is essential to industrialize the country quickly.

The table 6.28 shows that in 1950-51 , the total expenditure on industries and minerals in money terms was Rs. 23.11 crores . It rises to Rs. 6762.24 crores in 2000-01, showing a per cent increase of 29161. On the other hand, in real terms (at 1993-94 prices) total expenditure on industries and minerals increased from Rs.334.44 crores in 1950-51 to Rs. 4073.88 crores. in 2000-01 showing an increase of 1118.12 per cent during the same period. The per capita expenditure in money terms on industries and minerals was Rs. 0.64 in

1950-51 and rose to Rs. 67.15 in 2000-01, showing a percentage increase of 10392 whereas in real terms the same has registered an increase of 334.12 per cent from Rs. 9.32 in 1950-51 to Rs. 40.46 in 2000-01. The proportion of total social and developmental expenditure devoted to industries and minerals shows that it increased from 6.53 per cent in 1950-51 to 12.38 per cent in 1985-86. But 1990-91 and onward it continued to decrease from 0.85 per cent in 1990-91 to 0.38 per cent in 2000-01.

Table 6.28
Expenditure on Industries and Minerals at current & Constant
Prices (1950-51 to 2000-01)

Financial Year	At Current Prices		At 1993-94 Prices		Total exp. on Industries & Minerals as % of social & dev. expenditure	Total exp. on Industries & Minerals as % of total govt. expenditure	Total exp. on Industries & Minerals as % of NI
	Total exp. on Industries & Minerals (in Crores)	Per capita exp. on Industries & Minerals (In Rs.)	Total exp. on Industries & Minerals (in Crores)	Per capita exp. on Industries & Minerals (In Rs.)			
1950-51	23.11	0.64	334.44	9.32	6.53	2.38	0.25
1955-56	41.59	1.05	671.89	17.10	5.53	3.00	0.42
1960-61	141.77	3.26	1792.29	41.30	11.48	4.54	0.93
1965-66	250.78	5.17	2283.97	47.09	10.89	3.89	1.05
1970-71	462.93	8.55	3214.79	59.42	13.08	2.76	1.18
1975-76	1103.77	18.18	5017.14	82.65	13.49	5.94	1.59
1980-81	1772.99	26.11	5450.32	80.27	10.00	5.01	1.49
1985-86	4761.43	63.06	9874.39	130.80	12.38	6.32	2.15
1990-91	3846.58	45.84	5248.44	62.56	5.19	2.47	0.85
1995-96	5086.06	54.86	4254.34	45.89	4.02	1.73	0.54
2000-01	6762.24	67.15	4073.88	40.46	2.86	1.23	0.38

Source: For total expenditure on Industries and Mineral at current prices

- (i) Indian Economic Statistics, Public Finance, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division
- (ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.
- (iii) Data relating to 1950-51 to 1979-80 has been collected from Kumar, V (1986)

Figures of other column are computed on the basis of the data given in Table 1, 2, 3, 5 and 9 of Statistical Appendix

The proportion of total govt. expenditure devoted to industries and minerals also shows the same trend. In 1950-51 it was 2.38 per cent from where it rose to 6.23 per cent in 1985-86. After the adoption of new economic policy in

1991, the same declined continuously from 2.47 per cent in 1990-91 to 1.23 per cent in 2000-01. The proportion of national income devoted to industries and minerals too shows the same trend. It rose from 0.25 per cent in 1950-51 to 2.15 per cent in 1985-86, and thereafter it shows a continuous declining trend and finally it reached to 0.38 per cent in 2000-01.

6.3.3.1 Critical Appraisal: The process of industrialization during the last fifty years since 1951 has been striking feature of Indian economic development. The process of industrialization, lunched as a conscious and deliberate policy under Industrial Policy Resolution of 1956 and vigorously implemented under five year plans, involved heavy investments in building up capacity over a spectrum of industries. As a result, over the last 50 years, industrial production went up by 5 times, making India the tenth most industrial country of the world. While almost all groups of industries contributed to this increase, the growth has been particularly marked in the newer and more complex industries such as petroleum products, chemical and chemical products, metal products, electronics and other electrical machinery, transport equipment and power generation. The share of manufacturing sector in the GDP increased from 8.9 per cent in 1950-51 to 13.8 per cent in 1980-81 and further to 16.8 per cent in 2001-02. Side by side, different Five-Year Plan periods saw the expansion and diversification of industrial structure with the establishment of new units in the existing fields as well as the setting up of new enterprises. As a result, the number of industrial units has increased significantly. In 1951, there were only two major units producing iron and steel. By 1990-91, iron and steel industry had six integrated plant with an installed capacity of 10 million tonnes of steel ingots, and it made a significant progress – from 1 million tonnes of finished steel in 1950-51 to 30.6 million tonnes in 2000-01.

Industrial Development During the Five-Year Plans:

On the eve of First plan, industrial development in India was confined largely to the consumer goods sectors. No big effort was contemplated to industrialize the economy. Rather the emphasis was to build basic services like power and irrigation so that the process of industrialization can be facilitated. The

important consumer goods industries being cotton textiles, sugar salt, soap, leather goods and paper. Industries manufacturing intermediate goods like coal, cement, steel, power, alcohol, non-ferrous metals, chemicals, etc. were established but their production was small as production capacity was considerably below the requirement (except cement).

The First Plan was not important as far as industrial development is concerned. Out of total expenditure of Rs. 1960 crores in the Plan, the industrial sector received just Rs. 55 crores which is meager 2.8 per cent. However, a number of industries were set up in the public sector during the First Plan and started production. Important projects in this category included Hindustan Shipyard, Hindistan Machine Tools, Sindri Fertilizer Factory (Ammonium Sulphate) Hindustan Antibiotics, Hindustan Cables, Hindustan Insecticides, Integral Coach Factory and U.P government Cement Factory etc. The rate of growth of output in the large-scale manufacturing sector in the First Plan was 6 per cent per annum against the target of 7 per cent per annum.

Despite the fact that the First Plan only aimed to utilize the existing capacity to the full, the general index of industrial production recorded an increase of 39 per cent during the plan.

The Second Plan (1956-61) accorded top priority to the programme of industrialization. Based on Mahalanobis model and Industrial Policy Resolution of 1956, this plan set out the task of establishing basic and capital goods industries and expansion of public sector on a large scale so that a strong base for industrial development in the future could be built.

During the Second Plan a major task in industry was the building up of three steel plants in the public sector: Rourkela Steel Plant in Orissa, Bhilai Steel Plant in Madhya Pradesh and Durgapur Steel Plant in West Bengal. The other programmes of industrial development included the manufacturing of electrical equipment, expansion of Hindustan Machine Tools, expansion of Sindri Fertilizer factory and the establishment of Fertilizer plant at Nagal, and further expansion of Hindustan Shipyard and Chittaranjan Locomotive factory.

The Second plan also witnessed a major diversification of the industrial spectrum. It strengthened further the programmes of development in respect of oil exploitation and coal and made a beginning with the development of atomic energy.

Most of the investments in the Second Plan were in heavy and basic industries. There was also rapid expansion of machine-building industries for the use in agriculture and transport and for such industries as chemicals, textile, jute, cement, tea, sugar, flour and oil mills, paper, mining etc. Good progress was also recorded in modernization and re-equipment of important industries such as jute, cotton textiles, and sugar. A number of new industrial items like, industrial boilers, milling machines, tractors, motor cycles, scooters, etc. were also produced in large quantity.

In the sphere of village and small scale industries some progress was recorded. About 60 industrial estates comprising 1,000 small factories were set up. In small establishments like machine tools, sewing machines, electric motors, fans, bicycles, hand tools etc. production increased from 25 to 50 per cent during this five-year period. Khadi, handloom and power loom cotton production increased from 1,610 million metres to 2,150 million metres.

The overall objective for the industrial sector during the Third Plan (1961-66) was to lay the foundation for further rapid industrialization over the last 15 years. During this period it was considered essential to go ahead with the establishment of basic capital and producer goods industries – with special emphasis on machine building programmes – so that the growth of the economy in the subsequent plans could become self-sustaining and balanced with agriculture. Top most priority in this plan was accorded to the completion of projects started in the Second Plan. The second priority went to the programmes on expansion and diversification of capacity of the heavy engineering and machine building industries, castings and forgings, alloy tool and special steels, iron and steel and ferro-alloys and stepping up of output of fertilizers and petroleum products. Increased production of major basic raw materials and

producer goods like aluminium, mineral oils, basic organic and inorganic chemicals etc. and of commodities to meet essential needs like drugs, paper, cloth, sugar, vegetable oils and housing materials was also emphasized. An overall target of 70 per cent increase in industrial production was envisaged in this plan.

The Third Plan reflected the first stage of a decade or more of intensive development leading to a self-reliant and self-generating economy. Engineering industries like automobiles, cotton textile machinery, diesel engines, electric transformers and machine tools, advanced according to set-targets as did industries such as petroleum products, heavy chemicals, cement, etc. Mining and extractive industries also showed considerable progress. It was during this period that a fairly sound base for future industrial growth was laid through the completion of projects of the HEC for manufacture of machinery and equipment for steel plants, the MAMC for the production of mining equipment and Bharat Heavy Electricals for power generation and transmission equipment.

Industrial progress was very much uneven during the eight years which comprised the Third Plan (1960-61 to 1968-69), and the subsequent Annual Plans (1966-67 to 1968-69). The index of increase of industrial output index (1969 as base) was 11.3 per cent in 1961-62, 9.5 per cent in 1962-63, 9.3 per cent in 1963-64 and 8.8 per cent in 1964-65. There after, there was a sharp deterioration in the rate of growth of output. It fell to 5.3 per cent in 1967-66, 0.6 per cent in 1966-67, and 1.6 per cent in 1967-68. The decline in these years was mainly due to low rates of growth in textiles and food industries, on the one hand, and metals and machinery industries, on the other. Industrial production, however showed a sharp recovery during 1968-69 with a rise of 6.8 per cent. In spite of this uneven performance, significant achievements contributing towards the realization of diversified industrial structure were made during this period. Substantial capacity was created in many new lines. Several of the large projects launched at the commencement of the Third Plan were completed and brought into stream.

In the Fourth Plan, the performance of industrial sector fell short of expectation. Industrial production during this Plan period increased only by 3.9 per cent per annum against the target growth rate of 8 to 10 per cent per annum. A number of factors were responsible for this sluggish growth during the Fourth Plan, the more important being: (i) sluggishness of demand; (ii) shortage of basic raw materials; (iii) labour problems; and (iv) traffic bottlenecks which affected the bulk industries like coal, cement, steel, limestone, iron ore, manganese; (v) low level of capacity utilization in a number of industries and lag in capacity creation. On the positive side, there was a substantial production increase in several industries like alloys and special steels aluminium, automobile tyres and heavy electrical equipment. The production in public sector undertakings also showed an encouraging rise towards the closing years of the Plan. These played a vital role in achieving sophistication and self-reliance in Indian industry.

The Fifth Plan laid emphasis on rapid growth of the core sector industries and increase in the production of export oriented goods and articles of mass consumption keeping in view the objective of self-reliance and growth with social justice. As against an average rate of growth of industrial production of 7 per cent envisaged during the Fifth Plan, the actual rate of growth achieved during 1974-75 was 2.6 per cent; during 1975-76 it was 6 per cent; during 1976-77 was 9.5 per cent and during 1978-79 it was 3.9 per cent.

The Sixth Plan laid emphasis on the structural diversification, modernization and self-reliance. During this plan period industrial production increased by about 5 times; industrial structure had been widely diversified covering broadly the entire range of consumer, intermediate and capital goods. This rapid industrialization was accompanied by a corresponding growth in technological and managerial skills. However, a review of the progress of the industrial growth during the Sixth plan reveals that as against the target of 7 per cent growth in industrial production, the growth rate achieved was 5.5 per cent. This was lower than the trend growth rate of 6 per cent witnessed in the earlier three decades.

In accordance with the guiding principles of the Seventh Plan, industrial production was targeted to grow at the rate of 8 per cent per annum. The actual average rate of growth during the Seventh Plan works out at 8.4 per cent per annum. This satisfactory performance was mainly due to manufacturing sector. The manufacturing sector registered an average growth rate of 8.8 per cent which is well above its target of 8 cent per. But, in electricity and mining and quarrying segment of industrial output lagged behind the Seventh Plan targets. However, the overall review of the progress of the seventh plan reveals that the annual rate of growth of industrial sector during the Seventh Plan period was 8.5 per cent which though marginally lower than the targeted 8.7 per cent was much higher than the 3.5 per cent achieved during the Sixth Plan.

The Eighth Plan was formulated under a new environment when a number of reforms in industrial, fiscal, trade and foreign investment policies were introduced in the economy which is commonly described as economic liberalization. Henceforth, private sector begins to play greater role in the process of development. During this plan period overall rate of industrial production increased from 2.3 per cent in 1992-93 to 6.0 per cent in 1993-94, and to 9.1 per cent in 1994-95 and a respectable 13.0 per cent in 1995-96. But year 1996-97 witnessed lower growth rate in almost all the sub-sectors of the industry. Thus industrial production slumped to 6.7 per cent in 1996-97, resulting in an average growth rate of 7.3 per cent against the target of 7.4 per cent in the plan.

The rate of growth of GDP during the Eighth plan was close to 6.7 per cent per annum which has dropped to 5.35 per cent during this plan. This was against the target of 6.5 per cent for the Ninth plan. This was because of short fall of sectoral targeted growth rates. The Ninth Plan targeted a growth rate of 8 per cent for industry, but realized growth rate was only 5.0 per cent which was even lower than the growth rate of 7.3 per cent realized in the Eighth Plan. As against the target of 5.9 per cent for mining, the realized growth rate was barely 2.5 per cent. Similarly achievement in manufacturing was 5.3 per cent as against the target of 8.2 per cent and in electricity; the realized growth rate was 5.5 per cent as against the target of 9.3 per cent. Agricultural sector experienced a growth rate of 2.06 per cent during this plan period as against 4.69 per cent in

the previous plan period. Since agriculture and manufacturing account for nearly half of the GDP, they together pulled down the overall GDP growth to a level of 5.35 per cent. The reasons for the sluggishness were to some extent, Asian crisis in 1997 and subsequent reduction in growth rates in the other parts of the world. This coupled with lower than expected public investment as well as the relatively poor performance in agriculture sector led to reduction in the demand for the industrial goods and subsequent reduction in growth in the industrial sector. There were some natural calamities during this period like cyclone in Orissa, earthquake in Gujrat, Kargil war, etc. which resulted in diversion of resources from investment and consequent decline in the growth rates. In this way, it may be stated that the Ninth Plan was a failure

The post-independence industrial growth in India is characterized by the rapid expansion of the public sector up to 1990. At the inception of the First Plan, there were only 5 industrial and commercial undertakings of the Central Government with an investment of Rs. 29 crores. In 1990 they numbered to 244 with an investment of Rs. 99,330.00 crores. But after opening up of the economy to the private sector and facilitating the entry of foreign investors and divest part of government holdings in selected PSEs as contemplated in the Industrial Policy of 1991, the numbers of industrial and commercial undertakings of the central government have slightly come down to 242 with an investment of Rs 2,74,198.00 crores. These enterprises produce diverse products such as steel, coal, aluminium, fertilizer, basic chemicals, drug, minerals, petroleum products, locomotives aircraft and ship. Overall performance of the Indian Economy in the post-reform period has been good. The average growth rate of the industrial sector during this period was 9.5 per cent, with the growth rate touching a high of 12.1 per cent in 1995-96. Within overall industrial production, the average growth rate of manufacturing was 10.6 per cent. This strong growth rate was reflected in all segments. The rate of growth of the capital goods sector was particularly strong, with the average for the three-year period being 16.2 per cent. However, there has been a marked decline in the growth rate in industrial production in 1997-98 with the growth rate dropping to 4.2 per cent and during the ninth plan the rate of growth of the industry was 5.0 per cent per annum.

During the planning era significant progress has been made in the field of science & technology. India now ranks third in the world in respect of technology, talent and manpower. Indian scientists and technologists are working through out the world in many areas on the frontiers of today's knowledge in industry, nuclear power and space research and communication. Since independence, the major thrust of agricultural education, research and extension has been the development of techniques to improve agricultural productivity, the discovery and use of new seeds, control of pests etc. . However, Indian industry had spent very little on science and technology in modernizing technology of the established units, in adopting imported technology to Indian conditions, to develop competitive new technology etc. But credit must be given to the Government for promoting research design and development in industry through several measure like liberal incentives for setting up in-house research and development unit, free licensing of industries based on indigenous technology etc. Generally, India has to come to acquire as well develop infrastructure of research and development. Other major science and technological effort has been in such diverse fields as meteorology; space science and technology, mining, and mines safety, communications, shipping and transport, petroleum and petrochemicals , information and broadcasting , housing , health and family welfare etc. However, without underestimating the industrial expansion initiated during the plan period, it may be noted that much of the industrial growth is only apparent and not real because of the following reasons-

- (i) the share of industrial sector to the GDP(at 1993-94 prices) was 14.8 per cent in 1950-51 and it rose to 23.7 per cent in 1980-81 and to 26.6 per cent in 2001-02 . But in terms of contribution to GDP, the share of industrial sector as against the share in most of the developed nations which ranged between 29 and 49n per cent continues to be low.
- (ii) The process of industrialization has not been able to solve the problem of unemployment in India. It is evident that between 1960and 1965, the rate of growth of employment in factory sector was 6.6 per cent but during 1965-70, it slumped to a level of 1.3 per cent (Dutta .R and Sundhram , K.P.M, 2004) . This is less than the increase in labour force. The result is that in India, even in 1970 factory employment

absorbed only 2 per cent of labour force . The result did not however, improve even today. In industrial sector, employment growth rate was 2.90 per cent during 1983 to 1993-94 , the figure increased marginally to 3.14 per cent during 1993-94 to 1999-2000 (source: Indian Economy , Dutta .R and Sundhram , K.P.M, 2004) .

- (iii) The process of industrialization has resulted in the rapid expansion of the large scale industrial sector in comparative neglect of the small and the medium sectors. The structure of factories on the basis of employment reveals that there are only 1,096 large factories (1.4 per cent) in 1966-67, which employed more than 1,000 persons. However, the contribution of these large factories was 45 per cent in terms of employment , 70 per cent in terms of fixed capital and 53 per cent in terms of value-added by manufacturer(source:Indian Economy , Dutta .R and Sundhram , K.P.M, 2004) . Therefore, there was a heavy concentration of economic power, in terms of productive capital , employment and output with the large-sector factories . As against this, the small factories contributed 79 per cent of the total number of factories and their contribution was little more than 5 per cent in fixed capital, 15 per cent in employment and 8.6 per cent in value added by manufacturer. The study of structural transformation of Indian industries reveals that there was a clear shift in favour of basic and capital goods sectors . This group accounted for about 50 per cent of productive capital in 1959 but in 1991-92 , its share in productive capital rose to nearly 79 . In total employment, its share rose from 25 per cent to 52 per cent between 1959 and 1991-92. Similarly, the contribution in value added improved from 37 per cent to 56 per cent during this period. Basic industries which include iron and steel, fertilizers, chemicals, cement, non-ferrous metals have thus improved their position significantly under the impact of industrialization. On the other hand , during the same period the share of consumer goods industries such as textiles , sugar , paper , tobacco etc. , declined in terms of productive capital , employment and value-added (source: Indian Economy , Dutta .R and Sundhram , K.P.M, 2004) .

- (iv) Another disquieting feature of the industrial development in the last five decades reflects that an unduly large share of resources being absorbed in the production had directly or indirectly to maintained or improved the living standards of the higher income groups. Consumer durables like refrigerators , air conditions , TVs , cars and scooters ,etc. ,go to satisfy the wants of the richer sections of the community while the consumer non-durables like sugar , tea , cotton , cloth , vanaspati , matches , etc. , enter into mass consumption . Between 1961 and 1974 the industries producing non-durables recorded very slow growth rate (2.6 per cent) and this was an important factor for inflationary rise in price level. It resulted in wiping out the increase in real wages and, consequently, an era of strikes followed which in turn slowed down production. On the other hand, the capitalists were able to appropriate the gains of inflation and thus, could boosted the demand for consumer durables.

Table 6.29
Average Annual Growth Rate of Production

	1974-79 V Plan	1980-85 VI Plan	1985-90 VII Plan	1993-94 to 2000-01
Basic industries	8.4	8.3	7.4	5.8
Capital goods industries	5.7	7.1	15.7	7.5
Intermediate goods	4.3	6.2	5.5	8.5
Consumer goods	5.5	6.5	6.6	7.4
(a) Durables goods	6.8	15.2	12.1	12.4
(b) Non-durables goods	5.4	5.3	5.4	6.1

Source : Govt. of India , Ministry of Industry . Hand Book of Industrial Statistics(1987) and RBI , Hand book of Statistics on Indian Economy, 2001 .

The situation continued to be similar during 1974 to 2000-01. It appeared from the above table 6.29 that the deceleration in consumer goods industries output, more especially of non-durable consumer goods has been modest since 1980-81 except for consumer durables which has been zooming forward.

Table 6.29 (a)
Mineral Production- Quantity

Item	Unit	1950-51	1960-61	1970-71	1981	1990-91	1995-96	2000-01
Fiel								
Coal	th. Tonnes	32,826	52,593	71,499	123,104	211,616	273,415	313,696
Lignite	th. Tonnes	34	47	3,660	5,966	14,073	22,144	22,947
Natural Gas	mill.cu.mtr		17	76	200	12,869	20,916	27,860
Petroleum (crude)	th. Tonnes	269	454	7,185	14,925	33,021	34,517	32,426
Metalic Mineral								
Boxite	th. Tonnes	65	387	1,517	1,955	4,984	5,564	7,993
Chromite	th. Tonnes	17	107	273	343	939	1,699	1,971
Iron ore	th. Tonnes	3,013	16,609	34,261	41,618	55,591	67,423	80,762
Copper ore	th. Tonnes	366	448	666	2,109	5,255	4,737	
Manganese ore	th. Tonnes	897	1,452	1,841	1,532	1,492	1,837	1,595
Gold	Kg	6,125	4,995	3,656	2,495	2,207	2,036	2,615
Lread concentrates	Tonnes	2,008	6,245	4,262	19,951	44,237	61,583	54,493
Zinc concentrates	Tonnes	666	9,787	15,855	52,925	136,958	289,072	366,095
Non-metallic minerals								
Asbestos	Tonnes	212	1,711	11,139	27,521	37,639	23,844	15,397
Limestone	th. Tonnes	2,304	12,935	25,079	32,441	70,125	95,781	127,202
Gypsum	th. Tonnes	210	997	1,088	957	1,589	2,195	2,644
Barytes	th. Tonnes	12	17	59	405	509	442	845
Diamond	Carat	1,674	1,313	19,383	14,834	17,976	29,931	57,407
Magnesite	th. Tonnes	54	156	296	462	528	345	317
Mica- crude	Tonnes	9905	29,226	14,855	8,534	4,062	1,832	1,154

Source: i) CSO, Basic Statistics Relating to Indian Economy, December 1974, January 1979, July 1980
ii) CSO, Statistical Abstract India, 1997 and 2002 Ministry of Statistics and Programme Implimentation, GOI.

6.3.4 Expenditure on Transport and Communication

If agriculture and industry are regarded as the body and the bones of the Indian economy, transport and communications constitute its nerves which help the circulation of men and materials i.e. makes trade possible. The transport system helps to broaden the market for goods and by doing so, it makes possible large-scale production through division of labour. It is also important for the movement of raw materials, fuel, machinery etc., to the production place.

Transport development helps to open up remote regions and resources for production. Regions may have abundant agricultural, forest and mineral resources but they can not be developed if they continued to be remote and inaccessible. By linking the backward regions with the relatively more advanced, transport development helps in the better and fuller utilization of resources. Further more, expansion of transport facilities, in turn helps industrialization directly. The demand for locomotives, motor vehicles, ships etc. leads to the start of industries which specialize in the production of these goods. Expansion of transport is thus of fundamental importance for a developing countries like India.

Indian planner gave high priority to the development of transport. According to them *"an efficient and well developed system of transport and communications is vital to the success of a plan of economic development which lays stress on rapid industrialization"* (Second Five Year Plan (1956-61), p.459). Accordingly the allocation on the transport sector was quite high during the first three plans and during this period it accounted between 25 and 28 per cent. The allocations in the next successive plans on transport sector declined gradually. The Eighth Plan outlay, for transport was only 13 per cent of the total outlay.

In the field of transport and communications, the Railways and Post and Telegraphs are a monopoly of the Central Government; it is only in the road transport and riverine navigation that the State can play a significant role. In India roads constitute one of the most important modes of transportation. Construction and maintenance of the national high ways is the responsibility of Central

Government. The State Governments are responsible for the development of the State Highways connecting the various district headquarters and the State capital with other important towns, while the construction of suburban roads is the responsibility of the local bodies.

Table 6.31
Expenditure on Transport & Communication at Current and Constant prices (1950-51 to 2000-01)

Financial Year	At Current Prices		At 1993-94 Prices		Total exp. on Transport & Communication as % of social & dev. expenditure	Total exp. on Transport & Communication as % of total govt. expenditure	Total exp. Transport & Communication as % of NI
	Total Expenditure (in Crores)	Per capita expenditure (In Rs.)	Total expenditure (in Crores)	Per capita expenditure (In Rs.)			
1950-51	37.75	1.05	546.58	15.23	10.67	3.90	0.41
1955-56	79.08	2.01	1278.10	32.52	10.52	5.71	0.81
1960-61	112.68	2.59	1424.69	32.83	9.12	3.61	0.74
1965-66	291.30	6.00	2652.07	54.68	12.66	4.52	1.22
1970-71	170.41	3.15	1183.34	21.87	4.81	1.02	0.44
1975-76	962.65	15.86	4375.46	72.08	11.76	5.18	1.39
1980-81	2423.68	35.69	7449.75	109.70	13.68	6.85	2.05
1985-86	4096.45	54.26	8496.06	112.50	10.65	5.36	1.85
1990-91	6597.93	78.64	9002.63	107.30	8.91	4.25	1.46
1995-96	9805.86	105.78	8202.00	88.48	7.75	3.34	1.04
2000-01	28529.83	283.32	17187.98	170.70	12.08	5.19	1.61

Source: For data relating to expenditure on Transport and Communication at current prices

- (i) Indian Economic Statistics, Public Finance, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division.
- (ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.
- (iii) Data relating to 1950-51 to 1979-80 has been collected from Kumar, V (1986).

Figures of other column are computed on the basis of the data given in Table 1, 2, 3, 5 and 9 of Appendix

Table 6.31 shows that the total expenditure on transport and communications in money terms was Rs. 37.75 crores in 1950-51, which has gone up to Rs. 28529.83 crores in 2000-01 showing a percentage increase of 75476.37. In real terms, total expenditure on this head increased from Rs. 546.58 crores in 1950-51 to Rs. 17187.98 crores in 2000-01 – an increase of 3044.64 per cent. The per capita expenditure on transport and communications increased

both in money as well in real terms. In money terms it increased from Rs. 1.05 in 1950-51 to Rs. 283.32 in 2000-01 – showing an increase of 270 times. In real terms it increased to only 11 times during the period from Rs. 15.23 in 1950-51 to Rs. 170.70 in 2000-01. The proportion of total social and developmental expenditure devoted to transport and communications increased from 10.67 per cent in 1950-51 to 12.08 per cent in 2000-01 with a fluctuating trend and the proportion of total government expenditure and national income devoted to transport and communications increased by 33.07 per cent and 292.68 per cent respectively during the period with a fluctuating trend as well.

6.3.4.1 Critical Appraisal: In the field of transport, railways constitute the largest transport agency and play a vital role in the development of national economy. And therefore, Government of India has attached the greatest emphasis to the planning of the railways, the main objective of which, was to expand railway traffic in such a way as to avoid bottlenecks in the production process and to ensure an efficient rail transport system.

The data given in table 6.32 reveal the trend towards modernization of Indian railway since 1950-51. In terms of route length, the railway network has grown by only 1.2 times between 1950-51 and 2001-02 but during the same period freight transport has increased by 5.2 times and passenger movement by 3.9 times. The increase in transport output has been brought about by more intensive utilization of the available assets, improvement in productivity and technological up gradation. The steam locomotives are being gradually replaced by diesel and electric locomotives. The number of steam locomotives has been drastically reduced from 8120 to 53 between 1950-51 and 2001-02. During 1950-51 and 2001-02 the number of diesel locomotive increased from 17 to 4815 and that of electric locomotive from 72 to 2871. Modernization and improvement of signaling and telecommunication are also going ahead.

Therefore, since independence, much has been done for rapid development of railway transport. However, the Indian Railways system is not an ideal one; still there are many drawbacks and defects. The Indian railway has

Table 6.32
Principal Characteristics of Railways

Year	Rout Length (in K.M)	Goods Originating (Mill. Tons)	Passenger originating (Million)	No. of locomotives in service(No.)				No. of coaches in service (No.)	No. of wagons in service (000)
				Steam	Diesel	Electric	Total		
1950-51	53,596	93.8	1,284	8120	17	72	8209	19,536	206
1955-56	55,011	115.9	1,275				9172	23,186	241
1960-61	56,247	157.6	1,594	10312	181	131	10,624	28,323	308
1965-66	58,399	203.0	2,082				11,743	32,832	371
1970-71	59,790	197.2	2,431	9387	1169	602	11,158	35,150	384
1975-76	60,216	223.3	2,945				11,095	36,738	396
1980-81	61,240	220.0	3,612	7469	2403	1036	10,908		401
1985-86	61,836	286.3	3,433	5571	3046	1302	9,919		360
1990-91	62,367	341.4	3,857	2915	3759	1743	8,417		346
1995-96	62,915	405.5	4,017	209	4313	2387	6,909		281
2001-02	63,140	489.0	5,000	53	4815	2871	7739	44,000	217

Source:(i) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1976-77, January, 1979
(ii) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1972-73, December, 1974
(iii) Statistical Abstract India-1997 and 2002, CSO, Ministry of Statistics & Programme Implimentation,GOI, New Delhi

now become a unified State-enterprise. It is the country's biggest nationalized enterprise and one of the largest railway systems of the world with a capital base of about Rs. 55,000 crores, 63,000 KM route length, approximately 7,500 diesel and electric locomotives, 40,000 passenger coaches, 254,000 wagons and employing nearly 1.6 million staff . For long haul freight movement in the bulk and long distance passenger traffic, and for mass rapid transportation in suburban areas, railways occupy a unique position in the Indian economy. But taking the country as whole, the railway system is still highly inadequate and insufficient. There is a greater scope in India for the adoption of technical progress in railway which the western countries are constantly introducing. Electrification, dieselization, automatic signaling, etc., are important features of technological progress. It is important to note that the operational efficiency of the Indian railways is increased. It is evident from the fact that the number of accidents and casualties etc., have reduced significantly. 1414 persons were killed in 1995-96 on the railways as compared to 4117 persons in 1950-51. Still, there are many

scopes for making railway travel convenient and safe and therefore, replacement of old and overaged rolling stock, broadening of gauge and the problem of tickles travel are other problems which will have to be looked at urgently.

The road transport network is one of the largest of this kind in the world. Motor transport as well as road construction has contributed significantly to the growth of gross national product all over the world, but India have lagged behind in this regard. A large number of places are not connected by railways. Therefore, the only means of transport in this area is the road transport. Furthermore, road transport provides door to door service within cities. It is more flexible as compare to other means of transport since it can change routes according to the requirements and convenience of the users. This means of transport is complementary to railways. Since it provides feeder services as goods arriving at the railway stations are dispatched to their destination through trucks or other means of road transport. Road transport is a better means of transport as compared to railways for carrying perishable product like milk and vegetable for moving quickly to the mandis and towns. Roads are highly significant for the defence of the country. Since railway tracks can not reach all nooks and corners of the country, it is the roads that enable the defence forces to move to areas inaccessible by railways in times of need. This is particularly so in the case of border area and hilly tracts.

Principal Characteristics of Road Transport

Table 6.33.a

Year	Road Length(KM.)			% Share of Surfaced Road	% Share of Unsurfaced Road
	Surface	Unsurface	Total		
1950-51	157019	242923	399942	-	-
1960-61	231152	246965	478117	-	-
1970-71	338815	346443	685258	43.35	56.65
1980-81	683676	801745	1485421	47.35	52.65
1990-91	1025215	976729	2001944	51.21	48.79
2000-01	1414547	1032120	2446667	57.82	42.18

Source: (i) Statistical Abstract, India 1997 & 2002, Central Statistical Organization, Department of Statistics, Minister of Planning and Programme Implementation, Government of India, New Delhi
(ii) Economic Intelligence Service, CMIE, Infrastructure, May, 2006.

The table 6.33.a, b, c and d show the progress of road transport in India Since 1950-51. The total surface road length comprising national highways, State highways and other PWD roads. The total length of surface road was 157019 Km. in 1950-51, which has gone up to 1414547 Km. in 2000-01. Unsurfaced road length which were motorable was 1032120 Km. in 2000-01 as compared to 242923 Km. in 1950-51. Surfaced road length has increased by only 9 times during the period under study. In 1950-51, 39.26 per cent of total road length was surfaced which has increased by 18.56 percentage point to reach 57.82 per cent of total road length in 2000-01. Therefore, in 2000-01, still 42.18 per cent of total road length was unsurfaced. In terms of road density, we can say that in 1970-71, there was 121.06 km of surfaced, 158.17 km of unsurfaced road per thousand sq. km of total geographical area. These figures have increased to 430.31 km of surfaced road and 313.98 km of unsurfaced road of total geographical area in 2000-01. Total number of motor vehicles registered was 306313 in 1950-51 which stood at 54991026 in 2000-01 i.e. increased by about 180 times during the period . Number of buses increased from 34411 in 1950-51 to 532508 (15 times) in 2000-01. The number of two wheelers which were amounted to 26860 in 1950-51 stood at 38556026 in 2000-01. The number of goods vehicles increased from 81888 in 1950-51 to 2948300 in 2000-01. The number of passenger car increased from 147712 in 1950-51 to 5297219 in 2000-01. The table 6.33.e shows that in 1980-81, 57.64 per cent of surfaced road length was double/multiple lane and 42.60 per cent of same was single lane. In 2000-01 however, despite the planned development the share of double/multiple lane in total surfaced road length have not increased too much. In 2000-01 only 61.09 per cent of total surfaced road length have double/multiple lane. In 1970-71, there were 203.22 number of vehicles per 100 km of road length. This figure has improved to 2372.78 numbers of vehicles per 100 km of road length (table 6.33.e). This shows an increase in vehicle density. This cause an increase in the number of accident per 100 km of road length (table 6.33.e). The increase in the number of motor vehicles playing on the road indicates the development of roads transport facilities. The expansion in road transport, however, has been restricted by high rate of taxation and the huge hike in oil prices. According to an unofficial

Principal Characteristics of Road Transport
Table 6.33.b

Year	Road Length(KM.)			Registration of Motor Vehicles by Type								
	Surface	Unsurface	Total	Two Wheelers	Auto Rickshaws	Jeeps	Cars	Taxis	Buses	Goods Vehicles	Miscellaneous	Total no. of Vehicles
1950-51	157019	242923	399942	26860	-	-	147712	11551	34411	81888	3891	306313
1960-61	231152	246965	478117	88360	6235	31670	256243	21663	56792	167649	35863	664475
1970-71	338815	346443	685258	575893	36765	82584	539475	60446	93907	342577	133668	1865315
1980-81	683676	801745	1485421	2530441	142073	120475	900221	100845	153909	565927	667503	5181394
1990-91	1025215	976729	2001944	14199858	617365	443734	2266506	243748	331100	1512884	1759005	21374200
2000-01	1414547	1032120	2446667	38556026	1777130	1126148	2944116	634357	532508	2948300	4119338	54991026

Source: (i) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1970-71, 1974

(ii) Statistical Abstract, India 1997 & 2002, Central Statistical Organization, Department of Statistics, Minister of Planning and Programme Implementation, Government of India, New Delhi

(iii) Economic Intelligence Service, CMIE, Infrastructure, May, 2006

Principal Characteristics of Road Transport
Table 6.33.c

Year	Road Length(KM.)			% Share of Surface Road	% Share of Unsurface d Road	Road Density (Km. per '000 sq. km. of Geographical area)		
	Surface	Unsurface	Total			Surface Road Density	Unsurfaced Road Density	All Road Density
1960-61	231152	246965	478117	48.35	51.65	-	-	-
1970-71	338815	346443	685258	49.44	50.56	121.06	158.17	279.22
1980-81	683676	801745	1485421	46.02	53.98	207.98	243.89	451.87
1990-91	1025215	976729	2001944	51.21	48.79	311.88	297.13	609.00
2000-01	1414547	1032120	2446667	57.82	42.18	430.31	313.98	744.29

Source: (i) Statistical Abstract, India 1997 & 2002, Central Statistical Organization, Department of Statistics, Minister of Planning and Programme Implementation, Government of India, New Delhi.
(ii) Economic Intelligence Service, CMIE, Infrastructure, May, 2006.

Principal Characteristics of Road Transport
Table 6.33.d

Year	% share of single lane in total surfaced length	% share of double/multiple lane in total surfaced length	Accident/1000 vehicles	Accident/1000 Km. of Road	Vehicles density per 100 Km. of road length
1950-51	-	-	-	-	-
1960-61	-	-	-	-	-
1970-71	-	-	64.44	13.10	203.22
1980-81	42.60	57.64	31.11	10.85	348.82
1990-91	31.79	68.21	13.75	14.69	1067.67
2000-01	38.91	61.09	6.92	16.41	2372.78

Source: (i) Economic Intelligence Service, CMIE, Infrastructure, May, 2006.

estimate the burden of taxation on vehicles playing in India is perhaps the highest in the world today.

Though much has been achieved, a lot more, however, has to be done to improve the road system in India. If the same are compared with other developed countries, it will show that India is still far backward than the other developed countries. Only 50 per cent of the road length in the country is provided with a proper surface. Even in the case of national highways, 30 per cent of the road length has a single lane road pavement. About 36 per cent of the villages in the country do not have road connection and over 65 per cent of our villages are without an all-weather road. Out of the total length of 58,110 Km. of National Highway network, about 25,000 Km. is under severe strain due to high volume of traffic(Dutta and Sundhram , 2004).

One of the most ambitious projects lunched in independent India is the National Highway Development Project(NHDP) comprising 5,846 Km. Golden Quadrilateral(GQ) and the 7,300 Km. North-South, East-West corridors. The GQ connects Delhi, Mumbai, Chennai and Kolkata and North-South, East-West corridors links Kashmir to Kanyakumari and Silchar to Porbandar. The projects being implemented by National Highway Authority of India (NHAI). NHAI is expected to go a long way in promoting economic development of the county and integrating remote regions with the mainstream economic activity.

The another important means of transport in India is water transport – inland water transport or river transport and coastal or marine transport. Total navigable waterways comprising a variety of rivers, canals, backwaters etc. , extended to 14,500 Km. of which only about 5,200 Kms. of major rivers and 485 Km. of canals are suitable for operation of mechanized crafts of which only 331 Km. are being utilized . Inland water transport is important in Assam, West Bengal and Bihar.

Table 6.34
Shipping Cargo Handled At Major Ports

(In Thousand Tonnes)

Items	1950-51	1960-61	1970-71	1980-81	1990-91	2000-01
Imports	11,497	22,653	25,482	43,715	76,139	1,37,231
Exports	7,655	11,116	30,247	33,676	58,230	82,477
Total	19,152	33,769	55,729	77,391	134,369	219,708

Source:(i) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1976-77, January, 1979

(ii) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1972-73, December, 1974

(iii) Statistical Abstract India-1997 and 2002, CSO, Ministry of Statistics & Programme Implimentation,GOI, New Delhi

India's merchant shipping fleet is the one of the largest in the developing countries. At the time of independence, there were only 42 ships with less than 1,00,000 tonnes of gross registered tonnage(GRT) . It is only after independence that the Indian shipping become predominant in India's coastal trade and got some share in foreign trade. Despite slow progress in the initial years, Indian shipping tonnage has grown significantly in the last five decades from 0.2 million GRT in 1950-51 to 2.2 million GRT in 1970-71 and 7 million GRT in 1998-99. Shipping cargo handled at major port increased from 19,152 thousand tones to 55,729 thousand tones in 1970-71 and further to 219,708 thousand tones in 2000-01. There has been a sharp decline in coastal shipping operations. The number of ships fell from 97 in 1961 to only 56 in 1980 while GRT fell from 3.1 lakhs to 2.5 lakhs over the same period. By the end of Sixth Plan this rose to about 3.5 lakhs GRT .Because of the importance of overseas shipping in international trade, considerable attention has been paid to increase the shipping tonnage in the planning period. As a result, the share of Indian shipping in the transportation of India's overseas trade has slowly and consistently increased in the planning period. From around 5 per cent in the First Plan, it increased to around 30.5 per cent at the enhd of 1978-79. As compared to 1.92 lakhs GRT at the time of Independence, shipping tonnage increased to 59.2 lakhs GRT in January 1990.

Air transport is the most modern, the quickest and the latest addition to the mode of transport. The scheduled air services are run by two public sector

corporations – Indian Airlines and Air India – both of which were formed in 1953. The development of civil aviation in India during the planning period is summarized in the table 6.34. The table shows that in 2000-01 Indian aircraft flew , on scheduled services, 2029 lakhs Kms. (340 thousand hrs.) , carried 17540 thousand passengers and 268 thousand tones mails and cargo as against 314 lakhs Kms(118 thousand hrs.), 449 thousand passengers and 40.1 thousand tones mails and cargo, respectively, in 1950-51.

Table 6.35
Principal Characteristics of Civil Aviation

Items	1950-51		1960-61		1970-71		1980-81		1990-91		2000-01	
	INT	DOM										
Hours flown (00)	31	87	37	96	40	90	64	98	73	124	98	250
Km flown (Lakh Km.)	94	220	166	278	259	334	437	444	511	587	660	1369
Passenger Carried (000 No)	148	301	229	745	491	2056	1938	5560	2430	7912	3828	13712
Freight tones Carried (000)	2.7	33.6	4.9	33.3	17.6	16.0	70	63	99	82	100	144
Mail Tonnes Carried (00)	0.5	3.3	1.2	5.6	1.2	10.5	4.0	17.0	2.0	15.0	1.0	23

Source: (i) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1976-77, January, 1979
(ii) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1972-73, December, 1974

(iii) Statistical Abstract India-1997 and 2002, CSO, Ministry of Statistics & Programme Implimentation, GOI, New Delhi

Note: INT= International, Dom= Domestic

Air India and India Airlines have been able to meet, by and large, the rising pressure of passenger and freight traffic. Domestic air traffic has registered an annual growth of 10 per cent between 1960-85 and Air India traffic registered an average annual growth of 12.4 per cent during the same period. While Indian Airlines and Air India have grown at a rapid rate, infrastructure facilities have not kept pace. However, since the inception of International Airport Authority of India (IAAI), A number of schemes aimed at creating additional capacities have been taken up.

There was also policy changes in the field of civil aviation and the monopoly position of Indian Airlines were permitted to operate. Thus the air services within India become competitive and, therefore, more efficient. For the last few years, the Government of India has been going through notions of privatization of Air India, the national carrier. Till 1992-93, Air India was a successful profit-making public enterprise. Since then, it has been allowed to deteriorate and incur huge losses. The GOI has also invited domestic and foreign investor to participate in the development of new international airports and the expansion of infrastructural support at some other domestic airport.

The above brief survey of transport facilities in India indicates that despite continued expansion, transport development is not adequate to meet the growing needs of development.

6.3.4.2 Communication: Communications means the imparting or transmission of information. The conveyance of information is very necessary for the development of industries, commerce and trade in the country. The communication system in India comprises posts and telegraphs, telecommunication systems, broadcasting, television and information services. By providing necessary information about the markets, the communication system helps to bring buyers and sellers together effectively and helps to accelerate the growth of the economy.

The Table 6.36 reveals that Indian Postal Department has made a remarkable progress during the period under study. Between 1950-51 and 2000-01 the number of post-offices increased by more than four times; Indian telegraphs is one of the oldest government owned public utility organizations in the world. The number of telegraph offices has increased from 8,200 in 1951 to over 30,000 now. The number of post offices in 1950-51 was 36,094 and on the average each post office served near about 10,000 persons. In 2000-01 the number of post office increased to 154919 and on the average each post office served 6500 persons. In 1950-51, there were 507 telephone exchanges and on

Table 6.36
Postal Statistics

ITEMS	1950-51	1960-61	1970-71	1980-81	1990-91	2000-01
Number of P.O	36,094	76,839	109,059	139,224	148,719	154,919
Postal Articles(crores) Including money order	227	403	646	973	1468	1420
Regd. Articles(000)	73730	107214	168569	243304	310809	245195
Insured Articles(000)	3723	4103	6037	7764	8351	10174
Value of Indian money order (Rs. In crores)	5.31	7.65	9.46	11.20	10.58	10.96
No. of Indian money order (crores)	205.9	330.3	610.8	1265.2	2952.9	5871.9

Source:(i) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1976-77, January, 1979
(ii) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1972-73, December, 1974

(iii) Statistical Abstract India-1997 and 2002, CSO, Ministry of Statistics & Programme Implementation, GOI, New Delhi

Table 6.37
Telephone Statistics

ITEM	1950-51	1960-61	1970-71	1980-81	1990-91	2000-01
No of Telephone Exchange(No)	507	1374	3967	7871	15091	31952
No of Telephones(lakh)	1.68	4.63	13.00	27.85	60.21	

Source:(i) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1976-77, January, 1979
(ii) CSO, Basic Statistics relating to Indian Economy, 1950-51 to 1972-73, December, 1974

(iii) Statistical Abstract India-1997 and 2002, CSO, Ministry of Statistics & Programme Implementation, GOI, New Delhi

the average each exchange served more than 7 lakhs people. The same has increased to 15091 in 1990-91 and on the average each exchange served 56 thousand people. Table 6.37 shows that, there has been a phenomenal growth in the tele-communication sector after 1995. The telecommunications network of the public sector (BSNL & MTNL) is one of the largest telecommunication networks in Asia with a capacity of 50 million lines and over 40 million working connections comprising 35,510 telephone exchanges in the country (by end-December 2002). The annual growth rate of providing new telephone connections has been increasing steadily from about 10 per cent in 1988-89 to 30 per cent in 1999-00

and 17 per cent during 2001-02 . The number of new telephone connections provided during 2001-02 alone was 8.4 million as compared to 7.8 million in the previous year. As on March 2002, total telephone connections exceeded 45 million.

Recently, there has been a shift in importance towards the private sector and towards wireless telephone with falling tariff rates for cell phones , there has also been a phenomenal increase in the number of cellular subscribers. From a mere 0.3 million cellular subscribers in March 1997, the number increased to 6.4 millions as on end March 2002 and 10.4 million by end December 2002. The phenomenal increase in the number of cellular subscribers raised the share of cellular mobile subscribers from 6.6 per cent in March 2000 to nearly 14 per cent in January 2002.

Reference:

Dreze, Jean, and Amartyya Sen, *India: Economic Development and Social Opportunity* ; Oxford University Press, Oxford and New Delhi, 1995.

UNESCO, *World Survey of Education* , New York, 1961

Tripathy, R.N., *Fiscal Policy and Economic Development*, The World Press Pvt. Ltd., 1970

Hanumantha Rao, Sushanta K. Ray and K. Subba Rao .*Unstable Agriculture and Droughts*.

Dutta .R and Sundhram , K.P.M, *Indian Economy* , S. Chand and Company Ltd., New Delhi, 2004.

Second Five Year Plan (1956-61)

Sinha, S.N., "*Economics of Cropping Patteren*" in AICC Economic Review, Vol. XV, January, 1964.

Ministry of Agriculture, Annual Report 1998-99.

Government of India : Economic Survey, 2002-2003.

Planning Commission, Ninth Five Year Plan, 1997-2002 Vol.II,

Chapter 7

Impact of Public Expenditure on Economic Development

In the preceding Chapter the nature and trend of developmental expenditure and its sectoral performance have been analysed. In this chapter, we have proposed to investigate the impact of public expenditure on economic development. As a background of this investigation, a brief discussion of the role of public expenditure in a developing economy and the pattern of public expenditure in India are being discussed. This will facilitate to find out if any significant change has taken place in economic growth and income and wealth distribution in India during the 50-years of planning. The conclusion of this chapter will help us to judge the effects of public expenditure policy in India in the last fifty years of Indian planning.

7.1 Measure of Economic Development:

The economics of Development refers to the problems of economic development of underdeveloped countries. Though the study of economic development has attracted the attention of economists right from Adam Smith down to Marx and Keynes, yet they were mainly interested in the problems which were essentially static in nature and largely related to a Western European framework of social and cultural institutions. It is however, in the forties of the 20th century and especially after the Second World-War that economists started devoting their attention towards analyzing the problems of under developed countries and formulating theories and models of development and growth.

Economic growth is defined as sustained annual increases in an economy's real national income over a long period of time. In other words, economic growth means rising trend of net national product at constant prices. This definition has been criticized by some economists as inadequate and unsatisfactory. According to them total national income may be increasing and yet the standard of living of the people may be falling. Taking this into account,

economic growth means the annual increase in real per capita income of a country over a long period. Thus Prof. Arthur Lewis says that “economic growth means the growth of output per head of population”. The important point which is worth mentioning in regard to the definition of economic growth is that the increase in national income or more correctly increase in per capita income or output must be a ‘sustained increase’ if it is to be called economic growth. The World organizations such as World Bank and IMF and in India our Planning Commission, Central Statistical Organization (CSO) and Reserve Bank of India have been measuring economic growth on the basis of both overall GNP or NNP and per capita income.

No distinction was drawn between economic growth and development in the beginning of the evolution of the concept of economic development. However, since the seventies, it has been thought necessary to distinguish between economic growth and economic development. Traditionally, economic development has been interpreted in terms of planned changes in the structure of national product and the occupational pattern of labour forces and the institutional and technological changes that bring about such changes or accompany such changes. (Kuznet in his study of “*Modern Economic Growth*”). In this view the share of agriculture in both national product and employment of labour force declines and that of industries and services increases. C.P. Kindleberger writes, “*economic growth means more output, and economic development implies both more output and changes in the technical and institutional arrangement by which it is produced*”. (C.P. Kindleberger, *Economic development*)

Thus, according to traditional view, economic development implies growth plus structural change. Structural change refers to changes in technological and institutional factors which causes shift of labour from agriculture to modern manufacturing and services sectors and also generate self sustaining growth of output. During the process of economic development there occurs a shift of working population from low productivity employment in agriculture to the modern industrial and services sectors having higher level of productivity of labour. Along with this change in sectoral distribution of labour force there occurs a change in sectoral composition of national income in which percentage contribution of

agriculture to national income declines. However, due to failure of traditional strategies of development in solving the problems of poverty, unemployment and inequality, it was realized in the seventies that the concept of development should be broadened so that it should signify that well-being of the people has increased. Recently, the concept of economic development has been further widened so that it involves not only reduction in poverty, inequality and unemployment, but also requires improvement in the quality of life which includes clearer environment, better education, good health and nutrition. To day economic development is interpreted not only in terms of more growth in economic well-being but also in terms of good-quality of life which, according to Prof. Amartya Sen, consists in enlargement of opportunities for people and freedom of human choices (Amartya Sen,2001) also includes enjoyment of human rights. The United Nation's 'Human Development Report' of 1994 in the writings of which Prof. Amartya Sen made a significant contribution, asserts, *"Human beings are born with certain potential capabilities. The purpose of development is to create an environment in which all people can expand their capabilities and opportunities can be enlarged for both present and future generations.... Wealth is important for human life, but to concentrate on it exclusively is wrong for two reasons. First, accumulating wealth is not necessary for the fulfillment of some important human choices..... Second, human choices extend far beyond economic well-beings"*.

Thus economic growth is related to quantitative sustained increase in the country's per capita output or income accompanied by expansion in its labour force, consumption, capital and volume of trade. On the other hand, economic development is a wider concept than economic growth. It is taken to mean growth plus changes i.e. growth plus qualitative improvement in the life of the people or qualitative improvement in all social system prevailing in the economy.

The fundamental objective of economic policy in India is to accelerate economic development of the country with social justice. As defined above, the objective is not only to raise the national income or per capita income but also to ensure that the benefit is equitably distributed, and the disparities income and living standards are improved without social tension in the fabric of democratic

society. The Directive Principles of the Indian constitution envisage a society in which all have equal opportunity, all have a right to be provided with work, and live in a social order where there is no exploitation of the economically weak by the strong and where disparities in income and wealth are reduced to the minimum.

7.2 Role of Public Expenditure in a Developing Economy

The role of public expenditure in economic development lies in increasing the growth rate of the economy, providing more employment opportunities, raising incomes and standard of living, reducing inequalities of income and wealth and bringing about regional balance in the economy. This in turn necessitates governmental planning. The scope and the type of the planning practicable in different countries depends on the nature of the economic system of the country concerned i.e. whether the country is a mixed economy or a socialistic one or a market economy . Therefore, the role envisaged for the government of an underdeveloped country in the process of its economic growth is mainly a function of its political and social philosophy. In most of the underdeveloped countries of Africa and Asia which are practicing the philosophy of democratic planning and mixed economy, public expenditure has to play a vital and dynamic role for the promotion and acceleration of the pace of economic development .

There is however, difference in the role of public expenditure between an advanced industrialized countries and an underdeveloped country like ours. In a developed country, the role of public expenditure is to maintain a smooth rate of growth on the other hand, there should be growth without cyclical fluctuations and at the same time should counteract secular tendency towards stagnation and improve income distribution. In an underdeveloped country, public expenditure has an active role to play in reducing regional disparities, developing social overheads, creation of infrastructure of economic growth in the form of transport and communication facilities, education and training, growth of capital goods industries, basic and key industries, research and development and so on. Public expenditure has a great role to play in the forms of stimulating saving and capital

accumulation. On the basis of above discussion, the role of public expenditure in economic development in an underdeveloped country can be explained in terms of its role – (a) in promoting economic growth; (b) in reducing inequalities in income and wealth distribution; (c) in bringing about balanced regional development.

7.3 Public expenditure in Promoting Economic Growth: In developing countries like India if public expenditure is judiciously planned, can promote production. If the Government expenditure is incurred on investment projects for capital formation like building of canals, railways, dams and other infrastructural facilities, it will expand productive capacity and generate long term economic growth. The Government expenditure should also be directed towards meeting the immediate needs of the economy so that a balance between the demand and supply of goods is well secured and inflationary tendency is avoided. Therefore, public expenditure should be directed towards increasing agricultural productivity to meet the growing demand for goods and raw materials to increase the supply of consumer goods sector which may also provide sufficient employment opportunities. The growth rate of the economy can be increased only when public expenditure fulfils the short-term and long-term objectives of the development plan.

Public expenditure on economic and social overheads provides larger employment opportunities, raises incomes and the productive capacity of the economy. For instance when the government starts public works like the construction of road, railways, power projects, canals, dams, etc., it gives employment to millions of unemployed people in underdeveloped countries. The provision of such services helps to increase production, trade and commerce. Public expenditure on social overheads like education, public health, cheap housing, etc., makes the people healthier and efficient which in turn increase productivity or power to produce. Thus public expenditure can create the “critical skill” needed for rapid development by investing in human capital.

Apart from augmenting total production, the public expenditure also affect allocation of resources towards desired channels. In order to remove scarcities of

food products during stringencies, the state opens fair price shops and may even subsidize food for working classes to maintain their health and efficiency. It may fix minimum prices for foodgrains, and through state trading and creation of buffer stocks encourage farmers to produce more. Through subsidies and grants and also through its purchase policy, the government may succeed in diverting resources to neglected industries. Thus, besides, raising the level of production, the government expenditure can influence the pattern of production or composition of output. At the same time by diverting resources through subsidies and bounties to the backward regions it can promote growth of output in backward regions. We thus see that public expenditure, if wisely conducted, can promote production by raising the levels of productivity or power to produce and save. To increase the production of certain essential commodities and to end private monopoly in various spheres of production, the state may start public enterprises. Public expenditure can thus spread to all spheres of economic activities.

7.4 Public Expenditure in Reducing Income Inequality through Redistribution:

In modern times the government modifies the free working of market mechanism in respect of income distribution not only through devising proper tax structure but also through various forms of public expenditure. Through public expenditure the government may be in a position to redistribute income infavour of poor. It should be remembered that all types of public expenditure may not reduce inequalities in income distribution. The following forms of public expenditure redistribute income infavour of poor and therefore reduce inequalities in income distribution.

- (i) Expenditure on social security measure like unemployment insurance, sickness benefits, old age pensions are some of the measures which helps the people at times of contingencies. In recent years some state Governments in India such as Haryana, Panjab, Delhi have introduced old age pension scheme.
- (ii) Expenditure on various types of subsidies have also a redistributive effect. In India , subsidies on food, sugar, kerosene oil, handloom cloth, fertilizers are provided to the people and Government spend a good

part of its budget on these subsidies . Food, sugar, kerosene oil are sold through ration shop i.e. through public distribution system – at a prices below the market prices and the difference is borne by the Government as a subsidy . But it should be noted that, at present the benefits of these subsidies in India is enjoyed not only by the poor but by all those who are relatively well off. And hence, if the public expenditure on subsidies is to have a real redistributive effect, these subsidies should be targeted to the poor.

- (iii) Public expenditure by the Government on social infrastructure such as education, health care of the people, housing for the poor also tend to reduce income inequalities. With free or subsidized education as well as free or highly subsidized health care facilities the poor people's real income goes up. In most of the states in India education up to the middle class is free; and for higher levels the poor people are either given free education or charged low fees. Similarly, the Government spends a lot on public hospitals and dispensaries to provide health care to the poor people. Likewise, the poor people are given financial aid by the Government to build houses (Indra Awas Yojna). Expenditure on anti-poverty scheme like Jowahar Rozgar Yojna, Employment Assistance Scheme (EAS), Integrated Rural Development Programme (IRDP), Employment Guarantee Scheme (EGS) help to increase income of the poor people by generating employment. The Indian Government gives various types of subsidies to the cottage and small-scale industries which adopt labour intensive technique. Being labour-intensive, the growth of these industries generate a large number of employment opportunities which improve income distribution.

7.5 Public expenditure in Balanced Regional Development:

Lastly, public expenditure helps in bringing about regional balance in the economy. If things were left to market forces, commerce, banking, industries and almost all the main activities would be localized in a few selected regions, and the rest of the economy may be in a state of backwardness. As a matter of fact,

economic development in India under the British rule was confined to a few regions like Maharashtra, and Cities like Bombay, Calcutta, Madras, Kanpur, Ahmedabad. It is through planned public expenditure the less developed areas can be developed by starting certain projects like building of dams, digging of canal, and starting some new industries. The setting up of steel plant at Bhilai, Bokaro, Durgapur, Rourkela, the heavy electrical plants at Bhopal and Hardwar and many other public sector undertakings in the backward areas of the country are intended to bring about balanced economic development. Thus public expenditure is one of the important instruments for accelerating development in the underdeveloped regions which in turns brings about a balanced regional development in the underdeveloped countries.

7.6 Pattern of Public Expenditure in India

We have so long highlighted the role of public expenditure in the economy .We shall now discuss the impact of public expenditure in our economy in the light of the above discussion. The success of the fiscal policy of the government depends partly on the amount of government expenditure in relation to national income, partly on per capita government expenditure and partly on the proportion of government expenditure devoted to developmental as well as welfare activities or transfer benefits .

We shall carry out our discussion by presenting first the government expenditure as a proportion of national income. This we have stated in table 7.1.

The table 7.1 shows that the volume of public expenditure in India has not only grown up very rapidly but also has under gone a significant change during the plan period. In 1950-51, total government expenditure was only 10.58 per cent of national income (NNP at factor cost) . During the years 1990-91, the same has come to claim more than 34 per cent of national income. But after 1990-91, it remained almost the same at 31 per cent. In absolute terms, the government expenditure has increased more than 567 times between the period under study. However, government expenditure per head of the population has increased by 202 times during the same period Therefore, the actual figures do

not give us the real insight of the growth and trend of the government expenditure. In 1950-51, the per capita government

Table 7.1
Proportion of Government Expenditure to National Income

(Rs. in crores:At current prices)

Financial Year	Total Govt. Expenditure (at current price)	Per capita Govt. Expenditure (in Rs)	Index of growth of Govt. Expenditure	National Income*	Per capita National Income (In Rs.)	Index of growth of National Income	Govt. Expenditure as % of National Income
1950-51	967.38	26.94	100.0	9142	255	100.0	10.58
1955-56	1383.55	35.20	143.0	9776	249	106.9	14.15
1960-61	3120.18	71.89	322.5	15204	350	166.3	20.52
1965-66	6439.93	132.78	665.7	23752	490	259.8	27.11
1970-71	16735.54	304.27	1729.9	38968	720	426.3	42.95
1975-76	18555.03	304.18	1918.0	69005	1137	754.8	26.89
1980-81	35379.41	521.05	3657.2	118233	1741	1293.3	29.92
1985-86	76415.35	1012.12	7899.2	221401	2932	2421.8	34.51
1990-91	155141.47	1849.12	16037.3	450145	5365	4923.9	34.46
1995-96	293103.50	3161.85	30298.7	941861	10160	10302.6	31.12
2000-01	548993.09	5451.76	56750.5	1765238	17530	19309.1	31.10

* New Series (Base: 1993-94)

Source: Table 3, 4 and 5 of the statistical appendix.

expenditure was only Rs. 26.94 and it rose to Rs. 5451.76 in 2000-01. It is also evident from the above table that government expenditure grew much faster than that of national income. The table also show that in the early stage of development planning, the ratio of public expenditure to national income was quite low . It was assumed that in the early stage of planning the main problem in public expenditure policy was to transfer resources to the government sector. Moreover, at that time there was very little amount of expenditure for the promotion of economic development and social welfare.

7.7 Trend of National Income and Per Capita Income during the Plan Period:

To analyse the impact of public expenditure on economic development, it is now proposed to examine the trends of national income, per capita income at current and constant prices. It is also proposed to examine the significant changes that have taken place during the planning period 1950-51 to 2001-02. In this section national income will be analysed in two broad aspects – (i) growth

aspect i.e. , a progressive increase in national income which is responsible for building up productive capacity of the economy and, (ii) distributive aspect, i.e. , distribution of the gains of economic development among the different classes of the society.

The table 7.2 shows the figures of national income and per capita income at current and constant prices. The figures of national income at current prices do not give a real picture about the growth of the economy. This is because the increase in national income at current prices reflects the combined influence of two factors viz. – (a) the increase in production of real goods and services and, (b) the inflationary rise in prices. If national income increases due to the first factor, it is an indicator of real growth, because it implies that more goods and services have become available to the people. On the other hand, if it is due to second factor, it indicates an inflation of national income in money terms. Therefore, national income figures are deflated at constant prices to eliminate the effect of any changes of price level during the period. Consequently, national income figures at constant prices become comparable, but they are also deflated due to population growth effect. To eliminate the effect of population growth, the per capita national income is calculated, whereas the growth of the national income at constant prices is an index of the total productive effort on the part of the community and indicates the rate of growth of goods and services in the economy and on the other hand the growth of per capita income at constant prices is an indicator the change in the average standard of living of the people.

From the table 7.2 it is seen that during the period 1950-51 to 2000-01 , national income at constant prices (New series, base: 1993-94) increased by 703.43 per cent , but due to increase in population 35.9 crores in 1950-51 to 100.7 crores in 2000-01(an increase of 180.50 per cent), the per capita income increased by only 186.43 per cent during the same period . The compound annual rate of growth of national income (at constant prices) was 4.2 per cent and that of per capita income was merely 2.1 per cent. On the other hand , at current prices, national income increased by 10.8 per cent per annum and per capita income increased by 8.5 per cent per annum. But a major portion of this

increase in national income at current prices is only illusory because it indicates only a monetary increase due to inflationary rise in prices.

Table 7.2
Movement of National Income during the Plan Period
New Series (Base:1993-94)

Financial Year	National Income (Rs. in crores)		Per capita National Income (In Rs.)	
	At current prices	At constant prices	At current prices	At constant prices
1950-51	9142	132367	255	3687
1951-52	9634	135551	264	3714
1952-53	9474	139379	255	3747
1953-54	10341	148159	273	3909
1954-55	9628	154184	249	3994
1955-56	9776	158001	249	4020
1956-57	11706	166793	292	4159
1957-58	11928	163902	292	4007
1958-59	13299	176483	318	4222
1959-60	13916	179592	327	4216
1960-61	15204	192235	350	4429
1961-62	15960	197514	359	4449
1962-63	17029	200895	375	4425
1963-64	19491	210946	420	4546
1964-65	22814	226640	481	4781
1965-66	23752	216244	490	4459
1966-67	26918	217427	544	4392
1967-68	31745	235418	627	4653
1968-69	33421	241234	645	4657
1969-70	36742	257359	695	4865
1970-71	38968	270597	720	5002
1971-72	41340	272252	746	4914
1972-73	45392	270061	801	4763
1973-74	55896	283061	964	4880
1974-75	65432	286417	1103	4830
1975-76	69005	313643	1137	5167
1976-77	74242	316358	1197	5103
1977-78	85151	340751	1343	5375
1978-79	91094	359732	1406	5551
1979-80	98631	338124	1485	5092
1980-81	118233	363417	1741	5352
1981-82	137388	384392	1985	5555
1982-83	151716	393274	2143	5555
1983-84	178121	423265	2464	5854
1984-85	198794	440119	2690	5956

Financial Year	National Income (Rs. in crores)		Per capita National Income(In Rs.)	
	At current prices	At constant prices	At current prices	At constant prices
1985-86	221401	459187	2932	6082
1986-87	246064	477158	3191	6189
1987-88	279400	493312	3546	6260
1988-89	334302	545572	4153	6777
1989-90	385729	582518	4693	7087
1990-91	450145	614206	5365	7321
1991-92	514607	617372	6012	7212
1992-93	587064	648182	6732	7433
1993-94	685912	685912	7698	7698
1994-95	805981	734358	8876	8088
1995-96	941861	787809	10160	8498
1996-97	1093961	852085	11601	9036
1997-98	1224787	890712	12772	9288
1998-99 ^P	1434456	948982	14712	9733
1999-2000 ^{QE}	1590301	1011224	16047	10204
2000-01 ^{RE}	1765238	1063479	17530	10561
2001-02 ^{QE}	1864292	1115157	17978	10754
Compound Annual Growth Rate				
1950-51 to 1960-61	5.2	3.8	3.2	1.8
1960-61 to 1970-71	9.9	3.5	7.5	1.2
1970-71 to 1980-81	11.7	3.0	9.2	0.7
1980-81 to 1990-91	14.3	5.4	11.9	3.1
1990-91 to 2000-01	14.6	5.6	12.5	3.9
2001-02	9.5	6.2	2.6	1.8
1950-51 to 2001-02	10.8	4.2	8.5	2.1

P :Provisional

QE: Quick Estimates

RE : Revised Estimates

Source: Hand Book of Statistics on Indian Economy. 2001 & 2002, Reserve Bank of India, 2001 & 2002 and compound growth rates are computed on the basis of the formula given in chapter 3

The table 7.2 reveals that during the first 10 years of planning (1950-51 to 1960-61), national income(NNP at factor cost) at constant prices increased at the annual rate of 3.8 per cent and the performance of the economy has been on the decline thereafter. During 1960-61 and 1970-71, the rate of growth of national income came down to 3.5 per cent and that of per capita income to 1.2 per cent per annum. In the subsequent 10-year period (1970-71 to 1980-81), the rate of growth of national income was 3.0 per cent and this growth in national income further neutralized by the growth of population. This is indicated by the fact that

there was only 0.7 per cent annual rate of growth of per capita income during the same period.

The Second Five Year Plan had in its longterm perspective of raising the living standards of the population stipulated that per capita income will be doubled by 1977. However, the increase of per capita income by merely 50 per cent during the 30 years period (1950-51 to 1980-81) only underlines the fact that the achievement was even less than half the long term projection made in the Second Plan. It is only by 1992-93, that the per capita income has doubled in a period of 42 years.

There was a very perceptible improvement in the growth rate during the eighties. During 1980-81 and 1990-91, national income showed a growth rate of 5.4 per cent per annum and the per capita income at constant prices improved on an average by 3.1 per cent per annum. This is a very healthy development. During 1990-91 to 2000-01, the annual average rate of growth of national income (at 1993-94 prices) was just of the order of 5.6 per cent per annum and that of per capita income was 3.9 per cent. During 1993-94 and 1997-98, the growth rate of national income at 1993-94 prices was 7.0 per cent on average and of per capita income at 5.1 per cent. The sharp spurt in growth is attributed to high growth in agriculture, manufacturing, electricity, construction, trade and hotels, transport other than railways and communication. During the last two decades (1980-81 and 2000-01), the average annual growth of national income was 5.5 per cent and that of per capita income was 3.3 per cent. It implies that the economy has performed better during these two decades as compared with the earlier three decades.

Now if we break up the figure into different plan periods, then it reveals that during First Plan , annual average rate of growth of national income was 3.6 per cent (at 1993-94 prices), which improved to 4.1 per cent during the Second Plan. However, during the Third Plan, annual average increase in national income slumped down to 2.5 per cent which was just sufficient to neutralize the growth of population. This is indicated by the fact that there was 0.2 per cent rate of growth of per capita income during the Third Plan. This was largely the consequence of a serious drought in 1965-66 and thus the growth rate got

depressed. After 1967-68 the economy started picking up and the growth rate showed signs of improvement. During the Fourth Plan period, the average annual rate of growth of national income declined to 3.3 per cent and that of per capita income to 1.0 per cent per annum. The sharp increase in prices during 1972-73

Table 7.3
Annual Average Growth Rate in Various Plans
(At 1993-94 Prices)

Five Year Plans	National Income	Per Capita Income
First Plan(1951-52 to 1955-56)	3.6	1.8
Second Plan(1956-57 to 1960-61)	4.1	2.0
Third Plan(1961-62 to 1965-66)	2.5	0.2
Annual Plans(1966-67 to 1968-69)	3.8	1.5
Fourth Plan(1969-70 to 1973-74)	3.3	1.0
Fifth Plan(1974-75 to 1978-79)	5.0	2.7
Annual Plan(1979-81)	(-)6.0	(-)8.3
Sixth Plan(1980-81 to 1984-85)	5.4	3.2
Seventh Plan(1985-86 to 1989-90)	5.8	3.6
Annual Plans(1990-91)	5.4	3.3
Annual Plan(1991-92)	0.5	(-)1.5
Eighth Plan(1992-93 to 1996-97)	6.7	4.6
Ninth Plan(1997-98 to 2001-02)	4.6	3.0
1950-51 to 2001-02	4.2	2.1

Source:CSO, National Accounts Statistics, 2001 and 2003

and 1973-74 and the shortfalls in production on account of lower utilization of capacity were the principal factor responsible for a lower growth rate during the Fourth Plan.

During the Fifth Plan, the average annual increase in national income was of the order of 5.0 per cent and that of per capita income was barely 2.7 per cent. On the whole, the performance of the economy during the Fifth Plan can be considered very satisfactory. During the Sixth Plan national income registered a annual growth rate of 5.4 per cent with per capita income growth rate of 3.2 per cent.

During the Seventh Plan, India's national income grew on the average at the rate of 5.8 per cent per annum and the annual growth of per capita income was 3.6 per cent . Obviously, Seventh Plan achieved its objective of 5 per cent

growth rate of national income along with 3 per cent targeted growth rate f per capita income .This was a welcome development.

During the Eighth Plan. national income achieved the growth rate of about 6.7 per cent with a per capita growth of about 4.6 per cent . This healthy trend needs to be sustained. However, during Ninth Plan the annual average growth of NNP slumped down to 4.6 per cent with per capita NNP at 3.0 per cent.

The performance of Indian economy described above, however, required careful quantitative analysis. We know that GNP is a misleading indicator in the sense that it only measures structural changes. In the context of economic development and rapid growth of the Indian economy and the national goal of establishing an egalitarian society which would ensure a comparative equality of income among the masses, the problem of distribution of income and wealth assumes great importance. The rate of the growth of national income or per capita income alone does not enable one to say with certainty whether the rich have become richer and the poor poorer, or whether a more egalitarian society has been established. The analysis of distributional aspect of national income will ascertain how the different sections of society of the economy shared in this rise in income and how the pattern of income distribution changed over this period.

7.8 Distribution of Income and Wealth:

To understand the distribution-picture we should first have an idea of the extend of inequalities. This will be helpful in grasping the seriousness of the problem as also in looking for the course and for devising measures for reducing these inequalities to a desirable level.

The distribution of income in the economy is highly unequal if at the one end there are very few at the top, constituting a very small percentage of total population, who are command a very larger proportion of national income and at the other end i.e. at the bottom there are a very large number, constituting a substantial percentage of population, but with a very small share in national income.

Simon Kuznets in his study-“*Quantitative Aspects of Economic Growth of National income: XIII Distribution of Income by Size*”(January 1963) concluded that ‘there is a greater inequality in the distribution of income in developing than in developed countries.....the pattern of income distribution of the developed countries in the period 1900-04 is not dissimilar to the present pattern in developing countries..... In these developed countries the inequalities in income have narrowed overtime with the share of the upper income group declining..... Kuznets in his work showed income distribution for India in 1949-50, for Ceylon in 1950, and for Puerto Rico in 1948. Kuznets concluded that the data show that income distribution in these countries is somewhat more unequal than in the USA or UK .It was also seen that poorest 60 % of the people received 28% of income in India, 30% in Ceylon and 24% in Puerto Rico. These figures may be compared with 34% in the USA and 36% in the UK . The total income received by richest 20% is 55% in India, 50% in Ceylon and 56% in Puerto Rico. In the USA, it is 44% and in the UK 45%.

However, Simon Kuznets’s views with regard to more uneven distribution of income in underdeveloped countries than in developed ones have been disputed by P.D Ojha and V.V.Bhatt in their study “*Pattern of Income Distribution in Underdeveloped Economy – A Case Study of India*”(American Economic Review, September 1964). They did not deny the presence of inequalities of income in India. But showed that India has a relatively low degree of unequal distribution of income among underdeveloped countries. This can be shown with the help of table 7.4. It appears from this table that the distribution of personal income is more uneven in other countries than in India. The share of the top 5 % in these countries ranges between 20 % and 37.0 %, while the share of top 10% is between 28 and 46.7 per cent. It is significant to note that in India the shares of the top 5 per cent and top 10 per cent are the lowest among these countries. Similarly, though there are not very sharp differences between the shares of the bottom 20 per cent in the developed and underdeveloped countries (excluding India), its share in India is the highest. Therefore, we can conclude that the belief of greater inequality in the distribution pattern in developing countries seems to be less valid in the case of the Indian distribution pattern. The recent study

conducted jointly by the World Bank and the Institute of Development Studies at Sussex University (England) also supports the above conclusion.

Table 7.4
Distribution of Personal Income in Selected Countries

Countries	Bottom 20%	Bottom 60%	Top 20%	Top 10 %	Top 5%
Developed Countries					
USA(1950)	4.8	32.0	45.7	30.3	20.4
UK(1951-52)	5.4	33.3	44.5	30.2	20.9
West Germany(1950)	4.0	29.0	48.0	34.0	23.6
Sweden(1948)	3.0	29.1	46.6	30.3	20.1
Under developed Countries					
India(1953-54 to 1956-57)	8.0	36.0	42.0	28.0	20.0
Ceylon(1952-53)	5.1	27.7	53.9	40.6	31.0
Mexico(1957)	4.4	21.2	61.4	46.7	37.0
Italy(1958)	6.1	31.2	48.5	34.1	23.4

Source: Kumar. V, *Government Expenditure and Economic Development*, Criterion Publication, New Delhi, 1986.

Data given in table 7.5 reveals that income inequalities were very high in Brazil and Mexico. They were moderate in UK, USA and China, but were low in Pakistan, India and Sri Lanka and Switzerland.

Table 7.5
Distribution of Personal Income in Selected Countries

Countries	Lowest 20 %	Middle 60 %	Highest 20 %	H/L
Brazil(1996)	2.5	33.7	63.8	25.5
Mexico(1995)	3.6	38.2	58.2	16.2
UK(1991)	6.6	50.4	43.0	6.5
Switzerland(1992)	6.9	52.8	40.3	5.8
China(1998)	5.9	47.5	46.6	7.9
USA(1997)	5.2	48.4	46.4	9.0
Pakistan 1996-97)	9.5	49.4	41.1	4.3
India(1997)	8.1	45.8	46.1	5.7
Sri Lanka(1995)	8.0	49.2	42.8	5.4

Source: World Development Report, 2000-01

Income distribution in different period during the 1950s was estimated by F. H. Lydall , N. S. Iyengar and M. Mukherjee, the Reserve Bank of India (RBI) and the National Council of Applied Economic Research (NCAER) . Since there are methodical differences between the various estimates and none of them covers the entire period 1950-51 to 1960-61, it is not possible to draw any firm conclusions regarding the results in income distribution. However, the broad picture that emerges from these estimates (Table 7.6) is follows:

Table 7.6
Personal Income Distribution for Different Periods

Groups	RBI Estimates 1953-54 to 1956-57			Iyenger & Mukherjee Estimates 1952-53 to 1956-57		Lydall Estimates	NCAER Estimates (1960)	
	Rural	Urban	Total	Rural	Urban		Rural	Urban
Top 5 %	17.0	26.0	20.0	14.0	17.5	23.0	-	31.0
Top 10 %	25.0	37.0	28.0	24.0	25.0	34.0	33.6	42.4
Top 50 %	44.0	38.0	44.0	-	-	41.0	45.7	40.6
Bottom 20%	9.0	7.0	8.0	7.5	8.5	9.1	4.0	4.0

Source: Kumar. V, *Government Expenditure and Economic Development*, Criterion Publication, New Delhi, 1986

The RBI estimates show that whereas the bottom 20 % of the population has only 8 % of the total income, the top 5 % has a share of 17 % and that the top 10 % accounted for 28 % of national income. The rural-urban breakdown in this estimate shows in addition that the income distribution is more unequal in the urban sector than in the rural sector. Lydall's estimates run closer to the RBI estimates which show that whereas the top 5 % of the total household shared 23 % of the monthly per capita income, the bottom 20 % had a share as low as 9.1% of the monthly per capita income in 1955-56. The corresponding figures in the Iyenger and Mukherjee estimates for 1956-57 are 17.5 % and 8.5 %. The percentage share in aggregate income of the top 5 % in the Iyenger and Mukherjee's estimates is lower than Lydall's figures. Iyengar and Mukherjee's estimates also show an increase in the share in total income received by the top 10 per cent and the bottom 20 per cent of the households, which implied that the middle income groups became worse off over the period 1952-57. The NCAER estimates revealed that top 10 % of the households sharing 33.6 % and 42.4 %

of total income respectively, for the rural and urban sector ; while the bottom 20 % getting only a share of 4 % in both the cases. These findings confirm the RBI estimates that rural incomes are less unequally distributed than urban incomes.

The Planning Commission in the Draft Five Year Plan 1978-83 observed, "Trends in the distribution of income and wealth are difficult to discern, but the evidence of persistence of gross inequalities is clear. Analysis of consumption expenditure (data source: NSS – 28TH Round) shows that in 1973-74 the lowest 20 per cent accounted for 9.5 per cent of total consumption in rural areas while the highest 20 per cent accounted for 38 per cent . For urban areas the corresponding figures were 9.2 per cent and 40 per cent .

The World Bank's estimates of income distribution in India for 1983, based on results of the U.N. International Comparison Programme Phase V , for 1985, however indicate that income inequalities have somewhat diminished in this country between 1975-76 and 1983 . Although the World Bank's two estimates, that is , for 1975-76 and 1983 are not strictly comparable, they nevertheless show that while the share of top 10 per cent households had declined from 36.6 per cent of the household income in 1975-76 to 26.7 per cent in 1983 , the share of bottom 40 per cent households rose from 16.2 per cent of the household income to 20.4 per cent during the same period .

Table 7.7
Estimation of Incidence of Poverty in India

Year	Poverty Ratio (%)			Number of Poor (Million)		
	Rural	Urban	Combined	Rural	Urban	Combined
1973-74	56.4	49.0	54.9	261.3	60.0	321.3
1977-78	53.1	45.2	52.3	264.3	64.6	328.9
1983	45.7	40.8	44.5	252.0	70.9	322.9
1987-88	39.1	38.2	38.9	231.9	75.2	307.1
1993-94	37.3	32.4	36.0	244.0	76.0	320.3
1999-2000	27.1	23.6	26.1	193.2	67.1	260.3

Source: Economic Survey 2003-04

The success of the anti-poverty strategy is reflected in the decline in the combined poverty ratio from 54.9 per cent in 1973-74 to 36.0 per cent in 1993-94

(Table No). The poverty ratio declined by nearly 10 percentage point in the five year period between 1993-94 to reach 26.1 per cent in 1999-2000. While the proportion of poor in the rural area declined from 56.4 per cent in 1973-74 to 27.1 per cent in 1999-2000, the decline in urban areas has been from 49 per cent to 23.6 per cent during this period. In absolute terms the number of poor declined to 260 million in 1999-2000, with about 75 per cent of these being in rural areas.

Wide inter-state disparities are visible in the poverty ratios between rural and urban areas as also in the rates of decline of poverty. Among the major states Orissa, Bihar, West Bengal and Tamil Nadu had more than 50 per cent of their population between poverty line in 1983. By 1999-2000, while Tamil Nadu and west Bengal had declined their poverty ratio by nearly half, Orissa and Bihar continued to be the two poorest states with poverty ratio of 47 and 43 per cent respectively. In 1999-2000, 20 states and U.T had poverty ratio which were less than the national average. Among the other states J & K, Haryana, Gujrat, Punjab, Andhra Pradesh, Maharashtra and Karnataka also succeeded in significantly reducing the incidence of poverty (source of data : Economic survey 2003-04)

In another estimate N. S. Iyengar and P. R. Brahmananda have calculated Gini Lorenz Ratios. They have used the NSS data on consumption expenditure for this purpose. Their results are given in table 7.8.

Table 7.8
Plan wise Average Gini-Lorenz Ratio

Plan	No. of observations	Rural	Urban
First Plan(1951-52 to 1955-56)	6	0.34	0.38
Second Plan(1956-57 to 1960-61)	6	0.33	0.37
Third Plan(1961-62 to 1965-66)	4	0.33	0.35
Annual Plans(1966-67 to 1968-69)	3	0.30	0.33
Fourth Plan(1969-70 to 1973-74)	4	0.29	0.33
Fifth Plan(1974-75 to 1978-79)	1	0.31	0.33
Annual Plan(1979-81)	NA	NA	NA
Sixth Plan(1980-81 to 1984-85)	1	0.30	0.33

Source: N. S.Iyengar and P. R. Brahmananda, "Estimated Distribution Parameters and Their Behaviour" in The Development Process of The Indian Economy (Bombay, 1987)

From the results given in table 7.8 we can draw the following conclusions:

- (1) Since during the 1950s the average Gini-Lorenz Ratios for both rural and urban areas were higher than the Gini-Lorenz Ratios for the subsequent decades, inequalities in the distribution of consumption expenditure have declined over time.
- (2) From 1960 onwards, the Gini-Lorenz Ratio of the rural areas has been stable around 0.30. This implies that over this period inequalities in the rural areas have not increased. The Gini-Lorenz Ratio for the urban areas has been stable at 0.33 over the period from mid-1960s to the mid-1980s which means that there is no evidence in support of the commonly held notion that in cities inequalities have increased.
- (3) The Gini-Lorenz Ratios for the urban areas are about 10 to 12 per cent higher than that for the rural areas. This clearly suggests that inequalities are higher in the urban areas than in the rural areas.

Gini coefficients are aggregate inequality measures and can vary anywhere from 0 (perfect equality) to 1 (perfect inequality). The Gini coefficient for India from 1950-51 to 1999-2000 is depicted in the table 7.9 and it is seen from the table that during the period the coefficient show a decreasing trend both for the rural and urban India which in turn indicate a decreasing trend of income inequality during the period mentioned above for both rural and urban India. However, the table also reveals that the rural incomes are relatively equitably distributed than that of urban income. The index of annual rate of change of Gini coefficient during 1970-71 to 1999-2000 is 0.0 per cent for the rural India and it is 0.3 per cent for urban India.

The increased income, as a result of planned development, which has been shared by various sections of the population sufficiently, indicates the changes which took place in the distributive shares during the planning period. The Mahalonobis Committee pointed out two important reasons for the unequal distribution of income in the hands of a very small portion of people in the

Table 7.9
Gini Coefficient of Per-Capita Consumer Expenditure in India

Financial Year	Gini coefficient	
	Rural	Urban
1950-51	33.7	40.0
1960-61	32.5	35.6
1970-71	28.8	34.7
1973-74	28.5	30.8
1977-78	30.9	34.7
1980-81	-	-
1983-84	30.1	34.1
1987-88	29.4	34.6
1990-91	27.7	34.0
1993-94	28.6	34.3
1997-98	30.6	36.5
1999-2000	NA	NA
Index of annual rate of change, 1970-71 to 1999-2000(%)	0.0	0.3

Source: India Development and Participation , Jean Dreze and Amartya Sen , Oxford University Press.

country. Firstly, unemployment and underemployment and the resulting low productivity are important factors for low levels of income for the large masses of people. Secondly, the heavy concentration of income in the hands of a few people. According to the Mahalonobis Committee, the inequality in the wealth distribution is higher than in income distribution. The Reserve Bank of India in its All-India Debt and Investment Survey for 1991-92 has provided data for asset distribution in the rural and urban household separately.

The data (table 7.10) revealed that 27 per cent of rural households, owning assets worth less than Rs. 20,000 accounted for only 2.4 per cent of total assets, and 23.8 per cent of households in the asset ownership range of Rs. 20,000 – 50,000 accounted for only 7.5 per cent of total assets. In other words, nearly 51 per cent of households owned only 10 per cent of assets. As against them, 9.6 per cent of households owning assets worth more than Rs. 2.5 lakhs accounted for 48.8 per cent of the assets. This indicates high concentration of assets by richer households and lack of asset ownership among very poor households.

Table 7.10
Percentage of Distribution of Households and Percentage Share
of Assets Owned in 1991

Asset Group (Rs. 000's)	Rural Households		Urban Households	
	% of Households	% share of Assets	% of Households	% share of Assets
Less than 5	7.5	0.2	18.1	0.2
5 to 10	7.4	0.5	6.1	0.3
10 to 20	12.1	1.7	9.3	0.9
Less than 20	27.0	2.4	33.5	1.4
20 to 30	9.4	2.2	7.1	1.2
30 to 50	14.4	5.3	10.1	2.7
20 to 50	23.8	7.5	17.2	3.9
50 to 70	10.3	5.7	8.0	3.3
70 to 100	10.6	8.3	8.0	4.7
50 to 100	20.9	14.0	16.0	8.0
100 to 150	9.7	11.0	9.6	8.2
150 to 250	9.1	16.3	9.4	12.6
100 to 250	18.8	27.3	19.0	20.8
250 & Above	9.6	48.8	14.2	65.8
All classes	100.0	100.0	100.0	100.0

Source: Compiled and computed from RBI, All-India Debt and Investment Survey, 1991-92, RBI Bulletin, May 1999.

The situation appears to be worse for the urban households 33.5 per cent of the poor households owning assets worth less than Rs. 20,000 accounted for only 1.4 per cent of total urban assets implying a case of extreme misery. 17.2 per cent of households in the assets range Rs. 20,000 – 50,000 worth of assets merely owned 5.3 per cent of total assets. On the other hand, 14.2 per cent of the top households owning assets worth Rs. 2.5 lakhs and above accounted for nearly 66 per cent of total assets. This indicates stark reality that there is a very high degree of concentration of assets among urban households at the top.

It is really distressing that urban areas which are considered to be the forerunners of development indicate such sharp inequality in asset distribution. It might be so on account of lack of employment opportunities for the rural poor are shifting to urban areas in search of livelihood and thus swelling the ranks of poor assetless households.

Land holding may be of ownership and operational types. Both of them displayed a high degree of concentration. According to Mahalonobis Committee estimate, in 1953-54, top 1 per cent of the households owned 17 per cent, top 5 per cent owned 41 per cent and top 10 per cent owned 58 per cent of land holdings; in 1959-60, the corresponding figures were 16 per cent, 40 per cent, and 56 per cent respectively as shown in the table 7.11.

A number of agricultural censuses of operational holdings have been held between 1970-71, and 1990-91. The data provided by the Development of Agriculture and Co-operation, GOI, Annual Report, 1994-95, reveal that the number of holdings

Table 7.11
Concentration of Land Holding

Households	Percentage of Land Holding	
	1953-54	1959-60
Top 1 per cent	17	16
Top 5 per cent	41	40
Top 10 per cent	58	56
Top 20 per cent	77	75

Source: Mahalonobis, P.C., Report of the Committee on the Distribution of Income and Levels of Living, February, 1964.

increased from 71 million in 1970-71 to 106 million in 1990-91, signifying an increase of 48 per cent, even though the area operated increased only marginally from 162 million hectares to 166 million hectares - merely by 2.4 per cent.

As per 1970-71 census, 36 million out of a total of 71 million holding (i.e. about 51 %) belonged to the size category of less than 1 hectare. These marginal holdings accounted for 15 million hectares or 9 per cent of the total area. In 1990-91, the number of holdings in this category increased to 62 million and the area operated by them rose to 25 million hectares i.e. 15 per cent of the total area. This implies that the increase in area operated just compensated the increase in the number of holdings. This indicates that this group of marginal cultivators who have little land continued to live below the poverty line since

average size of marginal holdings of 0.40 hectare of land is too meager to eke out a living. Thus the above data indicates the fact of swelling the ranks of marginal farmers or nearly land less labours.

The small holding group consists of holdings in the range of 1 to 4 hectares. In 1970-71, there were 24 million holdings and they accounted for 49 million hectares or 30 per cent of the total area operated. However, in 1990-91, the number of holdings in this category increased to 34 million (i.e. 33 per cent of the total number of holdings) accounted for 67 million hectares or 41 per cent of total area. In other wards, both interms of number of holdings and area operated under them, there was a small increase in this category. The average size of small holdings is a little more than 2 hectares.

Table 7.12
Number and Area of operational Holdings in India

Holding Group	Number in millions		Area in million hectare	
	1970-71	1990-91	1970-71	1990-91
Marginal Holding (below 1 hectare)	36(51)	62(58)	15(9)	25(15)
Small Holding (1to 4 hectare)	24(34)	34(33)	49(30)	67(41)
Medium Holding (4to 10 hectare)	8(11)	8(7)	48(30)	45(27)
Large Holding (10 hectare & above)	3(4)	2(1)	50(31)	29(17)
Total	71(100)	106(100)	162(100)	166(100)

Note: Figures in brackets are percentages of total in the respective column.

Source: Department of Agriculture and Co-operation, Government of India, Annual Report, 1994-95.

Medium holdings group consists of holdings in the range of 4 to 10 hectares. In 1970-71, there were a little less than 8 million holdings in this category accounting for 11 per cent of total operational holdings and these holdings covered 48 million hectares i.e. 30 per cent of total operational area. In 1990-91, the number of medium sized holdings remained the same (8 million) – but interms of percentage, it came down to 7 per cent. Likewise, the total area covered by medium holdings came down to 45 million hectares i.e. about 27 per cent of total operational area. Therefore, the average size of operational holdings in this category had declined marginally from 6 hectares to 5.6 hectares between 1970-71 and 1990-91.

Large holding group consists of land holding of size 10 hectares and above. There were nearly 3 million holdings in this size category in 1970-71 accounting for only 4 per cent of total operational holdings but they covered 50 million hectares i.e. 31 per cent of total operational area. In 1990-91, the number of large-sized holding declined to 2 million (1 % of total). In fact, this category suffered the largest decline in the area operated during 1970-71 and 1990-91. The average size of holding in this category declined from 16.6 hectares in 1970-71 to 14.5 hectares.

Now on the basis of above findings of agricultural census since 1970-71 regarding the number and size of operational holdings in India we can draw two contradictory trends operating in the country. These are-

- (a) There has been growing division of agricultural holdings partly due to the growth of rural population and partly due to the operation of the law of inheritance among the Hindus under which both sons and daughters get equal share in the ancestral property.
- (b) Under ceiling of land holdings, large agricultural holdings have been divided at least in those states where ceiling legislation has been properly implemented and surplus land has been distributed to small and marginal farmers.

On the opposite trend, there is growing number of medium and large agricultural holdings with greater concentration of land area in a few hands. There has been growing alienation of land by small and marginal farmers to money lenders who were also big landowners, on account of non-payment of debt. This was quite common till the 1950s but is still prevalent in most part of the country. At present, the success of new agricultural technology has led to the gradual eviction of tenants by the richer landowners on the ground of personal cultivation. These two factors point out the possibility of decline in the number of small and marginal holdings and increase in the number of large holdings.

Despite these two contradictory tendencies operating in the country, the table 7.12 brings out clearly that:

- (a) the number of marginal and small holdings had increased from 60 million to 96 million between 1970-71 and 1990-91; in percentage terms, the number of marginal and small holding had increased from 85 per cent to 92 per cent of all land holdings in the country .
- (b) Marginal and small holdings accounted for 46 per cent of the total area in 1990-91 as against only 36 per cent in 1970-71.
- (c) At the same time, medium and large holdings had declined from 15 per cent to 8 per cent of the total number of land holdings and the area under these holdings has also declined from 61 per cent to 44 per cent of the total area.
- (d) There was no much change in the number of medium holdings which is about 8 million in both the years and there was also not much change in the area under medium holdings viz. 48 million hectares in 1970-71 and 45 million hectares in 1990-91.
- (e) During this period, the real change was with regard to large holdings; the number of large holdings had declined from 3 million to 1.6 million and the area under large holdings had declined sharply from 50 million hectares to 29 million hectares.

Therefore, on the basis of the above observation we can conclude that there is a gradual but positive shift infavour of small and marginal holdings and the concentration of land with very large land owners is coming down. This, indeed, is a welcome trend.

In India wealth and power concentrations have occurred after Independence and have been intensified during the last 50-years of development planning which involved substantial outlays for implementing programmes.

Table 7.13 about the net assets of 1690 private sector companies in India for 1990-91 has been presented. The data highlight the fact that 1.6 per cent of the companies with assets of more than Rs. 700 crores accounted for about 27 per cent of the total assets. Even in this group, 13 companies (0.8 %) accounted for 18.4 per cent of total assets. As against them, 1415 companies (83.7 %) with assets less than Rs. 100 crores accounted for only 30 per cent of total assets.

Obviously, there is the dominance of the large companies in assets ownership. Even among the large companies, only 57 companies with assets of more than Rs. 400 crores account of 39.1 per cent of total assets. The data therefore, clearly indicates trends towards the emergence of monopoly capital in the private sector in India.

Table 7.13
Size wise distribution of net assets of 1690 private sector companies in India (1990-91)

(Rs. in Crores)			
Size Range	No. of companies size	Total Assets	Average
Below 100	1,415(83.7)	38,530(29.9)	27.2
100-200	148(8.8)	20,788(16.1)	140.4
200-300	48(2.8)	11,707(9.1)	243.9
300-400	22(1.3)	7,380(5.7)	335.4
Sub-Total	1,633(96.6)	78,405(60.9)	
400-500	19(1.1)	8,637(6.7)	454.6
500-600	7(0.4)	3,904(3.0)	557.7
600-700	5(0.3)	3,232(2.5)	646.4
Sub-Total	31(1.8)	15,773(12.2)	
700-800	6(0.4)	4,532(3.5)	755.3
800-900	3(0.2)	2,529(2.0)	843.0
900-1000	4(0.2)	3,848(3.0)	962.0
1000 & above	13(0.8)	23,706(18.4)	1823.5
Sub-Total	26(1.6)	34,615(26.9)	
Total	1,690(100.0)	128,793(100.0)	

Note: Figures in brackets are percentages of total in the respective column.

Source: Compiled and computed from CMIE, Basic Statistics Relating to the Indian Economy, August, 1992.

The Monopolies Inquiry Commission (1956) found that 75 business houses controlled 1536 companies. A business house or group was defined to comprise all such concerns which were subject to the ultimate and decisive decision-making power of the controlling interest in the group. Data given in table 7.14 reveal that total assets of the top 20 industrial houses which were of the order of 1,346 crores in 1963-64 increased to Rs. 2,511 crores in 1972. The figure further step up to Rs. 7,857 crores in 1981 and zoomed to Rs. 41,522 crores in 1989-90. The rate of growth of assets of the top 20 houses during the period 1972 to 1989-90 works out to be 16.9 per cent per annum.

In 1989-90, Tata were at the top with assets of the order of Rs.8,531 crores, closely followed by Birlas with assets of Rs. 8,473 crores. Among the

Table 7.14
Assets of Top 20 Industrial Houses

(Assets in Rs. Crores)

Industrial Houses	1972	1981	1989-90	Compound Annual Rate of Growth(1972 to 1989-90)
Tata	642	1,840	8,531	15.5
Birla	581	1,692	8,473	16.0
Reliance	-	271	3,600	33.3
Thapar	136	430	2,177	16.7
JK Singhanian	121	520	2,139	17.3
Larsen & Toubro	79	220	1,682	18.5
Modi	58	242	1,399	19.3
Bajaj	63	215	1,391	18.8
Mafatlal	184	535	1,344	11.7
MA Chidambaram	-	-	1,273	10.5
Hindustan Liver	78	247	1,209	16.4
United Breweries	36	-	1,189	21.4
TVS Iyengar	51	227	1,177	19.1
I.T.C	75	-	965	15.2
Shri Ram	121	269	934	12.0
ACC	134	343	903	11.2
Oswal Agro	-	-	870	-
Mahindra & Mahindra	58	408	774	15.5
Essar	-	-	756	173.0
Kirloskar	86	398	736	12.7
Total	2511	7,857	41,522	16.9

Source: CMIE, Basic Statistics Relating to the Indian Economy, August, 1993

top 20 business houses, the top 5 viz Birla, Tata, Reliance, Singhanian and Thapar accounted for total assets of Rs. 24,930 crores in 1989-90 i.e. 60 per cent of the total assets of 20 business houses. This proportion was 60.3 per cent in 1981. A deeper analysis further reveals that 49.6 per cent of the total assets of 20 big business houses is concentrated in top three business houses in 1989-90. The corresponding figures for the year 1981 was 51.8 per cent and for the year 1972 was 56 per cent.

Therefore, the foregoing discussion reveals the existence of the concentration of economic power despite the developing planning.

Over five decades of sustained efforts of economic planning in India, significant achievements have been made in the spheres of agriculture, industry, education, medical and public health services, communications and transport, banking and insurances etc. It is beyond doubt that living conditions have improved every where, even in the most backward areas. However, the fact remains that millions of our people are still victims of poverty and they are not getting even the basic necessities of life.

Several estimates regarding poverty in the country have been made from time to time. The Planning Commission constituted in Sept. 1989 an 'Expert Group' to consider methodological and computational aspects of estimation of proportion and number of poor in India. The 'Expert Group' defined poverty line on the basis of the recommended nutritional requirements of 2400 calories per person per day for rural areas and 2100 calories per person per day for urban areas. On this basis, minimum needs and effective consumption demand, namely a monthly per capita total expenditure of Rs. 49 in rural areas and Rs. 57 in urban areas at all India level at 1973-74 prices be adopted as the base line . The Planning Commission has accepted the 'Expert Group' estimates for poverty. The estimate has been prepared for 1973-74, 1977-78, 1983, 1987-88 and 1993-94.

Table 7.15
Number of percentage and percentage of Population below
Poverty line in India

Year	Rural number of persons(lakh)	Urban number of persons(lakh)	Combined number of persons(lakh)
1973-74	2,613(56.4)	600(49.0)	3,213(54.9)
1977-78	2,642(53.1)	647(45.2)	3,289(51.3)
1983	2,520(45.7)	709(40.8)	3,229(44.5)
1987-88	2,319(39.1)	752(38.2)	3,071(38.9)
1993-94	2,440(37.3)	763(32.4)	3,203(36.0)

Note: Figures in brackets are percentages of total in the respective column.

Source: Planning Commission, Ninth Five Year Plan(1997-2002), Vol. I, p.29

Between 1973-74 and 1987-88 there was a decline in poverty from 54.9 to 38.9 per cent – a fall of 16 per cent in 14 years. The average rate of decline was 1.14 per cent per annum. But in subsequent, 6 year period (1987-88 to 1993-94), poverty ratio declined from 38.9 per cent to 36.0 per cent – a fall of 2.9 per cent in 6 years. The average rate of decline was barely 0.48 per cent per cent per

annum. During this period (1987-88 to 1993-94), urban poverty declined from 38.2 per cent to 32.4 per cent – a fall of 5.8 per cent with average annual rate of reduction of 0.97 per cent. But during the same period rural poverty declined by 1.8 per cent only from 39.1 per cent to 37.3 per cent with average rate of reduction by 0.3 per cent. The slowdown in the reduction of poverty, particularly in the rural area, is a matter of serious concern for the country.

Needless to say a large majority of the poor in India live in rural areas. Most of rural people living below the poverty line belong to the categories of landless labourers, small and marginal farmers, rural artisans and backward classes who have either no assets or, if they have some, they are played by low productivity and consequently low income. In urban areas the poor are to be found mostly in the unorganized sector with irregular employment and generally getting low wages.

The philosophical foundations of the planning policies and strategy were sound but there was crisis of implementation due to the existence of a gap between the theory and practice of socialist planning. The planning process has been able to create social and economic infrastructure, provide an industrial base by fostering the development of heavy and basic industries and enlarge educational opportunities, it failed to provide employment to every able-bodied person, eliminate poverty and brings about institutional reforms leading to reduction in concentration of income and wealth. Moreover, the benefits from economic development have accrued largely to the relatively affluent and those in urban areas. On the industrial front, a strong industrial infrastructure has been built and a whole range of metallurgical and electrical engineering and chemical industries have been developed. And along with the growth of production and capital in the planning period, there has emerged a very clear trend towards a few big houses and monopolies holding entire industries at the cost of small entrepreneurs. For all the concentration of economic power, our planning process is itself to blame.

Table 7.16
State-wise indices of Economic Development

States	Per capita GSDP (Rs) in 93-94 Prices			Annual Average GSDP (93-94 Prices) Growth Rate (%) #			Poverty Ratio (%) \$	
	1980-81	1995-96	2004-05	81-82 to 89-90	90-91 to 99-00	2000-01 to 04-05	1983	04-05*
Bihar	3711 (15)	4107 (15)	5430 (15)	4.42	3.19	5.01	62.22	41.13
Uttar Pradesh	4615 (13)	6120 (13)	7380 (14)	4.96	3.79	4.24	47.07	33.13
Assam	5117 (11)	6530 (12)	7807 (13)	4.18	2.68	5.23	40.77	19.70
Orissa	4469 (14)	6022 (14)	8255 (12)	5.36	3.09	6.01	65.28	46.40
Madhya Pradesh	5522 (7)	7685 (11)	9457 (11)	4.30	5.75	3.32	49.78	38.96
Rajasthan	4783 (12)	8169 (10)	10995 (10)	7.23	6.69	5.39	34.46	22.10
West Bengal	5410 (9)	8254 (9)	13403 (9)	4.27	6.64	7.01	54.85	24.70
Andhra Pradesh	5142 (10)	9015 (8)	13805 (8)	6.66	5.27	6.54	28.91	15.80
Kerala	6092 (5)	9803 (6)	15401 (7)	3.34	5.92	6.88	40.42	15.00
Karnataka	5476 (8)	9429 (7)	15431 (6)	5.65	6.93	6.12	38.24	25.00
Tamil Nadu	5861 (6)	11361 (5)	16035 (5)	5.55	6.44	4.14	51.66	22.50
Punjab	9446 (1)	14664 (2)	19002 (4)	5.74	4.45	3.95	16.18	8.40
Haryana	8636 (2)	13186 (4)	19323 (3)	6.32	5.27	6.86	21.37	14.00
Gujrat	7361 (4)	14871 (1)	19899 (2)	6.37	7.02	6.85	32.79	16.80
Maharashtra	7963 (3)	13556 (3)	20397 (1)	6.29	6.79	5.13	43.44	30.70
CV (per cent)	27.54	35.23	37.21	20.55	28.66	22.03	33.33	44.19
Gini (per cent)	14.38	19.28	20.53	11.27	15.44	12.06	18.29	23.96

Notes: Figures in parentheses indicate the relative rankings of states interms of per capita income.

For each year, percentage change over previous year is computed and using them the average growth over the years is computed;

\$ 2004-05 data basaed on URP consumption procedure;

* Bohar's (combined) data are the weighted average of Bihar and Jharkhand values. Uttar Pradesh and Madhya Pradesh are also the weighted averages.

Source: Economic and Political Weekly, August 25-31, 2007 vol XLII No.34, page-3477

It is the task of government policy to implement compensatory measure to push forward the laggard regions and spread growth and development more evenly. However, during almost the entire period of national planning, a steady widening of regional disparities has taken place. These disparities are in growth rate, poverty levels and in indices of social development.

It is seen from the table 7.16 that there is a concentration of poverty and backwardness in a group of contiguous states accounting for about 50 per cent of total population of the major states in India. The relative positions of these states as a group in terms of income and almost all other indices of development have deteriorated over time. The deteriorations and relative position and deplorable conditions of their people are shown in the table 7.16 covering the period 1980-81 to 2004-2005.

Bihar had the lowest per capita income at the beginning and end of the period. In 2004-2005, its per capita income was only Rs. 5430 i.e. about Rs. 450 per month at 1993-94 prices. The gap between the highest and lowest per capita income (at 1993-94 prices) among the 15 states increased from 2.55 times to 3.76 times, in absolute term, from Rs. 5,735 to Rs. 14,967 in this period – indicating a stark widening of income disparity among the states. This difference was more in current prices.

Bihar, Uttar Pradesh, Assam, Orissa, Madhya Pradesh and Rajasthan had six lowest ranks in the per capita income in 1995-96 and 2004-05. These states are the backward states and others are relatively better off states. The gap between the average per capita income of backward states and better off states (in 1993-94 prices) drastically increased from Rs. 1,862 in 1980-81 to Rs. 8,908 in 2004-05, both because the average per capita income of backward states grew at a slower rate than that of the better off states and also because the average population of the backward states grew much faster (table 7.17)

This is also evident from the table 7.16 that the current pattern of growth leads to widening disparity not only in income and wealth but also in all other indices of development. For instance, the poverty ratio in 2004-05 was 46.4 per cent in Orissa and 41.1 per cent in Bihar as against 8.4 per cent in Punjab. The infant mortality rate in 2005 was 14 in Kerala but 76 in Madhya Pradesh. The male (female) life expectancy during 2001-06 was only 59 years (58 years) in Madhya Pradesh as against 71.7 (75) years in Kerala. Bihar had the lowest literacy rate in 2001 of 47 per cent and female literacy of 33.1 per cent while Kerala had the highest literacy rate of 90.9 per cent and female literacy of 87.7

per cent. The Human Development Index in 2001 of Bihar was only 0.37 and of Kerala is , of course, an exceptional case but even if one takes the next best performing state, the relative indicies of the backward state turn out to be quite poor .

Table 7.17
Combined Economic and Social Development Indices of
Backward and Better Off States

Details	Period	Backward States	Better Off States	15 Major States	India (GSDP)
Per capita GSDP (Rs) at 1993-94 prices	1980-81	4599	6461	5579	(6468)
	1995-96	6191	11296	8820	(10711)
	2004-05	7799	16707	12256	(15358)
Combined GSDP (1993-94 Prices) growth rate (per cent)	1981-82 to 1989-90	4.88	5.59	5.31	(5.81)
	1990-91 to 1999-00	4.28	6.20	5.51	(5.70)
	2000-01 to 2004-05	4.35	5.79	5.31	(5.78)
Poverty Ratio (per cent)	1983	50.68	40.14	45.16	44.48
	2004-05	34.87	21.61	28.25	27.50
Infant Mortality Rate	2005	70	43	54	58
Per cent of children undernourished	2002-04	52.5	42.3	47.9	49.2
Life Expectancy – male	2001-06	61.6	66.0	64.3	63.9
Life Expectancy - female	2001-06	61.7	69.0	66.1	66.9
Literacy person	2001	46.9	61.3	54.2	64.8
Female literacy	2001	35.7	53.5	44.7	53.7

Notes: Weighted average of backward, etter off and 15 major states are computed

Sources: Economic and Political Weekly, August 25-31, 2007 vol XLII No.34, page-3477

Thus, we observe not only the widening disparity among states but also that the situations in most of the backward states in terms of development indicators are really bad . It should be pointed out in this context that about 38 per cent of poor people in India live in two states of Bihar and Uttar Pradesh alone.

7.9 Social Development:

When the state spends its revenue, it grants benefits upon its citizens. These benefits are enjoyed by the people in their individual capacity. Since some items of public expenditure may grant individual benefits while others grant social benefits. Expenditure on the formation of human capital is redistributive in character because it improves the educational and health standard of the people and makes them more active agents of production. The proportion of total resources allocated to the formation of human capital has, therefore, the impact of bring about a redistribution of national income. Expenditure on social services, like education, public health, etc. welfare schemes for worker, relief and rehabilitation of displaced persons and similar services is an essential part of the expenditure, both for the redistributive and growth points of view in our country. Social services provide a positive advantage and the more developed these services, the happier and better off are the people. The distributional effects of such expenditure are commonly infavour of the poorer sections of society. In the following pages detailed analysis of each of the above items have been made to ascertain the effects of such expenditure on the poorer sections of the Indian society.

Education plays a key role in both economic and social development. It is both a form of consumption and a kind of investment. The term "*investment in education*" implies that there is a return to society analogous to that of physical investment . The immediate benefit that is obtained from schooling is the consumption component and schooling which help in acquiring abilities to increase the future earning, is an investment. In fact, the contribution of education to any society is multidimensional.

There has been considerable increase in the number of educational institutions, pupils and teachers, but a review of educational development programmes during the planning periods reveals that the educational system has not adequately geared itself to meeting the needs of a growing economy of ours, which is based on various short-and long-term social and economic objectives . In spite of several achievements (chapter 6) we can see that 56.9 per cent of the

children between the age group 11 to 14 years in 1988-89 89 and 23.5 per cent of children of the age-group 14 -17 years in 1984-85 went to school , which is certainly not a high figure for this age group . Thus the State has yet to go a long way to achieve the goal of free and compulsory education for all children as set by the constitution.

The main barrier to a scheme of compulsory primary education in India is economic. At very early age the children / boys assist their family in earning small bits of money because people are poor and can not afford to pay for education of their children. Most of the boys and girls in spite of attending a school they work to supplement the income of their families. It is impossible for boy and girl to study on an empty stomach. An unhealthy or ill fed child who is made to attend school has to be paid the cost of medicines. Mid-day meal has to be assured for them. Children in the slum areas who have no clothes to wear, leave alone money books, have to be provided with school uniforms. Thus, a very large number of children join the ranks of the illiterate every year.

According to some economists literacy is the one of broad indicators of development. In 1951, 16.6 per cent of the population in India could read and write. The percentage go up to 29.4 per cent in 1971 and to 36.1 per cent in 1981 and to 52.2 per cent in 1991. Thus 47.8 per cent of India's population is illiterate. Schooling was inadequate under British rule .Thus development of primary education was certainly an urgent necessity at the time of Independence. National Literacy Mission campaign had taken to fight illiteracy. But the condition had not improved a lot. Still the condition of primary schools in villages is bad. There are many schools running with out only infrastructure and adequate number of teachers. If teachers are there, then at many places, still there is no provision of classrooms. Recently, Sarba Siksha Aviyam campaign has been taken to fight illiteracy.

Expansion in the number of university had obviously done precious little to help the lower income groups to give their children higher education. Therefore, it is the underprivileged who are denied equal opportunities and in this way bear

the brunt of investment financing and shoulder the task of increasing the income of the better-off classes.

The health status of a population is a reflection of the socio-economic development of the country and is shaped by a variety of factors – the level of income and standard of living, housing, sanitation, water supply, education, employment, health consciousness, personal hygiene, and by the coverage, availability, accessibility, and affordability of health care delivery services.

The relationship between health and poverty or health and development is complex, multifaceted, and multidirectional. Poverty in its various dimensions could be a manifestation, as well as a determinant, of an individual's health. In its most basic form – as a state of food deprivation and nutritional inadequacy on the morbidity and longevity of people. Deprivation such as lack of access to critical amenities including safe water, sanitation, non-polluting domestic fuels, connectivity of life support services, and more importantly to education and general awareness contribute to the reinforcing ill – health and morbidity and high mortality level.

Attainments on the other dimensions of human development, especially educational and economic well-being, reinforce the transition toward better health and longevity.

The broad objective of the health and family planning programmes is to bring about progressive improvement in the health of the people in general and particularly, the poor or lower income people in the country whose income can be supplemented in this way. Despite huge increase in the public expenditure on public health, not enough is being spent to cope with the enormity of the present situation. Present medical assistance is a luxury in India and only the middle and rich classes can afford it. Hospitals in urban areas are over crowding. About 40 per cent to 50 per cent of our rural population goes without proper medical facilities and people depend on nature or the quacks to cure them of the diseases to which they are easy victims.

In the health front India's position is very poor even after more than 50-years of development planning. In India, population not using improved water sources was 16 per cent in 2000. This is indeed a very healthy development, but in absolute terms 165 million people (mostly rural poor) are unable to make use of improved water resources and thus become victims of all kinds of water-borne diseases. Similarly, improved sanitation facilities were not available to 72 per cent of the population. In absolute terms, 740 million persons were living under unsanitary conditions. India's record in the sphere of sanitation is, to say the least, tragic. Even in medium developed countries, population using adequate sanitation facilities ranged from 70 per cent to 90 per cent, but the proportion in India is palpably low at 28 per cent in 2000. Therefore, India has a long way to go in this area of access to health services. It is also really distressing that 49 per cent of the Indian population (mostly poor) did not have access to essential drugs in 1999. This implies that 527 million persons were without effective medical cover. The proportion of undernourished people in India in 2000 was 24 per cent. This implies 244 million people were under-nourished. This under nourishment is primarily due to existence of poverty. National Human Development Report (2001) also revealed that 47 per cent of the children under five years old were under weight in 2001. In absolute terms, 178 million children under five were under weight. Therefore, more is to be spend to support a programme of improving nutrition in poor families to reduce this massive number of under weight children.

At the time of Independence, the health situation in India was extremely dismal. There have, indeed, been large gains in the health status since independence reflected in the improvement in some health indicators presented in table 7.18. Overall, infant mortality has declined dramatically and life expectancy at birth has increased.

Table 7.18
Selected Health Indicators: India, 1947 and 2002

Indicators	At the time of Independence	2002
Birth rate	40.8	25.0
Death rate	27.4	08.1
Infant mortality rate	146.0	63.0
Life expectancy at birth	32.7	62.0

Source: India Social Development Report, Council of Social Development
Oxford University Press (2007)

One of the major reasons for these gains has been the development of an impressively vast, three tiered system of rural health infrastructure, namely, sub-centres, Primary Health Centres (PHCs), and Community Health Centres (CHCs). The successful eradication of small pox and elimination of guineaworm diseases are indisputably major public health achievements in India. Plague has remained in control since 1969. Yaws is near eradication and leprosy, near elimination. Cholera epidemics and death are comparatively infrequent and fewer. The incidence of measles, polio, whooping cough, and tetanus in children has been significantly lowered. Immunization has made a major contribution to these gains.

Programme for bringing scheduled casts, scheduled tribes and other backward class to the level of the rest of the community are among the most significant undertakings during the Five Year Plans. It is yet difficult to measure the success in fulfilling these programmes. However, we shall try to investigate whether SCs, STs and other disadvantaged classes are better or worse than the rest of the population.

Data on the health outcomes among SCs, STs show consistently that these groups are at a disadvantage. Of all disadvantaged groups in India, STs tend to have the highest rate of infant and child mortality malnutrition, and morbidity, followed by SCs and then by other disadvantaged (or backward) classes (table 7.19).

Table 7.19

Health among SCs, STs, and Rest of Population in India, 1998-99

Outcome	SC	ST	Other disadvantaged classes	Rest of the population
Infant mortality rate(per 1000 births)	83.00	84.20	76.00	61.80
Under-five mortality rate (per 1000 births)	119.30	126.60	103.10	82.60
Total fertility rate	3.15	3.06	2.83	2.66
Children underweight (%)	53.50	55.90	47.30	41.10
Children with anaemia (%)	78.30	79.80	72.00	72.70
Children with acute respiratory infection during two-week period (%)	19.60	22.40	19.10	18.70
Children with diarrhea, during two-week period (%)	19.80	21.10	18.30	19.10
Anaemia among women (%)	56.00	64.90	50.70	47.60

Source: India Social Development Report, Council of Social Development
Oxford University Press (2007)

Table 7.20
All-India Poverty Ratio

Category	Rural			Urban		
	1983-84	1993-94	1999-2000	1983-84	1993-94	1999-2000
SC	58.1	48.1	36.2	56.5	49.9	38.6
ST	63.8	52.2	45.9	54.2	42.4	34.8
Other	37.0	31.3	21.6	39.1	30.6	20.6
All	45.6	37.1	27.1	42.2	33.7	23.7
Net changes						
SC	-9.9	-11.9	-21.9	-6.6	-11.3	-17.9
ST	-11.6	-6.3	-17.9	-11.8	-7.6	-19.4
Other	-5.7	-9.6	-15.3	-8.5	-10.0	-18.5
All	-8.5	-10.0	-18.5	-8.5	-10.0	-18.5
Annual compound rate						
SC	-1.9	-4.6	-2.9	-1.23	-4.2	-2.36
ST	-2.0	-2.1	-2.0	-2.4	-3.2	-2.73
Other	-1.7	-5.9	-3.3	-2.42	-6.4	-3.5
All	-2.0	-5.1	-3.2	-2.2	-5.7	-3.5

Source: India Social Development Report, Council of Social Development
Oxford University Press (2007)

Table 7.20 presents the poverty ratio for SCs, STs and other (Non-SCs/STs) for 1983-84, 1993-94 and 1999-2000 at the all-India level. The incidence of rural poverty among the SCs declined from 58 per cent in 1983-84 to 48 per cent in 1993-94 and further down to 36 per cent in 1999-2000. The percentage of rural poor reduced at the per annum rate of 2.9 per cent during 1983-2000 – the rate of decline reduced to 1.9 per cent during 1983-93 but improved significantly to around 4.6 per cent during 1993-2000. The rate of decline thus is much higher during the 1990s. On the other hand the incidence of rural poverty among the STs were quite high at 63.8 per cent in 1983-84, from where it reduced to 52.2 per cent in 1993-94 and further down to 45.9 per cent. The percentage of rural poor STs reduced at the per annum rate of 2.0 per cent during 1983-2000 – the rate of decline was fixed around 2.0 per cent during 1983-93 and 1993-2000.

The incidence of poor among the SC urban household declined from 56.5 per cent in 1983-84 to 49.9 per cent in 1993-94 and further down to 38.6 per cent in 1999-2000, this is by about 2.4 per cent per annum during 1984-2000. The rate

of decline is relatively higher in the 1990s (4.2 % per annum) compared to the 1980s (1.23 % per annum). On the other hand the incidence of poor among the ST urban household declined from 54.2 per cent in 1983-84 to 42.4 per cent in 1993-94 and further down to 34.8 per cent in 1999-2000, this is by about 2.7 per cent per annum during 1984-2000. The rate of decline is relatively higher in the 1990s (3.2 % per annum) compared to the 1980s(2.4 % per annum). The differences in the direction and rate of change in rural and urban poverty between the SCs , STs and non- SCc/STs reveals that the rural poverty at the all-India level has declined both for SCs ,STs and the others. During 1983-2000 the rural poverty among the non-SCs/STs declined at slightly higher rate (3.3 %) as compared to the SCs (2.9 %) and STs (2.0 %). In 1980s there is not much difference in the rate of decline among these social groups. In the 1990s, poverty among the SCs and STs declined at a lower rate (4.6 % and 2.1 % respectively) as compared with non-SCs/STs group (5.9 %). Thus the decline in the rural poverty among the SCs and STs has been generally lower in comparison to the non-SCs/STs population. The decline in urban poverty among the SCs and STs also show the same trend.

It is thus clear that in the case of rural poverty the decline in its incidence among the SCs and STs have been accompanied by a decline in disparity in the 1980s. During 1990s, however, the decline in rural poverty among the SCs and STs was associated with an increase in disparity among SCs ,STs and non-SCs/STs . In the case of urban poverty, the decline was associated with an increase in disparity, both during 1980s and 1990s and the overall period between 1983 and 2000.

Table 7.21
Life Expectancy

Year	National Level	SC	Non-SC/ST
1992-93	62	58	63
1998-99	65	62	66

Source: India Social Development Report,
Council of Social Development
Oxford University Press (2007)

Besides poverty, the level of human development is also captured by some critical health indicators such as life expectancy (table 7.21) and indicators of mortality and morbidity (table 7.22). The life expectancy estimates (Indian Institute of Dalit Studies 2004) for 1998-99 and 1992-93 bring out the situation of SCs & STs vis-à-vis the non-SCs/STs. In 1998-99 overall life expectancy at the national level was 65 years, and about 62 years for SCs and 66 years for Non-SCs/STs. In 1992-93 the life expectancy was 62, 63, and 58 years for all-India average, other and SCs respectively. Thus, in 1992-93 the life expectancy of SCs was lower compared with non-SCs/STs. A similar situation prevailed in 1998-99.

Table 7.22
Morbidity and Mortality, 1998-99

Indicators	SC	ST	Other backward castes	Others
Percentage of children with anemia	78.3	79.3	72.0	72.7
Percentage of women with anemia	56.0	64.9	50.7	47.6
Weight for age				
(i) % below-3SD	21.2	26.0	18.3	13.8
(ii) % below-2SD	53.5	55.9	47.3	41.1
Infant mortality rate	83.00 (88.00)	84.00 (87.00)	76.00 (82.00)	61.80 (69.00)
Child mortality rate	39.50	46.30	29.00	22.20
Under five mortality	119.00	126.00	103.00	82.00

Note: Figures in brackets indicate Infant mortality in rural areas

Source: India Social Development Report, Council of Social Development
Oxford University Press (2007)

High mortality and morbidity and hence, life expectancy is closely associated with under- and malnutrition. Taking the health status of women among SCs and STs in 1998-99, about 56 per cent of SCs and 64.9 per cent of STs suffered from anemia as compared to only 47.6 per cent among non-SCs/STs and 50.7 per cent among other backward classes. The incidence of anemia among the SC and ST children is also quite high nearly 78 per cent of SC children and 79 per cent of the ST children suffer from anemia compared with 72 per cent among non-SCs/STs children (Table 7.22).

The nutritional status of women and children brings out the disparities between SCs, STs and non-SCs/STs. The indicator of undernourishment in terms of minimum weight for age of the children is much higher for SC children (54 %), ST children (60 %) than other backward classes (47.3 %) and others (41 %). Similarly, undernourishment reflected in terms of stunting (in terms of height for age) was 52 per cent for SCs children and 43 per cent of non-SCs/STs children.

Among the measures of mortality, the infant mortality rate is generally considered as the most sensitive and important indicator of health status of a population. While the GOI adopted the national goal of reducing the present level of infant mortality rate to 60 by 2000, the SCs' IMR, child mortality, and under five mortality were 83.40 and 119 respectively in 1998-99 as compared to 61.8, 22.2, and 82.6 for the non-SCs/STs (Table 7.22).

The discussion in the preceding section indicates that there has been an improvement in the level of living of SCs and STs in the rural and urban areas, measured in terms of the level of poverty. The percentage poor among the SCs in rural and urban areas declined in early 1980s. But the rate of decline has not been adequate enough to reduce the gap between them and other sections of the Indian society and hence the level of deprivation of SCs and STs continues to be of a high order. In fact, the disparities have increased in the 1990s. There are a number of reasons for the persistence of disparities and higher degree of economic deprivation of the SCs and STs. The access of SCs and STs to capital assets – land and non-land – is still very limited – reflected in the low proportion of self-employed cultivator and businesses and exceptionally high incidence of wage labour. Compared to non-SCs/STs, the unemployment rate among SCs and STs is very high. Educational development in terms of literacy and educational level is equally poor. All these add to their high incidence of poverty and poor health situation.

In the following section we shall analyse the changes in the access of SCs to the land and non-land assets, employment, education, etc. Table 7.23 gives the occupational pattern of SCs and others (excluding SC/ST) in the rural and urban areas for 1999-2000 based on the NSS employment survey. In 2000, of

the total SC households about 16 per cent pursue4d cultivation as self-employment occupation as compared to 41.11 per cent for other and another 12

Table 7.23
Distribution of Household Type

House Hold Type	1987-88		1993-94		1999-2000	
	SC	Other	SC	Other	SC	Other
Rural:						
Self-employed in agriculture	18.90	43.3	19.12	42.42	16.4	41.1
Self-employed in non-agriculture	11.0	13.8	10.32	13.89	12.0	14.8
	29.8	57.1	29.49	56.31	28.4	55.9
Self-employed (total)	51.7	23.2	50.60	22.37	51.40	19.0
Agricultural wage labour	11.4	09.7	10.22	06.67	10.0	06.3
Non-Agricultural wage labour	63.1	31.1	60.28	29.14	61.4	25.3
Rural wage labour total	6.9	11.5	9.67	14.62	10.2	18.7
Others						
Urban:						
Self-employed	28.0	35.2	24.08	35.05	27.30	35.50
Regular wage/salaries	39.4	45.0	39.27	43.11	37.60	46.50
Casual labour	26.0	10.3	26.96	10.57	26.50	07.40
Others wage	8.5	9.2	9.67	11.25	8.5	10.5

Note: SC=Scheduled Caste; Others= Non-SCs/STs (excluding SC & ST)

Source: India Social Development Report, Council of Social Development
Oxford University Press (2007)

per cent were engaged in some kind of non-farm Self-employment activities (or business). Thus about 28 per cent of the households had acquired access to land and non-land assets. Due to the lack of access to fixed capital assets, about 61.4 per cent of the total SC households depend on wage employment as compared to only 25 per cent for other households.

In 1999-00, in the urban areas only 27 per cent of SCs were engaged in petty business, designated as self employed households./ The share of casual labour on the other hand was about 26 per cent , four times higher than for other households which is 7.4 per cent only. The differences in the proportion of regular wage earner/salaried persons between SCs and other households was however, less as compared to self-employment and wage labour occupation, presumably due to the positive outcome of the reservation policy of the government.

Thus if we take the proportion of self-employed households engaged in the farm and non-farm sector in the rural areas as a measure of access to capital assets, then by 2000, about 28 per cent in rural areas and 22 per cent of SC households in the urban areas had acquired some access to capital assets. Notwithstanding these gains the proportion of self-employed SC households was much lower as compared with other households and consequently an exceptionally high proportion of them depend on wage labour – 61 per cent in rural areas and about 64 per cent in urban areas (wage and regular/salaried). Wage labour as a traditional occupation thus continues to constitute a main occupation of the SCs.

Table 7.24 presents information on the ownership of agricultural land by the SCs and STs in the rural areas for 1981, 1991, and 1999-2000 provides some insights into the reasons for the low proportion of self-employed cultivators among SCs and STs. In 1981 about 12 per cent of SC households and about 17 per cent of ST households were landless and 88 per cent of SC and 83 per cent of ST households owned some land. Among the landowning households, however, about 57.50 per cent owned less than one acre, of which about 50 per cent owned less than half acre for SC households. And for ST households, 23.45 per cent owned less than one acre, of which about 16 per cent owned less than half acre and only 7 per cent owned between half and one acre. However, in 1991 the situation did not improve too much. In 1991, about 13 per cent of SC and 11.50 per cent of ST households were landless and 87 per cent of SC and 88.50 per cent of ST households owned some land. Among the landowning households, however, about 56 per cent of SC households and about 29 per cent of ST households owned less than one acre, of which 47.50 per cent of SC households and about 22 per cent of ST households owned less than half acre. Landless and near landless i.e. those owning less than one acre together accounted for nearly 70 per cent of the total SC and 41 per cent of the total ST households in 1991. The Employment/Unemployment Survey of 1999-2000 gives

Table 7.24
Percentage of Landless and Near Landless Households among STs and STs (per cent of total Rural Households) All-India

State	1982					1992					2000		
	Landless	Less than half acre	Between half & one acre	Up to one acre	Landless & up to one acre	Landless	Less than half acre	Between half & one acre	Up to one acre	Landless & up to one acre	Landless	Less than one acre	Landless & up to one acre
All India													
SC	12.62	47.97	9.53	57.5	70.12	13.34	47.5	8.89	56.39	69.73	10.0	65.0	75.0
ST	17.12	16.30	7.15	23.45	70.17	11.50	22.26	7.22	29.48	40.98	7.2	39.0	46.2

Source: NSS Land Holding Survey, 1981 and 1991, and Employment Survey 1999-2000 (for 1999-2000)

the land owning pattern among the SCs and STs. Although it is a land holding survey, nevertheless it reveals that the landless and near landless put together constitute 75 per cent of all SC and 46 per cent of all ST households in the rural area in 2000. Thus it is clear that a small proportion of SC and ST land owners could operate as self-employed cultivators because of the non-viable character of marginal land holding (table 7.24).

The non-viable character of small and marginal land holding of the SC households and their eventual conversion into wage labour reflected in the land ownership background of wage labour households in the rural area. It is obvious that not only all wage labour households are landless. Some of them do own some land but the size of the land being small, their major source of income remained wage labour.

The table 7.25 reveals high level of unemployment rate based on current weekly (CWS) and currently daily status (CDS) for SCs and STs . The unemployment rate based on CWS and CDS tend to be generally higher for SC workers as compared with that for other workers. The unemployment rate in the rural area according to CWS and CDS for SC are 2.5 per cent and 5.0 per cent respectively as compared to 2.05 per cent and 3.35 per cent respectively for other workers in the rural areas in 1999. However, in 1983 CWS and CDS data

Table 7.25
Unemployment Rate-Male (All-India)

Year		Rural		Urban	
		CWS	CDS	CWS	CDS
1983	SC	3.22	7.16	4.36	7.20
	ST	1.47	3.29	4.00	5.20
	Other	2.15	4.03	3.95	5.28
1999	SC	2.50	5.00	3.70	5.20
	ST	1.50	3.00	2.70	3.70
	Other	2.05	3.35	2.95	3.75

Source: India Social Development Report, Council of Social Development
Oxford University Press (2007)

show much higher (3.22 % and 7.16 % respectively) unemployment rate for SC households. Similarly, the unemployment rate in urban areas among the SC Workers under CWS and CDS are 3.7 per cent and 5.2 per cent

respectively, as compared to 3.0 per cent and 3.5 per cent respectively for other workers. Similarly, the unemployment rate based on all status is lower among the STs as compared with non-SCs/STs both in the rural and urban areas, although the gap is generally much small in the case of unemployment rate based on CDS status.

The lower employment of the SC worker in the rural and urban areas also reflects the low quality of their human resources which restrict their ability to take advantage of the skilled employment opportunities in these areas. In 1991, only 37 per cent of SCs were literate as against 58 per cent for the others. The situation in respect of SC female is particularly bad. The female literacy rate improved almost by four-folds, that is, from 6.44 per cent in 1971 to 23.76 per cent in 1991, but still continues to be distinctly lower.

7.10 Inflation and Pattern of Income Distribution:

The Indian economy has been facing spiral inflation since the launching of the Second Five Year Plan. The main factor responsible for the persistent rise in price is the increase in public expenditure, combined with deficit financing. We know that a persistent rise in general price level i.e. inflation distorts the distributive pattern of income in two ways – firstly by affecting real income, and secondly by creating divergence between income of various groups in society. And thereby creates an increase in income inequalities. It also intensifies social tension by bringing about the decimation of middle classes, by impoverishing the working classes and enriching speculators, black marketers and influential businessmen. The producers, traders and speculators gain enormously through ever-rising profit margins and through illegal gains and windfall profit due to hoarding, speculation and black-marketing. On the other hand, people living on past savings, fixed interest and rental incomes and old-age pensioners are literally ruined due to continuous depreciation in purchasing power of the rupee. Therefore, instead of reducing inequalities and giving equal opportunities to all which is one of the major objectives of Indian economic planning, inflation makes possible for some to get richer while many find

themselves poorer. Thus, inflation brings about shift in the distribution of income between different classes of the society in the country.

Sometimes, inflation is supported on the ground that it creates large amount of employment in the under developed countries. The logic which is put forward is that a development programme which is financed by borrowing from the central Bank will not lead to a serious rise in prices, because any initial rise in price will result in absorption of the unemployed and also in increased output of goods and services. However, it may have enough validity in advanced countries, but it does not hold good in the underdeveloped or developing countries, because there is little excess capacity in the underdeveloped country to absorb unemployed. As an ECAFE document pointed out, "*it is precisely because there are bottlenecks, such as a shortage of capital or skill, in the productive system that resources are unemployed in an underdeveloped economy*" (Source: U.N. Economic Commission for Asia and the Far East, Commission on Industry and Trade, "Inflation and the Mobilization of Domestic Capital", October 22, 1951, p.3). However, many of investment projects needed in the underdeveloped countries are of a long-term nature which will bring increases in output only after a considerable time-lag. Moreover, it is certain that the initial increases in income brought about by inflationary investment in a development programme will bring substantial increases in the propensity to save ; "*the demonstration effect*" brings to operate and people spend an increasing share of their incomes on new consumer goods.

On the basis of above discussion we can conclude that inflation has no justification because, firstly, it leads to an inequitable distribution of income and wealth and consumption; and secondly, it is self-defeating as far as economic development is concerned.

India's development planning has primarily two major objectives – 1) to increase production to the maximum possible extent so as to achieve higher level of national income and per capital income; and, 2) to reduce inequalities of income and wealth, so that the benefits of economic growth would be shared by all the people of the society equitably thereby realize the idea of a socialist

pattern of society. During the past five decades of planned development, the progress towards the first objective is not wholly unsatisfactory, but the record in the latter sphere has been quite disappointing.

In India prices rose by 24 times between 1950-51 and 2000-01 (see table 2 of statistical appendix). During the period the price index with base 1993-94 went up from 6.91 in 1950-51 to 165.99 in 2000-01 showing a rise of about 2302 per cent.

It is clear from the table 7.26 that the price index declined during the First Five Year Plan by compound rate of growth of 2.7 per cent per annum. Aided by bumper crops the first plan largely succeeded in achieving the objective of combating inflationary pressure which was the declared objective of the First Five Year Plan. During this plan period price situation was very favorable.

Table 7.26
Compound Rate of Growth of Price Index

Five year Plan	Growth rate (%)
First Five Year Plan (1951-52 to 1955-56)	-2.7
Second Five Year Plan (1956-57 to 1960-61)	+2.4
Third Five Year Plan (1961-62 to 1965-66)	+6.3
Annual Plan (1966-67 to 1968-69)	+3.8
Fourth Five Year Plan (1969-70 to 1973-74)	+6.7
Fifth Five Year Plan (1974-75 to 1978-79)	+2.1
Sixth Five Year Plan (1980-81 to 1984-85)	+6.8
Seventh Five Year Plan (1985-86 to 1989-90)	+6.5
Eighth Five Year Plan (1992-93 to 1996-97)	+7.2
Ninth Five Year Plan (1997-98 to 2001-02)	+4.8

Source: Computed on the basis of table 2 of Statistical Appendix

The success of the first plan and the favorable movement of prices encouraged Government of India to launch still more elaborate plans and undertake still greater degree of deficit financing. Throughout the second plan period, there was a greater and steady rise in prices; the price level rose by compound rate of growth of 2.4 per cent per annum.

The price position during the Third Plan deteriorated badly. The Chinese invasion of India towards the end of 1962, the Indo-Pakistan conflict in 1965

and the consequent increase in defense expenditure and above all the serious famine conditions of 1965-66 were responsible for rapid rise in prices. The price position became really difficult because of extensive hoarding and black marketing in food grains and other essential goods. During this plan period prices rose by compound rate of growth of 6.3 per cent per annum. Fortunately, however, the bumper harvest of 1967-68 saved the situation and therefore, during the Annual Plan (1966-67 to 1968-69) the inflationary rise in prices was arrested to some extent and price rose by 3.8 per cent per annum.

During the Fourth Plan (1969-70 to 1973-74), the rise in the general price level was rather slow in the beginning of the plan, but gathered momentum later. Large influx of refugees from Bangladesh, heavy expenditure of the govt. on these refugees, the widespread failure of Kharif crops in 1972-73 and complete failure of the takeover of wholesale trade in wheat resulted in an unprecedented rise in price level during 1973-74. During this plan period price rose by 6.7 per cent per annum. The inflationary rise in price during the Fifth Plan remained at the level of 6.9 per cent per annum.

During the Sixth Plan (1980-81 to 1984-85) registered inflation as its number one problem. Initially price situation appeared to be hopeless mainly because of poor agricultural crop of 1979-80 and the consequent adverse effect on industrial production and the hike in oil prices by 130 per cent in 1980 alone were responsible for boosting the price level. However, a vigorous anti-inflationary policy kept the prices to moderate levels. The demand and supply management of the government during the sixth plan was largely successful in containing the prices. The annual rate of increase in prices during this period was 2.1 per cent.

During the Seventh Plan period (1985-86 to 1989-90), the price level moved upward rather steadily. The annual rate of increase in the price index during this period was 6.9 per cent per annum. The inflationary pressure on prices was due to the shortfall in production of essential agricultural commodities.

During the Eighth Plan annual rate of inflation started rising mainly because of heavy fiscal deficit resulting in expansion of money supply with the people. To this was added the rise in administered prices of inflation sensitive goods. The double digit inflation continued for better part of 1994-95. Since then, the inflationary situation came under control with a noticeable decline in the prices of primary food articles as well as manufactured food products. During this period the price index rose by 7.2 per cent per annum.

The price situation was stable and largely comfortable during the Ninth Plan (1997-98 to 2001-02) period. During the period 1997-98 to 2000-01 price index showed a compound rate of growth of 3.8 per cent per annum. Summing up the situation through the planning period, it can be said that prices remained steady during the First Plan period, but there was a continual rise in prices with effect from the Second Five Year Plan.

The main reason for the inflationary rise in prices during the planning period can be grouped under two broad head:

- a) Demand-pull factors, and
- b) Cost-push factors

The expanding pressures on the demand side are:

- i) Steady and continuous increase of government expenditure,
- ii) Deficit financing,
- iii) Heavy investment,
- iv) Increase in money supply, and growing pressure of population.

On the hand the main cause operating on the supply side have been:

- i) setback in agricultural production;
- ii) slow rate of industrial growth; and
- iii) Speculative hoarding and profiteering.

During the period under study, government expenditure has been steadily and continuously increasing over the years. Total expenditure of both the Central and State Government including Union Territories had risen from Rs. 967.38 crores in 1950-51 to Rs. 35379.41 crores in 1980-81; and Rs. 548993.09 crores in 2000-01. In a agricultural economy like India, big programmes of economic development involving huge public investments have

been undertaken. The annual average rate of investment under the planning period risen from Rs. 1,00 crores in 1950s to Rs. 2,00 crores during the 1960s, to Rs. 7,00 crores in 1970s, Rs. 30,000 crores in the 1980s and to over Rs.80,000 crores during 1990s and Rs. 30,0000 crores during the Tenth Plan period (2002-07).

Thus total government expenditure recorded a percentage increase of 56650.5 per cent during the period. The major portion of increase in total govt. expenditure is accounted for by defense and administration. The increase in non-plan expenditure in the wake of the Chinese and Pakistani aggressions and consequent recurring refugee problem, added to the aggregate demand with no increase in real output. In non-development capital expenditure, the major increase has been incurred on defense account. In regard to development capital expenditure, substantial amounts are going into irrigation and multipurpose river schemes with a fairly long gestation period. These expenditures and investment create largest possible employment and wage income. These incomes create a pressure on the prices of the wage-goods, especially food articles, the supply of which did not expand at the required rate. Therefore, mounting expenditure of government and investment as well became income of the people, thus stocking the fire of inflation. On the other hand , large increase in the amount of investment exert upward pressure on the purchasing power in the hand of the people, where as there was no corresponding increase in the supply of goods. Prices were bound to shoot up.

Table 7.27
Deficit Financing During the Plan period

Five year Plans	Deficit Financing (Rs. In crores)
First Five Year Plan (1951-52 to 1955-56)	330
Second Five Year Plan (1956-57 to 1960-61)	950
Third Five Year Plan (1961-62 to 1965-66)	1150
Fourth Five Year Plan (1969-70 to 1973-74)	2060
Fifth Five Year Plan (1974-75 to 1978-79)	5830
Sixth Five Year Plan (1980-81 to 1984-85)	15680
Seventh Five Year Plan (1985-86 to 1989-90)	28260
Eighth Five Year Plan (1992-93 to 1996-97)	33040
Ninth Five Year Plan (1997-98 to 2001-02)	0

Source: Indian Economy, Datt & K.P.M Sundaram, (2004)

From the very beginning of the developmental planning the government of India deliberately adopted deficit financing as a method of financing economic development. During the First Plan deficit financing was of the order of Rs. 330 crores. During the Second Plan deficit financing was of the order of Rs. 950 crores. Infact, the magnitude of deficit financing rose rapidly up to the Eighth Plan.

Mounting government expenditure, financed through deficits directly pushes up the money supply in the country and consequently pushes up the public demand for goods and services.

Table 7.28
Money Supply and Monetary Resources with the Public

(Rs. In crores)

Year	Money supply with the Public (M_1)	Aggregate monetary resource (M_3)
1970-71	7,340	10,960
1980-81	23,120	55,360
1990-91	92,890	265,830
2002-03	4,76,450	17,24,578

Source: Indian Economy, Datt & K.P.M Sundaram, (2004)

Table 7.28 gives us an idea of the growth of money supply with the public and the aggregate monetary resources with the public. Money supply with the public (M_1) consisting of coins and currency notes and demand deposit of the public with the commercial banks had gone up from Rs.7,340 crores in 1970-71 to Rs.4,76,450 crores during 2002-03. Other important measure of supply of money is the total volume of liquidity with the people i.e. aggregate monetary resources (M_3) of the public consisting of (M_1) plus time deposits with the banks had increased from Rs. 10,960 crores in 1970-71 to over Rs. 17,24,578 crores in 2002-2003 – an increase by 157 times. This enormous increase in money supply and monetary resources with the general public has a direct influence on the level of effective demand and therefore, on the level of prices.

Another important factor for inflationary rise in prices in India is the growing pressure of population on the aggregate demand and on the price level. It is the continually rising population which is responsible for the persistent gap between demand and supply in the almost all consumer goods and services, thus exerting continuous pressure on prices.

Inflation had led to economic recession in many sectors of the Indian economy. As a result of inflation, prices of certain important articles of consumption such as textiles had increased to very high levels forcing demand for such goods to decline. Production had also been adversely affected by frequent labour troubles such as strikes and lockouts. Over and above all these, the rise in the price level had eroded the volume of investment in real terms. The decline in investment worsened the economic recession still further till recently.

Inflation has adversely affected the distribution of income and wealth. The producers, traders and speculators have gained enormously through the ever-rising profit margins and through illegal gains and windfall profits, due to hoarding, speculation and black-marketing. On the other hand, people living on past savings, fixed interest and rental incomes and old age pensioners have been literally ruined due to continuous depreciation in the purchasing power of the rupee. The working classes have suffered badly, particularly the unorganized workers. Since rich get richer and the poor have become poorer, vast disparities in the distribution of income and wealth have been the unfortunate consequence of inflation in India.

Now keeping in view the above cause and effect of inflation, a wide range of policy measures have been adopted in India. Initially when prices started rising in the early years of planned development, not much attention was paid to it. But later on, to curb inflation the Government of India has generally insisted on controlling its own expenditure and keeping in check both its revenue deficit and fiscal deficit. In this respect, in July 1974, Government of India promulgated three ordinances to limit the disposable money incomes in

the hands of consumers through freezing wages and salaries on the one side and dividend income on the other.

Again in January 1984, the Government of India announced a package of programmes to curtail public expenditure, to postpone fresh requirements to govt. jobs etc. In practice however, the govt. have been spending taxpayers' money recklessly and wastefully. Besides they have always adopted a policy of deficit budgeting. Thus instead of checking prices, govt. policy has actually pushed up prices.

Government of India has appreciated the importance of reducing fiscal deficit only since 1990-91. The Budget of July 1991-92 took the first decisive action to limit the fiscal deficit by bringing it down from 8.4 per cent of GDP in 1990-91 to 6.2 per cent in 1991-92 and to 4.9 per cent in 1992-93. However, since then the govt. failed to reduce fiscal deficit which remained around 7 per cent of GDP.

The monetary measures of inflation consists extensive use of general and selective credit control measures. During the 1980s and 1990s , monetary policy was directed essentially to prevent any excessive increase in liquidity and at the same time to ensure that the genuine credit requirements of the industrial sector and the priority sectors were adequately met.

On the commodity front the government has generally focused its attention in securing greater control over the prices of rice, wheat, sugar, oils, and other commodity of mass consumption through increase in domestic supplies, larger release from official stocks of food grains and widening and streamlining of the network of public distribution system. To check prices and to eliminate hoarding and speculative activity in food grain trade, wholesale dealers in food grains were licensed in many states.

Therefore, fiscal policy, on the one hand, may reduce the excess demand by driving out purchasing power from the hand of some people, on the other hand, monetary policy should help in regulating the pace of credit creation

all along the line. But it is also a matter of great regret that the Indian people, to a great extent have themselves been responsible for this lot. They have always been crying for a rise in wages and not for curbing prices and have also not been paying proper attention to ensure increase in productivity.

7.11 Public Expenditure and Regional Inequality:

The main objective of development planning is not only to raise the national income or the standard of living of the people, but also to secure a balanced development of all parts of the country and all segments of the national population. G. Myrdal in 'Economic Theory and Underdeveloped Regions' (London, Methuen, 1963, p. 26) pointed out that *"If things were left to market forces unhampered by any policy interference, industrial production, commerce, banking, insurance, shipping, and indeed almost all those economic activities which in a developing economy tend to give a bigger than average return and, in addition, science, arts, literature, education and higher culture generally would cluster in certain localities and regions, leaving the rest of the country more or less in a backward."* This tendency operates with higher significance in a developing country like India. In terms of such indicators of economic growth as per capita income, the proportion of population living below the poverty line, working population in agriculture, the percentage of urban population of total population, the percentage of workers in manufacturing industries etc., some states are economically advanced while others are relatively backward. Even within each state, some regions are more developed while others are almost primitive. The co-existence of relatively developed and economically depressed states and even regions within a state is known as regional imbalance. Regional imbalance may be natural due to unequal natural endowments or man-made in the sense of neglect of some regions and preference of others for investment and development effort. It is, therefore, within the strategy of planned development to take deliberate measures to bring about balanced development of different regions of a country.

In India intrinsic goal of economic planning is economic growth with social justice, where no particular region of the country should be lag behind

the others. However, the regional imbalance in the country's development persists despite the planning interms of the indicators sited above. To studu regional imbalance, the 15 major states of India have been classified into two major groups: Forward States (FS) and Backward States (BS). Among the FS are included : Punjab, Gujrat, West Bengal, Karnataka, Kerala, Tamil Nadu and Andhra Pradesh. Among the BS are Madhya Prasesh, Assam, Utter Pradesh, Rajasthan. Orissa and Bihar. These 15 states taken together accounted for nearly 96 per cent of the total population in 1991 – about 50 per cent in the FS and 46 per cent in the BS.

An important indicator of regional disparity is the growth rate of net domestic product (NSDP) observed during the last two decades. The table 7.29 clearly pointed out that –

- (a) In 1980-81, out of total NSDP of Rs. 1,10,340 crores for the whole country, the 9 FS accounted for 55 per cent , while the 6 BS accounted for nearly 39 per cent. But in 1997-98, the same FS raised their share to 58 per cent, while that of 6 BS declined to 27 per cent. Thus, the forward states were becoming more forward or richer, which the backward states were becoming still more backward and poorer.
- (b) The above fact is also supported by the difference in the growth rates of NSDP of the forward and backward states. NSDP in forward states indicated an annual average growth rate of 5.2 per cent during 1980-81 to 1990-91. However the situation showed a remarkable improvement in these states and they showed a higher annual average growth rate 6.3 per cent during 1990-91 to 1997-98. On the other hand, the backward states indicated a growth rate of 4.9 per cent during 1980-81 to 1990-91, but this growth rate decelerated during 1990-91 to 1997-98. It should be noted in this connection that as compared to average All-India growth rate of 5.5 per cent in the post-reform period, two major states of India Viz. Utter Pradesh and Bihar; showed an average growth rate of 2.6 per cent respectively – a miserable performance indeed,. In fact none of the

six states included in the BS group showed a growth rate higher than the national average.

Therefore, the forces of liberalization and globalization strengthened investment in forward states much more than in the backward states. Consequently, regional disparities in growth rates widen further.

Table 7.29
Statewise Net State Domestic Product at Factor Cost
(At 1980-

81prices)

States	NSDP (Rs. crores)			Annual Average Growth Rate	
	1980-81	1990-91	1997-98	1980-81 to 1990-91	1990-91 to 1997-98
Forward States					
Punjab	4,449	7,505	10,142	5.3	4.4
Maharashtra	15,163	27,244	42,932	6.0	6.7
Haryana	3,032	5,719	7,545	6.5	4.0
Gujarat	6,547	10,839	18,433	5.2	7.9
West Bengal	9,594	14,458	22,767	4.2	6.7
Karnataka	5,587	9,112	13,683	5.0	6.0
Kerala	3,823	5,262	7,782	3.2	5.8
Tamil Nadu	7,218	12,423	18,193	5.6	5.6
Andhra Pradesh	7,324	11,723	17,936	4.8	6.3
Sub-total	62,737 (55.0)	1,04,265 (54.8)	1,59,413 (57.8)	5.2	6.3
Backward States					
	7,012	11,107	14,748	4.7	4.1
Madhya Pradesh	2,298	3,426	4,302	4.1	3.3
Assam	14,012	22,780	27,365	5.0	2.6
Utter Pradesh	4,126	8,473	11,138	7.4	4.0
Rajasthan	3,443	4,345	6,013	2.3	4.7
Orissa	6,349	10,253	10,653	4.9	0.6
Bihar	37,240	60,384	74,219	4.9	3.0
Sub-total	(38.8)	(31.7)	(26.9)		
All-India	1,10,340 (100.0)	1,90,218 (100.0)	2,75,895 (100.00)	5.6	5.5

Source: INDIAN ECONOMY, Ruddar Datt & K. P. M Sundharam (2004)

The table 7.30 provides per capita NSDP at 1993-94 prices for both FS and BS. Table shows that Punjab has the highest per capita income both in 1990-91 and in 2000-01. Orissa had the lowest per capita income in 1990-91,

but in 2000-01, Bihar has recorded the lowest per capita income. During the decade, Karnataka has recorded the highest annual average growth rate while,

Table 7.30
Per Capita NSDP at factor cost
(at 1993-94 Prices)

States	1990-91 (Rs.)	2000-01 (Rs.)	Annual Average Growth Rate 1990-91 to 2000-01
Forward States			
Punjab	11,779	15,390	2.7
Maharashtra	10,248	15,172	4.0
Haryana	11,125	14,331	2.6
Gujarat	8,788	12,975	3.9
West Bengal	6,013	9,778	5.0
Karnataka	6,629	11,910	6.0
Kerala	6,851	10,712	4.6
Tamil Nadu	7,872	12,779	4.9
Andhra Pradesh	6,873	9,982	3.8
Backward States			
Madhya Pradesh	6,321	7,003	1.0
Assam	5,574	6,157	1.0
Utter Pradesh	5,342	5,770	0.8
Rajasthan	6,771	7,937	1.6
Orissa	4,300	5,187	1.9
Bihar	4,476	3,345	-2.8
All-India	7,321	10,254	3.4
Ratio between Maximum and Minimum Per capita NSDP	2.74	4.60	

Source: INDIAN ECONOMY, Ruddar Datt & K. P. M Sundharam (2004)

Bihar has recorded -2.8 rate of growth. Further, while the advanced states have recorded smart annual rates of growth (2.6 per cent in Haryana and 6 per cent in Karnataka) backward states have registered extremely poor rates growth between 1 and 1.9 per cent, with Bihar registering negative rate of growth. It is therefore, clear that the forward states providing a higher per capita income to their profile while the backward states failing to catch up with the forward states.

It should be pointed in this connection that, it is not that the backward states are poor because they do not have the natural resources, while the

developed states have been endowed with a large amount of natural resources. The most of the backward states have the same proportion of population as the developed one, but have large share of unskilled workers. So far as land is concerned, the backward states are blessed not only with the greater percentage of land but also have a greater share of cultivated land. Thus backward states are not poor due to less natural resources or overpopulation. However, Indian planners have shown disregard for the important aspect of economic plans as to why they are "backward". Economic plans, of Central and State Governments, have a predominant role to play in bring about a balanced regional development.

Table 7.31
Growth Rates in state Domestic Product in Different Plans

States	Eighth Plan	Ninth Plan	Tenth Plan
Forward States			
Punjab	4.7	4.4	6.4
Maharashtra	8.9	4.7	7.4
Haryana	5.2	4.1	7.9
Gujarat	12.4	4.0	10.2
West Bengal	6.3	6.9	8.8
Karnataka	6.2	7.2	10.1
Kerala	6.5	5.7	6.5
Tamil Nadu	7.0	6.3	8.0
Andhra Pradesh	5.1	4.4	8.0
Backward States			
Madhya Pradesh	6.3	4.0	7.0
Assam	2.8	2.1	6.2
Utter Pradesh	4.9	4.0	7.6
Rajasthan	7.5	3.5	8.3
Orissa	2.1	5.1	6.2
Bihar	2.2	4.0	6.2
All-India	6.5	5.4	7.9

Source: Planning Commission, Tenth Five Year Plan(2002-07), Vol. 1

Note: The growth rates for Tenth Plan in respect of Bihar, Madhya Pradesh and Uttar Pradesh do not include Jharkhand, Chattisgarh and Uttaranchal respectively.

During the Eighth and the Ninth Plan period, the rate of growth in forward states, like Gujrat, Maharashtra, etc. have generally been higher than the backward states like Bihar, Orissa and Utter Pradesh, which has resulted in higher income differences among the states. According to some studies, the regional disparities tended to increase gradually in the 1980s followed by a relatively steep increase in the years after the reforms were launched and a

gradual increase through the 1990s (INDIAN ECONOMY, Ruddar Datt & K. P. M Sundharam ,2004). The Tenth Plan aims at reducing the pace of inequality and creates the necessary preconditions to help the backward states to catch up forward states.

Dr. M. J. Kurian of the Planning Commission has made an extensive study of the '*Widening Regional Disparities in India*' (EPW, February 12-18,200). According to him more than two-thirds of investment proposals

Table 7.32
Investment proposals and Disbursal of Assistance for
Investment
(Percentage Distribution)

States	% share of Investment Proposal (Aug'91-Dec'98)	Cumulative share of Financial Assistance Disbursed by All-India Financial Institutions (up 31 st March'97)	Cumulative Financial Assistance Disbursed by State Financial Corporations (up 31 st March'97)
Forward States			
Punjab	3.4	2.4	3.6
Maharashtra	18.0	21.0	11.5
Haryana	3.6	2.5	4.8
Gujarat	18.7	13.5	9.3
West Bengal	3.3	3.9	2.5
Karnataka	5.6	6.1	15.5
Kerala	1.1	1.7	4.4
Tamil Nadu	7.2	9.0	10.6
Andhra Pradesh	8.3	7.2	7.8
Sub-total	69.2	67.3	70.0
Backward States			
Madhya Pradesh	7.4	5.1	3.2
Assam	0.7	0.5	0.5
Utter Pradesh	9.4	7.9	11.1
Rajasthan	3.9	4.5	6.1
Orissa	2.2	1.8	3.7
Bihar	1.2	1.4	2.0
Sub-total	24.8	21.2	26.6
All-India	100.0 (7,37,516)	100.0 (3,12,502)	100.0 (20,896)

Source: N. J. Kurian, *Widening Regional Disparities in India*, Economic and Political Weekly, February 12-18, 2000.

Note: Figures in brackets indicate totals of Rs. Crores

(69.2%) in the post reform period were concentrated in the FSs and similar situation prevailed in terms of financial assistant distributed by All-India Financial Institutions as well as State Financial Corporations. This is shown in the table 7.32.

All India Financial Institutions like IDBI, IFCI, ICICI, UTI, GIC, IRBI, and SIDBI disbursed 67.3 per cent of total financial assistance to FS up to 31st March 1997. Even among the 9 FS, four states, namely Maharashtra, Gujarat, Tamil Nadu and Andhra Pradesh were able to appropriate about 51 per cent of total assistance. Even in the case of State Financial Corporations, 70 per cent.

Table 7.33
Levels of Infrastructure Development

States	Per capita power consumption 1999-2000 (in kwh)	Registered Vehicles per 100 persons as on 31.3.97	Road length per 100 sq. Kms. of Area of the state	Telecom lines per 100 persons as on March 31 1999	% of irrigated area in gross cropped area 1994-95	Relative Development Index
Forward States						
Punjab	924.1	103.2	113.1	5.34	94.8	191.4
Maharashtra	571.6	57.2	73.1	4.93	15.3	107.0
Haryana	530.2	64.6	61.0	3.18	77.2	141.3
Gujarat	840.9	91.5	55.6	3.75	28.9	122.4
West Bengal	206.9	19.8	69.9	1.86	28.7	94.2
Karnataka	367.0	56.5	73.0	3.25	23.9	96.9
Kerala	315.0	46.5	358.2	4.66	13.6	157.1
Tamil Nadu	548.0	56.9	157.5	3.84	49.5	144.0
Andhra Pradesh	434.0	42.1	20.7	2.36	39.6	96.1
Backward States						
Madhya Pradesh	353.1	38.8	47.6	1.38	22.3	75.3
Assam	101.2	19.9	86.7	0.95	15.0	78.9
Utter Pradesh	179.1	22.7	72.7	1.21	62.6	103.3
Rajasthan	339.5	45.1	38.0	2.11	29.1	83.0
Orissa	334.3	22.9	134.8	1.05	25.8	97.0
Bihar	146.7	16.4	50.6	0.58	43.2	81.1
All-India	364.5	44.0	91.7	2.55	36.5	100.0

Source: INDIAN ECONOMY, Ruddar Datt & K. P. M Sundharam (2004)

of total assistance was received by forward states. Therefore, it is clear that BS can further accelerate the growth process while the BS being unfavorably treated face retardation in growth

In respect of infrastructure, disparities are visible in India. Table 7.33 provides a clear picture in this respect. Consumption of per capita power is an

indicator of level of energy consumption. It is seen from the table 7.33 that all the forward states except Andhra Pradesh, West Bengal, Kerala are above the national average of 364.5 kwh. of per capita power consumption in 1999-2000. As against them, the backward states, especially Uttar Pradesh, Bihar and Assam are way behind 185.4 kwh., 217.8 kwh. , and 263.3 kwh. respectively. It is imperative that unless the industrialization process picks up in these states, the disparities would continue.

State wise number of registered vehicles per 1000 person is an important indicator, though not comprehensive indicator of the level of transport development, since it does not take into account railways and road length per 100 sq. Kms which are major source of transport while creation of infrastructure is important, but the intensity of its use would depend upon the state of development of the state in terms of NSDP as well as per capita NSDP. For example, Orissa has 134.8 kms of road length per 100 sq. Kms of area , but it rank very low in terms of NSDP both total and per capita. This explain the under utilization of roads.

Nevertheless, the development of infrastructure is an essential, though not sufficient condition for development. This can be realized from a close perusal of the infrastructure development index prepared by the CMIE. This index included the following in terms with the weights indicated in brackets.

- (a) Transport facilities (26 per cent)
- (b) Energy consumption (24 per cent)
- (c) Irrigation facilities(12 per cent)
- (d) Communication (6 per cent)
- (e) Educational facilities (6 per cent)
- (f) Health facilities (6 per cent)

Treating the value of index for all India as 100, the relative values of infrastructure development index (IDI) in the states have been presented in the table 7.33. It is seen from the table that Punjab had the highest value of IDI as 191.4 followed by Kerala, Tamil Nadu as 157.1 and 144.0 respectively. Lowest value of IDI was for Madhya Pradesh (75.3) followed by Assam (78.9) and

Bihar (81.1). Although Uttar Pradesh had a value of IDI 103.3 which is higher than of the all-India level, yet in terms of food grains production and poverty removal, it was far behind Karnataka, West Bengal and Tamil Nadu which had relatively lower IDI values.

Now if we consider irrigation infrastructure, it may be noted that whereas Punjab had 95 per cent of irrigated area as a proportion of gross cropped area, it had the highest productivity, per hectare, but in Uttar Pradesh though this proportion was quite high at 63 per cent, yet its productivity per hectare was relatively low. This highlights the fact that whereas Punjab and Haryana were able to harness these high infrastructure facilities for agricultural development, Uttar Pradesh did not succeed adequately in this regard.

The indicators of Human Development are life expectancy at birth, literacy rate, infant mortality rate (IMR), death rate and birth rate etc. If the purpose of all development is to improve the quality of life, then human development indicators are the end product of the development process.

The health scenario in India reflects diversity of the country in ample measure. Among the demographic and health indicators of 15 major states, Kerala compares favourably with most middle-income countries and even some high-income countries in West Asia. But all the backward countries e.g. Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and Assam are well below the average of low-income countries, and just above the levels of sub-Saharan Africa. These BS are also well below the national average in terms of the above Human Development indicators and have poor record in terms of literacy, especially female literacy. It is seen from the Table 7.34 that Kerala and to some extent other BS have shown that it is possible to achieve higher levels of human development even with low levels economic development. To achieve higher levels of human development, it is necessary that investment in educational and health infrastructure be stepped up. But the BS have failed to make adequate investment in health and education infrastructure and consequently have low life expectancy, higher infant mortality, high proportion of underweight children. Economic reform has helped in setting up of nursing

homes or elite educational institutions with high level of charges or fees to meet the demand of the upper middle class and affluent sections, but it does

Table 7.34
Selected Human Development indicators

States	Life Expectancy at birth, average for 1992-96 (years)	Neonatal mortality 1998-99 (Per 1000 live births)	IMR, 1998 (Per 1000 live births)	Under-5 mortality rate, 1997	Total fertility rate, 1997	Death Rate 1997-99 (per 1000)	Under-weight Children 1998-99 (per cent)
Forward States							
Punjab	67	34	54	72	2.7	7.5	29
Maharashtra	65	32	49	58	2.7	7.5	50
Haryana	64	35	69	77	3.4	8.0	35
Gujarat	61	40	64	85	3.0	7.8	45
West Bengal	62	32	53	68	2.6	7.4	49
Karnataka	63	37	58	70	2.5	7.7	44
Kerala	73	14	16	19	1.8	6.3	2.7
Tamil Nadu	64	35	53	63	2.0	8.2	37
Andhra Pradesh	62	44	66	86	2.5	8.4	48
Backward States							
Madhya Pradesh	55	55	98	138	4.0	10.8	55
Assam	56	45	78	90	3.2	9.9	36
Uttar Pradesh	57	54	85	123	4.8	10.4	52
Rajasthan	60	50	83	115	4.3	8.7	51
Orissa	57	49	98	104	3.0	10.9	54
Bihar	59	47	67	105	4.4	9.4	54
All-India	61	43	72	95	3.3	8.9	47

Source: India, Social Development Report, Council for Social Development, Oxford University Press, 4th impression 2007
India Development and Participation, Jean Dreze & Amartya Sen, Oxford University Press, 2ND Impression 2006

not offer anything for the welfare for the poor. Either the private sector should assume a higher social responsibility or the state should invest more in health and education infrastructure. N.J. Kurian after making a detailed analysis of regional disparities after the initiation of economic reforms reached the following conclusion: *“The better-off states are able to attract considerable*

amount of private investment, both domestic and foreign, to improve their development potential because of the existing favourable investment climate including better socio-economic infrastructure. The backward states are unable to attract private investment because of unfavourable investment climate including poor infrastructure. They are unable to improve the investment climate

Table 7.35
Literacy Rate In India

States	1971 Census			1991 Census			2001 Census		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Forward States									
Punjab	337	404	259	585	657	504	699	756	636
Maharashtra	392	510	264	649	766	523	773	863	675
Haryana	269	373	149	558	691	405	686	793	563
Gujarat	358	461	248	613	731	486	700	805	586
West Bengal	332	428	224	577	678	466	692	776	602
Karnataka	315	416	210	560	673	443	670	763	575
Kerala	604	666	543	898	936	862	909	942	879
Tamil Nadu	395	518	269	627	737	513	735	823	646
Andhra Pradesh	246	332	158	441	551	327	611	708	512
Backward States									
	221	327	109	442	584	288	641	768	503
Madhya Pradesh	287	372	198	529	619	430	643	719	560
Assam	217	315	106	416	557	253	574	702	430
Utter Pradesh	191	287	85	386	550	204	610	765	443
Rajasthan	262	383	139	491	631	347	636	754	510
Orissa	199	306	87	385	525	229	475	603	336
Bihar									
All-India	295	395	187	522	641	393	654	760	543

Source:(i) Hand Book of Statistics on Indian Economy 2001, Reserve Bank of India 2001

(ii) INDIAN ECONOMY, Ruddar Datt & K. P. M Sundharam (2004)

by improving the existing poor infrastructural facilities due to lake of resources. Their lack of resources is linked to their poor development. Thus, they are truly in a vicious circle."

The provision of drinking water and sanitation has been one of the major concerns of the government since Independence. The problem understandably is more serious in urban centres due to their rapid population growth.

Table 7.36
Percentage of Households with Access to Safe Drinking Water and Toilet Facilities in Urban Areas in Different States of India

States	Toilet			Drinking water		
	1981	1991	2001	1981	1991	2001
Forward States						
Punjab	64.8	73.2	87.0	91.1	94.2	98.9
Maharashtra	59.4	64.5	58.0	85.6	90.5	95.3
Haryana	58.1	64.3	81.0	90.7	93.2	95.4
Gujarat	60.1	65.7	81.0	86.8	87.2	82.1
West Bengal	77.7	78.8	85.0	79.8	86.2	92.3
Karnataka	53.3	62.5	75.0	74.4	81.4	92.1
Kerala	59.1	72.7	92.0	39.7	38.7	42.8
Tamil Nadu	51.3	57.5	64.0	69.4	74.2	85.9
Andhra Pradesh	44.1	54.6	78.0	63.3	73.8	90.2
Backward States						
Madhya Pradesh	52.7	53.0	55.0	66.6	79.4	89.0
Assam	-	86.1	95.0	-	64.1	70.3
Uttar Pradesh	62.1	66.5	80.0	73.3	85.8	97.2
Rajasthan	56.5	62.3	76.0	78.6	86.5	91.6
Orissa	41.9	49.3	60.0	51.3	62.8	72.3
Bihar	53.0	56.5	65.0	65.4	73.4	79.0
All-India	58.2*	63.9**	74.0	75.1*	81.4**	90.0

Source: Household Tables, Census of India, 1981, 1991 & 2001

Notes: * Excludes Assam; ** Excludes J & K. Figures for Bihar, Madhya Pradesh, and Uttar Pradesh for 2001 are for the undivided states

It is seen from the table 7.36 that many among the forward states like, Kerala, Tamil Nadu, Gujrat etc., report a low percentage and lower than national average of urban households covered under safe drinking water facilities. This could be attributed to lack of affordability. It is natural to have a positive relationship between the level of economic development and access to the amenities. The exception are Uttar Pradesh, Rajasthan, and Assam (in case of toilets) and Rajasthan and Uttar Pradesh in case of safe drinking water facilities report relatively high values. Similarly, some of the forward states have low values of the amenities as shown above.

Ambitious targets were set to provide these services to all sections of the urban population, especially the urban poor. Unfortunately, these were not matched by a corresponding allocation of resources or by the launching of major programmes to achieve the desired targets. The Sixth and Seventh plans recognized the resource crunch and laid greater emphasis on the provision of land and basic services to the poor rather than formal housing. A Master Plan was adopted for Water Supply and Sanitation during the 1980s and the decade was declared as International Drinking Water Supply and Sanitation Decade. Despite these, rapid growth of urban population, areal expansion of existing town and cities resulted in shortage of resources, inefficient management and coordination among the various agencies have further created serious deficiencies in basic amenities in the country. The shortages are serious for the urban poor, in particular, due to inequality in the access to these amenities. Further, there are serious apprehensions that the programmes of globalization and consequent reduction of government support to these scheme schemes in recent years would accentuate disparity in the access to services.

Despite rapid growth in literacy in post-Independence India, gender deprivation still exists. Despite progressively increasing gains from for females in literacy and education resulting in declining disparities (Table 7.37), in 2001, slightly more than half of the female population was literate(54.16 per cent) as against three-fourth of males (75.85 per cent). It is seen that it look almost five decades for male-female disparity to reduce to half of what it was in the 1960s. Following the same logic, it can be argue that if the present trend continues, it will take another five decades to finally close the gender gap in terms of literacy attainment.

Table 7.37
Trend in Gender Disparity in Literacy in India

Year	Male Literacy Rate	Female Literacy Rate	Male/Female Disparity
1961	40.4	15.3	0.45
1971	39.5	18.4	0.38
1981	56.3	29.7	0.35
1991	63.8	39.4	0.28
2001	75.8	54.1	0.21

Source: India, Social Development Report, Council for Social Development, Oxford University Press, 4th impression 2007

However there exist wide regional variations. While in Kerala, males and females are almost at parity, the so called **(BIMARU)** states of Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh lag behind in female literacy rate and the gender disparity is huge (Table 7.38).

Table 7.38
Gender Disparity in Literacy Rates in Major States of India

States	Years				
	1961	1971	1981	1991	2001
Forward States					
Punjab	0.418	0.229	0.193	0.162	0.116
Maharashtra	0.474	0.365	0.176	0.244	0.172
Haryana	NA	0.463	0.425	0.318	0.224
Gujarat	0.398	0.332	0.306	0.254	0.211
West Bengal	0.430	0.343	0.288	0.225	0.167
Karnataka	0.469	0.360	0.179	0.251	0.184
Kerala	0.211	0.134	0.109	0.065	0.056
Tamil Nadu	0.470	0.352	0.309	0.228	0.167
Andhra Pradesh	0.440	0.372	0.346	0.289	0.202
Backward States					
Madhya Pradesh	0.658	0.535	0.483	0.389	0.270
Assam	0.418	0.347	NA	0.214	0.159
Uttar Pradesh	0.642	0.549	0.519	0.426	0.297
Rajasthan	0.654	0.588	0.584	0.524	0.337
Orissa	0.676	0.508	0.438	0.342	0.253
Bihar	0.699	0.615	0.529	0.440	0.331
All-India	0.485	0.385	0.352	0.281	0.216

Source: India, Social Development Report, Council for Social Development, Oxford University Press, 4th impression 2007

NA: Not Available

The early decades of Independence saw huge disparity between boys and girls at the primary level of education, with the situation being even worse at the upper primary level. Undoubtedly, the gender disparities over the years have come down; yet substantial gender gap in enrolment at the elementary level of education still persists (Table 7.39).

Table 7.39
Gender Disparity in Elementary Education

Year	Primary	Upper Primary	Elementary
1950-51	0.49	0.69	0.49
1960-61	0.43	0.52	0.42
1970-71	0.32	0.42	0.33
1980-81	0.29	0.35	0.30
1990-91	0.25	0.31	0.26
2000-01	0.17	0.18	0.16

Source: India, Social Development Report, Council for Social Development, Oxford University Press, 4th impression 2007

On the basis of above observation we can conclude that, even during the planning process, there is some evidence of the growth of regional disparities but still, the state made a conscious effort to reduce them. But the reform process, which strengthened market forces with in the country, coupled with globalization favour the forward states and neglected the backward states. As a result regional disparities were aggravated.

Table 7.40
Per Capita Plan outlays During the Plan Period

States	1 st Plan	2 nd Plan	3 rd Plan	4 th Plan	5 th Plan	6 th Plan	7 th Plan	8 th Plan
(Rs.)								
Forward States								
Punjab	175	146	212	316	531	1,179	1,695	2,951
Maharashtra	37	57	103	199	372	983	1,434	3,101
Haryana	-	-	-	358	481	1,385	1,871	2,838
Gujarat	58	76	108	204	376	1,037	1,485	2,700
West Bengal	54	48	80	82	200	600	653	1,144
Karnataka	46	62	100	128	276	614	749	3,138
Kerala	31	49	101	156	224	578	727	2,378
Tamil Nadu	28	57	98	134	201	651	1,063	2,427
Andhra Pradesh	33	52	91	98	236	584	841	1,858
Backward States								
Madhya Pradesh	34	48	84	114	254	687	1,146	1,742
Assam	29	57	103	136	190	526	850	2,066
Utter Pradesh	25	32	72	132	237	535	803	1,372
Rajasthan	39	53	97	120	237	577	718	2,548
Orissa	56	54	120	113	207	536	897	2,123
Bihar	25	40	67	85	155	456	626	592
All-India	38	51	92	142	262	687	1,026	1,956

Source: CMIE: Basic Statistics Relating to Indian Economy, Vol.2, States(1989) and Planning Commission, Ninth Five Year Plan (1992-97).

In fact, the planning process has itself accentuated the disparity between the states by having a strong bias in favour of developed states and neglecting less-developed states. It is clear from the table 7.40 that the developed states were clearly favoured and the less-developed states were neglected in terms of planned outlays. Punjab and Haryana have always received the highest per

capita plan outlays from the first plan to the eighth plan. Really speaking, the first four or five states of forward states have always received larger allocation of Plan outlays in all the five year plans. On the other hand, backward states like Bihar, Orissa, Uttar Pradesh and Rajasthan, Assam, have continued to receive the smallest allocation per capita in all the Plans. Therefore, the disparities between the states in India have been widening.

Reference:

Amartya Sen, *Development as Freedom*, Oxford University Press, 2001

Kundu, A., (1989), *Employment Growth, Changing Workforce Structure and Poverty Employment Linage in Urban Areas*, New Delhi: International Labour Organisation

Kundu, A., S. Bagchi, and D. Kundu (1999), 'Regional Distribution of Infrastructure and Basic Amenities in Urban India', *Economic and Political Weekly*, vol.34, no.28.

Singh, A.K. (1999), 'Inter-State Disparities in Per Capita SDP in India: Trends and Causes', *Artha Vigyan*, vol. 51, no.2

Khan, Mumtaz Ali (1995), *Human Rights and the Dalits*, Delhi: Uppal Publishers.

Sundram R. and S. Tendulkar (2002), 'Poverty among Social and Economic Groups in India in the Nineties', Working Paper no. 118, Centre for Development Economics, Delhi

Visaria, Pravin. 'Alternative Estimates of Poverty in India', *Economic Times*, July 29, 2000

Chapter 8

Summary and Conclusions

The credit for the recognition of the role of public expenditure in Economic development goes to J.M. Keynes who provides a theoretical basis for recent development in public expenditure programmes in his "General Theory". Since then there has been a phenomenal growth of public expenditure throughout the world. Adolf Wagner, a German economist of the 19th century introduced an empirical law, popularly known as Wagner's Law. According to this law government activities and thus government expenditure grows faster than the national income in a developed economy. In other words the government sector of the economy has an inherent tendency to grow in size and importance. According to Wagner, the growth of government activities has been both extensive and intensive ever since the governments started assuming new functions. The government's administrative functions and duties expand as complexities of industrial and urban society increase. Side by side activities of high income elasticity of demand lead to expansion of cultural and welfare functions of the government. Further in a free market economy, the failure of the price mechanism requires large scale direct participation of the government in a large number of directly productive services.

Peacock and Wiseman in their study of U.K concluded that the social upheavals like war and depression push up public expenditure in jerks and step-like manner. In order to finance the increase in public expenditures the government would be forced to raise taxation levels. This raising of taxation levels would, however, be regarded as acceptable to the electorate during the periods of crisis. Peacock and Wireman referred to this as the 'displacement effect'. The public expenditure is displaced upwards and for the period of crisis displaces private expenditures for public expenditures. The process represents an upward shift in the trend line of public expenditure. Following the period of crisis public expenditure does not, however, fall to its original level. Besides displacement effects, peacock and Wiseman have mentioned two other related

concepts – inspection effect and concentration effect. Inspection refers to the fact that the social crisis not only creates pressures for increased public expenditure but also expose, the vulnerable areas which might have been neglected earlier. Social crisis not only obtain general sanction for increasing state activity in general and extending it to the neglected fields, but also mobilize public opinion in favour of the centralization of many new activities. This is known as concentration effect.

Social disturbances in less developed countries may be different from those in advanced economies. And yet, less-developed countries of today vie with advanced countries in public expenditure. Further, difference in tax structure may also have some influence on the expenditure.

From our study it is found that the total government expenditure in India in money terms as well as in real terms during the period 1950-51 to 2000-01 increases faster than the national income. Government expenditure per head of population also shows the same result during the period from 1950-51 to 2000-01.

It is also evident that in terms of per capita and as percentage of national income as well as percentage of total expenditure developmental expenditure registered a growth higher than the non developmental expenditure both at current as well as at constant prices. The expenditure on social and community services was found to grow much faster than the expenditure on the economic services both at current and constant prices.

The government expenditure therefore has grown faster than the national income and government activities have shown an increasing trend during the period under study. Hence Wagner's Law of increasing state activities has been substantiated by these empirical observations. The expansion of expenditure on developmental services particularly social and community services indicates ever expanding state activities in the economic sphere.

The study also reveals an increasing trend in defence expenditure (both total and per capita) in India in money terms as well as in real terms. However,

Indian defence expenditure as a percentage of national income was more or less constant before 1961-62. Following the Chinese attack in October 1962, the expenditure on this head started an upward trend. Defence expenditure as a percentage of national income amounted to roughly 3 per cent during the whole period under review.

It is found that, non-developmental expenditure (both total & per capita) in money and in real terms has shown an increasing trend. However, the proportion of total government expenditure devoted to non-developmental services has shown a declining trend from 1950-51 to 1970-71, but thereafter, from 1975-76 to 2000-01, it shows an increasing trend. The expansion of expenditure on non-developmental services is a joint product of social, political, economic and cultural forces at work. We have also found that the expenditure on administrative services both at current as well as constant prices has shown an increasing trend during the whole period under study. The expenditure on collection of taxes and duties has been continuously increasing during the period from 1950-51 to 2000-01 both at current and constant prices.

Three important points have been emerged from the growth of cost of tax collection, viz.,

- (1) Tax collection charges as percentage of tax revenue falls continuously over the period.
- (2) The rate of increase in tax collection charges fall continuously. The rate of increase in tax revenues continuously.
- (3) The rate of increase in tax revenues is greater than the rate of increase in tax collection charges.

The expenditure on relief on account of natural calamities in money terms and in real terms has shown an increasing trend.

In modern times, the governments irrespective of whether they are capitalist or socialist, are devoting progressively large amount for the provision of social and developmental services directly or indirectly. The nature of the state is more or less determined by the proportion of government expenditure out of national income spent on social and developmental services. A state is to be said to be

welfare oriented, higher the proportion of income is spent on social and developmental services. It is, however, heartening to note that almost all the modern governments are devoting progressively larger amount of their national resources to the developmental activities.

We also found that expenditure on social and developmental services in India in money terms and real terms has shown an increasing trend. The proportion of national income, and proportion of total government expenditure devoted to social and developmental services has been continuously increasing during the period under study. But the impressive growth is depreciated to a large extent by rapid growth of population as well as by increasing price level. As a result of growth of population, in spite of the absolute growth of total expenditure on education per capita expenditure has not shown an impressive improvement due to constant rise in prices and as such when expenditures are converted into constant prices (1993-94 prices). It can be seen that the real rate of growth in total, per capita, and per pupil expenditure on education is very small. For example, as compared to a rate of growth of 13.65 per cent (compound growth rate) in current price, total expenditure on education increased at a rate of 6.84 per cent per annum only in terms of real prices during the period 1950 – 51 to 2000 – 01. The real rate of growth of per capita expenditure on education was about 4.67 per cent per annum and in per pupil terms the real growth was less than one third of the growth at current prices. Incidentally we should note that there are large number of countries which spend more than six to ten per cent of GNP. Some of the countries, which spend more than 4 per cent of GNP on education, include countries, which are economically poorer than India. India had set a long time ago a target of 6 per cent of GNP to be spent on education. This target still eludes, and may continue to elude in the near future.

It is clear from our review of educational development programmes based on various short and long term social and economic objectives during the various Five-Year Plans that, the educational system has not been able fully to gear itself to meeting the need of our growing economy. Thus in spite of several achievements in education front, we have observed that more than fifty per cent of the children between the age-group 11 to 14 years in 1988-89 and about one

fourths of children of the age-group 14 -17 years in 1984-85 went to school. Thus the State has yet to go a long way to achieve the goal of free and compulsory education for all children as set by the constitution.

The main barrier to a scheme of compulsory primary education in India is economic. At very early age the children / boys assist their family in earning small bits of money because people are poor and can not afford to pay for education of their children. Most of the boys and girls in spite of attending a school they work to supplement the income of their families. It is impossible for boy and girl to study on an empty stomach. An unhealthy or ill fed child who is made to attend school has to be paid the cost of medicines. It is heartening to note that recently an attempt has been made to assure mid-day meal. Children in the slum areas who have no clothes to wear, leave alone money and books, have to be provided with school uniforms. Thus, a very large number of children join the ranks of the illiterate every year.

Literacy is one of the broad indicators of development. But it is a matter to be worried when we observed that in 2001 about 34.6 per cent of India's population is still illiterate. Schooling was inadequate under British rule .Thus development of primary education was certainly an urgent necessity at the time of Independence. National Literacy Mission campaign had taken to fight illiteracy. But the condition had not improved a lot. Still the condition of primary schools in villages is bad. There are many schools running with out any infrastructure and adequate number of teachers. Even when teachers are there, there is no provision of classrooms. Recently, Sarba Siksha Aviyam campaign has been taken to fight illiteracy. Let us see what it achieves in near future.

Although at higher level and professional education level India has made very significant progress by allowing private entrepreneur to establish private Institutions, a large number of graduates and post graduates go with out suitable employment. Those who continue their education are not sure what sort of studies it would be best for them to engage in.

In spite of all progress in the field of education, Indian education need a drastic reconstruction.

Universalisation of elementary education has been a Constitutional Directive, and the two national policy statements on education in 1968 and 1986 and the revised 1992 laid special emphasis on the fulfillment of this objective. Five-year plans repeatedly promised to take the nation towards achieving this goal. Elementary education was also included in the 'National Programme of Minimum Needs' in the five-year plans, and this inclusion has significant implications for allocation of resources, and for diversion of resources away from elementary education. This is expected to ensure favorable treatment in the allocation of resources, and to protect it from reallocation of approved outlays away from elementary education.

But even after several decades of development planning, the goal of universal elementary education is still elusive. It is strongly felt that elementary education apart from several factors suffered in India, due to, insufficient allocation of financial resources. While finances are an important constraint, they are however, not the only constraint, but one among many. Resources provide a necessary, but not a sufficient condition in achieving universal elementary education.

The Plan period can be divided into four phases depending on the pattern of allocation of resources to elementary education. Phase I (the 1st five year-plan period) witnessed a substantial part, nearly three-fifths, of the total plan educational resources, being allotted to elementary education, i.e., high priority was given to elementary education. The period favorable to elementary education ended with the end of first five-year plan. Phase II (1956-69, the period covering the second and the third five-year plans, and the annual plans), specially the second five-year plan marked the beginning of a drastic decline of resources allocated to elementary education and a doubling or trebling of resources allocated for higher education. Relative emphasis shifted from agricultural sector in favour of industrial sector during this plan period. Accordingly, expenditure on higher education was increased considerably. It reached a proportion of 24

per cent by 1967-68, while the corresponding figures for elementary education showed a decline from 56 per cent in the first five-year plan to 24 per cent in 1967-68. Phase III, i.e., period after 1969 showed a slight reversal of these trends. The proportion of elementary education showed an increasing trend and that of university and technical education showed a gradual decline. This may be attributable partly to the Education Commission's (1966)

Table 8.1
Inter-Sectoral Allocation of Plan Expenditure on Education in Five-Year Plans in India

(Rs in Crores)

Five Year Plan	Elementary Education*	Adult	Secondary	Higher	Technical	Grand Total	% of plan Outlay
First	85 (56)	5 (3)	20 (13)	14 (9)	20 (13)	153 (100)	7.86
Second	95 (35)	4 (1)	51 (19)	48 (18)	49 (18)	273 (100)	3.83
Third	201 (34)	2 (0.3)	103 (18)	87 (15)	125 (21)	589 (100)	6.87
Annual #	75 (24)	-	53 (16)	77 (24)	81 (25)	322 (100)	4.86
Fourth	239 (30)	6 (1)	140 (18)	195 (25)	106 (13)	786 (100)	5.04
Fifth	317 (35)	33 (4)	156 (17)	205 (22)	107 (12)	912 (100)	3.27
Sixth	883 (30)	156 (3)	736 (25)	530 (18)	324 (11)	2943 (100)	2.70
Seventh	2849 (34)	470 (6)	1829 (22)	1201 (14)	1083 (12)	8500 (100)	3.50
Annual\$	1734 (33)	376 (7)	1079 (20)	595 (11)	848 (16)	5318 (100)	4.20
Eighth	8936 (42)	1808 (8)	3498 (16)	1516 (7)	2786 (13)	21217 (100)	4.90
Ninth	27363 (51)	1102 (2)	9526 (18)	4350 (8)	4778 (9)	53524 (100)	6.20

Note: * Indicates pre-school education

1965-66 to 1967-68 (three years)

\$ 1990-91 and 1991-92 (two years)

Source: Five Year Plans, Annual Plans, Education Sector (various year),

and the Report of The NDC Committee on Literacy, Planning Commission, New Delhi.

concerns, and the National Policy on Education, 1986 that laid emphasis on elementary education on the one hand, and partly due, on the other hand, to the growth of educated unemployment, the mismatches in the labour market, and the resulted social unrest. The year 1986 marks the beginning of the renewed emphasis on elementary education, with the formulation of the National Policy on Education (1986), and with the 'operation blackboard' and similar other programmes launched by the Union and State governments. The allocation to elementary education was stepped up significantly during the seventh plan, and the eighth plan continued to lay the same emphasis on elementary education. In the ninth plan also elementary education was given a high priority.

However, it is to be noted that though the third phase showed marginal improvements so far as elementary education is concerned, it is yet to go a long way to reach the proportion that is obtained in the first plan. While universalisation of elementary education has been becoming an increasingly tougher and tougher task, causing repeated postponement of the goal. The relative priority given to elementary education in the total educational expenditure has gradually declined over the successive five year plans. It is only during the first plan that elementary education was allocated a sizable proportion of total educational outlay: it was 56 per cent. During the subsequent plans this proportion has been dwindling between 30 and 35 per cent, except in the seventh and later plans. On the whole, it seems plausible to argue that had the priority given to elementary education in the first five year plan continued, universalisation of elementary education would not have been so elusive as it is today, if not already accomplished.

The resource allocation to secondary education showed that after an initial jump from 13 per cent to 19 per cent between the first and the second plans it got relatively stabilized and remained around the proportion until the sixth plan. In the sixth plan, for the first time, the allocation was increased to 25 per cent. But this level could not be maintained; it gradually declined to 16 per cent in the eighth plan. It is feared that the proportion might decline further in the ninth plan.

During the first five year plan, higher education was not given a high priority. But probably realizing the importance of higher education soon, in the second plan the allocation to higher education was doubled from 9 per cent to 18 per cent of the total education outlay. But certainly it is during the third phase, i.e., during the post-Kothari Commission period, higher education received a better treatment, with more than 20 per cent of the total outlay allocated to education being given to higher education. But the fourth phase was the worst period for higher education. The relative share of higher education touched an all-time low level of seven per cent in the eighth plan. The economic reform policies introduced in the beginning of the 1990s contributed to inflicting steep cut on the allocations to higher education and also effected drastic changes in the perceptions on public financing of higher education. As a result, today a very few

hope that even during the tenth plan higher education would be allocated any better share of the total education outlay.

Now unit cost can provide valuable elements in analyzing the allocation of educational resources. A comparison of unit cost of elementary education with those at higher education reveals the extent of misallocation of resources or imbalanced nature of development of education. Unit costs at university level per student in India were more than 64 times than at primary level in 1983-84. Quite contrary to general opinion, cost of college education are only 11 times the

Table 8.2
Public Expenditure on Education, per student by Level of Education

(Rs. Per annum)						
Year	Primary	Middle	Secondary	University & other Inst	Colleges	Colleges (Prof.)
At Current Prices						
1950-51	19.9	37.1	72.9	1905.6	231.6	779.2
1960-61	27.6	40.5	91.7	2524.2	301.0	813.4
1970-71	57.0	84.9	168.4	4141.2	490.0	1179
1975-76	95.9	114.2	257.7	5993.6	572.5	1539
1980-81	160.9	193.4	407.8	12087.7	1270.5	
1983-84	217.1	285.1	555.6	13920.5	1250.3	
1985-86	262.7	344.3	654.0	-	1257.7	
1987-88	332.6	418.9	780.1	-	-	-
1990-91	411.4	547.6	948.7	-	-	-
Growth rate	7.9	7.0	6.6	6.2**	3.7*	2.8*
At Constant (1993-94) Prices						
1950-51	292.9	546.0	1073.0	28047.2	3408.8	11468.5
1960-61	350.7	514.6	1165.3	32075.5	3824.9	10336
1970-71	399.5	595.0	1180.3	29024.6	3434.3	8263.3
1975-76	436.2	519.4	1172.0	27259.5	2603.8	6999.5
1980-81	495.5	595.6	1255.9	37226.3	18699.6	
1983-84	515.4	676.8	1319.0	33046.3	15887.8	
1985-86	541.1	709.2	1347.1	-	8814.9	
1987-88	585.2	737.1	1372.7	-	-	-
1990-91	558.7	743.7	1288.4	-	-	-
Growth rate	2.3	0.9	0.5	0.5	-0.9	-1.5
Cost Ratios: Cost of University Education per pupil/Cost per Pupil of Given Level of Education						
1950-51	95.8	51.4	26.1	1	8.2	2.4
1960-61	91.5	62.3	27.5	1	8.4	3.1
1970-71	72.7	48.8	24.6	1	8.5	3.5
1975-76	62.5	52.5	23.3	1	10.5	3.9
1979-80	53.9	40.4	20.9	1	6.5	
1980-81	75.5	62.5	29.6	1	9.5	
1983-84	64.1	48.9	25.1	1	11.1	
1985-86 #	4.78	3.65	1.9	1	-	-

Note: * refers to 1950-51 to 1975-76;

** refers to 1950-51 to 1983-84; # in relation to college education only

-not available; growth rates are compounded at annual rates of growth.

Source: Based on Education in India (various year)

cost of primary level. These ratios, particularly at primary and middle levels, are declining over time, suggesting some progress towards 'balanced' development. Yet the current ratios are very high. The need to reduce these ratios is obvious, and this has to be done by improving levels of investment in elementary and secondary education per pupil and not only by reducing cost of higher education.

However, this apparent decline in ratio is due, not to any improvement in educational technology, but due to a more rapid increase in enrolments relative to total resources devoted to education. Only real reduction in costs that is due to better technologies of educational production can be welcomed. This fall in relative spending per student is due to economies of scale, and deterioration in quality.

It is also revealed from our study that the expenditure on medical and public health services increased during the period under study at current and constant prices, in terms of percentage of national income, total government expenditure and as percentage of total social and developmental expenditure.

This increase in expenditure on medical and health services have resulted in vast improvement in health facilities. The diseases like malaria, T.B, cholera, small pox, and plague have been eradicated in a large extent. Death rate has come down to 8.5 per thousand in 2000 as compared to 18 per thousand in 1950-51. Life expectancy at birth has increased from 41.2 years in 1950-61 to 65.3 years in 2001. Therefore, we can conclude that the increasing public expenditure on health and medical services has considerably improved the survival rate. During the period under study, infant mortality rate has shown a significant decline. This is largely the result of an improvement in health facilities as well as nutrition levels. However, still in 2001, 178 million children under five were under weight. Therefore, more is to be spent to support a programme of improving nutrition in poor families to reduce this massive number of underweight children. In India still 165 million persons are unable to make use of improved water resources and thus become victims of all kind of water born diseases. Improved sanitation facilities were also not available to 72 per cent of the

population. Even in the medium human development countries, population using adequate sanitation facilities ranged from 70 per cent to 99 per cent. But in India it is palpably low at 28 per cent in 2000. In 1999, 49 per cent of Indian population did not have access to essential drugs. This means that 527 million persons were without effective medical cover.

The above observation is true, but it should be noted it is not the mal-allocation of resources that attributed to the inadequacy of medical and health services in India . It is the lack of funds that limits access to the modern medical care and , as a result , a large number of cases escape the attention of medical services . It is also a fact that services in government hospitals are of a poor quality in terms of both treatment and lack of concern for patients. It has been emphasized by the World Bank Paper, more resources need to be devoted to staffing the lower levels of health services in areas with very few facilities or none at all. The services should focus primarily on improving environmental and public health, personal health practices and nutrition. The demand for curative care, however, should not be over looked. Thus, a more economical balance should be struck between measure to treat disease and measure to control its incidence.

On the basis of above observations it is significant to remember that the amount of money available for medical and public health services is an important determinant of the quality and quantity of such services . The State Governments have allocated their limited resources among many competing and different kinds of public health programmes. Thus, the absolute amount of public expenditure available for health services is quite low. Therefore, it would be very unrealistic to expect that a sharp increase in funds for medical and public health services would improve the entire situation.

Agriculture is the backbone of Indian economy. The expenditure on agriculture and allied services increased during the period. But the proportion of developmental expenditure, the proportion of total government expenditure and, proportion of national income devoted to agriculture and allied services increased marginally during the period.

But with the process of industrialization and economic growth, the share of agriculture indicated a decline during the period. With the extension of irrigation and application of intensive methods of cultivation, and after introduction of modern agricultural practices including the adoption of hybrid seeds, there has been a steady and continuous increase in yield per hectare of all crops. Even though there has been substantial growth in agricultural production, this has not been smooth; there have been continuous fluctuations in crop output from year to year. But this new agricultural strategy has not been very successful in increasing the over all agricultural production. It brings about dramatic change in the pattern of production in a few selected areas. The majority of Indian farmers are still using traditional inputs, like wooden ploughs inferior quality of seeds, insufficient quantity of fertilizer, etc. The most disheartening feature of the Green Revolution has been the fact that its impact has been limited to a few food grains leaving the major crops outside its purview. The effects of Green Revolution have been the most spectacular in the case of wheat. Towards food grains security, India has succeeded in terms of cereals, but has miserably failed to increase the production of pulses consistent with the needs of a growing population. The new agricultural strategy has helped the growth of the capitalist farming in India and has led to concentration of wealth in the hands of the top 10 per cent of the rural population while major portion still uses outmoded techniques resulting in low productivity per hectare. The lack of assured and dependable water and power supply throughout the year makes impossible for the full exploitation of intensive agriculture.

The expenditure on water and power development has shown an increasing trend both at current prices as well as at constant prices. But the proportion of social and developmental expenditure and total government expenditure devoted to water and power development has decreased during the period. Despite the enormous importance given to water and power development during the five year plans, the progress of irrigation has been quite slow. However, there has been chronic power shortage for the last 50 years. The commissioning of new capacity has considerably fallen short of targets. Power cuts and load-shedding have been frequent and have adverse effect on production and employment. So far we have failed hopelessly in getting the

maximum benefit out of our investment in irrigation and power development. Even after the 50 years of independence only 39 per cent of the sown area was irrigated in 1999-2000. Power development during the last 50 years has been significant inspite of many weaknesses and failures.

Industrialization is key to the economic development of underdeveloped country like us. The government of India initiated the process of industrialization right from the fifties. The total expenditure on industry and minerals in money terms and in real terms increased during the period. The industry and mineral has made a significant progress in India during the last fifty years of planned development. The average growth rate of the industrial sector during this period was about 9.5 per cent, with the growth rate touching a high of 12.1 per cent in 1995-96. Within overall industrial production, the average growth rate of manufacturing was 10.6 per cent. This strong growth rate was reflected in all segments. During the planning era significant progress has been made in the field of science and technology. This sector contributed about 26.6 per cent to GDP in 2001-02. Thus in terms of contribution to GDP, the share of industrial sector continues to be low. It should be pointed out in this connection that this share in most of the developed nations is between 29 and 49 per cent. The process of industrialization has not been able to solve the problem of unemployment in India. The process of industrialization has resulted in the rapid expansion of the large scale industrial sector in comparative neglect of the small and the medium sectors.

If we think of agriculture and industry as the body and bones of the economy, then transport and communication can be regarded as the nerves of the economy. Because the system of transport and communications makes trade possible. Therefore the system of transport and communications are equally important like agriculture and industry and minerals for the prosperity of the country. Accordingly the government of India has incurred an increasing amount of public expenditure for the development of transport and communication during the planning period.

As a result there has been continued expansion in the transport and communication facilities in India during the period. However, transport and communication facilities are not as yet adequate and quick to meet the growing needs of development. In India only 50 per cent of the road length is provided with proper surface. Even in the case of national highways, 30 per cent of the road length has a single lane road pavement. About 36 per cent of the villages in the country do not have road connection and over 65 per cent of our villages are without an all weather road. Out of total length of 58, 110 km of National Highway network, about 25,000 km is under severe strain due to high volume of traffic.

The distinction between economic growth and economic development has been rediscovered in recent years. C.P. Kindleberger writes, "economic growth means more output and economic development implies both more output and changes in the technical and institutional arrangement by which it is produced" (C.P. Kindleberger, Economic Development).

The main objective of economic policy in India is to accelerate economic development of the country with social justice. The Directive principles of Indian Constitution envisage a society in which all have equal opportunity, all have right to be provided with work, and live in a social order where there is no exploitation of the economically weak by the strong and where disparities in income and wealth are reduced to the minimum. However there is a difference in the role of public expenditure in a developed country and in a developing country like ours. The role of public expenditure in a developing economy in three fold:

- (a) Promoting economic growth
- (b) Redistribution of income, wealth and economic power, and
- (c) Balanced regional development.

Keeping in mind the above role of public expenditure the impact of public expenditure in economic development has been analyzed in our study by classifying public expenditure into three heads. These are –

- (I) Expenditure on development services which have substantial redistributive effect. The expenditure on this head includes expenditure on agriculture

and allied services, water and power, industry and minerals, transport and communications, etc. These expenditures in our country have resulted in an increase in national income.

- (II) Expenditure on social and community services which have redistributive effect as well. The expenditure on this head includes expenditure on education, health and medical services, housing and social welfare, etc.
- (III) Expenditure on non-developmental services which includes defence, general administration, etc of which the developmental and redistributive effect can not be identified.

During the period from 1950-51 to 2000-01, the share of government expenditure in national income rose by about three times. It rose from 10.58 per cent in 1950-51 to 31.10 per cent in 2000-01. This indicates that government expenditure increased rapidly during this period of five decades.

The impact of public expenditure on economic growth depends upon its income generating effects. If the rate of growth of the economy is satisfactory, the impact of public expenditure is positive. In these respects, the overall performance of Indian economy has not become adequately satisfactory. During the period 1950-51 to 2000-01, national income at constant prices (1993-94 prices) rose by 703.43 per cent, but the per capita income at constant prices increased by only 186.43 per cent during the same period. The annual rate of growth of income at constant prices was of the order 4.17 per cent and that of per capita income was nearly 2.08 per cent. To judge the performance of Indian economy, these rates of growth in the post – independence period should be compared with the rates recorded earlier under the British rule and the rate of growth achieved by other countries in similar circumstances. J.R. Hicks, M. Mukherjee and S.K. Ghosh have calculated the rate of growth of per capita income for the period 1860 to 1945 at 1970-71 prices. According to them India economy during British rule presents a picture of near stagnation over a long period with a growth rate of 0.5 per cent for 1860 to 1945. According to other estimates during 1860 and 1950, the growth rate of national income was 1.15 per cent per annum. According to some other estimate, India's national income grew at 0.7 per cent per annum during the first half of the twentieth century and

according to still another estimate in the period 1888–1929 per capita income declined by 30 per cent (Source: V. Kumar, Government expenditure and economic development, Criterion Publication, New Delhi P. 328). The rate of growth of national income in Japan was slightly less than 3 per cent per annum in the period 1893 – 1912 and did not go up to more than 4 per cent per annum even in the following decades. In comparison of all these, we can conclude that the growth rate achieved in India in the last five decades is certainly a matter of some satisfaction. In this respect it can be said that it is on the whole quite respectable. We can also judge our economic achievements by assessing the extent to which the country's economy has been strengthened in terms of creation of potential for economic growth. This however remained a qualitative exercise. But it can not be gainsaid that we have over the years built up the infrastructure and can, other things being equal, show a higher rate of overall achievement.

The various estimates point to the basic fact that distribution of income in India is unequal. However, among the developing countries the Indian economy shows a relatively less unequal distribution of income. Ojha and V.V. Bhatt in their study showed that distribution of personal income is more uneven in other countries than in India. The share of the top 5 per cent in these countries ranges between 20 per cent and 37.0 per cent, while the share of top 10 per cent is between 28 and 46.7 per cent. Therefore, it signifies that in India the share of top 5 per cent and top 10 per cent are lowest among these countries. The recent study conducted jointly by the World Bank and Institute of Development studies at Sussex University (England) also support the above finding. They came to the conclusion that income inequalities (during 1991 to 98) were moderate in U.K, USA and China, but were low in Pakistan, India and Sri Lanka. In another estimate by N.S. Iyengar and P.R. Brahmananda in other estimate have concluded that the inequalities in the distribution of consumption expenditure have declined over time during 50s. During 60s and onwards inequalities in rural areas have not increased. From mid 60s to mid 80s in cities, inequalities have increased. The Gini co-efficient calculated by Amartya Sen and Jean Dreze revealed the fact that there is a decreasing trend of income inequality during the period 1950-51 to 1999-2000 and the rural income is more equitably distributed

than that of urban income. However the studies of Department of Agriculture and Co-operation, Government of India suggests that there is a gradual but positive shift in favour of small and marginal holding and the concentration of land with very large land owners is coming down. In India wealth and power concentrations have been intensified during the last 50 years of development planning. In 1991, 1.6 per cent of companies with assets more than Rs. 700 crores accounted for about 27 per cent of the total assets. In this group 0.8 per cent companies accounted for 18.4 per cent of total assets. As against this 83.7 per cent companies with assets less than Rs. 100 crores accounted for only 30 per cent of total assets. In 1989-90, among the top 20 business houses, the top 5 accounted for 60 per cent of the total assets of 20 big business houses. A deeper analysis further reveals the fact that 49.6 per cent of total assets of 20 big business houses are concentrated in top three business houses.

Therefore, in spite of working of planned development during the last 50 years, there has emerged a very clear trend towards a few big houses and monopolies holding entire industries at the cost of small entrepreneurs.

There is no conclusive proof that income inequalities in Indian have been reduced during the period of planned development. Some studies shows, these appeared to have been accentuated and some studies shows, these appeared to have been reduced. On the contrary these appear to have been accentuated. Therefore, the planned development in India did not achieve the objective of equal redistribution of income, wealth and economic power. The absolute income levels of the rich have increased, disparities in income and wealth have widened at the end of 50 year of planned development. Apart from the problem of inequalities of income, the baffling problem of the masses in the prevalence of widespread poverty where our efforts so far have been feeble and halting in narrowing the inequalities in incomes and property ownership.

By incurring expenditure on items which generally direct income towards the lower income groups, public expenditure influences the ability of the people to work, save and invest and willingness to work as well. The expenditures on items like education, medical and public health, etc, directly affect income distribution.

In 1950-51, 11.82 per cent of total government expenditure was devoted to education. It rose to 14.25 per cent of total government expenditure. As a result of which there has been a considerable increase in the number of educational institutions, pupils and teachers. But the review of educational development programmes based on various short and long term socio-economic objectives during the five year plans reveals that the educational system has not been able to gear itself to meeting the need of our growing economy. Even after the 50 years of planned development, primary education is not universal. There are many schools running with out any infrastructure and adequate number of teachers. If teachers are there, at many places still there is no provision of class rooms. Still university education is the privilege of the relatively rich sections of the urban society.

Another redistributive expenditure in India is the expenditure on medical and public health. The main objective of health and family planning programmes in India is to bring about a progressive improvement in the health of the people, in general, and particularly, the poor or lower income people whose income can be supplemented in this way. The expenditure on medical and public health as per cent of total government expenditure has increased from 2.91 per cent in 1950-51 to 4.43 per cent in 2000-01. As a result of which life expectancy at birth has shown a continuous improvement from 41.2 years for the decade 1951-61 to 50.3 years during 1970-71 and further to 63.3 in 2001. In India 16 per cent of the population (165 million persons) population are not using improved water sources. Similarly improved sanitation facilities were not available to 72per cent of the population in 2000. Even in the medium human development countries this figure ranged from 70per cent to 99per cent. Therefore, India has a long way to go in this area of access to health services.

The survival rate has considerably improved in India. In 1950-51, infant mortality rate per 1000 live births was 180; it brought down to 110 in 1980-81, 80 in 1990-91 and 67 in 2001. Likewise, maternal mortality rate per 1,00,000 live births have been brought down to 540 during 1985-2001. These are of course healthy development. However, public health amenities are utterly inadequate in

rural areas and in urban areas hospitals are excessively crowded. Medical assistance is a luxury in India and only middle and rich classes can afford it.

The reorientation of public expenditure policy in our country is necessary to achieve higher rate of economic growth and progressive reduction of inequalities of incomes. Since the expenditure on social services is small, its redistributive effect is negligible. It is necessary, therefore, to take effective actions to bring about a thorough and integrated regulation of public expenditure so as to achieve the desired redistribution of income and wealth.

The distribution of income is greatly changed by the spiral inflation since the launching of second Five year plan. The objective of more equitable distribution of income and wealth has been hindered by inflationary tendencies which have made serious inroads on the real income of the masses. The continuous spiral inflation since second plan had led to economic recession in many sectors of the Indian economy. This has led prices of certain important articles of mass consumption to a very high level forcing demand for such goods to decline. This in turns led to decline in the demand for other goods. Production had also been adversely affected by frequent labour troubles. Over and above all these, the rise in the prices level had eroded the volume of investment in real terms. The decline in real investment worsened the economic recession still further till recently. On the other hand, people living on past savings, fixed interest and rental incomes and old age pensioners have been literally ruined due to continuous depreciation in the purchasing power of the rupee. The rich have become richer and the poor have become poorer.

Balanced regional development is necessary for the harmonious development of a federal state like India. It is clear from our study that India presents a picture of extreme regional variations. There also exist disparities in all respects across the different sections of the society. Therefore, future governmental policy in respect of public expenditure should be designed towards reducing inequalities both at regional and individual levels. Our analysis has suggested appropriate policy measures in achieving the real goal of economic development of our country. Of late globalization has presented a challenge

before us. Every effort should be made to accept the global challenge. The increased public expenditure would help our economy in facing the future challenge of globalization and direct the economy towards the path of economic development.

Appendix Tables

Table 1
Population of India in Million from 1950-51 to 2000-01

Financial Year	Population (Million)*	Financial Year	Population (Million)*
1950-51	356	1976-77	620
1951-52	365	1977-78	634
1952-53	372	1978-79	648
1953-54	379	1979-80	664
1954-55	386	1980-81	679
1955-56	393	1981-82	692
1956-57	401	1982-83	708
1957-58	409	1983-84	723
1958-59	418	1984-85	739
1959-60	426	1985-86	755
1960-61	434	1986-87	771
1961-62	444	1987-88	788
1962-63	454	1988-89	805
1963-64	464	1989-90	822
1964-65	474	1990-91	839
1965-66	485	1991-92	856
1966-67	495	1992-93	872
1967-68	506	1993-94	891
1968-69	518	1994-95	908
1969-70	529	1995-96	927
1970-71	541	1996-97	943
1971-72	554	1997-98	959
1972-73	567	1998-99 ^P	975
1973-74	580	1999-2000 ^{QE}	991
1974-75	593	2000-01 ^{RE}	1007
1975-76	607		

* Relates to Mid-financial Year

P : Privilional,

QE: Quick Estimates,

RE: Revised Estimate

Source: Hand Book of Statistics on Indian Economy- 2001, Reserve Bank of India.

Table 2
Price Index

Financial Year	Index	Financial Year	Index
1950-51	6.91	1976-77	23.47
1951-52	7.11	1977-78	24.99
1952-53	6.80	1978-79	25.32
1953-54	6.98	1979-80	29.17
1954-55	6.24	1980-81	32.53
1955-56	6.19	1981-82	35.74
1956-57	7.02	1982-83	38.58
1957-58	7.28	1983-84	42.08
1958-59	7.54	1984-85	45.17
1959-60	7.75	1985-86	48.22
1960-61	7.91	1986-87	51.57
1961-62	8.08	1987-88	56.64
1962-63	8.48	1988-89	61.28
1963-64	9.24	1989-90	66.22
1964-65	10.07	1990-91	73.29
1965-66	10.98	1991-92	83.35
1966-67	12.38	1992-93	90.57
1967-68	13.48	1993-94	100.00
1968-69	13.85	1994-95	109.75
1969-70	14.28	1995-96	119.55
1970-71	14.40	1996-97	128.39
1971-72	15.18	1997-98	137.51
1972-73	16.81	1998-99	151.16
1973-74	19.75	1999-2000	157.26
1974-75	22.85	2000-01	165.99
1975-76	22.00		

Source: Computed on the basis of table 3 of Statistical Appendix by using the following method.

In Table 3 of Statistical Appendix, NI at current as well as constant price or in real terms (base 1993-94) is given.

$$\text{Real NI} = \text{NI for the current year} \times \frac{\text{Base year index (100)}}{\text{Current Year Index}}$$

Therefore,

$$\text{Current Year Index} = \frac{\text{NI for the current year}}{\text{Real NI}} \times 100$$

Table 3
National Income at Current and Constant Prices
(1950-51 to 2001-02)

Financial Year	National Income (in crores)		Financial Year	National Income (in crores)	
	At Current Prices	At Constant Prices		At Current Prices	At Constant Prices
1950-51	9142	132367	1976-77	74242	316358
1951-52	9634	135551	1977-78	85151	340751
1952-53	9474	139379	1978-79	91094	359732
1953-54	10341	148159	1979-80	98631	338124
1954-55	9628	154184	1980-81	118233	363417
1955-56	9776	158001	1981-82	137388	384392
1956-57	11706	166793	1982-83	151716	393274
1957-58	11928	163902	1983-84	178121	423265
1958-59	13299	176483	1984-85	198794	440119
1959-60	13916	179592	1985-86	221401	459187
1960-61	15204	192235	1986-87	246064	477158
1961-62	15960	197514	1987-88	279400	493312
1962-63	17029	200895	1988-89	334302	545572
1963-64	19491	210946	1989-90	385729	582518
1964-65	22814	226640	1990-91	450145	614206
1965-66	23752	216244	1991-92	514607	617372
1966-67	26918	217427	1992-93	587064	648182
1967-68	31745	235418	1993-94	685912	685912
1968-69	33421	241234	1994-95	805981	734358
1969-70	36742	257359	1995-96	941861	787809
1970-71	38968	270597	1996-97	1093961	852085
1971-72	41340	272252	1997-98	1224787	890712
1972-73	45392	270061	1998-99 ^P	1434456	948982
1973-74	55896	283061	1999-2000 ^{QE}	1590301	1011224
1974-75	65432	286417	2000-01 ^{RE}	1765238	1063479
1975-76	69005	313643	2001-02 ^{QE}	1864292	1115157

P : Prvisional,

QE: Quick Estimates,

RE: Revised Estimate

Source: Hand Book of Statistics on Indian Economy- 2001, Reserve Bank of India.

Table 4
Per Capita National Income at Current and Constant Prices
(1950-51 to 2001-02)

Financial Year	Per Capita National Income (in Rs.)		Financial Year	Per Capita National Income (in Rs.)	
	At Current Prices	At Constant Prices		At Current Prices	At Constant Prices
1950-51	255	3687	1976-77	1197	5103
1951-52	264	3714	1977-78	1343	5375
1952-53	255	3747	1978-79	1406	5551
1953-54	273	3909	1979-80	1485	5092
1954-55	249	3994	1980-81	1741	5352
1955-56	249	4020	1981-82	1985	5555
1956-57	292	4159	1982-83	2143	5555
1957-58	292	4007	1983-84	2464	5854
1958-59	318	4222	1984-85	2690	5956
1959-60	327	4216	1985-86	2932	6082
1960-61	350	4429	1986-87	3191	6189
1961-62	359	4449	1987-88	3546	6260
1962-63	375	4425	1988-89	4153	6777
1963-64	420	4546	1989-90	4693	7087
1964-65	481	4781	1990-91	5365	7321
1965-66	490	4459	1991-92	6012	7212
1966-67	544	4392	1992-93	6732	7433
1967-68	627	4653	1993-94	7698	7698
1968-69	645	4657	1994-95	8876	8088
1969-70	695	4865	1995-96	10160	8498
1970-71	720	5002	1996-97	11601	9036
1971-72	746	4914	1997-98	12772	9288
1972-73	801	4763	1998-99 ^P	14712	9733
1973-74	964	4880	1999-2000 ^{QE}	16047	10204
1974-75	1103	4830	2000-01 ^{RE}	17530	10561
1975-76	1137	5167	2001-02 ^{QE}	17978	10754

P : Provisional,

QE: Quick Estimates,

RE: Revised Estimate

Source: Hand Book of Statistics on Indian Economy- 2001, Reserve Bank of India.

Table 5
Government Expenditure at Current and Constant Prices
(1950-51 to 2000-01)

Financial Year	Total Government Expenditure		Per Capita Government Expenditure		GE as % National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)	
1950-51	967.38	14006.69	26.95	390.16	10.58
1951-52	1041.14	14648.91	28.52	401.34	10.81
1952-53	950.99	13990.72	25.56	376.09	10.04
1953-54	990.86	14196.39	26.14	374.57	9.58
1954-55	1226.58	19642.61	31.78	508.88	12.74
1955-56	1383.55	22361.12	35.20	568.99	14.15
1956-57	1660.51	23659.79	41.41	590.02	14.19
1957-58	2039.56	28025.48	49.87	685.22	17.10
1958-59	2069.71	27465.87	49.51	657.08	15.56
1959-60	2233.03	28818.22	52.42	676.48	16.05
1960-61	3120.18	39450.66	71.89	909.00	20.52
1961-62	3410.13	42202.28	76.80	950.50	21.37
1962-63	4104.13	48417.36	90.40	1066.46	24.10
1963-64	4972.16	53812.39	107.16	1159.75	25.51
1964-65	5185.81	51517.14	109.41	1086.86	22.73
1965-66	6439.93	58630.69	132.78	1208.88	27.11
1966-67	7245.85	58527.51	146.38	1182.37	26.92
1967-68	7126.88	52852.29	143.98	1067.72	22.45
1968-69	7155.53	51648.88	138.14	997.08	21.41
1969-70	7665.26	53691.24	144.90	1014.96	20.86
1970-71	16735.54	116212.97	309.34	2148.11	42.95
1971-72	10397.51	68474.67	187.68	1236.00	25.15
1972-73	12098.13	71978.17	213.37	1269.46	26.65
1973-74	12890.07	65276.16	222.24	1125.45	23.06
1974-75	15171.56	66410.82	255.84	1119.91	23.19
1975-76	18555.03	84336.72	305.68	1389.40	26.89
1976-77	21482.86	91542.18	346.50	1476.49	28.94
1977-78	23265.68	93102.88	366.97	1468.50	27.32
1978-79	27727.52	109496.52	427.89	1689.76	30.44
1979-80	31800.61	109017.95	478.92	1641.84	32.24
1980-81	35379.41	108746.96	521.05	1601.58	29.92
1981-82	40546.30	113442.76	585.93	1639.35	29.51
1982-83	48014.94	124462.99	678.18	1757.95	31.65
1983-84	55693.98	132344.38	770.32	1830.49	31.27
1984-85	66733.98	147745.37	903.03	1999.26	33.57
1985-86	76415.35	158485.89	1012.12	2099.15	34.51
1986-87	91580.83	177590.08	1187.82	2303.37	37.22

Financial Year	Total Government Expenditure		Per Capita Government Expenditure		GE as % National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)	
1987-88	101754.4	179658.74	1291.30	2279.93	36.42
1988-89	116139	189535.70	1442.72	2354.48	34.74
1989-90 ^{RE}	140031.9	211472.63	1703.55	2572.66	36.30
1990-91	155141.5	211684.73	1849.12	2523.06	34.46
1991-92	176995.9	212341.34	2067.71	2480.62	34.39
1996-97	325614.8	253620.98	3452.97	2689.51	29.76
1997-98	372972.8	271240.09	3889.18	2828.36	30.45
1998-99	445980.3	295043.74	4574.16	3026.09	31.09
1999-2000 ^{QE}	517056.1	328780.25	5217.52	3317.66	32.51
2000-01 ^{RE}	548993.1	330744.42	5451.77	3284.45	31.10

Source:

Government expenditure at current prices:

- (i) Indian Economic Statistics, Public Finance, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division
- (ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.
- (iii) Data relating to 1950-51 to 1979-80 has been collected from Kumar, V (1986)

Figures of other column are computed on the basis of the data given in Table 1, Table 2, Table 3 and Table 4.

Table 6
Defence Expenditure at Current and Constant Prices
(1950-51 to 2000-01)

Financial Year	Total Expenditure		Per Capita Expenditure		As % of total Government Expenditure	AS % of NI
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1950-51	168.32	2437.10	4.69	67.89	17.40	1.84
1951-52	196.45	2764.06	5.38	75.73	18.87	2.04
1952-53	198.34	2917.93	5.33	78.44	20.86	2.09
1953-54	208.22	2983.24	5.49	78.71	21.01	2.01
1954-55	209.81	3359.92	5.44	87.04	17.11	2.18
1955-56	205.96	3328.75	5.24	84.70	14.89	2.11
1956-57	231.55	3299.24	5.77	82.28	13.94	1.98
1957-58	206.95	2843.69	5.06	69.53	10.15	1.73
1958-59	297.79	3951.79	7.12	94.54	14.39	2.24
1959-60	258.72	3338.89	6.07	78.38	11.59	1.86
1960-61	280.94	3552.12	6.47	81.85	9.00	1.85
1961-62	312.49	3867.24	7.04	87.10	9.16	1.96
1962-63	473.91	5590.82	10.44	123.15	11.55	2.78
1963-64	816.12	8832.65	17.59	190.36	16.41	4.19
1964-65	805.8	8005.02	17.00	168.88	15.54	3.53
1965-66	884.76	8055.07	18.24	166.08	13.74	3.72
1966-67	908.59	7339.03	18.36	148.26	12.54	3.38
1967-68	968.43	7181.79	19.56	145.09	13.59	3.05
1968-69	1033.19	7457.60	19.95	143.97	14.44	3.09

Financial Year	Total Expenditure		Per Capita Expenditure		As % of total Government Expenditure	AS % of NI
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1970-71	1199.29	8327.97	22.17	153.94	7.17	3.08
1971-72	1525.29	10045.07	27.53	181.32	14.67	3.69
1972-73	1652.46	9831.36	29.14	173.39	13.66	3.64
1973-74	1680.8	8511.68	28.98	146.75	13.04	3.01
1974-75	2112.27	9246.09	35.62	155.92	13.92	3.23
1975-76	2462.29	11191.65	40.56	184.38	13.27	3.57
1976-77	2562.54	10919.43	41.33	176.12	11.93	3.45
1977-78	2633.64	10539.11	41.54	166.23	11.32	3.09
1978-79	2867.63	11324.33	44.25	174.76	10.34	3.15
1979-80	3273	11220.41	49.29	168.98	10.29	3.32
1980-81	3866.77	11885.43	56.95	175.04	10.93	3.27
1981-82	4651.8	13015.07	67.22	188.08	11.47	3.39
1982-83	5408.3	14019.24	76.39	198.01	11.26	3.56
1983-84	6309.17	14992.34	87.26	207.36	11.33	3.54
1984-85	7136.01	15798.73	96.56	213.79	10.69	3.59
1985-86	8519.37	17669.22	112.84	234.03	11.15	3.85
1986-87	11166.49	21653.63	144.83	280.85	12.19	4.54
1987-88	13182.29	23274.81	167.29	295.37	12.96	4.72
1988-89	14939.64	24381.10	185.59	302.87	12.86	4.47
1989-90 ^{RE}	16100	24313.81	195.86	295.79	11.50	4.17
1990-91	15426.47	21048.84	183.87	250.88	9.94	3.43
1991-92	16347.05	19611.49	190.97	229.11	9.24	3.18
1992-93	17581.79	19412.19	201.63	222.62	8.86	2.99
1993-94	21844.72	21844.72	245.17	245.17	9.67	3.18
1994-95	23245.43	21179.74	256.01	233.26	8.98	2.88
1995-96	26856.22	22463.58	289.71	242.33	9.16	2.85
1996-97	29505.12	22981.50	312.89	243.71	9.06	2.70

Financial Year	Total Expenditure		Per Capita Expenditure		As % of total Government Expenditure	AS % of NI
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1997-98	35278.08	25655.57	367.86	267.52	9.46	2.88
1998-99 ^P	39897.58	26394.73	409.21	270.72	8.95	2.78
1999-00 ^{QE}	47070.79	29930.88	474.98	302.03	9.10	2.96
2000-01 ^{RE}	49622.04	29895.12	492.77	296.87	9.04	2.81

Source:

Government expenditure at current prices:

- (i) Indian Economic Statistics, Public Finance, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division
- (ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.
- (iii) Data relating to 1950-51 to 1979-80 has been collected from Kumar, V (1986)

Figures of other column are computed on the basis of the data given in

Table 1, Table 2, Table 3, Table 4 and Table 5.

Table 7
Non-Developmental Expenditure at Current and Constant Prices
(1950-51 to 2000-01)

Financial Year	Total No-Developmental Expenditure		Per Capita Non-Developmental Expenditure		No-Developmental Expenditure as % of total Expenditure	Non-Developmental Expenditure as % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1950-51	347.99	5038.55	9.69	140.35	35.97	3.81
1951-52	425.64	5988.78	11.66	164.08	40.88	4.42
1952-53	339.62	4996.40	9.13	134.31	35.71	3.58
1953-54	361.66	5181.62	9.54	136.72	36.50	3.50
1954-55	386.48	6189.14	10.01	160.34	31.51	4.01
1955-56	363.24	5870.73	9.24	149.38	26.25	3.72
1956-57	412.86	5882.64	10.30	146.70	24.86	3.53
1957-58	508.20	6983.15	12.43	170.74	24.92	4.26
1958-59	503.11	6676.47	12.04	159.72	24.31	3.78
1959-60	709.20	9152.53	16.65	214.85	31.76	5.10
1960-61	765.55	9679.39	17.64	223.03	24.54	5.04
1961-62	808.60	10006.88	18.21	225.38	23.71	5.07
1962-63	901.25	10632.25	19.85	234.19	21.96	5.29
1963-64	992.32	10739.62	21.39	231.46	19.96	5.09
1964-65	1046.64	10397.58	22.08	219.36	20.18	4.59
1965-66	1346.33	12257.32	27.76	252.73	20.91	5.67
1966-67	1864.39	15059.39	37.66	304.23	25.73	6.93
1967-68	1881.97	13956.52	38.02	281.95	26.41	5.93
1968-69	1902.93	13735.42	36.74	265.16	26.59	5.69
1969-70	2198.52	15399.51	41.56	291.11	28.68	5.98

Financial Year	Total No-Developmental Expenditure		Per Capita Non-Developmental Expenditure		No-Developmental Expenditure as % of total Expenditure	Non-Developmental Expenditure as % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1970-71	2493.08	17312.15	46.08	320.00	14.90	6.40
1971-72	2926.58	19273.52	52.83	347.90	28.15	7.08
1972-73	3106.71	18483.46	54.79	325.99	25.68	6.84
1973-74	3670.79	18589.12	63.29	320.50	28.48	6.57
1974-75	3800.47	16635.88	64.09	280.54	25.05	5.81
1975-76	4670.24	21227.27	76.94	349.71	25.17	6.77
1976-77	5481.14	23356.09	88.41	376.71	25.51	7.38
1977-78	5452.35	21818.81	86.00	344.15	23.44	6.40
1978-79	6480.25	25590.63	100.00	394.92	23.37	7.11
1979-80	7486.86	25666.24	112.75	386.54	23.54	7.59
1980-81	9013.41	27704.84	132.75	408.02	25.48	7.62
1981-82	10005.79	27994.77	144.59	404.55	24.68	7.28
1982-83	12488.54	32372.45	176.39	457.24	26.01	8.23
1983-84	15200.98	36121.75	210.25	499.61	27.29	8.53
1984-85	18011.93	39877.42	243.73	539.61	26.99	9.06
1985-86	22611.53	46896.45	299.49	621.15	29.59	10.21
1986-87	26532.34	51450.51	344.13	667.32	28.97	10.78
1987-88	31186.90	55063.97	395.77	698.78	30.65	11.16
1988-89	36481.66	59537.10	453.19	739.59	31.41	10.91
1989-90 ^{RE}	44406.76	67061.95	540.23	815.84	31.71	11.51
1990-91	54319.36	74116.73	647.43	883.39	35.01	12.07
1991-92	65215.05	78238.24	761.86	914.00	36.85	12.67
1992-93	80136.75	88479.62	919.00	1014.67	40.37	13.65
1993-94	92501.60	92501.60	1038.18	1038.18	40.96	13.49
1994-95	106395.31	96940.56	1171.75	1067.63	41.10	13.20
1995-96	127354.64	106524.35	1373.84	1149.13	43.45	13.52

Financial Year	Total No-Developmental Expenditure		Per Capita Non-Developmental Expenditure		No-Developmental Expenditure as % of total Expenditure	Non-Developmental Expenditure as % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1996-97	139033.55	108293.08	1474.37	1148.39	42.70	12.71
1997-98	159626.86	116086.76	1664.51	1210.50	42.80	13.03
1998-99 ^P	198644.41	131415.65	2037.38	1347.85	44.54	13.85
1999-00 ^{QE}	231080.70	146937.18	2331.79	1482.72	44.69	14.53
2000-01 ^{RE}	250741.90	151061.07	2489.99	1500.11	45.67	14.20

Source:

Government expenditure at current prices:

- (i) Indian Economic Statistics, Public Finance, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division
- (ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.
- (iii) Data relating to 1950-51 to 1979-80 has been collected from Kumar, V (1986)

Figures of other column are computed on the basis of the data given in Table 1, Table 2, Table 3, Table 4 and Table 5.

Table 8
Expenditure on Administrative Services at Current and Constant Prices
(1950-51 to 2000-01)

Financial Year	Total Administrative Expenditure		Per Capita Administrative Expenditure		Total Administrative Expenditure as % of Total Government Expenditure	Total Administrative Expenditure as % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1950-51	120.76	1748.5	3.36	48.7	12.48	1.32
1951-52	126.55	1780.6	3.47	48.78	12.15	1.31
1952-53	119.98	1765.1	3.23	47.45	12.62	1.27
1953-54	128.45	1840.4	3.39	48.56	12.96	1.24
1954-55	136.34	2183.4	3.53	56.56	11.12	1.42
1955-56	144.64	2337.7	3.68	59.48	10.45	1.48
1956-57	159.93	2278.8	3.99	56.83	9.63	1.37
1957-58	168.22	2311.5	4.11	56.52	8.25	1.41
1958-59	175.79	2332.8	4.21	55.81	8.49	1.32
1959-60	186.82	2411	4.39	56.6	8.37	1.34
1960-61	221.45	2800	5.1	64.51	7.1	1.46
1961-62	242.27	2998.2	5.46	67.53	7.1	1.52
1962-63	267.5	3155.8	5.89	69.51	6.52	1.57
1963-64	283.22	3065.2	6.1	66.06	5.7	1.45
1964-65	322.15	3200.3	6.8	67.52	6.21	1.41
1965-66	371.3	3380.4	7.66	69.7	5.77	1.56
1966-67	410.29	3314.1	8.29	66.95	5.66	1.52
1967-68	499.9	3707.2	10.1	74.89	7.01	1.57
1968-69	501.89	3622.7	9.69	69.94	7.01	1.5

Financial Year	Total Administrative Expenditure		Per Capita Administrative Expenditure		Total Administrative Expenditure as % of Total Government Expenditure	Total Administrative Expenditure as % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1969-70	562.78	3942	10.64	74.52	7.34	1.53
1970-71	618.22	4293	11.43	79.35	3.69	1.59
1971-72	728.85	4800	13.16	86.64	7.01	1.76
1972-73	773.73	4603.3	13.65	81.19	6.4	1.7
1973-74	871.02	4410.9	15.02	76.05	6.76	1.56
1974-75	1140.19	4991	19.23	84.16	7.52	1.74
1975-76	1321.84	6008.1	21.78	98.98	7.12	1.92
1976-77	1444.98	6157.3	23.31	99.31	6.73	1.95
1977-78	1533.78	6137.8	24.19	96.81	6.59	1.8
1978-79	1659.81	6554.6	25.61	101.15	5.99	1.82
1979-80	1984.6	6803.5	29.89	102.46	6.24	2.01
1980-81	2323.1	7140.5	34.21	105.16	6.57	1.96
1981-82	2672.9	7478.4	38.63	108.07	6.59	1.95
1982-83	3086.5	8000.8	43.59	113.01	6.43	2.03
1983-84	3493.5	8301.4	48.32	114.82	6.27	1.96
1984-85	4191.5	9279.7	56.72	125.57	6.28	2.11
1985-86	4782.2	9918.3	63.34	131.37	6.26	2.16
1986-87	5469.1	10605	70.93	137.55	5.97	2.22
1987-88	6419.4	11334	81.46	143.84	6.31	2.3
1988-89	7449.6	12158	92.54	151.03	6.41	2.23
1989-90 ^{RE}	9336.3	14099	113.58	171.53	6.67	2.42
1990-91	10464	14278	124.72	170.17	6.74	2.32
1991-92	12176	14607	142.24	170.64	6.88	2.37

Financial Year	Total Administrative Expenditure		Per Capita Administrative Expenditure		Total Administrative Expenditure as % of Total Government Expenditure	Total Administrative Expenditure as % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs)	At Constant Prices (in Rs.)		
1992-93	14349	15843	164.55	181.68	7.23	2.44
1993-94	15481	15481	173.74	173.74	6.85	2.26
1994-95	18821	17148	207.28	188.86	7.27	2.34
1995-96	21083	17635	227.43	190.23	7.19	2.24
1996-97	23626	18402	250.54	195.15	7.26	2.16
1997-98	27684	20133	288.68	209.94	7.42	2.26
1998-99 ^P	31907	21109	327.25	216.5	7.15	2.22
1999-2000 ^{QE}	38132	24247	384.78	244.67	7.37	2.4
2000-01 ^{RE}	39158	23591	388.86	234.27	7.13	2.22

Source:

- (i) Indian Economic Statistics, Public Finance, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division
- (ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs.
- (iii) Data relating to 1950-51 to 1979-80 has been collected from Kumar, V (1986)
Figures of other column are computed on the basis of the data given in Table 1, Table 2, Table 3, Table 4 and Table 5.

Table 9
Expenditure on Developmental Services at Current and Constant Prices
(1950-51 to 2000-01)

Financial Year	Expenditure Developmental Services		Per Capita Expenditure on Developmental Expenditure		Developmental Expenditure as % of total Expenditure	Developmental Expenditure as % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1950-51	353.69	5121.08	9.85	140.35	36.56	3.87
1951-52	406.18	5714.98	11.13	164.08	39.01	4.22
1952-53	415.79	6116.99	11.18	134.31	43.72	4.39
1953-54	481.41	6897.32	12.70	136.72	48.59	4.66
1954-55	587.15	9402.69	15.21	160.34	47.87	6.10
1955-56	751.8	12150.69	19.13	149.38	54.34	7.69
1956-57	905.49	12901.88	22.58	146.70	54.53	7.74
1957-58	1164.78	16005.18	28.48	170.74	57.11	9.77
1958-59	1158.98	15380.12	27.73	159.72	56.00	8.71
1959-60	1122.26	14483.25	26.34	214.85	50.26	8.06
1960-61	1234.72	15611.44	28.45	223.03	39.57	8.12
1961-62	1414.19	17501.40	31.85	225.38	41.47	8.86
1962-63	1669.58	19696.42	36.77	234.19	40.68	9.80
1963-64	1872.83	20269.15	40.36	231.46	37.67	9.61
1964-65	2109.94	20960.67	44.51	219.36	40.69	9.25
1965-66	2301.37	20952.23	47.45	252.73	35.74	9.69
1966-67	2340.56	18905.60	47.28	304.23	32.30	8.70
1967-68	2606.04	19326.15	52.65	281.95	36.57	8.21
1968-69	2751.67	19861.65	53.12	265.16	38.46	8.23
1969-70	3126.47	21899.33	59.10	291.11	40.79	8.51

Financial Year	Total Social & Developmental Expenditure		Per Capita Social & Developmental Expenditure		Social & Developmental Expenditure as % of total Expenditure	Social & Developmental Expenditure as % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1970-71	3537.26	24563.02	65.38	320.00	21.14	9.08
1971-72	4327.38	28498.74	78.11	347.90	41.62	10.47
1972-73	4846.88	28836.65	85.48	325.99	40.06	10.68
1973-74	5305.81	26868.97	91.48	320.50	41.16	9.49
1974-75	6679.54	29238.50	112.64	280.54	44.03	10.21
1975-76	8181.45	37186.50	134.79	349.71	44.09	11.86
1976-77	9252.73	39427.48	149.24	376.71	43.07	12.46
1977-78	10797.3	43207.84	170.30	344.15	46.41	12.68
1978-79	12513.45	49415.86	193.11	394.92	45.13	13.74
1979-80	14849.6	50906.98	223.64	386.54	46.70	15.06
1980-81	17715.52	54452.83	260.91	408.02	50.07	14.98
1981-82	20792.01	58173.07	300.46	404.55	51.28	15.13
1982-83	23794.63	61679.78	336.08	457.24	49.56	15.68
1983-84	27843.44	66163.75	385.11	499.61	49.99	15.63
1984-85	34584.84	76568.94	468.00	539.61	51.82	17.40
1985-86	38442.12	79729.19	509.17	621.15	50.31	17.36
1986-87	44520.02	86331.54	577.43	667.32	48.61	18.09
1987-88	48975.76	86472.19	621.52	698.78	48.13	17.53
1988-89	55844.84	91137.30	693.72	739.59	48.08	16.70
1989-90 ^{RE}	69279.01	104623.38	842.81	815.84	49.47	17.96
1990-91	74000.28	100970.61	882.01	883.39	47.70	16.44
1991-92	83995.89	100769.54	981.26	914.00	47.46	16.32
1992-93	90031.35	99404.32	1032.47	1014.67	45.36	15.34
1993-94	98954.12	98954.12	1110.60	1038.18	43.82	14.43

Financial Year	Total Social & Developmental Expenditure		Per Capita Social & Developmental Expenditure		Social & Developmental Expenditure as % of total Expenditure	Social & Developmental Expenditure as % of National Income
	At Current Prices (in Crores)	At Constant Prices (in Crores)	At Current Prices (in Rs.)	At Constant Prices (in Rs.)		
1994-95	115609.55	105335.98	1273.23	1067.63	44.66	14.34
1995-96	126518.42	105824.90	1364.82	1149.13	43.17	13.43
1996-97	143833.92	112032.08	1525.28	1148.39	44.17	13.15
1997-98	163909.86	119201.53	1709.17	1210.50	43.95	13.38
1998-99 ^P	190897.08	126290.31	1957.92	1347.85	42.80	13.31
1999-2000 ^{QE}	218603.21	139003.13	2205.89	1482.72	42.28	13.75
2000-01 ^{RE}	236096.04	142237.58	2344.55	1500.11	43.01	13.37

Source:

Government expenditure at current prices:

(i) Indian Economic Statistics, Public Finance, September 1970, September 1975, December 1980 and December-1988, GOI, Ministry Of Finance, Economic Division

(ii) Indian Public Finance Statistics- 1990, 1996 and 2002-2003, Ministry of Finance, Department of Economic Affairs

Figures of other column are computed on the basis of the data given in Table 1, Table 2, Table 3, Table 4 and Table 5.

BIBLIOGRAPHY

BOOKS

- Ahluwalia, I. J., and Little, I.M.D.(eds) (1998), *India's Economic Reforms and Development*, New Delhi: Oxford University Press.
- Allan Peacock, (1979), *The Economic Analysis of Government and Related Themes*, Martin Robertson/Galgotia Publications, New Delhi.
- Anita, N.H., Dutta, G.P., and Kasbekar, A.B.(2000), *Health and Medical Care: A People's Movement*, (Mumbai: Foundation for Research in Community Health)
- Bailey, Martin J., (1962), *National Income and The Price Level*, New York: McGraw Hill.
- Bardhan, P. (1984), *The Political Economy of Development in India*, Basil Blackwell, Oxford
- Basu, Aparna (1982), *Essay in the History of Indian Education*, New Delhi: Concept
- Beck, Morris: *Government Spending: Trends and Issues*, New York, Praeger, 1981.
- Behrman, J (1995): *The Contribution of Improved Human Resources to Productivity*, Mimeo
- Benerjee, Debadar (1985), *Health and Family Planning Services in India* (New Delhi: Lok Prakash)
- Berman, P. and M.E.Khan (ed.) (1992), *Paying for India's Health Care*, Sage, New Delhi
- Bhalla, A.S.(1992), *Uneven Development in the Third World: A Study of India and China* (London: Macmillan).
- Bhargava, R.N. *The Theory and Working of Union Finances in India*, Chaitanya, Publishing House, 1967
- Bhatia, H.L., *Public Finance*, 25th edn. Vikas Publishing House Pvt. Ltd. 2006.
- Bird, R.M., *Growth of Government Spending in Canada*. Toronto, Canadian Tax Foundation, 1970.
- Blaug, M., (ed.) (1992): *The Economic Value of Education*, Aldershot, England: Edward Elgar.
- Buchanan J. M. *The Public Finance*, Richard D. Irwin, (1965), Revised Edition
- Buchanan. James (ed) *Deficits*, Basil Blackwell, New York. 1987

- Carl C. Plehm, *Introduction to Public Finance*, Macmillan, 1962
- Chalam, K.S., (1986) *Finances, Cost and Productivity of Higher Education*. New Delhi: Inter-India.
- Chatterjee, A., *The Central Financing of State Plans in the Indian Federation*. Calcutta, Firma K.L.Mukhopadhyay, 1971.
- Coombs, P.H., (1985), *The World Crisis in Education: The View from the Eighties*. New York: Oxford University Press.
- Council for Social Development Report, *India Social Development Report*. Oxford University Press, 2007.
- Dalton, H. *Principles of Public Finance*, Routledge and Kegan Paul.
- Dreze Jean and Den Amartya (2006), *India Development and Participation* (New Delhi: Oxford University Press)
- Dreze, Jean, and Amartyya Sen (1995), *India: Economic Development and Social Opportunity* (Oxford and New Delhi: Oxford University Press).
- Dutta, R. and Sundharam, K.P.M., *Indian Economics*. New Delhi, S. Chand and Company Ltd., 2004.
- Francesco Forte and Allan T. Peacock (eds), *Public Expenditure and Government Growth*, Basil Blackwell, 1985
- Garg, V.P., (1985), *Cost Analysis in Higher Education*. Delhi: Metropolitan.
- Gopal, M.H., *Indian Economy Since Independence: Financial Policy of the Indian Union 1947-53*. Delhi University Press, 1955.
- Government of India, *Economic Survey*, Various Year.
- Gujarati, Damodar N. and Sangeetha., *Basic Econometrics*, Tata McGraw-Hill Publishing Company Limited, New Delhi. 2007.
- Gupta, A.P., *Fiscal Policy for Employment Generation in India*. New Delhi, Tata McGraw-Hill Publishing Co. Ltd., 1977
- Gupta, B.N., *Indian Federal Finance and Budgetary Policy*. Allahabad, Chjaitanya, 1970.
- Herber, B.P., (1983), *Modern Public Finance* (Homewood, Illinois: Richard D. Irwin Inc.)
- Herber, B.P., *Modern Public Finance*. Homewood, Ill., Richard D. Irwin Inc., 1970

- Houghton, R.W.(ed.), *Public Finance*, 2nd ed. Penguin Modern Economics Readings, 1973.
- Jack Wiseman and Allan T. Peacock, (1961), *The Growth of Public Expenditure in the United Kingdom, 1890-1955*, Princeton University Press for the National Bureau of Economic Research, 1961.
- Jena, B., and Pati, R.N (eds.) (1989), *Health and Family Welfare Services in India* (New Delhi: Ashish)
- Jhingan, M.L. *The Economics of Development and Planning*, Vrinda Publications (P) Ltd., 2000.
- Kapila, Uma, *Indian Economy Since Independence*, Academic Foundation, 2001
- Khan, M.E., and Prasad, C.V.S. (1983), *Under-Utilization of Health services in Rural India: A Comparative Study of Bihar, Gujarat and Karnataka* (Baroda:Operation Research Group)
- Khan, Mumtaz Ali (1995), *Human Rights and the Dalits*, Delhi: Uppal Publishers
- Kundu, A., (1989), *Emplyment Growth, Changing Workforce Structure and Poverty Employment Linage in Urban Areas*, New Delhi: International Labour Organisation
- Lakdawala, D.T. *Union-State Financial Relations*, Lalwani Publishing House, 1967
- Loh, J., (1995): Education and Economic Growth in India: An Aggregate Production, Function Approach, In School Effectiveness and Learning at Primary Stage : International Perspective, New Delhi, NCERT.
- Mathew, T., *Economics of Public Expenditure*. Bombay, Vora and Co. (P) Ltd., 1972
- Mehrotra, Santosh (2001), '*Financing Elimentary Education in India: Summary Findings and Policy Recommendations of a UNICEF Study*', draft report, UNICEF, New Delhi)
- Mehrotra. S and R.. Jolly (1997): *Development with a Human Face –Experiences in Social Achievement and Economic Growth*.Clarendo Press, Oxford.
- Mehta,M.M., *Human Resource Development Planning*, The Macmillan Company of India Ltd., 1976
- Ministry of Finance, GOI, *Basic Economic Statistics* (Public Finance)
- Mishra, S.K & Puri, V.K., *Indian Economy*, 9th edn. Himalaya Publishing House.

- Mukerji, K., *Levels of Economic Activity and Public Expenditure in India: A Historical and Quantative Study*. Bombay, Asia Publishing House, 1965
- Mukherjee, M., *National Income in India- Trends and Structure*. Calcutta: Statistical Publishing Society, 1969.
- Mukhopadhyay, Swapan (ed.) (1998), *Women's Health, Public Policy and Community Action* (New Delhi: Manohar).
- Musgrave, R.A. and Peacock A.T.(ed.): *Classics in the Theory of Public Finance* (Macmillan, 1958).
- Musgrave, R.A.: *The Theory of Public Finance-A Study of Public Economy*, (McGrow Hill, 1959)
- Nair, P.R.G.(1981), *Primary Education, Population Growth and Socio-Economic Change: A Comparative Study with Particular Reference to Kerala* (New Delhi: Allied)
- Nair, P.R.G.(1981), *Primary Education, Population Growth and Socio-Economic Change: A Cmparative Study with Particular Reference to Kerala* (New Delhi: Allied)
- Peters, G.H., *Cost-benefit Analysis and Public Expenditure*, Eaton Paper 8, 2ND Edn. London, Institute of Economic Affairs, 1968.
- Pradhan, B.K., Tripathy, K.K., and Rajan, R. (2000), '*Piblic Spending and Outcome of Social Service in India: A Review during the Regime of Policy Reforms*', National Council of Applied Economic Research, New Delhi.
- Prakash, B.A. (ed.) (1999), *Kerala's Economic Development: Issues and Problems* (New Delhi: Sage)
- Raj, K.N., *India's Economic Growth: Performance and Prospects*. Bombay, Allied Publishers, 1965.
- Raja j. Chelliah, *Fiscal Policy in Underdeveloped Countries*, George Allen and Unwin, Second (Ed)
- Rangarajan, C., *Perspectives on Indian Economy: Collection of Essays*, USBPublisher's Distributors Ltd. 2000.
- Ray, Debraj., *Development Economics*, Oxford University Press.
- Reddy, K.N. and Sudhakar, S. (1989), *Incidence of Public Expenditure in India, Common Wealth Publishers*, New Delhi.
- Reddy, S and J Vandemoortele (1996): *User Financing of Basic Social Services, A Review of Theoretical Arguments and Emperical Evidence*, UNICEF.

- Rostow, W.W., *The Stages of Economic Growth*. New York, Cambridge University Press, 1961.
- Sahni, B.S. (ed.), *Public Expenditure Analysis: Selected Readings*, Rotterdam, Rotterdam University Press, 1972.
- Sahni, B.S., AND B. Singh, (1984), "On the Causal Directions Between National Income and Government Expenditure in Canada", *Public Finance*, Vol.39.
- Sandford, C.T., *Economics of Public Finance: An Economic Analysis of Government Expenditure and Revenue in United Kingdom*, 2nd edn. London, Pergamon Press, 1978.
- Sen Amartya (2006), *On Economic Inequality*, (New Delhi: Oxford University Press)
- Sen, A (1995): *Mortality as an Indication of Economic Success and Failure*, UNICEF
- Shariff, Abusaleh (1999), *India: Human Development Report* (New Delhi: Oxford University Press).
- Srinivasan, T.N., and Bardhan, Pranab (eds.) (1974), *Poverty and Income Distribution in Income* (Calcutta: Statistical Publishing Society).
- The Hindu, *Survey of Indian Agriculture 2007*
- The Hindu: *Survey of Indian Agriculture 2007*.
- Tilak, J.B.G.(1995), 'Costs and Financing of Education in India:A Rewiew of Issues, Problems and Prospects', UNDP, New Delhi.
- Tilak, Jandhyala B.G., (1993), Financing Higher Education. In: Higher Education Reforms in India (eds.: S. Chitnis and P.G. Altbach), New Delhi: Sage.
- Todaro, Michael P., *Economic Development*, Addison-Wesley (1998)
- Todaro, Michael P., and Smith, Stephen C., *Economic Development*, Dorling Kindersley (India) Pvt. Ltd., 2006.
- Todaro, Michael P., *Economic Development in the Third World*. New York, Longman Inc., 1977.
- Tripathy, R.N., *Fiscal Policy and Economic Development in India*. Culcutta, The World Press Pvt. Ltd., 2nd edn., 1970.
- United Nations Development Programme (1990), *Human Development Report 1990* (New York: Oxford University Press)

Uppal, J.S. (ed.) *India's Economic problems*, 2nd edition. New Delhi: Tata McGraw Hill Publishing Co. Ltd., 1978.

Zahir, Mohammad, *Public Expenditure and Income Distribution in India*. New Delhi, Associated Publishing House, 1972.

Articles

Abizadeh, Sohrab., and M. Yousefi (1988), "An Emperical Reexamination of Wagner's Law", *Economics Letters*, Vol.26.

Abizadeh, Sohrab., and M. Yousefi, and., "Growth of State Government Expenditures: Emperical Evidence From The United States" *Public Finance*, Vol. 47(2), 1992.

Ahluwalia, "Inequality, Poverty and Development", *Journal of Development Economics*, December 1963

Ahluwalia, Montek Singh (1978), '*Rural Poverty and Agricultural Performance in India*', *Journal of Development Studies*, .

Ahluwalia, Montek Singh (December 1963) "Inequality, Poverty and Development" *Journal of Development Economics*

Anand, S. and Kanbur, S.R.M. "The Kuznets Process and Inequality-Development Relationship" *Journal of Development Economics*, February, 1993.

Ansari, Mohammad I, "The Temporal Causality between Public Expenditure and National Income: Further Evidence from India and Pakistan", *Indian Journal of Applied Economics*, Vol.5, No.2, 1996,

Antony, T.V. (1992), '*The Family Planning Programme: Lessons from Tamil Nadu's Experience*', *Indian Journal of Social Science*,

Asfaque H. Khan, "Wagner's 'Law' and the Developing Economies: A Time Series Evidence from Pakistan", *Indian Economic Journal*, July-September, 1990.

Bagchi, Amiya K. (1994) 'Making Sence of Government's Macroeconomic Stabilization Strategy', *Economic and Political Weekly*, 30 April,

Barro, Robert J., (1981), "Output Effects of Government Purchases", *Journal of Political Economy*, Vol. 89, No.6

Bhalla, Surajit (2000), 'Growth and Poverty in India: Myth and Reality', mimeo Oxus Research and Investments, New Delhi.

Bird, R.M, "Wagner's 'Law of Expanding State Activity", *Public Finance*, Vol.26, No.1., 1971.

Cerea, Gianfranco, (1982). "Public Expenditure and Decisions on Private Consumption", *Public Finance*, Vol. 37, No. 3.

Danial Landu (1983): "Government Expenditure and Economic Growth: A Cross Country Study, *Southern Economic Journal*, vol.49

Das, A. and Das, S., "Temporal Causality between Government Taxes and Spending: An Application of Error-Correction Models", *Prajnan*, Vol. XXVII, No.1, 1998-99

Dimond, J., 1998. 'Government Expenditure and Growth: An Emperical Investigation', IMF Working Paper no 89/45

Dreze, Jean, and Kingdom, Greeta Gandhi (2001), 'Schol Participation in Rural India', *Review of Development Economics*.

EPW Research Foundation, 'Poverty Levels in India: Norms, Estimates and Trends', *Economic and Political Weekly*, 21 August, 1993

Gandhi, V.P., (1971), "Wagner's Law of Public Expenditures: Do Recent Cross-Section Studies Confirm It? , *Public Finance*, Vol.26.

Goffman, I.J., (1968), "On the Emperical Testing of 'Wagner's Law': A Technical Note", *Public Finance*, Vol. 23.

Gupta, Sanjeev., Clements, Benedict. And Tiongson, Erwin. "Public Spending on Human Development" *Economic Policy and Equality*, September 1998.

Henning, J.A., AND A.D. Tussing, (1974), "Icome Elasticity of the Demand for Public Expenditure in the United States", *Public Finance*, Vol. 29.

Jha, Raghendra and Ashok Seth, "Causal Relations between Public Expenditure and National Growth in India", *Indian Journal of Applied Economics*, Vol.4, No.4, 1995.

K.Sham Bhat, Nirmala and Kannabiran, "Fiscal Variables and Economic Growth in Indian States", *Indian Journal of Economics*, vol.75, no. 298

Karnik, Ajit V, "Public Expenditure and National Income: An Examination of the Causal Mechanism", *Indian Journal of Quantitative Economics*, Vol.4, No.1, 1988.

- Kormendi, Roger C., (1983), "Government Debt, Government Spending, and Private Sector Behaviour", *American Economic Review*, Vol. 43,
- Krueger, A.O. (1990), "Government Failures in Development", *Journal of Economic Perspective*, vol. 4, No. 3,
- Kundu, A., S. Bagchi, and D. Kundu (1999), 'Regional Distribution of Infrastructure and Basic Amenities in Urban India', *Economic and Political Weekly*, vol.34, no.28.
- Levin, Jonathan., (1971) "The Role of Fiscal Action in The Pursuit of Macroeconomic Objectives", *Public Finance*, Vol.26 .
- M. Govinda Rao, "Proposals for State-Level Budgetary Reforms", *Economic and Political Weekly*, February 1, 1992
- Mahalingam, Sudha (1990), "*Maintance of Highways – An Evaluation*", *Journal of the Indian School of Political Economy*, vol. 3, no. 2
- Majumdar, M. and A. Vaidyanathan (1994), 'Access to Education in India', *Journal of Educational Planning and Administration*, vol. 8, no. 4, October.
- Mundle, S. (1988), "Pattern of Public Expenditure in India: A Financial Perspective of the Development State", Paper presented at the Conference on The State and International Linkages, The Hague
- Musgrave, R.A., (1971) "Provision For Social Goods in the Market System", *Public Finance*, Vol.26.
- Orlowski, Microslaw.,(1971) "Provision for Social Goods in the Market System – Comments on the Paper by Professor Musgrave", *Public Finance*, Vol.26.
- Peacock, Alan T and Jack Wiseman, " Approaches to the Analysis of Government Expenditure Growth", *Public Finance Quarterly*, Vol.7, January 1979,
- Planning Commission (2002): National Human Development Report, Government of India.
- Pigou, A.C. "The Range of Government Expenditure" Selection 8 in R.W Houghton (ed.), *Public Finance*, Second Edition, (1973).
- Raghbendra Jha, "True Cost of Public Expenditure", *Economic and Political Weekly*, November 18, 1995.
- Raja j. Chelliah, and Shanmugam K.R, Stretegy for Poverty Reduction and Narrowing Regional Disparities, *Economic and Political Weekly*, August 25, 2007.

- S. Sudhakar, "Distribution of Benefits of Public Expenditure in India" , *Asian Economic Review*, vol. 37 no.3 (1995)
- Santosh Mehrotra, J. Vandemoortele, and Enrique Delamonica, "Reallocating Public Spending for Basic Social Services on Developing Countries", *Economic and Political Weekly*, July 4, 1998.
- Singh, A.K. (1999), 'Inter-State Disparities in Per Capita SDP in India: Trends and Causes', *Artha Vigyan*, vol. 51, no.2
- Sundram R. and S. Tendulkar (2002), 'Poverty among Social and Economic Groups in India in the Nineties', Working Paper no. 118, Centre for Development Economics, Delhi
- Tilak, Jandhyala B.G., (1997), Cost-Size Relationships in Education in Andhra Pradesh, *Indian Journal of Applied Economic & Economics*, Vol. 6(1).
- Tridimas, George., "A Note on the Effects of Government Expenditures on Private Consumption", *Public Finance*, Vol. 47(1), 1992
- Visaria, Pravin. 'Alternative Estimates of Poverty in India', *Economic Times*, July 29, 2000

Official Publication:

- Business India, Nov. 27 to Dec. 10, 2000.
- Census of India , 1971, 1981, 1991 and 2001.
- Central Statistical Organisation, National Accounts Statistics – various issues
- Government of India, Planning Commission, Various Five Year Plans
- Government of India, Ministry of Planning, Department of Statistics, Central Statistical Organization, Basic Statistics Relating to Indian Economy – Various Issues
- Government of India, Ministry of Statistics & Programme Implimentation, CSO Statistical Abstrunct India – Various Issues
- Government of India, Ministry of Finance, Department of Economic Affairs, Economic Division: Indian Economic Statistics, Public Finance – Various Issues.
- Government of India, Ministry of Agriculture, Annual Report 1998-99
- Government of India, Ministry of Agriculture, Department of Agriculture and Co-
operation,
Annual Report, 2002-03

- Government of India, Ministry of Finance, Report of the Finance Commission (I to VIII)*
- Government of India, Ministry of Finance (2002), Report of the Task Force on Direct Taxes
- Government of India, Economic Survey – various issues
- Government of India, Ministry of Finance, Centre for Monitoring Indian Economy
- Various Issues.
- Government of India, Ministry of Finance, Report of the Taxation Enquiry Commission,
1953-54, vol. (I to III)
- Government of India, Ministry of Finance, Report of the Direct Taxation Enquiry Committee. 1971.
- Government of India, Ministry of Finance, Report of the Indirect Taxation Enquiry Committee. 1977.
- Government of India, Ministry of Education, Report of the Education Commission, 1964-66.
- Government of India, Reserve Bank of India, Report on Currency and Finance – Various Issues
- Government of India, Report of Monopolies Inquiry Commission (1965).
- India (1989), Report on the Current Economic Situation and Priority Area for Action, Economic Advisory Council, Government of India.
- India (1990), Second Report of the Ninth Finance Commission, Ministry of Finance, Government of India.
- Public Enterprises Survey, Annual Report on the Working of Industrial and Commercial Undertakings of Central Government. – Various issues
- UNDP, Human Development Report (1996) and (2003)
- World Bank : Development Report 1990.1997, 1998-99 and 2000-01 and 2004