Chapter One

SCOPE AND PLAN OF THE STUDY

I. Introduction :

A nation initially grows because some of the regions within the nation grow with the passage of time. In the very early stages of development of a nation, the economic growth takes place only at a few centres in the whole space. Slowly and gradually, it gets diffused to an increasing number of such centres covering most of the regions in the country. It is sometimes said, therefore, that "interregional inequality of growth is an inevitable concomitant and condition of growth itself."[*1] It follows logically that regional imbalance in the levels of economic development is but a natural outcome of the very process of the economic growth in a nation. The polarization of the economic growth in a nation may largely be due to the fact that "natural resources are not evenly distributed among the regions of a nation. Access to major markets (including foreign) is necessarily unequal... Inherited 'know-how' and labour skills are also unequally

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*1 A.O. Hirschman : The Strategy of Economic Development, (New Haven : Yale University Press, 1959) p.183.

distributed, though such inequality is more subject to change."[*2] Myrdal feels that the basic forces at work are disequilibrating in nature. In other words, once the divergence from the equity occurs, the forces at work would be such that there is further divergence. Although Myrdal recognises that "the higher the level of economic development that a country has already attained, the stronger the spread effects will usually be", he feels that the 'backwash effects' are on an average more powerful than the 'spread effects'.[*3] On the other hand, Hirschman feels that eventually, 'trickling-down effects' would gain the upper hand over the 'polarization effects'.[*4] As Hirschman points out, Myrdal is preoccupied with the doctrine of cumulative causation and hence ignores the emergence of the strong forces making for a turning point.[*5]

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*2 W. Isard and T. Reiner : "Regional and National Economic Planning and Analytical Techniques For Implementation", in W. Isard and J.H. Cumberland (eds.): Regional Economic Planning - Techniques of Analysis for Less Developed Areas, (Paris: European Productivity Agency, 1961).

*3 Cf. G. Myrdal: Economic Theory and Underdeveloped Regions (London: 1957). See also R.B. Hughes: "Interregional Income Differences: Self Perpetuation", in Southern Economic Journal, Vol.22, July, 1961.

*4 Cf. A.O. Hirschman: The Strategy of Economic Development, op.cit., pp.183-201. With some differences in the emphasis, Hirschman's 'trickling-down effects' are broadly equivalent to Myrdal's 'spread effects' and Hirschman's 'polarization effects' are broadly equivalent to Myrdal's 'backwash effects'.

*5 Ibid.

However, both the scholars seem to agree that in the early stages of development, the regional inequalities tend to increase.*6

In an excellent cross-section and time series study of several leading nations of the world, J.G. Williamson arrives at a similar conclusion. He not only finds that "in the initial stages of national development regional inequality is likely to increase", but also finds that the regional inequality curve is likely to be of an inverted 'U' shape with respect to nation's level of development.*7 He explains this type of the shape of a regional inequality curve mainly with the help of four factors, viz., labour migration, capital migration, interregional linkages, and Central Government's policy.

The essence of the basic argument is that because of selective migration of labour, worker rate tends to rise in the rich regions and fall in the poor regions. Further, there also occurs qualitative deterioration in the working force of

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*6 It is interesting to note that during the 'Take-off', income inequalities tend to increase. See, W.W. Rostow: "The Take-Off into Self-Sustained Economic Growth", Economic Journal, Vol.66, March,1956; also I.B. Kravis: "Economic Development and Income Distribution", in Economic Development and Cultural Change, Vol.11, No.2, Part I, January, 1963.

*7 Cf. J.G. Williamson : "Regional Inequality and the Process of National Development: a Description of the Patterns", in Economic Development and Cultural Change, Vol.13, No.4, Part II, July, 1965.

the poor regions.[*8] Therefore, the internal labour migration, in all probability, tends to increase regional income inequalities at least in the initial stages of national development. Moreover, "external economies and general benefits derived from agglomeration of capital projects in the relatively rich regions may cause capital to emigrate from the poor to the rich, tending to accelerate interregional inequality."[*9] Similarly, there is likely to be a lack of interregional linkages especially in the early stages of national development, with the result that the spread effect of technical change, social change, and income multipliers are minimized. Even the Central Government's policy is likely to work in favour of the rich regions and against the poor regions, if the national objective is to attain maximum growth in the economy. In the allocation of investment, the

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*8 This argument is put forward by G. Myrdal. As against this, Okum and Richardson argue that in the underdeveloped economies, marginal product of labour might be zero, hence out-migration helps improving per capita income. Moreover, because of the out-migration, the capital intensity in the region increases. On the other hand, the receiving region may face the migrants with very poor quality and again in the child-bearing age-group. Therefore "no general proposition can be formulated concerning the effect of internal migration on regional inequality of per capita income". For further discussion see, B.Okum and R.W. Richardson: "Regional Income Inequality and Internal Population Migration", in <u>Economic Development and Cultural Change</u>, Vol.9, No.2, Jan.1961.

*9 J.G. Williamson : "Regional Inequality and Process of National Development: A Description of the Patterns", <u>op.cit.</u>

rich regions might get priority; the licensing policy and national tariff policy may also favour the rich as compared to the poor regions. Italy and U.S.A. are the examples of such development taking place in the early stages of development.*10

Increasing regional inequalities in the early stages of national development may, thus, be explained in terms of the above-mentioned four factors. However, after a certain stage of national development is reached, an automatic reversal in this trend is likely to occur.*11 It may be referred to as regional convergence or depolarization which is likely to be cumulative once it starts.

Thus, the inverted 'U' shape of the regional inequality curve appears to be quite convincing and plausible hypothesis about the relationship between the level of national development and the regional inequality. However, at this stage, two problems arise in practice, if the hypothesis is to be subjected to some sort of an empirical investigation. The

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*10 Cf. Ibid.

*11 For an explanation of the reversal in terms of the same four factors, see J.G. Williamson: Ibid. However Easterlin feels that convergence is not inevitable since factors working against it are generally dynamic ones. See R.A.Easterlin: "Long Term Regional Income Changes: Some Suggested Factors", in Papers and Proceedings of the Regional Science Association, Vol.4, 1958.

first one is about the exact delineation of regions in a nation, and the second one is about the selection of a criterion to measure the extent of regional inequality in the level and rate of economic development.

Considerable attention seems to have been paid to the problem of defining a regional unit for the study of regional variations in economic development in the literature on regional economics.[*12] In the case of India, the few studies on the regional variations in development that have been made at somewhat aggregate level, have taken States as their regional units. As one of the recent studies on a similar subject points out, "for the purpose of analysis in this study, the State has been taken for the regional unit because only at the State level regional data necessary for the study are available."[*13] It is needless to mention that if a study on the most organized sector of the economy had to select the State as the regional unit on the considerations of data availability, for a study like the present one, there cannot

*12 For details see, J.R. Meyer : "Regional Economics: A Survey", in American Economic Association, RoyalEconomic Society: Surveys of Economic Theory, Vol.II, Growth and Development, (MacMillan,1966).

*13 D.T. Lakdawala, Y.K. Alagh, and A. Sarma : Regional Variations in Industrial Development, Monograph Series 2, (Sardar Patel Institute of Economic and Social Research, Ahmedabad, 1974) p.4.

simply be any other alternative. However, we may also mention another important reason behind selecting States as the regional units. In the type of the political structure that India at present has, States are recognised to be extremely important administrative units. Each State in India has its own elected Legislative Assembly and a council of Ministers. Though the Centre has a good deal of control over the political and economic affairs of different States, the local problems are dealt with by the respective State governments. It is this aspect which lends a distinctive character to States in India. It is because each State has its own government which represents the real grouping of local sentiment and interest that an analysis of the levels of living and levels of development of different States assumes special significance.

As far as the second problem of selecting a criterion for measuring the level and rate of economic development is concerned, we may start by examining the implications of the term 'economic development'. "The term 'economic progress' represents a broad group of economic and social objectives with welfare, efficiency and volume connotations."[*14] This

*14 H.S. Perloff : "Problems of Assessing Regional Economic Progress", in National Bureau of Economic Research: Regional Income, Studies in Income and Wealth, Vol.21, 1957.

does not imply that the economic development is largely qualitative in nature. In fact, "economic growth is a process whose basic characteristics are quantitative..... Reduction to some measurement basis is, therefore, inescapable".*15 The problem arises primarily because there are several indicators of the level of development of a region. The Census of India 1961 uses as many as 30 indicators of the level of development of a region, and then, prepares a composite index of development based on their covariation.*16 It should be noted in the first place, that this procedure may yield some satisfactory results for comparison of the levels of development among different regions, but that it may be too complicated to yield very satisfactory results for comparison of the economic growth of different regions. Moreover, since we have selected States as our regional units, the more relevant question is to compare the levels of aggregate economic activities taking place in different States, and the rate at which they grow in

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*15 S. Kuznets : "Quantitative Aspects of the Economic Growth of Nations - I. Levels and Variability of Rates of Growth", in Economic Development and Cultural Change, Vol.5, October, 1956.

*16 Census of India 1961, Vol.1, Part-I-A(i), Levels of Regional Development in India (Delhi: 1965); also see S.K.Rao : "A Note on Measuring Economic Distance between Regions in India", in Economic and Political Weekly, April 28, 1973, p.793.

different States. In other words, in the present context, we should be interested in comparing the levels and the rates of growth of the total of economic goods and services produced in different States. Thus, we measure the level of development of a given State in terms of total income or production within the region.

Even here, we find that in different countries, different measures of regional development are used. In Puerto Rico, it is median income per family; in Norway, it is assessed income per capita; in Germany, it is net national product at factor cost per capita; in the United States, it is personal income per capita; in Canada, it is income accruing per capita, etc.*17 However, in India, the data are available only on the Net Domestic Product at factor cost at the State level. Hence, we have to use per capita State Domestic Product at factor cost to measure the level and rates of economic development in different States.

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*17 For further details, see J.G.Williamson : "Regional Inequality and the Process of National Development: a Description of the Patterns", op.cit.; M.D. Chaudhury: "Economic Distance Among Regions: A Statistical Analysis", in Economic Development and Cultural Change, Vol.19, No.4, July 1971; E.A.G. Robinson (ed.) : Backward Areas in Advanced Countries, International Economic Association, (MacMillan,1969), Introduction.

At this stage, it is important to note that Ashok Rudra has an objection against the use of per capita product to reflect productive capacity of the economy. According to him, "there seems to be a very wide agreement among economic statisticians that per capita product constitutes the most appropriate index with which to measure or compare growth, despite all the well-known and acknowledged imperfections that attend upon it..... Growth of population in the case of a labour surplus economy may not, however, be interpreted as an index of the change in the employment of labour.The per capita product, likewise, is only the result of an arithmetic operation. It does measure, in a rough sort of way, the average welfare of the citizens, but certainly does not reflect in any way changes in the productive capacity of the economy."*18

This argument is not convincing on account of two reasons: Firstly, an economy is not to be looked upon merely as a geographical area, but is also to be looked upon as made up of population residing within the given geographical area. Therefore it is the population which should form the base for the purposes of measuring and comparing the levels and rates

18 Ashok Rudra : "The Rate of Growth of the Indian Economy", in E.A.G. Robinson and M. Kidron (eds.): Economic Development in South Asia, (MacMillan: IEA, 1970).

of economic development. Secondly, the very concept of economic development is a relative concept. Even if a region has registered an increase in its absolute productive capacity over time, but the population is growing at a faster rate in the region, then, the region certainly experiences a relative decline in its productive capacity. If on the other hand, we replace population by labour force, there will be an inherent bias in the measure, because the labour productivity may increase along with a sharp decline in the participation rate of the population in economic activities, which, in turn, may result in a lower per capita product. It is, therefore, to be expected that out of all available alternatives, per capita product seems to be the best criterion for measuring the level and rate of economic development of different States for the purpose of the present study.

In the second section of the present Chapter, the background for the present study in India is examined. In the third section, the need for the present study is examined and the main objective of the study is stated. Finally, in the fourth section, plan of the study is briefly outlined.

II. The Background :

As Streeten argues, "the view that each country passes through comparable stages of growth is not tenable, because the co-existence of rich and poor countries alters the prospects of the poor countries."*19 Moreover, as Myrdal points out, "the underdeveloped countries are often less well endowed with natural resources than the present developed countries were when they began modern development."*20 We may not, therefore, enter into direct and detailed comparisons of the past or present experience of the developed countries with the Indian experience, but we can certainly compare our experience at present with our own experience in the past. As a background to the present study, therefore, information about trends in the regional inequalities in India during the fifties and early sixties as revealed by individual studies, appears almost inevitable. However, before we pass on to a discussion of the trends in regional inequalities during the fifties and early sixties in India, it is important to note that the extent and trends of international income inequality have

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*19 P.Streeten: "The Frontiers of Development Studies: Some Issues of Development Policy", in The Journal of Development Studies, Vol.4, No.1, October, 1967.

*20 G.Myrdal: The Challenge of World Poverty, (Allen Lane The Penguin Press, 1970), p.32.

their own impact on the income distribution within an underdeveloped country.*21 In this context, it is interesting to find that "the concentration ratio increased between 1961 and 1968, indicating increasing inequality in the distribution of world income..... the gap between the poor and the rich countries of the world has increased."*22

On the other hand, "the first decade of Indian Planning does not seem to have witnessed any major decrease in interstate income differentials."*23 S.K.Rao concludes that "regional disparities have not been reduced in the course of fifteen years of planning."*24 V. Nath finds that "economic growth during the 1950s and early 1960s was probably somewhat more rapid in the developed States than in the less developed ones."*25 An interesting study on the regional income differentials in

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*21 See, for instance, P.Streeten: "The Frontiers of Development Studies: Some Issues of Development Policy", op.cit.

*22 J.H. Weaver and N.W.Myron: "International Distribution of Income, 1961-68", in Indian Economic Journal, Vol.19, July-Sept 1971. The authors have studied 122 countries with population of 1 million and above.

*23 K.R.G.Nair:"A Note on Interstate Income Differentials in India, 1950-51 to 1960-61", in The Journal of Development Studies, Vol.7, No.4, July 1971.

*24 S.K. Rao : "A Note on Measuring Economic Distances Between Regions in India", op.cit., He arrives at this conclusion on the basis of a composite index of six indicators of development.

*25 V.Nath: "Regional Development in Indian Planning", in Economic and Political Weekly, Annual Number, Jan. 1970.

India on the basis of District income data for the year 1955-56 reveals a positive but weak relation between the per capita income and the extent of regional income inequality as measured by coefficient of variation.*26 The author hints at the possibility of regional income inequality increasing with the passage of time in the country. However, he explicitly states that such a conclusion may not be drawn.*27 If we consider the size income distribution in India, the most systematic studies on the subject assert that "the gulf between the rich and the poor has widened".*28

Thus, on the whole, regional income inequality in India during the fifties and early sixties seems to have remained more or less constant if not increased. However, in view of Williamson's hypothesis of the inverted 'U' shape of the regional inequality curve, on the one hand, and the stated basic objectives of national economic policy during the period under review on the other hand, we may not consider

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*26 Cf. A.Heston: "Regional Income Differences in India and the 'Historical' Pattern", in The Indian Economic Journal, Vol.15, October-December 1967.

*27 Ibid.

*28 See V.M.Dandekar and N. Rath: "Poverty in India-I, Dimensions and Trends", in Economic and Political Weekly, Jan.2,1971; S.Swamy: "The Distribution of Income in India: 1951-1968", in J.C. Sandesara (ed.): The Indian Economy - Performance and Prospects, Economic Series No.23, (Bombay: University of Bombay,1974).

the result that surprising after all. The Second Five Year Plan states that "In any comprehensive plan of development, it is axiomatic that the special needs of the less developed areas should receive due attention. The pattern of investment must be so devised as to lead to balanced regional development."[*29]

J.C. Sandesara finds that "Organised industry has contributed towards narrowing the interstate imbalances..... It seems fairly clear that but for the counterweight of industry, given other things, the imbalances would have probably widened".[*30] Since organised industry is a major vehicle for the public sector investments in India, S. Gupta's finding that "public sector investment activities in India over the period 1950-1966 have contributed to reducing the spatial income disparity in the country",[*31] seems to support Sandesara's contention.

As against this, it is interesting to see that there exists the other side of the story also and it appears to be equally strong. Thus, for instance, some authors find that

*29 Government of India, Planning Commission: Second Five Year Plan, New Delhi, 1956, p.28.

*30 J.C.Sandesara : "Industrial Economy: Objectives, Achievements, and Problems", in J.C.Sandesara (ed.): The Indian Economy - Performance and Prospects, op.cit.

*31 S.Gupta: "The Role of Public Sector in Reducing Regional Income Disparity in Indian Plans", in The Journal of Development Studies, Vol.9, No.2, Jan.1973.

State plan expenditures under various plans do not show higher levels of investment in less developed States and on the basis of similar analysis of the State Plan expenditures conclude that "reduction of regional disparities has not been considered important enough to influence either locational decisions relating to large public sector projects or to merit large special provisions for development of backward areas."*32 Similarly, K.N. Reddy finds that the recommendations of the Finance Commissions, except the Fifth Finance Commission, are not in line with the objective of reducing regional disparities.*33 Bhagwati also comes to the conclusion that "Planning for regional balance in India has been at best weak and at worst negligent and negligible".*34 It is also pointed out that there was not any significant national policy with regard to the spatial dimensions of planning. "The State plans were nothing but catelogues of demands. Grass-root planning, which was supposed to form the basis for national planning, has been

*32 V. Nath: "Regional Development in Indian Planning", op.cit.

*33 Cf. K.N.Reddy: "How Far Federal-Finance Operations in India Result in Reduction of Regional Disparities?", in Artha-Vikas, Vol.8, Jan.1972.

*34 J.N. Bhagawati: "International and Regional Development", in E.A.G. Robinson and M.Kidron (eds.): Economic Development in South Asia, (MacMillan, IEA,1970).

conspi~~ci~~cuously absent."*35 Thus, there exist contradicting views on the role of the Government in influencing the degree of regional imbalances in India during the fifties and sixties.

One of the probable reasons why the conclusions of the above-mentioned authors differ so sharply is the fact, which gets revealed as soon as one even casually glances through the above-cited studies, that the data base of their analysis differs considerably. And this type of situation is not difficult to understand. Hardly any official set of comparable data on State income exists in India for the fifties and early sixties which can be used for such studies. The authors have, therefore, relied on either unofficial estimates or non-comparable estimates for their studies. Thus, the notorious data base may be held responsible for such totally divergent conclusions on the part of different authors.

Some economists have, therefore, refrained from using the available data and preferred to concentrate on the broad issues concerning the consistency or otherwise of the various national objectives and the implementation aspect of the policies. V.V. Bhatt, for example, points out that there has

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35 R.P.Misra, K.V.Sundaram and V.L.S.Prakasa Rao: Regional Development Planning in India, (Vikas Publishing House,1974), p.11.

been a remarkable lack of consistent policies in India. Excessive incentives for investment exist side by side with excessive physical control on investment. As it turned out in practice, India had neither a system of efficient planning nor the Laissez Faire operated by an invisible hand. Rather, it had a Laissez Faire operated by a visible hand which proved to be less efficient than either.*36 It is also felt that the Licensing Policy, which is one of the major instrument in the hands of the Government to achieve the objectives regarding the concentration of economic powers in regions and individuals, suffered from serious drawbacks not only in terms of its conception but more so in its implementation as a result of which most of the objectives were frustrated.*37

Some economists feel that there exists a clear conflict between the national objectives of efficiency and equity. Renaud, for example argues that "if, under free market forces, we can maximize national output, policies for greater inter-regional equality will tend to reduce total output."*38

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*36 Cf. V.V.Bhatt : "Development Strategy, Plan Process and Policies", in J.C.Sandesara (ed.): The Indian Economy - Performance and Prospects, op.cit.

*37 Cf. J.N. Bhagavati and P.Desai: India: Planning for Industrialization (Oxford University Press,1970).

*38 B.M.Renaud:"Conflicts between National Growth and Regional Income Inequality in a Rapidly Growing Economy: The Case of Korea", in Economic Development and Cultural Change, Vol.21, No.3, April 1973.

S.Gupta also feels that the objective of reducing regional disparity adds an effective constraint in maximizing national output and "hence, regional development, as a separate objective, must stand more on social and political considerations than on economic efficiency; and consequently, it normally appears at a later phase of economic development when the national cake is considered to have grown sufficiently, and the fruits of planning can be more widely shared without significantly hampering the development process."*39

On the other hand, it is argued that the case for the development of a backward region is essentially similar to that for the development of infant industries, the fundamental logic being the delayed profitability involving time preference and risk subsidization.*40 P.N. Rosenstein-Rodan observes that induced industrialization in a non-industrial country or area does not take place automatically. It requires direct as well as indirect incentives.*41 G. Myrdal goes to

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*39 S. Gupta: "The Role of Public Sector in Reducing Regional Income Disparity in Indian Plans", op.cit.

*40 Cf. Bhagwant Singh: "Italian Experience in Regional Economic Development and Lessons For Other Countries", in Economic Development and Cultural Change, Vol.15, No.3, April, 1967.

*41 P.N. Rosenstein-Rodan: "How to Industrialize an Underdeveloped Area," in W. Isard and J.H. Cumberland (eds.): Regional Economic Planning - Techniques of Analysis for Less Developed Areas, op.cit.

the extent of asserting that "greater equality in underdeveloped countries is almost a condition for more rapid growth."[*42] Isard and Reiner also argue that "a policy of 'pure equalization' is necessarily a poor policy, although a policy toward greater equalization can be and is likely to be valid."[*43]

It becomes abundantly clear that the objectives of economic efficiency and equity may be competitive in the short run and may turn out to be complementary in the long run. As Robock rightly points out, "the possibilities for influencing regional disparities will vary over time and with the stage of development."[*44] This nature of the relationship between the objectives of efficiency and equity was also recognised by several Indian economists like A.M. Khusro, J.C. Sandesara, Nitin Desai, etc., who pleaded for an integrated approach with concepts of an objective-mix and the trade-off among them to be explicitly included in the various policy

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*42 G.Myrdal: The Challenge of World Poverty, op.cit., p.54.

*43 W.Isard and T.Reiner : "Regional and National Economic Planning and Analytical Techniques for Implementation", op.cit.

*44 S.H. Robock: "Strategies for Regional Economic Development", in D.L. McKee, R.D.Dean and W.H.Leahy (eds.): Regional Economics, (New York: Free Press, 1970).

statements of the Government.[*45] However, it is important to note that in the initial stages of development the costs required to reduce the regional disparity may be prohibitive.[*46]

The above discussion only reveals that no assertive statements can be made either regarding the extent and direction of regional disparity in India or regarding the effectiveness or otherwise of the policies of the Government in this regard. The former is a precondition for the latter, and, it is all the more surprising to find that people have been talking very enthusiastically about the latter without paying due attention to the former. For example, hardly any comprehensive and systematic attempts seem to have been made so far at constructing a set of estimates of State income which is comparable among States and over the period of time. The reason may be that the existing data base is simply inadequate and quite often it is too scanty to be meaningful - it can almost be taken to be totally absent. But if some reasonable guidelines to the policy are to be provided, bold efforts are

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*45 Cf. (i) A.M.Khusro: "Industrial Policy and Industrial Growth", (ii) J.C.Sandesara: "Industrial Economy: Objectives, Achievements and Problems", and (iii) Nitin Desai: "Industrial Policy", in J.C.Sandesara (ed.): The Indian Economy: Performance and Prospects, op.cit.

*46 Cf. S.H. Robock: "Strategies for Regional Economic Development", op.cit.

badly required in the direction of analysing the growth experience of different State economies. More attention, in other words, needs to be paid to the study of regional development than has hitherto been paid. Only then, the quality of analysis and the base for policy decisions would significantly improve.

III. Need and Objective :

The need to carry out the study of India's development experience at the State level is clearly recognised by J. Macrae, when he writes that "treatment of Indian development on a State level is an essential part of any detailed economic study of India..... India as a whole is merely the sum of its parts and it seems unrealistic, if not impossible to treat India as a whole without accounting for the widely differing experiences of the constituent States."*47 It should be pointed out that "the progress of the nation depends in a real sense, on the development of the weaker States and there is a danger that large and persistent disparities in the basic service levels in different States would weaken national

*47 J. Macrae : "The Relationship Between Agricultural and Industrial Growth, with special Reference to the Development of the Punjab Economy from 1950 to 1965", in The Journal of Development Studies, Vol.7, No.4, July 1971.

unity and strength".[*48] In the light of this danger, the need to carry out studies at the State level in India assumes extra importance, because in a growing economy like India, to some extent at least, increasing regional economic inequality is inevitable. "But in order to prevent it", as our late Prime Minister Jawaharlal Nehru pointed out, "one has to take measures. Namely, if you leave things to themselves, wealth grows into more wealth."[*49] The Third Five Year Plan, therefore, clearly states that "the aim must be that over a reasonable period all regions in the country should realize their potential for economic development and should attain levels of living not far removed from those of the nation as a whole."[*50] To realize the potential for economic development of different State economies, the need to examine the growth experience of different States in India during the recent past, appears to be almost imperative. Moreover, as pointed out by K.N.Reddy, the Central Government finances roughly 40% of the State

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*48 Report of the Finance Commission, 1969, p.11.

*49 Jawaharlal Nehru as quoted by G. Myrdal : The Challenge of World Poverty, op.cit., p.53.

*50 Planning Commission, Government of India: Third Five Year Plan, p.153.

Governments' expenditure.[*51] Any sincere and serious attempt on the part of the Finance Commission and the Planning Commission, therefore, can significantly contribute towards reducing the regional disparities in the levels of income. Any misallocation of resources on the part of these Commission, on the other hand, can aggravate the existing problem further.

In view of the strategic importance of the issue and the imperative need to carry out the detailed study of the growth experience of different States in India, it is rather surprising to find that few systematic efforts are made so far to probe into the broad questions like the following :

i) What is the extent of inequality in the productive capacities of different State economies?

ii) What has been the behaviour of this inequality over a period of time?

iii) What is the extent to which different factors are responsible for this inequality in a given base year?

iv) What is the contribution of different factors in the observed growth of productive capacity in different

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*51 K.N. Reddy : "How Far Federal-Finance Operations in India Result in reduction of Regional Disparities?", op.cit.

State economies in India?

v) How far does the growth experience of various State economies differ?

vi) What is the contribution of different factors in the interstate variations in the growth of productive capacity?

vii) What are the implications of the growth of different factors on the inequality of the productive capacity among States in India?

The basic objective of the present study, therefore, is to make an attempt to investigate these questions in detail and provide some specific answers which are largely in the nature of the first approximations. Since the present study is the first of its kind especially in the case of India, it remains largely experimental. The frame-work developed in order to isolate the contributions of different factors to the observed growth of different State economies, for instance, can be regarded as a novel experiment of the present study. The main tools of analysis in the present study are the simple correlation techniques and the standardization procedures or what is generally known as the shift and share approach. The latter is referred to in the text throughout as identity approach or deviation approach, since these names more appropriately describe the method as compared to traditional names given to it.

Thus, the present study aims at analysing the observed growth experience of different State economies in India during the recent past, with a view to initiating efforts in the said direction, rather than pronouncing a final word on it. Looking to the present state of data availability in the country, and other subjective as well as objective constraints, this is by itself a fairly ambitious task.

IV. The Scope and Plan of the Study :

In the present study, basically three factors have been recognised as affecting the extent of inequality in the productive capacity of States, viz., (i) overall worker-population ratio or worker rate which reflects the attitude of the people at large to engage themselves economically;[*52] (ii) employment pattern among sectors or industrial structure which represents the structural factors in the economy; and

*52 It should be noted that no qualitative aspects like sincerity and tenacity are implied here. These qualitative aspects, however, may not be insignificant. See, for instance, W.Arthur Lewis: The Theory of Economic Growth (Illinois, 1955).

(iii) total product per worker or labour productivity which stands for the efficiency of factors in the economy.[*53] The last factor can be further divided into two factors, viz., Capital-labour ratio or capital intensity, and output-capital ratio or capital productivity. The former can be regarded as an indicator of the factor combinations and the latter, as a proxy for the technological factors in a very broad sense. The natural resources are not considered explicitly in the present study largely on account of the inadequacy and sometimes even total non-availability of the required data at the State level. But capital as a factor of production has been taken into account explicitly in the present study for the first time to examine interregional variations in the level and rate of economic development.

Relative rate of change in the above-mentioned five factors have been taken as the determinants of the inequality of the growth of per capita income of different States. Since there is an identity relation between the level of the per-

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*53 This factor captures all the effect of qualitative differences in other factors. For example, if the regions A and B have identical worker rate, but in region A workers are more sincere than those in region B, region A will have a higher productivity per worker as compared to region B. The under-utilization of factors and hours of work also get reflected similarly in the corresponding productivity differences.

capita income and the levels of these factors, we can deduce the identity relation between the growth of per capita income and the growth of the same factors.

It should be pointed out at this stage that the present study examines the factors responsible for interstate variations in the level and rate of economic development as well as for interstate inequality in the level and rate of economic development. It may appear at the first sight that the two are one and the same thing. However, it is not so. The factors responsible for interstate variations and for interstate inequality may be different inasmuch as the tools of coefficient of correlation and the deviation approach are different. If, for example, capital intensity is highly correlated with the level of per capita income according to the cross-section data for different States at a point of time, it is not necessary that the variations in capital intensity are also responsible for the interstate inequality in the levels of income. In fact, we may find that the inequality in the income level among States might have been higher, had the interstate variations in the capital intensity been absent. The correlation merely gives the degree of association between the variations in the two variables around their respective means, and it is not necessarily related with the extent of inequality in a given variable when the other variable (which is a component of the first variable) is supposed to remain constant.

Another important thing to note about the present study is that it is a study of the growth experience of various State economies in India; and hence, it relates to more than one point of time. We have selected two different points of time at the interval of a decade for our purpose. The initial year or the base year for the study has been chosen to be 1960-61 and the end year or the terminal year has been chosen to be 1970-71. The choice of these two years is exclusively governed by the data availability on the factors of production and population in different State economies in India.

Moreover, the present study divides each State economy into three broad sectors, viz., the primary sector, the secondary sector, and the tertiary sector, the sectors being defined in the traditional way. Further sectoral classification is not attempted here largely on account of the nature of data on employment and capital stock. In future, when more adequate data are made available, the present work can certainly be extended to cover as many sectors as possible.

It should also be pointed out that the present study includes neither all the States as existing today nor the Union Territories, firstly because data on income and capital stock are not available for all these regions; and secondly because the States and the Union Territories which are excluded in the present study do not, as of now, constitute individually a significant part of the national economy. The criterion adopted for the purpose of including a particular State or Union Territory in the present study is that the population of that particular State or Union Territory must exceed at least 1% of the total population of the country. It is felt that this is a fairly reasonable criterion because population of the region is the only weight that is commonly applied to a particular regional problem in order to know the real magnitude of the problem at the national level. When we apply this criterion, we find that fifteen States in the country qualify for consideration and analysis in the present study. These fifteen major States of India in the alphabetic order are : Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. In the text--tables as well as in the appendix tables in the present study, Andhra Pradesh, Madhya Pradesh, Uttar Pradesh and

and West Bengal are referred to as Andhra, M.P., U.P. and W.Bengal respectively. It is important to note further that in the present study, Assam includes Meghalaya which is now a separate State. Karnataka and Tamil Nadu were previously known as Mysore and Madras respectively. Moreover, Punjab and Haryana were separated from the Old Punjab State in 1966. Some data are available for these two States separately for the year 1960-61, for the rest of the data either ratio or rate of growth of the old Punjab State, whichever is found more appropriate in the context of the specific problem to be tackled, has been applied to separate the data for Haryana and Punjab in the year 1960-61.

The Appendix Table 1A.1 below gives some important and useful information about the fifteen major States of India for the two years, 1960-61 and 1970-71.

The present study is divided into eight Chapters. The Second Chapter is devoted to the derivation of a set of comparable and consistent estimates of net State Domestic Product at factor cost at 1960-61 prices for each of the fifteen major States for the two bench-mark years, viz., 1960-61 and 1970-71. The third Chapter, then, examines the structure and growth of different State economies after examining the extent and trend in the State income inequality in India during the sixties. In the fourth Chapter, comparable and consistent set of estimates of worker rate and industrial structure for the two bench-mark years is derived. The fifth Chapter deals with the derivation of comparable and consistent set of estimates for the capital intensity and capital productivity in the Indian States. Thus, after deriving the necessary information on the income, employment and capital stock for the two bench-mark years in different States in the second, fourth and fifth Chapters respectively, the Sixth Chapter is devoted to the analysis of the extent of the State income inequality in the base year and the factors responsible for the same. The seventh Chapter is, then, devoted to a detailed analysis of the interstate variations as well as inequality in economic growth between 1960-61 and 1970-71 in India. The eighth and final Chapter summerises conclusions of the study with a brief outline of the areas for further research.

The appendix at the end of each Chapter (except the last one) contains some tables which are referred to in the text of the Chapter, but are not directly analysed in the text. To distinguish such appendix tables from the text tables, letter 'A' is attached to the number of the Chapter in the serial number of the appendix table, and the appendix tables are separately numbered. For example, Table 3.2 means the second table in the text of third Chapter, while Appendix Table 3A.2 means the second table of the Appendix to the third Chapter.

Appendix Table 1A.1

Selected Ratios for the Fifteen Major States of India, 1960-61 and 1970-71

States	Year 1960-61				Year 1970-71			
	Density of population (per sq.km)	Degree of urbanization (in per-cent)	Literacy Rate (in per-cent)	Proportion of total population in Age-Group 15-59 (in per cent)	Density of population (per sq.km.)	Degree of urbanization (in per-cent)	Literacy Rate (in per-cent)	Proportion of Total population in Age-Group 15-59 (in per-cent)
1	2	3	4	5	6	7	8	9
1. Andhra	130	17.44	21.19	54.22	157	19.31	24.57	53.15
2. Assam	97	7.69	27.36	50.82	131	9.23	28.72	48.61
3. Bihar	267	8.43	18.40	52.05	324	10.00	19.94	51.51
4. Gujarat	105	25.77	30.45	52.15	136	28.08	35.79	51.68
5. Haryana	172	17.23	21.15	47.98	227	17.66	26.89	47.97
6. Karnataka	123	22.33	25.40	52.09	153	24.31	31.52	51.45
7. Kerala	435	15.11	46.85	51.51	549	16.24	60.42	53.51
8. M.P.	73	14.29	17.13	53.99	94	16.29	22.14	50.51
9. Maharashtra	129	28.22	29.82	54.04	164	31.17	39.18	52.93
10. Orissa	113	6.32	21.66	55.19	141	8.41	26.18	51.61
11. Punjab	221	23.06	26.49	51.22	269	23.73	33.67	51.21
12. Rajasthan	59	16.28	15.21	52.15	75	17.63	19.07	50.31
13. Tamil Nadu	259	26.69	31.41	56.79	317	30.26	39.46	56.48
14. U.P.	250	12.85	17.65	53.19	300	14.02	21.77	51.38
15. W.Bengal	398	24.45	29.28	54.05	504	24.75	33.20	51.65
All India	134	17.98	24.04	53.30	177	19.91	29.46	51.99

Note: (i) Degree of Urbanisation = $\frac{\text{Urban Population}}{\text{Total Population}}$

(ii) Literacy Rate = $\frac{\text{Population in the Category of Literates and above}}{\text{Total population}}$

Source: Census of India 1961 and Census of India 1971.