

CHAPTER-II

REVIEW OF LITERATURE

Studies on different dimensions of regional disparities at Macro Level :

There are numerous studies analysing the different dimensions of regional disparities at macro level, i.e., inter-state or inter-regional at national level. Some of them are reviewed below:

K.R.G. Nair¹ examines the manner in which the process of economic development has affected inter-state disparities in the level of living in India. The study covers as much of the three decades and considers as many states beginning from 1950-51 as possible, subject to data limitations. The study uses the available data on the NDP (Net Domestic Product) and consumption to analyse the pattern of regional change. The relationship among the variables has been analysed throughout the study with the help of correlation and multiple regression techniques, the significance of these coefficients being tested at 5% level on the basis of the t-statistics.

1. K.R.G. Nair, Regional experience in a developing economy, p.7.

An attempt has been made (in the present study) to obtain a more detailed picture of the manner of change with a view to draw further inferences on regional policy. For this purpose an analysis of inter-state disparities in per-capita agricultural production and in value added in industries has been made. A detailed analysis of value added per worker and of industrial structure in terms of value added and employment has been carried out to examine the structure of the states' economies and changes therein over a period of time. A critical survey of regional policy measures in India has also been made from the point of view of removing inter-state disparities in the level of living.

On the basis of available data, the study finds that inter-state disparities in per-capita NDP are on the decline till the mid-sixties and are on the increase since then. It is clearly brought out by the regression equation considered which show that the measures of disparity analysed trace out a U-shaped curve over a period of time. This evidence here, thus, seems diametrically opposite to what is suggested in the concentration - cycle hypothesis according to which these measures should trace out an inverted U-shaped curve. This study seems to suggest the validity of slightly modified form of the self-perpetuation hypothesis for the country

like India in the earlier stages of their economic development.² So far there is a sharp increase in inter-state disparities in per-capita agricultural production. The increase is greater or sharper than those in terms of per capita NDP. On the basis of available data on registered manufacturing for different states of India, these studies indicate that inter-state disparities in value-added per capita in registered manufacturing have narrowed down during 1959-60 to 1975-76. So far regional policy is concerned, the removal of regional disparities in industrial development will lead to reduction in such disparities in the level of living.

The Indian regional experience does not contradict the general consensus of opinion on increasing disparities in the early stages of development.³ According to R.H. Dholakia, the state product inequalities have clearly increased during the period 1960-61 to 1979-80 not only in monetary terms but also in real terms. The product inequalities, moreover, have also been increasing in the primary and tertiary sectors, largely governs the trend in the overall product inequality among the

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2. Earlier studies on India such by Chaudhary (1974), Majumdar (1976) and Nair (1971) have shown different inferences.
 3. R.H. Dholakia, Regional Disparities in Economic Growth in India, p.169.

states. Although the experience suggests that richer states have gained more and that the poorer states have gained less, the analysis carried out in this study indicates a relationship of complementarity between the objectives of growth and equity in India.

The analysis of only the states' product data by the three sectors classification reveals strong tendencies for the state product inequality to rise in the coming decade. A more detailed analysis in terms of the component factors of per capita product, on the other hand, holds out a hope that there may a reversal of the increasing trend of inequality in the near future. In short, the analysis based on the framework developed in the study suggests that the turning point in the trend of inequality is imminent in the case of India. The hypothesis of an inverted U-shape of the inequality curve is not get contradicted.

According to Krishana Bhardwaj - regional disparities in India can be studied under different time periods⁴ such as colonial period, post-independence period until mid-sixties and period after the mid-sixties.

4. Krishana Bhardwaj, Regional Differentiation in India, EPW, Annual number 1982, Vol. XVII Nos. 14, 15 and 16.

Let us first look at the conditions of production in agriculture and the utilization of surplus. As is well-known, the imperial interest in agriculture was mainly as a provider of revenue. The surplus thus appropriated was partly transferred to the home country, partly invested in military and bureaucratic machinery to sustain and extend territorial acquisition, and partly to strengthen the sources of revenue through public investment in railways, canals, etc. Hence, major differences arose in the way of colonial mechanism operating in the eastern region (Bengal, Bihar, Orissa), the western region (Bombay and Gujarat), the southern region (Karnataka and Madras), and the north-western deltas of Punjab. However, the imperial policy differed considerably from region to region in terms of the types of land settlement and the extent of commercial penetration into the agrarian economy. This, coupled with the differential policy towards public investment (in irrigation and railways) has a very diverse impact on the different regions. These differences were important in shaping the future pattern and rate of industrialization during the inter war and post independence years, and the rise of the capitalist and financial classes in the regions.

In the post-independence period, no doubt, the strategy of industrialization varied. A most important change in terms of industrial breakthrough, came in the second Five Year Plan, when concerted efforts

were made to build up basic industries and to locate them in the interior. It was hoped that these major industrial complexes would act as nodal points from where growth would spread out. However, as we know, industrial development remained concentrated in the traditional port-cities and their periphery. It is interesting that industrial complexes, like Bhilai and Durgapur, appear to have generated little development of subsidiaries in their vicinity and that engineering-industries tend yet to concentrate in the areas proximate to Calcutta.

Differentiation among regions has also occurred in agriculture with uneven impact of the 'green revolution' after mid-sixties. First, its impact was felt mainly on wheat and less on rice. Secondly, the 'green revolution' which made an initial impact by generating a high level of growth, appears to have tapered off and its tempo has not been sustained. We can see from a study carried out by Bhalla and Alagh⁵ that Punjab and Haryana recorded a remarkable growth of output and yield per hectare while Orissa, Maharashtra and Andhra Pradesh registered negative growth rates. Its benefits appear to have occurred to the districts within states where there was either good rainfall or where there

5. G.S. Bhalla and Y.K. Alagh, Performance of Indian agriculture - A Districtwise study.

was irrigation already existent or created by private investment. The new technology, thus, appears to have been adopted and more widely used in regions where the general level of well-being of producers was already relatively higher.

Hemlata Rao also presents a paper⁶ to develop some measures of development in order to identify backward regions and subsequently to examine the trends in inter-regional and inter-sectoral disparities in India. To identify developed states and to analyse inter-state disparities in development of India, 24 variables from four specific sectors - agriculture, industry, education and banking - were selected. According to this study inter-state disparities have been analysed with the help of correlation technique using the ranking pattern. The estimate given by it shows increasing trend in inter-state disparities in agriculture since 1951. The regional disparities in industrial sector have gone down from 1956 to 1965 which is reflected by decline in the value of coefficient of variation (C.V.). To assess the extent of inter-state disparities in banking sector, the estimate of banking index of developed and less developed states has been compared with that of national average. This comparison

6. Hemlata Rao, Identification of Backward regions and the trend in Regional disparities in India, *Artha Vijnana*, June 1977, V.19, N.2, p.93.

highlights the glaring disparities that exist in this sector. However, the inter-state disparities in banking sector have gone down as indicated by the decline in the value of coefficients of variation. The regional disparities in educational sector also have gone down resulting from the simultaneous improvement in national average as well as the sharp decline in the differentials in index values of the educationally developed and less developed states.

The main findings of the study by Hemlata Rao is that regional disparities in the states in India tend to decline during the period 1956-1965. This trend is observed in all the sectors except agriculture. Secondly, despite the decline in regional disparities, it hardly observed any significant change in the relative position in the states. Although, the wide disparities that existed in the states have narrowed down, yet the backward states have remained backward by recording low estimated index values. Thirdly, whatever decline in regional disparities is observed mainly due to a relatively faster growth in less developed states than the developed ones.

One of the important aspects of the inter-regional disparities, the disparities in the wages earned by the workers in manufacturing

industry, has been studied by Anil Khosla⁷. He finds that inter-regional disparities in the wage rates have increased over the period under study, and industrial structure is the main determinant of overall disparities. He works out the coefficients of variation for the "Structure Constant" and "region constant" and finds that inter-regional disparities in average wage ratio have increased in the states.

B.M. Bhatia⁸ also examines the regional disparities in agricultural income and productivity in India. He finds that there has been slight fall in regional disparities in agricultural income and productivity among different states.

The role of finance commission in reducing regional disparities has been analysed - both in the context of constitutional provisions and the actual working of the commission by H.L. Bhatia.⁹ It is contended

7. Anil Khosla, Inter-Regional wage disparities in organised manufacturing Industry in India, Regional Disparities in India - paper presented at the All India Conference on Regional Disparities in India at New Delhi, April 1979, Edited by K.R.G. Nair, p.23.
8. B.M. Bhatia, A Note on regional disparities in agricultural income and productivity in India, Edited by K.R.G. Nair in Regional Disparities in India.
9. H.L. Bhatia, Regional Disparities and Finance Commission. Edited by K.R.G. Nair in his book - Regional Disparities in India.

that our constitution has armed the centre and the state finance commissions with adequate power to work towards a reduction in regional disparities. Their working, however, tends to perpetuate the regional disparities rather than narrow them down. It is concluded that finance commissions have failed to discharge their primary responsibilities towards the goal of removing regional disparities.

An analysis is made by S.P.S. Deol¹⁰ to find out the extent to which financial institutions have borne in mind the objective of reduction of regional disparities in sanctioning financial assistance. He finds out that financial institutions have played only a limited role in removing regional disparities. It is suggested that these institutions need to pay more attention to project assistance in backward areas and all the financial institutions should aim at regional dispersal of their operations as decentralization in decision-making helps in the lessening of regional disparities.

∨ K.V. Nambiar¹¹ finds that regional inequalities are persisting and may be even seen to be widening, so far as the role of financial

10. S.P.S. Deol, *Regional Disparities - Role of Institutional Finance*, Edited by K.R.G. Nair in his book - *Regional Disparities in India*.
11. K.V. Nambiar, *Flow of institutional funds and regional disparities in India*, Edited by K.R.G. Nair in - *Regional Disparities in India*.

institutions is concerned. It may be inferred that it has been particularly effective in rectifying the inter-regional developmental disparities. There would appear to be an urgent need to bring about adjustments in procedures and lending policies of financial institutions in such a manner as to enable the less developed regions to avail of more institutional finance for implementing projects which have regional scope and significance. A deliberate credit allocative policy by these institutions to meet the diversified requirements of the different regions in the country could go a long way in making the flow of institutional funds more balanced and equitable. At the same time, it is also equally important to ensure that when credit is made available, it is promptly and efficiently absorbed by the less developed regions/states in productive endeavours, for which it is necessary to take advance actions in building up viable projects.

N.P. Kurup¹² examines the extent to which disparities in credit expansion have been correlated to balance regional development. This analysis shows that during the first decade of nationalization of major

12. N.P. Kurup, Commercial banks and regional imbalances, Edited by K.R.G. Nair in - Regional Disparities in India.

banks, there has been substantial reduction in the spatial imbalance in the development of banking infrastructure between rural and urban as well as between developed and backward states.

V.G. Rao¹³ examines the regional disparities in public services. An attempt has been made to study the nature and direction of changes that have taken place over years in regard to an index that facilitates capturing inter-state disparities in public services. By using the differences between the lowest and highest per capita expenditure levels relating to different periods, it has been found that over the years the disparities in the provisions of public services have widened quite significantly. Regional disparities in public services have been identified by calculating the mean and coefficient of variation (C.V.).

B.K. Chaturvedi and B.N. Tyagi¹⁴ conclude that regional inequalities - measured by coefficient of variation (C.V.) and ratio between per capita income of highest region/state to per capita income of lowest region/state - have increased over the period under study.

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13. V.G. Rao, Regional variations in public services: Structure, growth and determinants, Regional structure of development and growth in India, Edited by G.P. Mishra and A. Joshi.
 14. Dr. B.N. Tyagi and B.K. Chaturvedi, Regional Disparities - A measure and role of power, Regional structure of development and growth in India, Edited by G.P. Mishra and A. Joshi.

P.R. Panchamukhi in his study¹⁵ attempts to provide some insights into the trends in disparities in respect of social infrastructure particularly in education and on the basis of index constructed with different methods, to identify distinctly advanced and less advanced status and some observations are also made about the factors responsible for such differential developments. In order to reduce regional disparities in respect of social infrastructure, reduction in disparities in economic level should be considered as the pre-requisite.

J.B.G. Tilak¹⁶ in his study reveals that there are glaring disparities in educational development in India. He analysed the disparities in educational activities with the help of co-efficient of variation of different educational activities.

G. Thimmaiah in his study examines¹⁷ the inter-state disparities in financial allocations by the centre. The purpose of this study is to find

15. Dr. P.R. Panchamukhi, Disparities in social infrastructure: A Note in Regional Structure of development and growth in India, Volume II, Edited by G.P. Mishra and A. Joshi.
16. J.B.G. Tilak, Inter-state Disparities in Educational Development, Edited by K.R.G. Nair in his book - Regional Disparities in India.
17. G. Thimmaiah, Inter-state disparities in financial allocation by the centre, in Regional Structure of Development and Growth in India, Volume II, Edited by G.P. Mishra and A. Joshi.

out how far the financial allocations made by the central government through various channels have been distributed among different states. It also probes into the inter-state equity in the distribution of financial commission transfers, planning commission transfers, the central ministries transfers and also the flow of central government institutional finance. It has been found that the central government allocation of financial resources through various channels have not gone to help the less developed states as compared to more developed states. Finance Commission transfers have been unequally distributed mainly because of the outdated methods used by the finance commission to determine fiscal needs of the states. Though planning commission has been using Godgil formula to distribute plan assistance among the states. It is necessary to modify it so as to take into account the needs of the less developed states by linking the assistance to the level of development achieved in different sectors in each state. He proceeds to suggest that with a view to reduce inter-state economic disparities, the central government has to use federal financial transfers in such a way as to generate economic activities in poorer states. This means the central government will have to interfere and participate in the development of the constituent states with a view to reduce wide inter-state economic disparities.

Ram N. Lal¹⁸ also finds that there is a limit to which flow of finances to the poorer states can be augmented with a view to mitigate inter-regional disparities in the level of development. Beyond a limit augmentation of such flows would affect adversely the overall growth rates of GDP which in turn may defeat the very objective of balanced regional development.

According to A.K. Sengupta¹⁹, in the context of balanced regional development, the most crucial issue is to examine whether the Finance Commission and Planning Commission have really made serious efforts to reduce interstate disparities or not. It is found that the scheme of budgetary transfers has failed to meet the challenges of reducing inter-state imbalances. The Finance Commission never felt the necessity of considering developmental factors while recommending various amounts of funds to different states and that is why the special attention was not given to the under-developed states. Thus, it failed to reduce these regional disparities.

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18. Ram N. Lal, Availability of Financial Resources and Inter-Regional Disparities in Economic Development, in *Regional Structure of Development and Growth in India*, Volume II, Edited by G.P. Mishra and A. Joshi.
 19. A.K. Sengupta, Statutory Transfers and Regional Disparities in India, *Regional Structure of Development and Growth in India*, Volume II, Edited by G.P. Mishra and A. Joshi.

The aforesaid studies covering different dimensions of inter-state or regional disparities reveal that since 1951 when the concerted efforts for planned economic development were initiated and rigorously pursued in India, the problems of regional disparities have attracted much attention. As early as 1956 when the second Five Year Plan was formulated the problem of regional disparities was clearly recognised and it was emphasised that in any comprehensive plan the special needs of the less developed regions should receive due attention and the pattern of investment must be so devised as to promote balanced regional development. In the 3rd Five Year Plan, programmes for extension of benefits of economic progress to the less developed regions and widespread diffusion of industry were suggested as part of the efforts to even out regional inequalities. Emphasis was laid on the systematic identification of under-developed regions as well as the promotion of mechanisms to monitor economic trends and rates of growth in different regions. In the fourth and fifth plans, regional development was given due consideration and emphasis was laid on assisting the states that were economically backward. In the 6th and 7th plans, priority was given to the development of backward regions so as to reduce regional disparities.

In view of the continuing need to help economically backward regions/states, it becomes essential to evolve some indicators for the

purpose of measuring economic backwardness. Any plan or policy toward reducing regional disparities would call for an identification of backward regions. Quite often one finds state persuasion and pressure for additional central assistance on the plea of narrowing regional disparities. To support their claims, individual state may try to project its own standard for identification of less developed regions. Naturally, it becomes imperative on the part of central government to develop a dispassionate and objective standard, free from all kinds of bias, to identify states/regions which are lagging behind in socio-economic development.

Studies on different dimensions of regional disparities at sub-macro level :

In addition to studies referred to above, there are some more studies designed to analyse various dimensions of intra-state regional disparities or regional disparities at sub-macro level. But there is relative dearth of systematic studies on the relevant aspects of regional disparities at sub-macro level, i.e., at the state level. Some important/selected studies on relevant aspects of regional disparities at sub-macro level are reviewed below.

K.R.G. Nair²⁰ examines the manner of change of intra-regional disparities in the standard of living in Kerala on the basis of available data and in the light of such experiences of other countries and suggested a way out of removing these regional disparities. According to him, it would be of great interest to study the nature and extent of regional disparities in Kerala. It is also worthwhile to find out the manner in which these disparities have changed over a period of time because studies, covering a number of nations, by Williamson and Koropeckyj have revealed that regional disparities initially increased during the process of development. This study indicates that there is an increase in regional disparities in per capita income in Kerala during the post 1970 period. No conclusive evidence of changes in such disparities exists in the pre-70 period and the reduction in terms of some of the indicators between 1961 and 1971 pales into insignificance as compared to the phenomenal increase in the later years. This appears puzzling because it is only after mid-1960s that there have overtly been concreted efforts to reduce regional disparities.

20. K.R.G. Nair, Regional disparities in Kerala.

K. Suradumoni²¹ seeks to examine the question of education as a leveller in Kerala in detail. It is divided into three parts. Part one examines the available data on education among the Scheduled Castes (S.C.). In the second part, a more detailed analysis is carried out on the basis of primary data. The concluding part brings together the main findings of the study. The education which was so much sought after by the less privileged and discriminated sections since the beginning of the century failed to play the role of a leveller.

Santanu Tripathy²², in his study, made an attempt to study the change in regional disparities within the state of Orissa. He measured regional disparities in terms of possession of private capital. The major interest has been to see whether the disparities between the advanced districts and the backward ones have grown, decreased or remained constant. The study of change in the disparities has been attempted at two level. At one level, the study presents changes in the relative position

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21. K. Suradumoni, Education as leveller: A probe into Kerala's experience, in regional disparities in India. Edited by K.R.G. Nair.
 22. S. Tripathy, Inter-regional disparities in the possession of private capital - A case study of Orissa. Artha Vijnana, March 1980, Vol. XXII, No.1.

of the districts over a period of time using the sample method of ranks. At another level, the use of economic distances and changes therein are presented.

"Spatial variations and Trend in agricultural efficiency in Uttar Pradesh" by S.S. Bhatia; "Some aspects of regional variations in Agricultural productivity and Development in West Bengal" by A. Chatterji and P. Maitreya; "Regional variations in Agricultural development and productivity in Eastern and Western Regions of Uttar Pradesh" by S.P. Dhondyal; "Variations in field productivity - A case study of Khandewala, Haryana" by S. Nangia; "Inter-District variations in agricultural efficiency in Maharashtra State" by S.G. Sapre and V.D. Deshpande; "Regional Disparities in income from agricultural in Haryana" by M.K. Choudhary; "Inter-regional disparities in Cost structure and returns in Punjab agriculture" by Inder Sain and J.N. Singh; "Regional Disparities in agricultural productivity in Punjab and Haryana: A comparative study" by R.S. Johar are some other important studies on different dimensions of regional disparities at sub-macro level, i.e., at the level of different districts or regions within state.

To summarise the results, it may be pointed out that unlike the inter-state or inter-regional study of economic disparities, the inter-districts economic disparities show a substantial decrease over a

period of time. This is true whether one looks at the district level analysis or the regional level analysis. It might have been possible due to the differential growth of public investment and private investment on account of intervention, in whatever form, by the state governments. A differential growth in public investment with a higher growth in the backward regions is the principal factor in reducing regional disparities in the states. The diversion of public investment from relatively advanced regions to backward regions in state is made possible by the constant public interaction with the administration. This public interaction is generally possible in the state administration rather than with the central administration. This is possibly one factor explaining the difference at the national level and at the state level as regards to the behaviour of regional disparities.

In the light of studies referred above, the basic objective of the present study is to examine the behaviour of regional disparities - agricultural disparities (in area, production and productivity of selected crops), industrial disparities (in registered working factories, employment therein and in value added in manufacturing) and infrastructure disparities (in education, health, transportation and financial institutions).