Chapter 3

Concept of Regional Development and Its Measurement

In 1950s when the discipline of regional development emerged it had a strong economics basis and focus on what firms did in regions and how their performance influenced a range of economic indicators; employment, profit, GDP, and growth. Towards the end of the 20th century, regional development became more multi-disciplinary in its approach. Political science, public policy, and sociology became critical disciplines alongside economics focusing more on the notion of what a region might be and how a range of factors—not just economic—shaped the idea of a region.

In the 21 century economic geography has joined the disciplines and the focus of regional development is more on the spatial dynamics of regions—places to live, work and invest, the focus for the discipline is just as much on people as drivers of regional development as smoke stack industries, regional development agencies and firms. People with their knowledge and where and how they use that knowledge is a key focus for research in regional development. New theories of human development focus on human and social capital, innovation and the spatial dynamics—demographic change—as key components in understanding how often small sub-national peripheral economics—such as Bundelkhand—are challenged to
respond the pressures from a national economy-competition and the need to construct advantage in regional economies, not assume that what was good enough in the past –comparative advantage-will get the job done.

Regional development is a broad term but can be seen as a general effort to reduce regional disparities by supporting (employment-and wealth-generating) economic activities in regions. In the past, regional development policy tended to try to achieve these objectives by means of long-scale infrastructure development and by attracting inward investment. Awareness of the need for a new approach is driven by observation that past policies have failed to reduce regional disparities significantly and have not been able to help individual lagging regions to catch up, despite allocation of significant public funding. The result is under –used economic potential and weakened social cohesion.

Development is a dynamic concept. It has different meanings for different people. In fact there is no agreement on the meaning of development among planners and thinkers. Some people say it means increase in income. Other lay emphasis on employment, quality of life on happiness, still other give stress on meeting the basic needs of the people. The only thing on which everyone agrees is that development is necessary, and everyone wants, although in his own image and perhaps in his own way.
Development has been defined as “a process of growth, expansion or realization of potential; bringing regional resources into full production use.” In other words development is a process of change aiming at socio-economic transformation of traditional societies into modern one which is greatly influence by human beings. Activities related to the development are generally directed towards national buildings and socio-economic transformation. Development planning has also been defined as “any action by the state whose purpose is to raise the rate of economic growth above that which would take place without any conscious effort”. Development planning is being done by the state; it has the dual purpose of economic growth and social structural change; it is comprehensive covering every sector, region and aspect of life the achievement of a state of development would enable individuals to make their own histories and geographies under conditions of their own choosing.

Regional research and regionalization are classic themes of geography. Ideas of spatial development compose the core of the theoretical basis of geography. However, in the epoch of scientific and technological revolution the very concepts of development’ and space undergo transformation, this being reflected in the changes of concepts in the sciences investigating these phenomena and process. The present chapter is an attempt to elucidate the concepts of “development” and ‘regional’ development by tracing recent advancement in this field since development
occurs in different socio-economic setting and takes different forms at national and regional levels specific to historical and socio-economic circumstances prevailing there, therefore a synoptic review of studies of regional development.

The Concept of Development:

Development is a multidimensional process. There are therefore many interpretation of it. In geographical literature during the late 1970s and early 1980s, there have come up certain works which attempt to define development. Notable examples include Brookfield (1975) *Interdependent development*, Robert’s (1978) *Cities of peasants*, Mabogunje’s (1980) *the development process a spatial perspective*. Chisholm’s (1982) *Modern world development; a geographical perspective*, Harrish (1982) Rural development; *Theories of peasant economy and agrarian change*; each presents its own, very different view of ‘development’ and each provides a particular perspective form which future research can take its course. Mabogange has identified four main ways in the term ‘development has been used; development as economic growth, as modernization as distributional justice and as socio-economic transformation. He argues that for a long time following the Second World War development was simply as economic growth; It implied a rapid rise in productivity per capita, and a
changed economic structure. Hodder (1968) thus concentrated on economic development in his book on the tropics, and Chisholm (1982) has recently described development as “a term used to signify an evolution of the economic structure accompanying expansion in total output.” Chisholm (1982) goes on to distinguish between ‘development’ and ‘modernization’, the latter being seen as the social information of a nation; for Mabogunje (1980) this is the second way in which the word development has been used. Development still in the sense of economic growth, came to be seen as part of much wider process of social change described as modernization Lipton (1977) has thus, for example seen “development as modernizing structural change” However Mabogunje (1980) also point out a crucial aspect of this view of ‘development’ as modernization, in that to be modern meant to Endeavour to consume goods and services of the type usually manufactured in advanced industrial nations”. He goes on to observed that more recently development has been identified with distributional justice as a way of reducing poverty level among the masses or, as it was more succinctly put, satisfying their basic needs (Mabogunje, 1980) for this to be successful the concept of accessibility was crucial, and much attention was therefore paid to an analysis of the access of the poorest of the poor to resources defined in the broadest of terms in his last category of views of development, Mabogunje(1980) suggest that “scholars of a Marxist philosophical
persuasion argue that the question of distribution and social justice cannot be considered or resolved independently of the prevailing mechanisms governing production and distribution.’’ This Mebogunje argues gave rise to dependency theory, in which development and underdevelopment are seen as being totally interrelated and also to an emphasis on three broad issues; the fact that development is a human issue. Its requirements of the full mobilization of society and the idea of development as a redefinition of a country’s international relation in this view, Roberts (1978) has advocated that ‘’development is an interdependent process in which some countries and regions acquire a predominant place within the division of labour, using coercion to organize production elsewhere, as in the case of colonialism or control of capital or advanced technology and markets--- This situation is expressed in two related concepts that of dependency and that of the core – periphery relationship’’

To these four basic concepts of ‘development’ Mabogunje has added his own, a fifth, which sees “development as essentially a socio-spatial process’’ He himself sees “the development process as one of spatial organization. The reorganization arises as a result of the fact that development implies the articulation of a new set of social goals.’’ While Mabogunje’s classification provides a useful framework for viewing the nature of work done on ‘development’ it does not seriously question the use of the term ‘development’ itself. For too long the concept of development
has inculcated a dangerous bias in the conceptual approach of academics and politicians alike.

In all the definitions of development by Mabogunje there has remained a thread of the old economic definition: that development, to a greater or lesser extent, implies increased productivity, higher levels of consumption per capita and a shift from primary to secondary and tertiary economic activities. ‘Development is normally equated simply with economic growth; few studies attempt to grasp the more complex question of social change. The concentration of attention on economic ‘development’ is no doubt partly due to its easier measurement; how indeed is social development to be measured? In addition to the attention paid to economic issues. There lies the implicit assumption that, in general, development should take place along the lines of western countries. The use of the word ‘development ‘tends to imply that there is a set of developed nations, normally identified with the western nations astride the north Atlantic ocean, and a set of less developed or under-developed or developing countries, which given the right set of conditions, will in their turn be able to become developed this, for example, is the implicit assumption behind Rostow (1978) sequence of stages of economic growth. even the concept of underdevelopment which introduce the idea that the poorer countries of the world are poor in some way because of the existence of rich ones and thus overcomes the problems associated with sequential concept of growth and
maintains and underlying concern with economic issues. Historically, economic change has always been associated, sooner or later, with the degree of social change, with much recent research having been on economic change. There is perhaps now a need to re-evaluate the social impact of economic change and for those involved in implementing it, to reduce the balance by planning for social rather than economic change. The experience of the green revolution in India, a classic example of economic growth, was nevertheless associated with increased social inequality (Pearse, 1980) and today remains a pertinent reminder of the need for an integrated approach to change. Similarly, Saudi Arabia’s economic transformation is taking place in association with strict efforts to maintain the traditional social and religious structures unchanged. This separation of permitted economic change and forbidden social change is already leading to growing tensions within the kingdom and must remain a source for concern.

During the last two decades development studies have become a far more interdisciplinary field of enquiry geographical approach within this field have much to offer. Gould (1982) thus argues that “in the area of rural-urban interaction geographers have, in the theories and techniques at their disposal and in their appreciation of the need for detailed data collection, a comparative advantage over other disciplines”. Likewise Mabogunje, in conceptualizing development as spatial reorganization, has continually
emphasized the importance of geographical awareness in ‘development’. Harriss and Harriss (1979) have nevertheless noted that there is a “dearth of study exploring the connections between development and the imperatives of management of the biosphere”.

‘Development’ is thus defined as process of betterment for a large human group. It includes economic development as well as social transformation. The United Nations University Expert Group on Human and social development in November 1975 gave the meaning of ‘development’ as “development is fundamentally...about, by and for human beings. Development must therefore begin by identifying human needs. The objective of development is to raise the level of living of the masses of the people and to provide all human being with the opportunity to develop their potential”. Thus the definition clarifies that the development implies not only expansion in quantitative terms but also structural changes in the society and its economy as expansion proceeds. Structural change includes institutional, social and economic (sectoral as well as spatial) aspects. This implicit assumption behind the lumping together of all these aspects is that change in one element depends on and generates changes in all others. Secondly, development means change in a desired direction and at a desired speed. The direction and rates of change will depend upon the goals and objectives of development. Thirdly, development presupposes policy interventions--direct or indirect--in achieving the given goals and
objectives. Fourthly, development also involves socio-psychological transformation of human being to prepare them for the eventual as well as current benefits occurring from the changing socio-economic structure of society; and finally, development involves temporal, sectoral and spatial phasing and integration of planning.

The Concept of Regional Development:

The nation of development in the context of regional development refers to a value positive concept which aims at enhancing the levels of the living of the people and general condition of human welfare in a region. It is a value positive concept because development is not only a change but change for better, just as plant develops into a tree and a child into an adult and there is no reversal of the position attained. Economic development is reflected through growth of output and national income. Thus an important indicator of economic development is the increase in per capita income. Development is neither class natural nor it is uniformly available across the regions. The development process benefits some classes of the society more than other classes. It helps certain regions to attain higher levels of development than other regions. This gives rise to social disparities as well as regional disparities. Such a situation operates because of the behavior of parameter of development.

Regional development has been interpreted as intra-regional development design to solve the problems of particular regions. The
concept has a multi disciplinary approach. The first connotation of regional development is economic in which the difference in growth in terms of volume and structure of production. Income employment is measured to know differences in the level of the development. This procedure is employed both for national as well as sub-national areas.

The concept of regional development may further be viewed in connection with plan, policies and balanced development. The policies of regional development are aimed at reducing the regional disparities existing in a particular to minimum and to find out the possible means for developing the region as a whole. Economic planners have viewed regional development problems from sectoral angles, so that regional has become synonymous with sectoral planning for a subnational territory with the result that all the weakness of central planning has been introduced at the regional level keeping in view the lack of interest in spatial organization and development.

Balanced regional development does not mean equal development of all regions. It simply implies fullest development of the potentialities of an area according to its capacity so that the benefits of overall economic growth are shared by the inhabitants of all the regions balanced regional development does not mean self sufficiency in each region. Neither does it mean equal level of industrialization nor a uniform economic further for each region. This type of development countries like India to minimized
backward effects, to rapidly develop the economy smoothly, to develop and conserve resources, to maintain political stability defend the country, to overcome social evils and to promote and secure larger employment opportunities to find the sources on these points balanced regional development has been on important policy objective in India since beginning of the planning era. This India has been mooted as a corrective process to minimize the differences in the degree of economic and social development in the different parts of the country. Such differences are manifest in per capital incomes, employment pattern and standard of living house hold expenditure, extent of saving, rate of capital formation, growth rate in productive sector, education and social progress.

At the micro level (villages and development block), the aim of regional development is generally conceived to minimize disparities in the level of development as observed in differential access to resources and differences in the economic structure and social transformation. These differences are generally found in the industrial structure, access to infrastructural facilities and to amenities. The purpose of the researcher is to measure differences in the general level of socio-economic development to find out differences between small areas and to suggest alternative distribution of facilities and amenities so that observed differences in access to resources are minimize. Furthermore, the researcher has to find out differences in the pace setting process as development of technology and
modernization so that these process are strengthened in areas lagging behind. This will facilitate the full use of potentialities offered by a region.

Historically the concept of planning has had closer links with administration and politics than with social and economic factors. However, the concept of regional planning has assumed greater importance in developing countries because it brings out the development potentialities of each region, suggests strategies for development, considers both the human and material resources within each region, is comprehensive in nature and concentrates on intersectoral problems and area studies. Thus if handled properly. It has the potential to be an efficient tool to create a better environment for human beings, Christaller, Philbrick and Dickenson gave importance to both spatial and functional regions especially with respect to regional development.

**Parameters of Development:**

Natural environment, technology and institutions are the three basic parameters of economic development. It simultaneously puts a limit on the extent of development (at the given level of technology). For example the major economic activity has been agriculture in river valleys, lumbering in forested region and fishing in the coastal regions. Moreover the extent of production levels in all these activities are limited by the level of technology available to the people in the respective regions. Technology is
the tool with which the human beings interact with the natural environment, but technology has its own characteristics. Primitive technology is size natural and is available to all irrespective of their income levels. Intermediary technology is size biased and is available only to those who have some investable surplus. Sophisticated and large scale technology is so costly that it has to be brought under social control, becomes available to all irrespective of their size after a nominal payment. Thus, intermediary technology creates income disparities with a social group and across the region. The institutions have been created by human beings for accelerating the pace of economic development. But when these institutions become rigid, they become a cause of declaration rather than acceleration of the pace of economic development. That is why the institutions are modified or changed with the passage of time. Thus, the level of economic development is the function of the harmonious interaction between natural environment technology and the institution created in a region.

**Measurement of Regional Development:**

It has been seen earlier that measurement of levels of development is an essential stage in policy formulation and planning. Measurement is the assignment of numbers to the properties of empirical objects or events in such a way that a one to one correspondence is maintained between the relation among the properties measured and the characteristics of the
numbers assigned. Regional development can be, and is conceived of in many ways. Inherent in the way use of the term is some sense of significant variations in the way in which people produce and consume work, live and play. To record and measure a vast mosaic of variation in the nation as a whole and in its various parts of regions is no simple undertaking and even the most sophisticated statistical tools can hardly do full justice to measure comprehensively all aspects of regional development, as the variables are so vast and divers in nature and some even escape the limits of quantification. However a useful starting point is to make a distinction between the variation that would seen to be associated with the volume of economic activities and social progress. The most commonly employed measure, really crude indicators of economic and social welfare –of improvement or decline in the average status of families and the individual are the relative levels of per capita income as it is assumed that economic health is invariably followed by social progress. However recently it has been argued that per capita income or any other measure of economic progress as level of production and consumption are partial measures of development as these do not necessarily measure variations in the economic structure and list of social health. They touch only tangentially most of the essential element of development. The analysis of regional development, therefore, poses the problem of measurement. In early seventies there has come up the social indicators approach. This approach points out that development goes
beyond some aggregate measure of levels of consumption and production of goods and services. This approach emphasizes that variable indicating social status should also be included when measuring levels of development. As such, there is no single criterion on which levels of development can be assessed therefore, an analysis of regional development proceeds with the selection of suitable indicators which measures not only differences in economic structure, and production, but also indicate variation in health, education, housing leisure, social security and a number of other variables. However, their selection depends on the availability of statistics at appropriate unit of analysis.

**Measurement of Regional Development in India:**

Recently there have been many studies of regional development in India and in its parts. These are analysis of spatial variations in resources endowment and of sharp contrasts in levels of development in different parts of the country. An attempt has been made to review some of these studies.

The foremost work is being done by Techno-Economic surveys. These surveys examine the state’s physical resources in their aggregate by a rapid technical and economic audit of the resources of the state and prepare an overall plan for the development of the states in a 10-15 years perspective in relation to desired growth rate of the economy of the state. The main drawback of such studies is the lack of integrated planning of
resources of national importance since every state has been treated in isolation.

There are several other studies which have been conducted for specific purpose in which the emphasis is on the area and its problems in contrast with sectoral studies. The central arid zone research institute at Jodhpur has been studying the problem of semi-arid Rajasthan and neighbouring areas. Various experiments and data compiled in respect to geomorphology, vegetation and climate provide valuable material for generalization over wide areas.

A regional approach to the study of urban problem is emphasized by the town and country planning organization. Master plans of large cities provide a wealth of information on the interrelationship of the city with neighbouring areas.

In 1956, the planning commission, at a conference on regional survey and planning (Delhi, 19-20 October, 1956) recognized that it would be necessary to conceive planning regions for the country at three levels, macro, meso and micro. Since then considerable work has been done and much thought has been given to ‘Planning region’ by the geographers. Studies made by Learmonth,(1964) Prakash Rao (1962) and Bhat (1962) laid the groundwork for further studies in 1962, the regional survey unit prepared a tentative regional framework for resource development, for the
country best on an analysis and synthesis of various distribution pattern of resources- physical complexes, cropping patterns and the distribution of urban centres, natural resources and measure industries. In this study regions and sub-regions were identified and their characteristics and regional norms of development were described in quantitative terms. The guiding principle in this scheme was that major region should have minimum disparities within their boundaries’ and maximum distinctiveness from their neighbours, in respect of their character and resources for development. Further, Bhat (1964) suggested a scheme of seven macroeconomic regions based on the distribution of resources and the possibilities of developing regional production complexes. He also considered another set of five macro-economic regions derived by grouping states together.

Based on the work done by Indian statistical institute and the earlier census regions. Nath prepared a scheme of resource development regions and division, which was published by planning commission in 1964.\textsuperscript{15} In this scheme regions were demarcated on the basis of topography, geological formation, soils, rainfall, agricultural land use, cropping pattern, population density and occurrence of mineral resources. The map prepared by Bhat\textsuperscript{16} indicates the patterns of industrial development in the background of resources potential in different areas. Contiguous areas of urban –industrial development occurring along the edge of the Krishna-Godavari delta or
from the Coimbatore plateau to the Kerala coast are the resultant of relatively developed agricultural based industries. The pattern of level of development as brought out by mapping the index value seems to explain the census in disparities in levels of development in an objective way. The study shows that the areas having low levels of development coincided roughly with these having low land productivity or lack of good resource base and occurrence of small and stagnant towns without much industrial activity and inter-town relationship. On the other hand, Hyderabad occurs as an ‘Island’ of development in the relatively under developed area of Telengana. Influence of five year plans on the development have been analyzed at some length by Learmonth with special reference to Mysore State.

The earliest study in the level of development was made by Schwartjberg (1962). The use of a composite index of development brought out areal differences in levels of development, although these differences could not be further put to rigorous regional analysis as the data were on the basis of states (prior to 1956) which are not ideally suited to reveal regional differences.

Pal (1965) put a more systematic attempt in the construction of a composite index of selected variables which permit several stages of analysis in relation to group of variables contributing to overall development; with a study of all India level it may be regarded essentially
as a contribution to methodology in areal differentiation by factor analysis. To be of use in policy decisions these studies need some of the important variables like per capita income and production? Which are directly related to the levels of development? Using a somewhat different method Mitra (1965) has grouped 324 districts of India into four levels of development. For this study he selected 63 variables and these were grouped into six convenient blocks. The variables pertain to natural factors, agricultural infrastructure, traditional economy, human resources organized industry etc. This study is unique for its simplicity and systematic approach. Nevertheless, the author himself pointed out in his introductory remarks that, the lack of more important indices and methods of giving weights to different variables is a limitation to this study. The data of per capita income is difficult to calculate below the state level. The national council of applied economic research has arrived at district level per capita income and the proportion of income of each district according to primary, secondary and tertiary activities. These data, through crude, serve to relate the income pattern with land use structure and occupational patterns and urban-industrial development in broad regional analysis.

Sen Gupta and Sadasyuk have worked out the economic regionalization of India in an attempt to provide a hierarchy of regions useful in national planning. A scheme of planning regions has been started in the National Atlas organization. The planning commission itself has
brought out yet another scheme of resource development regions and divisions of India.

Nath (1970) on the basis of state and district level data worked out the regional patterns of economic development and economic growth within India. Analysis of the level of the economic development has been made for both states and districts, but analysis of growth rates has been made only for states. The level of economic development of states has been measured in two ways. (1) On the basis of per capita income, and (2) through the use of a composite index of economic development based on four indicators. Analysis of economic growth has been made with the help of data on growth rates of population. Agricultural output, per capita value added in industry, and per capita income. He mapped the states of India into two categories of relatively developed and less developed.

Prakash (1977) assessed the regional inequalities and economic development in relation to infrastructural facilities in India. He selected several infrastructural factors; the various population characteristics that reflect the development of infrastructure; the determinant of industrialization; the development of power; irrigation and agricultural implements; and transportation communication; and banking services. He obtained two important conclusions from the analysis of development of individual regions in various fields (1) there is no region which is equally developed in all the fields. For example, developed area like Tamil Nadu,
West Bengal, Andhra Pradesh, Maharashtra, Kerala and Punjab are under-developed in one or most of the fields like literacy, work, force participation rates, per capita power consumption, irrigation or mechanization of agriculture while the under-developed regions like Jammu and Kashmir, Nagaland, Arunachal Pradesh, Mizoram, Rajasthan, Bihar, Madhya Pradesh are quite developed in one or more fields like literacy, density of population, work-force participation rates, urbanization, Power consumption and road transportation. It would therefore, be more useful for policy purposes to identify individual areas of deficiency rather than to bracket regions as developed or under-developed in general so that the remedial measures to make up the deficiencies could be evolved and implemented. The other important result is that the same region/regions come under the category of developed regions if one indicator is used while they fall in the category of under-developed regions if some other indicator relating to the same field is used for classification. It implies that an appropriate indicator should be chosen to determine the stage of development of the regions.

Hemlata Rao (1984) while studying the regional disparities, dimension and typology of backwardness in Karnataka applied the technique of factor analysis in delineating the regions. The study covers 175 talukas of Karnataka and examines inter-taluka diversities and disparities in the land utilization pattern, cropping pattern, agricultural development,
patterns of industrial spread and industrial development, levels of development of education, health, transport, communication, power banking and co-operative sectors and overall development level during the period between 1975-76 and 1979-80. The study concludes that in Karnataka there is not only wide diversity in the natural endowments but also wide disparities in the levels of sectoral and aggregate development. All backward regions are not the same rather they have different dimensions and typology of backwardness. The cause of backwardness also varies from region to region.

These studies of regional patterns of development in India provide a conceptual and methodological framework to extend them to micro level with necessary modification. The present study employs extensively concepts and methodology developed in these studies to analyse the patterns of regional development in the area under study.

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