

REGIONAL INEQUALITY IN INDIA

(1960-61 to 1978-79)

An Empirical Study of the Income, Population
and Welfare, in the context of Intra-
and Inter-regional Variations.

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INTRODUCTION

Political Economy :

"It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner," says Adam Smith "but from their regard to their own interest. We address ourselves not to their humanity but to their self-love and never talk to them of our necessities but their advantages."¹ This is typical of the despair of the classical political economy over the growing free competition and the resultant class differentiation ushered in by the Capitalist Era. David Ricardo defines political economy as "the produce of the earth - all that is derived from its surface by the united application of labour, machinery, and capital is divided among three classes of the community, namely, the proprietor of the land, the owner of the stock or capital necessary for its cultivation, and the labourers by whose industry it is cultivated To determine the laws which regulate this distribution is the principal

¹Adam Smith (1910) Vol. 1, p.13.

problem in Political Economy."² So from Jevons to Mill,³ Adam Smith and Ricardo the concern in the academia is at the growing class differentiation manifested around the gradually flourishing Industrial Revolution and to a great extent in support of it (as for example, Ricardo).

But, it was not until Marx and Engels that it could get a sound footing within a delicate end - Nineteenth century intellectual setting. Engels defines political economy as "the science of the laws governing the production and exchange of the material means of subsistence in human society."⁴ Even Marx in defence of Ricardo says, in his Critique, "Economist like Ricardo, who are accused above all, of having paid exclusive attention to production, defines distribution, therefore, as the exclusive subject of political economy, because they instinctively regard the form of distribution as the clearest forms in which the agents of production find expression in a given society."⁵ But, it has been both production and distribution activities in the society

²David Ricardo (1911), p.1.

³J.S. Mill (1864), defines Political Economy, "Political Economy considers mankind as occupied solely in acquiring and consuming wealth, and aims at showing what is the course of action into which mankind, living in a state of society would be impelled if that motive were absolute ruler of all their actions.", p.138.

⁴F. Engels, Anti Duhring, p.203.

⁵K. Marx., Op.cit., p.285.

which forms the basis of all Marxian foundation of political economy. It has been very aptly summarised by Lange, "Political economy, or social economy, is the study of the social laws governing the production and distribution of material means of satisfying human needs."⁶

It is, however, not the isolated, fragmented, and illogical analogy of production and distribution which concerns the Marxian framework, but, a clear dialectical relationship of the conditions of material existence of man in the society. For example, Marx makes it explicit, "In production the person is embodied in things, in (consumption) things are embodied in persons Distribution determines what proportion (quantity) of the products the individual is to receive; exchange determines the products in which the individual desires to receive his share allotted to him by distribution."⁷ Therefore, distribution (share) has always played the focal point of classical discussions of political economy except that in Marx-Engels scheme it forms only an inseparable part of the material conditions of production - distribution - exchange system

⁶O. Lange, (1963), Vol. I, p.1.

⁷K. Marx, Op.cit., p.275.

in the society. Even, welfare economist like Schumpeter argues that 'the sole study of economics should be around the distribution of national income.'⁸

Inequality :

So, logically what follows from the distribution is a premise of inequality, or else, if, everyone was equal then there is hardly any necessity of considering the problem of distribution. The frame of Marx - Engels, around the historical materialism, the growing pauperisation of working class under capitalism, the precipitation of class antagonism and ultimately, the revolutionary break into the socialist mode of production singularly point to the dialectical process through which the social development passes to achieve from unequal to a more equal position of the objective living condition for man. As Bauer and Prest say 'inequality may either be applied quite generally to cases where incomes or wealth are simply different, just as we might refer to two people living of unequal height or to a moralistic tune of the Oxford English Dictionary,' the fact of occupying a more or less advantageous position.⁹ But the crux of the issue is neither the factor share, nor the simplistic,

⁸J.A. Schumpeter (1952), pp.428-435.

⁹A.B. Atkinson (1975), p.4.

incompassionate look at the ordinal difference, but the normative approach to the question of 'social desirability of such social inequities whether incomes or by other social standards as pointed out by Tinbergen.¹⁰ But, hardly are there unanimous answer to the problem. This is evident in the desperate statement of Pen.

"Everybody known that incomes are unequally distributed, but everybody has his own idea about the causes of this and about the steps that would lead to an improvement... The debate has generated more heat than light."¹¹

This was the feeling, largely because, until the dawn of the Twentieth century, political economy had no objective method in measuring the amount of inequality in the society. This was the time Vilfredo Pareto put forth his famous law, "In given circumstances, an optimum position was defined when nobody could be shifted to a higher indifference - curve without causing a downward shift for someone else."¹² In other words, given the unequal levels of income distribution (size) it would require more than average effort to improve the lot of

¹⁰J. Tinbergen (1956), quoted in J. Pen (1971), p.252.

¹¹J. Pen (1971), p.15.

¹²V. Pareto (1927), p.295.

the poor. Pigou cross refers, "to raise the level of minimum income or to diminish the inequality of income, it is necessary that wealth should grow more rapidly than population."¹³ In a way Pareto's analysis was two way beneficial, (i) providing a universal proposition as to the quantitative behaviour of income distribution within the society (with the necessary variance of ' α ') and (ii) a clear normative answer to the problem. Naturally, this generated a greater theoretical and emperical interest in the West.¹⁴ But, with the growing utilitarianism and marginalism, many of the questions remained unanswered from Marshall to halfway of the Keynesian Revolution. Gibrat, D.G. Champernowne (1953) and M. Friedman (1953) provided some new insights into the problem on the basis of the random probability effect of increase in income on the line of the Markov's process.¹⁵ Yet, other explanations are of the Multiple-Effect Theory of Roy (1956)¹⁶ and Social Hierarchy Theory of Lydall (1968).¹⁷

The problem however, remains unanswered on two

¹³A.C. Pigou (1920), p.648.

¹⁴M.O. Lorenz (1905), p.152 and C. Ginui (1935), on the Measures of Concentration with Special Reference to Income and Wealth, Report on the Cowles Commission, U.K.

¹⁵For details see J. Pen, Op.cit., p.241.

¹⁶A.D. Roy (1950), pp.152-178.

¹⁷H. Lydall (1968), The structure of earnings. For other explanations see, A.K. Sen (1973), On Economic Inequality, pp.24-46.

accounts, (i) that income inequality, in one way or other has not been completely removed by structural changes as advocated under Marxism - Leninism, not at least in the manifest form of socialist societies, seen today, although alround economic achievements cannot be overlooked, and (ii) secondly, the 'share' or 'size' distributions, particularly, the emphasis on the latter has not led to any new insight into either the problem or the solution.

It is felt that many of the questions have remained unanswered, due to the scanty attention provided to the objective conditions of man in their spatial manifestations. After all, any study of distribution has one way or other, to be seen at an aggregative level, (more of a cognitive parlance,) than just at the level of objective reality. "The petty and middle bourgeois critique of capitalist monopolies is also, expressed in what is known as welfare economics,"¹⁸ headed by its founder A.G.Pigou. It would be argued that scant attention has been paid to the inequality problem in its 'regional manifestation' (as part of the objective reality) both by Marxist and non-Marxist alike. After all, regions are not geographical expressions without human component, but

¹⁸ O. Lange, Op.cit., p.317.

human aggregates, in clear, comprehensive and dialectical rapport with the natural environment.

The Region :

'Region' is a dialectical synthesis (of areal phenomena on earth) of two significant but, mutually contradicting characters of 'man-nature' relationship, i.e. 'homogeniety' and 'heterogeniety', which define the material conditions of existence of man. Let it be elaborated. In the process of all natural phenomena, all forces are directed from inequity to equity, from complexity to simplicity but, in the process newer inequities are created as explained by all natural laws, e.g. say Plate Techtonics or the resultant processes of mountain building, or the process of levelling-up, seen by the erosional processes associated with that. But human-beings, being the most active force in this process, in search of a material niche, have^{been}/continuously becoming a progressive force to become compatible with the eternal processes of nature. That is what becomes crucial for 'man-environment (nature) relationship', so very crucial to Marx and Engels.¹⁹

On the otherhand, at any historical stage of

¹⁹Say for example, the 'production relation' as Marx says "an exchange between man and nature" discussed in O. Lange (1963), p.20.

human society, the earth is but a canvass portrayed, simultaneously by the natural as well as the human forces. The resultant picture is, but a synthesis of two antagonistic characters, 'homogeneity' or 'equality' and at the sametime, 'heterogeneity' or 'inequity'. A defined area is homogeneous or equal by certain physical or material characters of the society (cultural) and at the sametime heterogeneous or unequal by other characteristics.

But, hardly, in the two centuries of classical and modern studies, the term region has ever been clarified with unanimity in any accepted parlance. R. Hartshorne while commenting on 'region' expressed the fact that many geographers have stated the concept in question 'region' as a fundamental axiom of regional geography does not mean that regional geography itself necessarily stands or falls with the axiom, nor that the more general concept of geography as a chorographic subject depends upon this axiom. Consequently, the feeling has been a general indecision and a growing despair.²⁰ In fact, trying to define 'region', R.B. Vance in the International Encyclopaedia of Social Sciences reduces the concept from simplicity to naivety.

²⁰P. Haggett (1972), p.257.

A region is a homogeneous area with physical and cultural characteristics distinct from those of the neighbouring areas.²¹ But, these are the 'formal' categories. What about the 'functional' or 'nodal' types? The effort to define this concept, so rudimentary but, so fundamental to geography was done half a century back, by Richard Hartshorne.²² Through the process of preparing a comprehensive review the earlier concepts of region, i.e. the 'natural regions' of Gatzert; the ambiguous 'landscape' of the German; the early Twentieth Century 'organic' concept of Ratzel and followers in America; Renner's 'regions as genuine entities'; or Leigh's 'arbitrarily chosen fragment of land,' he has journeyed from the evil to the vice. His edifice stands on the scourage of pure intellectual activity, 'region as a mental reconstruction;' as he says, "since the hypothesis with which we are concerned represents an intellectual construction rather than either a statement of obvious fact or a product of research."²³ So, the essence is lost for any human significance, to what Vidal de la Blache stated a decade

²¹R.B. Vance in D.L. Sill (Ed) (1968), p.377.

²²R. Hartshorne, Op.cit., pp.285-361.

²³Ibid., p.253. Also subsequently says; "Since, nature (reality) has been so unkind as not to present us with obviously individual concrete objects such as those that are ready to hand for the Astronomer, or Zoologist, and we must construct our own by intellectual activity, it follows that any principles we attempt to develop can have no more validity than the 'objects' we have constructed as their foundation." p.254.

earlier, "A region is a reservoir of energy which origin lies in nature but whose development depends on man."²⁴ But, Hartshorne's position has been avidly buttressed by half a century of Western intellectual thinking i.e. by James and many others.²⁵

Naturally, this is not quite acceptable an idea to large part of the socialist geographers, which is aptly summarised by Pokshishevskiy in his essay 'on the Soviet concept of economic regionalisation;' "Geographical reality' is a complex situation of closely interwoven and diversely interlinked phenomena. Regions may be delimited when analysing these phenomena, based on separate features (components) or a set of them."²⁶ On the otherhand, rejecting the American understanding of region 'Carte Blanche' further says "the idealist concept of a region as a 'mental construction' having only Cognitive significance, entered Russian science from abroad, only in the last decade before the Revolution; it existed for sometime in the Soviet period and was then, rapidly eliminated by the victory of the Marxist materialist point of view."²⁷ This position has earlier been vindicated by Alampiev and Sauskhin etc., in the early sixties.

²⁴ D.L. Sill (1968), p.378.

²⁵ P. James (1954), for example defines, "The region is a device for illuminating factors of a problem. It is not an objective fact, rather, it is an intellectual concept" cited in V.V. Pokshishevskiy (1975). Vol.7, p.6.

²⁶ Ibid., p.4.

²⁷ Ibid., p.6.

It seems the basic arguments around defining a region has, axiomatically, always remained with the concept of internal homogeneity or what has been mentioned earlier of the equality.²⁸ This naturally, cannot be taken for granted since, inequality or heterogeneity is as much the reality as homogeneity, in the realm of the phenomenal world. What really cries attention, is the nature of the process itself, dialectics of the material realities of man. In the quest for a better application of the concept, there is the necessity of, understanding the 'axiomatic basis', a logical, as well as universally agreed, thesis in defining a region. There would be few axioms which is found suitable to provide this basis.

- a) Territorial Axiom : It is universally agreed that a region is basically an areal concept; or spatial concept to which specific geographical location and territory is of utmost importance.
- b) Completeness Axiom : It can be easily seen that any part of the earth which is sub-divided into regions should be complete in the sum-total and not leaving scope for undefined territories in the intervening space between

²⁸The same is reflected in a recent study by A.Kundu (1980) he defines, "Region as an agglomeration of geographically contiguous units, identified with a specific objective in mind on the basis of homogeneity in terms of certain physical, economic and social characteristics," p.17.

two regions. To specify, if, A and B are two regions of an universal region, any other region 'C' in the interface of A and B, is only a null set. Therefore, this also, ushers in the concept of 'contiguity' which is also fundamental to the above axiom.

- c) Axiom of Human Aggregation : This is fundamental to two ideas of geography, (i) the man-environment relationship; so, avidly putforth by the French Possibilist School of La Blache, Brunhes and Demangeon etc.; the central role of man; and (ii) secondly, the Robinson Crusoe - analogy²⁹ putforth by Marx as an unacceptable reality, since, man's position is essentially defined by his being part of the social reality. Therefore, a region can be neither Sans human, nor contain a single, isolated individual, but a society of men, defined upon by his historical existence and production relations. This is fundamental to all regional concept, that the basis being a society (and therefore, aggregation) in a historical process.
- d) Group Axiom : A region cannot be defined in isolation. It is meaningless to say about 'world as a region' unless, there are other worlds contiguous to it. Therefore, it is essentially a group concept.

²⁹K. Marx, (1959) Critique, in the outline he refers the Robinson Crusoe episode as a fiction, romantic adventurism and has nothing to do with the real world conditions, for example, O. Lange (1963) says,

"The social character of production is a result of the social character of labour. Men producing goods do not work in isolation." p.5.

- e) The Axiom of Order (Hierarchy) : Like any other scientific approach to understand reality, an ordinal scaling is necessary, as to in what magnitude demands a precise understanding. This is true of the ordering in landforms or in any other scientific taxonomy, so necessary to all scientific disciplines concerning the understanding of the processes of nature and man.
- f) Equality Axiom or Axiom of Homogeneity : In the historical process of man-nature relationship a certain amount of homogeneity emerges, whether on the basis of a purely physical process of, say, delta formation or reduction of mountains to plateaus and ultimately, to the 'base level'. Same is the case of cultural characteristics, human practices, say of agricultural systems, cropping practices and patterns etc.. Such a concept of internal homogeneity, of which so much has been said, is certainly a vital element in the region-making process. Lange says "If concrete economic processes are discussed with regard to their distribution on the surface of the earth, then this is the concern of economic geography."³⁰

To summarise if, there are two regions A & B, $a_1, a_2, \dots, a_n \in A$ and $b_1, b_2, \dots, b_n \in B$, then, $a_1 = a_2 = \dots = a_n$ to the extent, that in the same manner $b_1 = b_2 = b_n$ and $a_1 \neq b_1$ $a_2 \neq b_2$ to the extent that, $A \neq B$.

³⁰ O. Lange, Op.cit., p.92.



g) Axiom of Inequity or Heterogeneity : As a counterpose to the axiom of equality (f), is the axiom of inequity and here, only lies the essence of the dialectical method of understanding concrete material processes in history, and society. The same way regions can be differentiated with the concept of internal equality and external difference as outlined in (f), in the same way it can be seen that two contiguous regions (homogeneous) are no separate entities, but internally, inconsistent with all equality conditions, i.e. $a_1 = a_2 \dots = a_n$, and can be dealt with a field axiom, that it may be so, that there exists an ordinal field from one element to other and can be defined as

$a_1 \gg a_2 \gg \dots \gg a_n$.. But since, the difference of membership vanishes $a_1, a_2, \dots a_n \notin$

A or, $b_1, b_2 \dots b_n \notin$ of B, but are only of U (the universe) and the field may flow from A to B or from B to A, which for that matter no longer is significant. It is fundamental to the understanding of inequality, to that extent, that the ordinal scale turns to the cardinal point, i.e. the running water explained by the field of 'altitude', 'base level' and the 'distance'; so also, is the case of population concentration, from the city to its hinterland, defined by a changed in the field of density.

Naturally, both the axioms (f) and (g) cohabit in all physical and material phenomena and ought to be

understood in proper dialectical perspective, to understand the nature of a region. In fact, Pokshishevskiy commenting on the Alampiev - Sauskhin debate of the sixties, hints at this processes without being explicit.

"Actually the process of discovering objectively - existing regions, is a gradual, not instantaneous process; it may involve a number of stages of successive approximation to forms which will ultimately correspond to reality."³¹

Regional Inequality :

Regional concept being so fundamental to all studies in economic geography, and inequality being so crucial to studies in distribution and therefore, as mentioned, to political economy, that the combination of the two concepts opens of new possibilities in social science research. As Amin puts forth, "The only possible science is the science of the society, for social reality is one: its never 'economic' or 'political' or 'ideological' etc., even though social reality can be approached, upto a certain point from a particular angle - that of anyone of the traditional university disciplines."³² Naturally, its only the social reality which matters and disciplinary

³¹V.V. Pokshishevskiy, (1975), p.16.

³²Samir Amin, (1974), p.5.

approach can be useful to a certain extent, but, for a fuller comprehension, painful incursions are necessary in essential directions. As has already been discussed, the 'axiom of human aggregates' makes the crucial point of departure of traditional geographer and regional scientists from the current one. After all, as every grain of the earth cannot be adequately explained, but only aggregated, human aggregations are necessary in their social formations, so as to explore general principles of the society and its operators. Thus, studies of this nature can only be another manifestation of distribution studies of 'size type' under the utilitarian - welfare framework, but to the extent that it is the spatial, or regional manifestation of the distribution.

The other question is of course, intimately related with the problem of under-development, a term needing hardly any further introduction. Quite obviously, the world scenario is only too disparate in terms of economic achievements, or even, in terms of subsistence conditions, not to attract attention of even the most phillistine.³³ Naturally, the question of under-development

³³D.E. Keeble (1967) in R.J. Chorley and P.Haggett (1967) (Eds.) says "The existence of regional inequality in income - in both absolute and per capita - within virtually all countries is by now well attested. Put another way, economic development is scarcely ever spread evenly over the whole area of a given state unit, but rather concentrated at certain points, producing a mosaic of regions at different levels of economic prosperity," p.257.

being the moot-point for the post-Second World War canvass of the Third World countries. With the euphoria of a new born, the order from the international to sub-national formations are inseparable and only, integral part of the same manifestation of the reality." A Gunder Frank says, "the contemporary under-developed institutions of the so-called backward or feudal domestic areas of an under-developed country are no less the product of the single historical process of capitalist development than are the so-called capitalist institutions of the supposedly more progressive areas."³⁴ So, the problem is of an integrated nature; from personal inequality, to regional inequality and therefore, to the problem of under-development.

World Formations :

The quest for an answer to underdevelopment is not new, but, the answers themselves are varied, quite often in juxtaposition to each other and internally, inconsistent. The reality being what Pareto said, at least half a century back 'History teaches us that the governing classes have always tried to speak to the people not in words they believe are the most truth, but

³⁴A. Gunder Frank (1975), The Development of Underdevelopment, p.3.

in those which best suit the objectives they have in mind.³⁵

Quite naturally, all kinds of theoretical and empirical propositions are placed for the understanding of the world manifestation of underdevelopment. Say for example, Hoover and Fisher(1949) put forth the theory of 'autonomous growth' for a region passing through a number of stages - a sort of 'evolutionary theory' of regional development.³⁶ Quite soon, Rostow tried to convince that after all the advanced countries have also, gone through the painful reality of being backward, and quite naturally, the Third World Countries have to be in the waiting till their turn of 'unlimited' mass consumption comes.³⁷ Quite incredible to be acceptable. Quite soon the 'Export Base Model' was advocated, that capital (the thing) being naturally short in backward countries or regions the way out is to export the primary commodity and import the capital goods. That is Douglas North.³⁸ Marginalists and Neo-Kayensians have number of mathematical solution, with little realism, nor scope for application. The II World War transformed the

³⁵V. Pareto (1927), p.98.

³⁶E.M. Hoover and J. Fisher (1949) "Research in Regional Economic Growth", Problems in the Study of Economic Growth, National Bureau of Economic Research, NY, pp.180-188.

³⁷W.W. Rostow, (1969), pp. 156-186.

³⁸D.C. North (1955), "Location & Regional Economic Growth", Journal of Political Economy, Vol.63(3), pp.243-258, reprinted in Regional Policy, Friedman & Alonso, MIT, Mass, 1974.

scenario. Reorganisation of political boundaries in Europe and the spurt in national liberation movements in Asia and Africa, led to ramification of newer relationship and resultant world economic formations. Keynesian theory was by very nature short term oriented and naturally, provided no answer to the novel realities faced by the colonial infrastructure. The North - South dualism has become only too apparent. With the Neo-Keynesian temper, Harris explained the situation as a 'passing phase' within a general equilibrium framework, i.e. the free mobility of factors would lead to equalisation of the levels of differential development.³⁹ This position was not acceptable to many. Gunnar Myrdal (1957)⁴⁰ and Albert O. Hirschman (1958),⁴¹ basing their experience in the European and Latin American scene, respectively, came to a certain common, but independent conclusions, that 'factor mobility' has an inbuilt bias to favour the already developed regions of the world or even parts of a country due to external economies of scale conditions.⁴² Myrdal quite penchantly quotes the Bible, "For unto everyone that hath shall be given, and he shall have abundance; but from him that hath not

³⁹S.E. Harris (1954), pp.367-380.

⁴⁰G. Myrdal (1957) Economic Theory & Underdeveloped Regions, Methuen & Co., London.

⁴¹A.O. Hirschman (1958), The Strategy of Economic Development, Yale U.P., London, pp.183-202.

⁴²G. Myrdal, Op.cit., p.29.

shall be taken away even that which he hath."⁴³

Analysis of the 'vicious circle' on the study of the American Negro Problem and later, on the findings of the U.N. Economic Commission on Europe (1955),⁴⁴ Myrdal developed his theory of 'Cumulative Causation', in explaining the persisting problem of underdevelopment in the Third World.⁴⁵ Conclusions of Hirschman, with his Latin American bureaucratic experience, was similar in content and character.⁴⁶ But, the solution provided was of an active role of the state in those colonial economies to reverse the process of the 'Cumulative Causation' (or, its manifestation what Myrdal calls the "Backwash effect" or Hirschman calls the "Polorisation effect") towards a "spread effect" or the "trickling-down effect" respectively, both internationally, as well as interregionally. Now, this position was vindicated by J.G. Williamson in a worldwide study of inter-regional disparities (Inequalities) of incomes, in mid-sixties, as an empirical investigation, that the process of interregional inequality over sufficient length of time being an inverted 'U' shaped curve, is similar to both

⁴³G. Myrdal, op.cit., p.12.

⁴⁴Report of the Economic Commission on Europe, U.N., (1955).

⁴⁵G. Myrdal, op.cit., pp.11-20.

⁴⁶A.O. Hirschman (1968) for example says "We see, then, the underdevelopment is not a necessary stage in the process of formation of the capitalist economy. It is a special process due to the penetration of modern capitalist enterprises into archaic structures", p.138.

advanced group of countries like U.S.A., Canada, U.K. etc. as well as the underdeveloped countries like Brazil, India, Phillipines or even, Yugoslavia.⁴⁷ This position can only lead to a retracing of steps to the earlier stages theories, that after all, underdevelopment and the inequity in the interregional scene is only a passing phase. These discussions have led to their influence on studies on the regional inequalities or underdevelopment problem of India by scholars both Indian and from abroad.⁴⁸ Myrdal-Hirschman model has naturally, raised quite a number of criticism from many quarters.⁴⁹

A group of researchers broadly referred as the 'Latin American School' including Perloff (1960), Furtado (1964), Prebisch (1971), Gunder Frank (1967) and Samir Amin (1974) and a host others visualise the issue on an 'Unitary structure' basis and not quite on the assumption of 'dualistic' philosophy, so much in common parlance, in mid-fifties to mid-sixties. Largely, studies based on the Latin American experience, the problematic is understood in the perspective of a 'core'

⁴⁷ J.G. Williamson (1965) "Regional Inequality and the Process of National Development", EDCC, Vol.13(4) Part II.

⁴⁸ The fuller treatment of such studies will be done in the II Chapter of the present study.

⁴⁹ G.B. Khromvshin (1976) for example says (Myrdal nevertheless attempts to stand above class interests, thereby making it impossible to resolve the fundamental problem: What social structure can provide a way out of economic backwardness and ensure progressive social development", p.14.

or 'centre' consisting of the developed world and the 'periphery' consisting of the underdeveloped, colonial Third World (largely of Asia, Africa and Latin American countries), irrespective of the international division of the capitalist and socialist institution, the 'transfer of values from the periphery to the core' being the real crux of the issue.⁵⁰ For example, Samir Amin explicitly states.

Relations between the formations of the 'developed' or advanced world (the centre), and those of the 'under-developed' world (the periphery) are affected by transfer of value, and these constitute the essence of the problem of accumulation on a world scale."⁵¹ Overallly, the whole argument is on the line with V.I. Lenin's 'Theory of Imperialism',⁵² in its latent manifestations in the contemporary changed conditions. Underdevelopment, whether of a country or part of it (a region)

⁵⁰ Samir Amin (1974) says, "... main scope of my analysis embraces relations between the centre (North America, Western Europe, Japan, Australia, New Zealand and South Africa on the one hand; Russia & Eastern Europe on the other) and the periphery, "the three continents". p.4.

A. Gunder Frank (1975) for example says "... historical research demonstrates that contemporary underdevelopment is in large part the historical product of the past and the continuing economic and other relations between the satellite underdeveloped & metropolitan countries," p.1.

⁵¹ S. Amin, Op.cit., p.3.

⁵² V.I. Lenin, in the introduction to N. Bukharin (1972), Imperialism and World Economy, Merlin Press, London, pp.vi - viii.

is largely due to the integrated character of world capitalist system, particularly, the world market, whose tenacles touches the most obscure corners of the earth, persisting as a historical consequences of the days of 'Rule Britannia'. Pertinently, Amin says "strictly speaking, growth in the periphery based on integration into the world market, is development of underdevelopment."⁵³ Development and underdevelopment are corollary to each other.⁵⁴

The wide variations in the levels of development within national territories, particularly, of the Third World countries can only be understood in the light of the colonial history of those regions and their current integration into the world capitalist order, as a form of periphery.⁵⁵

The Problem of Study :

The existence of gross regional inequities in

⁵³S. Amin, Op.cit., pp.18-19.

⁵⁴A. Gunder Frank (1975) says "... within this world embracing metropolist - satellite structure the metropolist tends to develop and the satellites to underdeveloped," p.10.

⁵⁵For example C. Furtado (1964) says, "The effect of the impact of capitalist expansion on the archaic structures varied from region to region, being considered by local circumstances, the type of capitalist penetration, and the intensity of penetration. The result, however, was almost always to create hybrid structures, part tending to behave as capitalist system, part perpetuating the features of the previously existing system. The phenomenon of underdevelopment today is precisely a matter of this type of dualistic economy". p.129.

the Indian sub-continent, as past legacy of the colonial history of the country and part of the historical processes of development, has been quite an acknowledged fact, in all circles, whether academic, bureaucratic or policy making bodies and slogans, of a 'balanced regional development' right from the First Five Year Plan period onwards has been raised to a crescendo. But, realisation of the persisting problem of underdevelopment in the interregional perspective and at least, scientific study has only a recent history in India, certainly, not much before the mid-sixties and if, at all, only being articulated in the seventies.⁵⁶ The theoretical studies lack a sound empirical proof and the empirical studies have little of theory; although, now at least there exists a large body of empirical research on the levels of regional development in India (at different regional levels, from macro-regions of the nature of large states, to micro level studies even at the level of villages). But, the understanding we obtain is quite fragmented, and naturally, incomplete in inferences to be of any normative use.

⁵⁶B. Chattopadhyaya, Moonis Raza (1975), pp.11-34. It provides theoretical discussion on the issue as a pioneering work on India.

Objectives :

Therefore, our contemplation in the present study is to make an empirical verification of the processes of regional inequality in India, in both its theoretical ramification and empirical manifestation.

The task is naturally, quite ambitious and only, certain aspects in cross currents of contemporary economic history of the countries can, only be highlighted. Our main outline would be to understand the behaviour of incomes, total and per capita, also in their sectoral composition over approximately two decades, from the beginning of the Third Five Year Plan (1960-61) to the end of the Fifth Five Year Plan (around '78-79). The choice of this period is essential to an earlier hypothesis developed, regarding the role of the structural changes in Indian economy around the early seventies and its impact, on the regional manifestation of development and inequities.⁵⁷ This would be broadly at a macro regional level. But insight, also, will be cast into behaviour of inequality in terms of incomes in rural areas, particularly, originating from agriculture, and

⁵⁷A.C. Mohapatra (1976), The Capitalist Path and Growth of Inequalities between Regions in India(1961-1971), Unpublished M.Phil dissertation submitted at J.N.U., New Delhi.

then, a detailed study of one of the 'unarticulated' macro regions of the country (Madhya Pradesh) in greater details. An explanation for the selection of Madhya Pradesh as a macro-region for the study has been given later, in Chapter IV.

Quite obviously, it can be only the role of a 'torch bearer' and in the progress of the growth of knowledge, others would carry the torch, eternally.

CONCLUSION

At the outset of the current study, it has been pointed out that the study of spatial inequalities has remained a neglected realm of the geographer, because of the prevalent approach to undermine the role of 'man' and the consequences of geographical researches being only peripherally related to the social processes. Besides, the studies in spatial inequalities from the point of view of other disciplines have been only partial, because of the lack of a clear perception of the 'space'. Even the academic consciousness regarding the issues of regional inequalities in terms of the people living therein, has been of a recent origin. Inter-personal inequalities of incomes and welfare standard, which reflect in aggregate terms at the level of the regions, whether internationally or inter-regionally (within a country) are questions of basic concern to the social scientist. The recent studies by Myrdal, Hirschman, Frank, Amin and Furtado etc. are eye openers to the academician and challenges to the politician and the bureaucrat.

On the other hand, such attempts in explaining the regional ramifications of the planned programmes of the preceding three and half decades of independence in India, have been only incipient and a lot remains to be understood. Even, those studies which have taken a pioneering role, answer only a very few of the problems, e.g. the stubborn persistence of the backward regions to remain poor. The period from 1960-61 to 1978-79, the concern of the present study (which covers the third, the Fourth and Fifth Five Year Plans and the interregnum of the three year plan holiday, i.e. 1966-67 to 1968-69) is significantly, eventful for the Indian economy in terms of the theory of 'divergence - convergence'. The entire period can be broken up into two segments, i.e. (i) from the early sixties to the end of sixties (1968-69 is important due to the beginning of the Fourth Five Year Plan) and (ii) from end sixties onwards till the terminal year of the study, i.e. 1978-79 (end of the Fifth Five Year Plan). The first period is marked by gross instabilities in the politico-economic atmosphere of the country, lack of proper directions to the economy and a series of natural calamities and international wars, leading to a very sluggish increase in the per capita incomes of the people and stagnation in the process of industrialisation (which got some momentum in the mid-fifties). Overall,

it was a period, in which all the rising aspirations of the common Indian has invariably, been belied. On the other hand, in the period of the later two plans, the performance of the economy has been much more satisfactory. During this period the agricultural output, yield and income originating in the same sector have increased at a much higher rate; as compared to the previous period. This happens despite, the periodic inflationary tendencies in the economy.

So far as the question of regional inequality of per capita income is concerned, it is found that the levels of inequality have overallly, increased except for a few years in the mid-sixties, when it has marginally come down, e.g. between 1960-61 and 1978-79 the inequality has increased by 1.37 per cent per annum. Moreover, the rates of increase in the levels of inequality have been significantly higher in the late sixties and the seventies, e.g. between 1968-69 and 1978-79 the inequality was grown by 1.67 per cent per annum. Additionally, the traditional developed states like West Bengal, Tamil Nadu and Gujarat, have not shown any appreciable increase in the per capita incomes, while the group of agriculturally advanced states like Punjab, Haryana and Rajasthan have demonstrated a considerable increase in the levels of per capita Net Domestic Products. This is but natural, with the background

of the predominant dependence of the economy on the agricultural sector, which has shown a great dynamism in the later decade, due to impact of the Green Revolution. This group of states seems to influence the pattern of distribution of the additional increases in the per capita income in the country. Ironically, it is observed that when the per capita income has increased sluggishly (e.g. the mid-sixties due to the continued failure of crops) the inter-state levels of inequality has either declined or has remained stationary. On the other hand, when the per capita income has grown at a relatively faster pace there is a tendency that the levels of inter-state inequalities have increased. Obviously, as has been witnessed, the national income and therefore, per capita income in the country increases or decreases like a mercury column, by the pressures generated in the agricultural sector, i.e. whether the performance of the sector is good or poor. Naturally, as it happens a greater increase in the per capita income leads, not to equality, but to greater inequality between regions. This is in conformity with the theory of 'divergence' *à la* Myrdal. The process of economic development is vitiated by the 'cumulative causation' of development for the developed region, and under-development for the backward region. But, with a difference. Here, (as in

India) even some of the advanced regions (in the traditional sense) have been proved to be the victims. This situation is also, in conformity with the well known experience in Indian planning that a higher rate of development (and growth) and an egalitarian distribution of the benefits of growth, are not compatible. Growth and socio-economic equality are anti-thesis to each other. In the process of planning the choice, therefore, has to be made between the paths of greater distribution or higher growth.

On the other hand, a study of the sectoral composition of national income and per capita incomes shows that the regional levels of inequalities in terms of per capita incomes originating in the non-agricultural sectors are very high compared to per capita income originating from the agricultural sector, e.g. in 1960-61 the weighted variations were 0.4311 and 0.1841 respectively, while the position in 1975-76 was, 0.3577 and 0.3292, for both the sectors, respectively (Table-VI.18). But while in the process of planned development the regional inequalities in non-agricultural incomes clearly shows tendencies of decline, in the agricultural sector, there is no such sign of decline of the levels of inequality, e.g. for the former sector the decline was by -1.24 per cent

per annum, while for the latter it was an increase by 3.95 per cent per annum. Therefore, as has been observed in Chapter-V, the responsibility of a group of agriculturally developed states in accentuating the process of inter-state inequalities of per capita incomes can not be ruled out. Besides, the significance of the so called Green Revolution in the process of increasing regional inequalities has to be duly realised.

The results of the detailed and dis-saggregated study in Chapter-VII supports the point that the diffusion of the HYV technology has helped in removing the intra-regional inequalities in per capita incomes, e.g. in the states of Punjab, Haryana and Rajasthan. The highlights of the comparison of the per capita agricultural output (in value terms) at various regional levels (at two points of time, i.e. one prior to Green Revolution, 1962-65 and the other at a reasonable peak of it, 1970-73), demonstrates a clouded scenario of agricultural development for the traditional rice areas of the country, a large part of which in fact, suffer from a negative rate of growth of per capita incomes, viz. Maharashtra, Andhra Pradesh, Bihar, Orissa etc.. Contrary to this, in a contiguous zone in the north-western plains of Punjab, Haryana, western Uttar Pradesh and parts of

Rajasthan and Gujarat there has been a tremendous growth in the level of agricultural output and incomes. This region happens to be predominantly wheat producing, associated with a relatively, higher concentration of rich pleasantries and concentration^{of} infrastructural facilities for agriculture, i.e. irrigation and power. Is this position related to the character of the Green Revolution, as has been stridently put forth by a host of economists and sociologists in the last decade, as the 'capitalist development in Indian agriculture'? There are reasons to believe, that the very nature of capitalist development is responsible for accentuation of unequal spatial development, as happens in the case of localisation of industries (under free enterprise) i.e. the latter agglomerating in concentrated pockets. The process of development under such conditions would be the development in the core (the concentrated agglomeration pockets) and underdevelopment of the periphery. The regional ramifications of the capitalist agriculture calls for a re-evaluation of the 'core-periphery' principle. It is plausible as evident in the analysis carried out in the present study that the group of agriculturally advanced states have acted in manner of a core and have been proved instrumental in the underdevelopment of certain parts of the country, coinciding with the Green Revolution.

It also highlights the cardinal changes in the spatial structure of the national economy; the importance of the core areas around the port towns (the metropolitan enclaves, as argued by Chattopadhyay and Raza) has considerably diminished during this period and an agro-based core in the north-western agricultural belt of India has emerged with far reaching consequences. This calls for also, a re-evaluation of the location principles, particularly, the questions of agglomeration economics applicable to location of agricultural infrastructures, with special reference to 'public investments'.

So far as the per capita income is concerned, significantly enough, there seems to be an increase in the level of inter-regional inequality (as between states or meso-order regions), while the levels of intra-regional inequality (within regions) decline, viz. in case of Punjab, Haryana and Gujarat the weighted coefficient of variations grew negatively at rates of -2.03, -2.90 and -2.35 per cent per annum, respectively (Table-VII.12). On the other hand, these states act manifestly, as accelerators of inter-regional levels of inequality of per capita incomes. This is logically, explainable. When the income distance within a meso-order region is declining due to increase in the per capita incomes of the

component units at a faster rate, the distance between the regions increases leading to a positive trend of the inter-regional levels of inequality, viz. the inter-regional inequality grew at a rate of 3.61 per cent per annum, between 1962-65 and 1970-73. Some of these emergent features have been explained in Chapter-VIII, in terms of the 'concentration hypothesis'.

While analysing the problem of regional inequality in terms of a number of socio-economic indicators of Madhya Pradesh (as a case study), the positions since arrived at, are strongly vindicated. For example, this case study indicates that over the 12 years period (from 1960-61 to 1972-73, on a continuous basis) the intra-regional levels of inequality of the development parameters, reflected in the composite indices have come down at a rate of -2.59 per cent per annum, as shown in Table-IX.8 (the value is lower, -0.65 per cent, in case of the secular trend). It also, indicates that the overall variations in the development parameters of Madhya Pradesh (district-wise) are explained significantly, by indicators like irrigation, power, industries and even, health-care amenities, as derived from the factor loadings on these variables. Moreover the levels of regional inequality between the quartile classes of the indices are invariably,

more than the inequalities within the quartile classes, e.g. in 1960-61 the inter-quartile variation was 0.2954 compared to the intra-quartile variations, of 0.1220, 0.0948, 0.1004 and 0.2207 respectively from I quartile to the IV quartiles. This position has remained more or less similar over the entire period, except for a slightly higher value for the IV quartile in case of a few of the years. Besides, the changing alignments of regional development in the state and patterns of region formation have been highlighted. It indicates that the position of the highly developed districts in the southern Madhya Pradesh (viz. Bilaspur and Raipur) has cardinally changed in favour of a group of districts e.g. Gwalior, Bhind and Morena in the north-western part of the state, between 1960-61 to 1972-73.

The scenario of regional development, their inequality levels and changes which occurred, roughly during the period of green Revolution, seems to be completely compatible with the scenario at the national level; the relation of the 'microcosm' to the 'macrocosm'. For example, the decline of the importance of the traditional industrial states, particularly West Bengal and Tamil Nadu (even, Maharashtra, so far as agricultural income is concerned) are part of the problem of the south. Their

decline seems to have boosted, corollarily the development of the 'north', e.g. the group of agriculturally developed states. The situation in Madhya Pradesh, reflected in the decline of the traditional developed areas of the state in the 'south' and emergence of the group of agriculturally developed districts is very similar to the situation at the national level, as has been elucidated. The tussle seems to be eternal, between the 'north' and the 'south' or the 'core' and the 'periphery'.

Certainly, a process of 'peripheralisation' (in parlance of the Latin American school) can be easily discernible in the regional processes, during the Green Revolution. Many states/regions have either remained abjectly poor and backward (by any yardstick of welfare) or have undergone further underdevelopment. On the other hand, a concentrated few states/regions enjoyed a boom condition, cornering all the available benefits of the so called planned development of the country. Clearly enough, agricultural revolution, if at all, has shown indications towards a continued process of accentuated inter-regional inequality, in the levels of income and standard of living of the people.

The agricultural sector, on which still, the largest share of the Net Domestic Product of the country

hinges on, if, leads to acceleration of the levels of regional inequality (between states and regions) would, naturally, effect the overall levels of regional inequality in the country (which grows at the rate of 1.37 per cent per annum from 1960-61 to 1978-79). Therefore, the public policy measures, e.g. the Industrial Policy Resolution of 1956, or any such measures relating to the non-agricultural sectors could be successful in a limited manner, so far as the objective of reduction of regional inequalities is concerned. It calls for proper evaluation of the existing public policy measures as well as, implementation of the new measures, in relation to the agricultural sector. Particular emphasis is called for the public investment policies in agriculture, pricing of agricultural commodities (for a better balance of the inter-sectoral terms of trade) and issues regarding land reforms. Investments in agricultural research in location specific crops, like rice and extension service programmes are necessary for a desirable reversal in the process of accentuation of the levels of inter-regional inequalities of the country. How this can be achieved, needs further investigation and research at the meso- and micro-regional levels.