

Regional Disparities and the Process of Socio-Economic Development in India

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Abstract

Regional disparities and socio-economic development are intrinsically linked and often exhibit an inverted U-shaped relationship, as postulated by Kuznets and Williamson. The present study investigates the spatial and temporal patterns of regional inequalities in India and the world, with special emphasis on identifying convergence or divergence trends in income and development indicators since 1981. Using secondary data from national and international sources such as the Ministry of Statistics and Programme Implementation (MOSPI) and the World Bank, the study employs Williamson's Weighted Variance Index (VW) to measure inter-regional disparities. A comprehensive set of economic and social indicators—including per capita income, sectoral composition of NDP/GDP, literacy rate, infant mortality, and per capita electricity consumption—has been analyzed to assess spatial inequalities. The findings reveal that while regional disparities in India widened during the early phases of development, a gradual convergence trend has emerged in recent decades, particularly in social indicators like literacy and health outcomes. This convergence can be attributed to welfare-oriented planning, targeted policy interventions, and diffusion of development benefits to lagging regions. The study underscores that balanced regional development cannot be left solely to market forces; rather, it requires sustained and inclusive regional planning, equitable resource allocation, and sector-specific growth strategies to ensure harmonious socio-economic progress.

Keywords: Regional Disparities, Economic Development, Williamson Index, Kuznets Curve, Spatial Inequality

Introduction

The phenomenon of unequal rates of socio-economic growth of regions within a country is becoming a serious problem for policymakers and planners, particularly because the very purpose of development stands defeated when a section of the population remains deprived of its benefits (Myrdal, 1957; Hirschman, 1958).

The general hypothesis that inter-regional inequalities decline over time, particularly after the economy has reached the take-off stage, dominates the literature on historical trends in regional inequalities (Williamson, 1965). However, several studies point to the fact that in the early stages of development, regional disparities tend to widen, and in some cases, they persist even when development has reached an advanced stage (Kuznets, 1955; Barro & Sala-i-Martin, 1992).

Since the process of growth starts in a few regions, polarization processes often get into action, and development does not spread out to the less developed peripheries in the short run. Even in the long run, inequalities may persist due to the cumulative or circular causation process (Myrdal, 1957; Krugman, 1991). The present study is macro-economic in nature and is concerned with interregional disparities in terms of selected indicators in India and the world. Income is measured in terms of the Net Domestic Product (NDP) for national-level analysis and the Gross Domestic Product (GDP) for global analysis (World Bank, 2023; Government of India, 2023).

Objectives

1. To outline the spatio temporal patterns of economic inequalities in the world.
2. to examine the spatio-temporal patterns of developmental disparities in India, and
3. to find out whether the above trends fit into the inverted U-curve as suggested by Kuznets (1955) and Williamson (1965).

Review of Literature

Different schools of thought perceive the issue of regional inequality in different ways. According to neo classical theories of economic development, regional dualism in inequality arise only on account of malfunctioning of equilibrium mechanism. Such malfunctioning is largely attributed to market imperfections and institutional bottlenecks which impede smooth factor and resource mobility it tends to appear in course of time when there is greater unification of factor markets and economic integration among regions. Neo-classical has an optimistic view about the reduction and ultimately removal of regional dualism.

A member of economists, most notably Simon Kuznets (1955) have also associated with another school of thought which sees domestic income inequality occurring as an almost inequitable by product of development. The onset of industrialisation produces a significant shift in the direction of inequality and creates a widening gap among regions and peoples. It happens because unlike agriculture, industry is highly localized and concentrated in certain centres or regions. Once the industrialisation process matures, the gap may be reduced and eventually be eliminated.

Another school of thought focusing on the process called modernisation, suggests that development gap is narrowed when a broad set of modern values and institutions spread out to peripheral areas too.

Most adherents of this perspective believe that such values can be inculcated in a population through deliberate planned efforts. Others argue that new values emerge from the process of development itself and hence, the socio-economic topography would always remain uneven but with lower relative relief.

In contrast to these perspectives, which suggest that the phenomena of rich and poor are transitory, there is a third school of thought that centres on colonial exploitation and concludes that the economies of the developing nations have been shaped in response to forces and conditions established by the industrialised nations, and as a result, their development has been both delayed and dependent. The dependent development persists even in post-independence era of the Third World Countries and has now penetrated into the intra-national development processes too, leading to the phenomena of internal colonialism and resultant regional enwualities. The failure of poor countries to catch up with rich ones and the widening internal income gap are both products of the distorted development brought on by dependency relations.

Modern development activities being marked by centralization and concentration (due to the economies of scale and agglomeration), regional planners consider regional inequalities to be inherent to the current model of development. Its ill effects can be mitigated through deliberate regional and interregional planning for development of natural and human resources.

Theoretical generalisations about growth and regional economic disparities have been provided in the pioneering works of Gunaar Myrdal (1952), Albert Hirschman (1958), and William Alonso (1968) who have given us the concepts of backwash vis-à-vis spread effects or of polarization and trickle down effects. The major empirical work of Simon Kuznets (1955, 1963, 1973) and later by Williamson (1965) covering a wide spectrum of countries at different levels of development, hypothesized that regional inequality passes through three distinct stages as an economy moves from early development to maturity. In the early stage of development, regional inequality widens, followed by a period of stable high inequality, and finally a marked secular trend towards regional equality sets in as development proceeds.

In India, studies by Swamy (1967), Dhar and Shastri (1967), Lahiri (1969), Rao (1972), Nair (1977), Gupta (1977), Sampath (1977) confirm the narrowing down trends in inequality over the years, while studies by Rao (1973), Ojha and Bhatt (1964), Mahapatra (1978), Choudhary (1974), and Mathur (1983) show a tendency of divergence, contradicting the inverted phenomenon. Several reasons can be traced to the above conclusions. First, data used are not comparable and secondly, national economies do respond differently to global changes and internal problems, hence are not amenable to such simplistic and generalized analysis. **Methodology**

The data have been obtained from secondary sources, and appropriate statistical analyses have been performed.

Development Issues

Development is a transcendental concept. It is a part of the nature of all that is living. Development and decay is the law of nature. The concept of development as a human enterprise directed towards economic and socio technical transformations expansion and growth is however of relatively recent origin. The time-honoured multi-faceted human development was reduced to economic growth measured in terms of material goods and per capita income. The concept of economic growth was introduced in Economics by Marshal in 1920, although its foundation was laid by Adam Smith in 1776. It was further strengthened and elaborated by Mark and Angels (1961).

The concept of development was however challenged in 1970's and 1980's from a variety of perspectives, cultural, social and environmental. Energy crisis, sluggish growth of developing countries, slowing down of developed economies etc. introduced doubts about the efficacy of the western model of development as such. Now in 1990's, stress is being laid on sustainable development. Development in its essence is a multi-dimensional process involving changes in social infrastructure, institutions in consonance with the cultural heritage of the people, as well as the acceleration of productivity and production, reduction of regional and interpersonal inequalities and eradication of poverty. It aims at environmental quality and ecological balance. It is a human development enterprise, economic growth is important but more as a means rather than the end to promote development.

Relationship between development and interregional disparities is determined by the analysis of variance as calculated by J.G. Williamson (1965) in his famous article on 'regional disparities and national development. Williamson calculated weighted index, unweighted index and weighted mean deviation index. In this study, only

weighted index (VW) has been calculated as it gives the best results. VW is weighted coefficient of variation which measures the dispersion of the regional income level or other variable relative to the national average while each regional deviation is weighted by its share in national population. The variance is calculated for each variable and for each time period separately, which gives a single figure as a measure of disparity. The higher the VW, the greater the size of geographic differentials and vice-versa.

The following indicators have been used to calculate VW:

- Per capita income
- Population
- Share of primary sector in NDP/GDP
- Share of secondary sector in NDP/GDP
- Share of tertiary sector in NDP/GDP
- Percentage of economically active population in secondary sector
- Percentage of economically active population in tertiary sector
- Literacy rate
- Percentage of women enrolment at primary state
- Infant Mortality rate
- Persons per doctor, and
- Per capita consumption of electricity

The following formula has been used to calculate the variance (VW):

$$VW = \frac{\sum (y_i - y)^2 f_i}{n y^2}$$

Where,

VW = weighted variance

f_i = Population of region

n = national population

y_i = Per capita income of a region

y = National per capita income

Regional Disparities in India

The spatial configuration of development in the third world countries has undergone many changes during the past decades. The problem of interregional disparities assumes a great significance. Some apatial disparities are most often symptoms and outcomes of the working of socio -economic processes. In India, the process of planned economic development started in 1950s as a highly centralized operation, and only since the Third Five Year Plan (1961-66) some regional perspectives were added to it.

In order to examine the levels and trends of regional dualism, analysis of per capita income and sectoral composition of the economy at both constant and current prices have been attempted. The trend of inter-state inequality in terms of per capita income does not seem to be declining.

The tri-sectoral disaggregation of state domestic products is analysed to measure sectoral disparities. After 1970 there is sudden increase in inequalities peaking in 1980. This increasing trend clearly highlights the trend of Green Revolution. Since the benefits of Green Revolution were enjoyed only by a few states and could not trickle down to all the states, there emerges a decline in the coefficient of variation. This decline suggests that the states which were initially not benefitted, started getting some benefits, resulting in the converging pattern. Secondary sector also shows consistently declining disparities. As far as the tertiary sector is concerned, it presents narrowing down trend. Declining disparities in tertiary sector are best explained in relation to the declining trend in other two sectors. Among all the three sectors inequality is more pronounced in secondary sector.

The sectoral behaviour in terms of constant prices exhibits almost opposite trends in primary and secondary sectors. Disparities in primary sector remained stable till 1970, and show increasing trend thereafter. The tertiary sector shows a consistently decreasing trend upto 1980 and rises after that. On the other hand, secondary sector follows the same converging pattern as in case of current prices.

The analysis of inter-state disparity has also been made by measuring inequality in terms of percentage of work force in all the three sectors. Primary sector presents a more equable and constant trend throughout the past decades, though a little increase is visible in 1990. It explains that workforce engaged in primary sector is equally high in all states, thus disparities are less. Unlike primary sector, secondary sector gives a different trend rather an upward U-shaped pattern. Starting with quite high inequality, it declines slowly and again rises. Thus, disparities are more pronounced in the secondary sector. In tertiary sector, inequalities are comparatively lower than in secondary sector but higher as compared to the primary sector.

To see the relationship between regional dualism and social development, analysis has been carried out by taking some indicators of general well-being i.e. literacy rate, women enrolment at primary school level, infant mortality rate, persons per doctor and per capita electricity consumption. An attempt is made here to see the extent of spatial inequality among states in terms of these indicators. The overall trend exhibited by almost all these indicators is quite converging. The narrowing down trend in general may be explained by the fact that they are more affected and governed through the policies and programmes of government rather than the demand and supply factors. Trends presented by literacy rate and women enrolment at primary school level reflect that disparities have sharply been reduced in literacy rate and in the case of women enrolment. Similarly, the other ten indicators general level of health are analysed. Infant mortality rate has declined greatly in various states after 1980. It suggests an improvement of health states in general. On the other hand, the disparity trend based on number of persons per doctor is quite inconclusive i.e. initially increasing till 1970, then declining till 1980 and again taking an upward movement. Lastly, disparity curve for per capita electricity consumption has a consistently decreasing trend which reflects that over the last four decades electricity has been made available all over the country. Dhar and Shashtri (1969) also suggested reducing trend of inter-state inequalities in power consumption.

Discussion

The present study highlights the persistent problem of regional economic disparities within the broader process of national development, which has long been a central concern in the fields of Commerce, Economics,

and Development Studies. The findings indicate that regional imbalances in India are a structural outcome of unequal capital formation, differential industrial growth, and variations in productivity across states.

In the context of commerce and economic growth theory, the results conform partially to the Kuznets–Williamson hypothesis, which postulates an inverted U-shaped relationship between economic growth and inequality. In the initial phases of India’s development, industrial investment, infrastructure, and trade linkages were concentrated in a few regions with better market accessibility and institutional frameworks—such as Maharashtra, Gujarat, and Tamil Nadu. These regions became commercial growth poles, attracting higher private investment and skilled labour. Consequently, regional polarization occurred as lagging states remained primarily dependent on the primary sector and informal economic activities.

From a commercial and production structure perspective, the study also supports Hirschman’s theory of unbalanced growth, which argues that development proceeds through leading sectors that generate forward and backward linkages. In India, the tertiary and manufacturing sectors expanded rapidly after the liberalization of 1991, creating employment and income concentration in urban-industrial centers. However, the diffusion of these benefits to rural and backward areas has been slow due to weak supply chains, poor infrastructure, and low purchasing power.

The observed convergence in social and service indicators—such as literacy, women’s enrolment, and access to electricity—reflects the growing role of public expenditure and welfare-oriented planning. This supports Myrdal’s theory of cumulative causation in reverse form, where state-led investments in human capital and social welfare generate positive “spread effects” that help narrow disparities. Yet, in strictly commercial terms, regional markets in India remain unevenly integrated, with disparities in logistics, production costs, and trade infrastructure continuing to constrain balanced growth.

From a macro-economic commerce standpoint, the study underscores that balanced regional development requires effective fiscal decentralization, public–private partnerships (PPP), and regional industrial diversification. Policies such as the Make in India initiative, Industrial Corridor Development Programme, and Aspirational Districts Programme are steps toward improving competitiveness and trade capacity in less-developed regions. Nevertheless, the persistence of inter-state differences in per capita income and industrial productivity indicates that market mechanisms alone cannot ensure equity.

Overall, the findings reaffirm that commercial development and socio-economic equity are complementary, not conflicting, goals. Sustainable regional growth demands a synergy between state policy, private enterprise, and market efficiency, supported by strong infrastructure, equitable financial flows, and targeted incentives for backward areas. Only through such coordinated action can India move toward a truly integrated and inclusive national market that balances profitability with social justice.

Key findings

The findings highlight that regional balance cannot be achieved automatically through market mechanisms. Instead, it requires deliberate and sustained policy interventions aimed at promoting spatially inclusive growth. Key policy imperatives include:

- Strengthening the productive capacity of lagging regions through infrastructure investment and industrial diversification.
- Promoting human capital formation via education, skill development, and healthcare access.
- Encouraging decentralized governance and fiscal devolution to empower states and districts in resource allocation.
- Integrating regional planning with sustainability goals under frameworks like the Aspirational Districts Programme and SDG 10 (Reduced Inequalities).

Conclusion

To sum up, it can be said that most of the indicators in the study follow a narrowing down or converging trend of regional disparities. Apparently, this could happen because of increase in international development assistance and welfare-oriented planning in Third World Countries. This suggests that developing economies should not leave regional imbalances to so-called harmonious self-adjusting market forces in the process of economic development. Rather, they should evolve appropriate policy measures to reduce the disparities and not wait for the state of development where regional dualism will be eliminated automatically by market forces.

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