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# The Development of Composite Index for Inclusive Economic Growth: An Indian Perspective

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**ABSTRACT**

Shifts in development economics have triggered a policy debate on the economic relationship between growth, inequality and poverty. This paper reviews the paradigm shift in development economics towards inclusive growth relating to its quantitative operationalization in the Indian context. The paper develops a unique composite index for inclusive growth in the Indian context using inter-temporal and cross sectional data for the years 2001 and 2011. The robustness has been checked through an estimate of alternative versions of the model and an alternative aggregation scheme. The findings of the study demonstrate that Kerala, Tamil Nadu, Punjab, Karnataka and Maharashtra are the best performing states, wheras Uttar Pradesh, Bihar, Odisha, Madhya Pradesh and Assam are the worst performing states. The study makes a sincere attempt in advancing the debate on inclusive growth in the world in general, and in India in particular.

JEL Classification: D63; F43; M11; M12; O40, O47; O53.

Keywords: Inclusive Growth; Productive Employment; Poverty; Inequality; India.

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## 1. INTRODUCTION

The world has witnessed several shifts in development economics due to variations in economic growth and development rates, which has led many global researchers to formulate different growth strategies for many underdeveloped and developing economies, including India. The current shift from pro-poor growth to inclusive growth is dominating the contemporary economic discourse across the world. The collapse of the Washington Consensus (WC) terminated the debate on pro-poor growth and culminated in the drafting of the Millennium Development Goals (MDGs) by the United Nations (2000), which promised to reduce poverty to half by 2015. However, poverty and inequality continue to plague many countries including the fast-growing economies of India and China. Broad-based growth can enhance the accessibility of poor economies to the newly created economic opportunities and provide them with the opportunity to participate in the growth process, contrary to the concept of pro-poor growth which prioritizes the distribution of the benefits of growth to the poor. Economists refer to this - "alternate growth strategy" as inclusive growth.

Though there are few cross-country studies which compare the inclusive growth outcomes across different countries, there is little evidence of detailed investigation relating to one particular country. Furthermore, existing literature does not offer ways and means through which the inclusive growth outcome can be measured. This issue thus continues to remain unresolved. There is adequate literature evidence regarding the shift in development economics from pro-poor growth to inclusive growth particularly in developing countries such as India, China, Brazil and South Africa, which are currently the driving forces of global economic growth. However, there is lack of theory building in the conceptual framework of inclusive growth, which gives enough scope for detailed investigation. The evolution of inclusive growth debate in the last couple of decades has brought new challenges such as the inconclusive definition of the term inclusive growth, complexities in the identification of the key drivers of inclusive growth, lack of systematic approach for the construction of an inclusive growth framework, as well as a lack of measurement of inclusive growth.

1.1 The Background of the Study: The Evolution of the Development Economics

Development is a wide concept. It involves radical thinking which can bring forth socio-economic, political and cultural advancement. Thus, it is a synergy of many developmental objectives like promoting literacy, improving nutrition and health, increasing production and productivity, and promoting greater equality and other valued qualities. Thinkers in the field of development have used various terminologies such as models, approaches, theories and strategies for development. Smith (1776) believed in the doctrine of "natural law" in economic affairs and advocated the policy of laissez-faire. He supported free and independent actions which, he believed, bring out the best of an individual and help maximize social wealth and progress. He opposed any government intervention in industry and commerce. His successors, Ricardo (1817), Malthus (1798) and Mill (1848), followed in his footsteps. They regarded capital accumulation as the key to all economic progress and advocated a free market economic system, one that would be free from any governmental interference, to which they referred as a metaphorical “invisible hand.” Schumpeter's (1912) model of development underlined the importance of inflationary financing and innovations as the main factors in economic development. Schumpeter (1942) assigned the role of the innovator to the entrepreneur- not to the capitalist. Keynes (1931) regarded capitalism as a dynamic mechanism possessing greater resilience and adaptability. He traced the relationship between aggregate employment and income, given the propensity to consume. His predecessors, Harrod (1939) and Domar (1946), are also known to have shown interest in finding out the rate of income growth necessary for the efficient functioning of the economy.

Rostow (1962) explored the process of economic development through different stages. According to him, every country undergoes a different stage of economic growth. He identified five such distinguished stages - the traditional society, the pre-conditions for take-off, the take-off, the drive to maturity and the age of high mass-consumption in further advancing the debate on development. The Big Push theory is associated with the name of Rosenstein-Rodan (1943) who believed that big push investment is necessary to overcome the obstacles blocking the path to economic development of underdeveloped economies. The doctrine of balanced growth was put forward by Nurkse (1953) who argued that in order to attain economic growth, there is a need to make simultaneous investments in different sectors of the economy. These perspectives of development were severely criticized by Hirschman (1958) who advocated the doctrine of unbalanced growth. According to him, investment should be made in selected sectors rather than simultaneously in all the sectors. Lewis (1957) proposed a very systematic model of development with unlimited supplies of labor. He explained how capital formation takes place in underdeveloped countries where there is an abundance of labour but scarcity of capital. Lewis’ model (1957) is based on the assumption that a capitalist class exists in developing countries.

Myrdal (1968) built his theory of economic underdevelopment and development around the idea of regional inequalities on the national and international planes. He used the concepts of "backwash" and "spread effects" with the dominating role of the former and the weaker role of the latter. According to him, the strong backwash effects and the weak spread effects in underdeveloped countries constitute the primary cause of regional inequalities. Among the contemporary thinkers on development economics, Marx (1867) deserves special attention. Marx used "the theory of surplus value" which Hegel (1830) interpreted at a metaphysical level, and applied this theory to the field of economics. Marx also contributed to the theory of economic development by propounding an economic interpretation of history and specifying the motivating forces of capitalistic development as an alternative path to planned economic development. Of the classical Marxists, it was Lenin (1951) and Luxuemberg (1913) who laid special emphasis on the Third World countries. They considered that capitalism necessarily involved imperialism and militarism, which caused uneven development and a semi-starvation level of existence of the masses. The neo- Marxists and their thoughts have been particularly important with Dependency Theories including the "World System Theory". Modernization Theory implies a comparison between modern and traditional societies and political systems.

The endless process of industrialization, be it capitalist or socialist, is a clear example of modernization and a very important feature of development. It emphasizes and approves of the trend towards western capitalist modernity. In the aftermath of the Second World War, the theory of modernisation was embraced by the majority of policy makers across the world. The most common modernization model is dichotomous in that its proponents conceptualise change from one polar type to another with contrasting implications. Parsons (1951) worked out a scheme for the analysis of the behavior, comprising five pairs of "pattern variables" representing two polar typeson the one hand, values which are dominant in traditional society, and on the other hand, values which are dominant in modern society - gratification vs. disciplines dilemmas, private vs. collective interests, achievement vs. ascriptions, universalism vs. particularism, specificity vs. diffuseness. Another approach to development, popularly known as the Diffusion Approach, was put forward by Lerner (1964) who placed emphasis on the role of international cooperation and communication in national development, particularly for the underdeveloped countries of the Third World. He stressed upon the fact that development in Third World countries should proceed from within, with the help of up-to-date ideas and techniques diffused through international cooperation by improving human resources, creating new consciousness for a better future, energizing the dormant skills and creativity of the people and matching the "want-get" ratio. According to Lerner (1968), this should not necessarily be based in a "western" or "modernization" framework. Development may proceed in accordance with certain values which are basic to any national system. Dependency model is an integral part of underdevelopment theory emanating from a growing disagreement with economic strategies of development, especially in Latin America. According to World System Theorists, the world is divided into two or three main groups of nations - developed, underdeveloped and partially developed.

"Dependency Theory", "World System Theory" and "Under Development Theory" are more or less used in the same meaning, though they differ in scope. They were also found in the works of Lenin (1951), albeit in an undeveloped form. Underdevelopment theory arose as a reaction to classical Marxism, as well as from deeply held objections to modernization theory. Though there were differences of opinion among the economists of this school of thought, all of them agreed on the remedy to be applied to the problems brought about by the capitalist world system: a socialist model of development. This was considered as the only long-term satisfactory solution to all problems. Baran (1973) believed that a huge amount of exploitation prevailed in the capitalist system. He also referred to the concept of ideal society—socialist society—without exploitation and with a substantial economic surplus which could be fully used for the benefit of the majority of people. Frank (1969) argued that high capital outflow would pose grave economic repercussions for underdeveloped societies and discourage initiatives to invest in their own future. Critics of the "World System Theory" can be divided into Marxist critics and non-Marxist critics. Marxist critics of the World System Theory are Emmanuel (1972), Brenner (1977), Phillips (1977), Petras (1978) Laclau (1979) and Goodman and Redclift (1981). Among the Indians, Mahalanobis (1955) proposed a four sector econometric model as a basis for the formulation of India's draft framework of the Second Five Year Plan. This was essentially an allocation model based on the technique of operational research and planning, which was designed to make the most effective use of scarce resources to meet given ends.

As cited by Kumarappa (1951), Mahatma Gandhi, Vinoba Bhave, Dada Dharmadhikari and Jay Prakash Narayan etc. also laid great emphasis on "Sarvodaya" which means universal uplift or progress of all. The Sarvodaya model of development aims to develop every citizen without generating any class antagonism. In India, serious efforts were made to find answers to the basic problems of development which extended to a period of about four decades since independence, i.e., from 1950-51 to 1990-91. Each Five Year Plan was introduced with specific objectives such as population growth, economic growth, self-reliance, agricultural productivity, modernization of industries, socio-economic development, human development, sustainable development, technological change etc. The rest of the paper is organized as follows: Section II scans the existing literature and the multiple perspectives of inclusive growth; Section III outlines the methodology of this study; Section IV presents the results and discussion of this research; Section V explores robustness, and Section VI concludes the paper.

## 2. INCLUSIVE GROWTH AND MULTIPLE PERSPECTIVES: REVIEW OF LITERATURE

Development economists generally agree that growth and equity should go hand in hand in order to help promote growth with equity. Inclusiveness in the depiction of growth episodes can be traced back to the turn of this century when Kakwani and Pernia (2000) used the term pro-poor growth (PPG) to highlight the relationship between growth and equity. One of the main reasons for this was the fact that the vast literature on empirical tests of the relationship between income distribution and income per capita never found consummate validation of Kuznet's (1955) hypothesis. The challenge that such a scenario posed to the "trade-off" and "trickle-down" view of the relationship between growth and equity was reinforced with the Structural Adjustment Programmes (SAPs) in the 1980s and the early 1990s. Forbes (2000) challenged the general belief that income inequality has a negative relationship with economic growth and suggested that in the short and medium term, an increase in a country's income inequality would have a significant positive relationship with subsequent economic growth. According to him, this relationship was highly robust across samples, variable definitions and model specifications with one caveat that it might not apply to very poor countries.

This positive relationship can be weakened or even reversed in the long run. Forbes therefore warns that further careful reassessment of the sign, direction and strength of the linkages between inequality and growth is necessary.

The Pre-Washington Consensus (PWC)

This period refers to the late 1960s and the 1970s when the developing countries considered the Soviet and Chinese model of development as an alternative to modernization. The advocates of this development strategy argued for government intervention through large public investment in the key sectors. Lack of capital was perceived as the biggest impediment to development during this period. Rostow's (1962) five stages of economic growth argued for government coordination through public investment. A Big-Push approach was advocated by Rosenstein-Rodan (1943) to achieve economic growth, increased employment opportunities, macro- economic stability and a sustainable balance of payment for reduction of poverty through trickle down process. The main reason why poor countries continue to remain poor is lack of capital, which includes machinery, infrastructure, and money. Under these circumstances, development was considered as a process of systematic transformation through modernisation and industrialisation (Filho, 2010).

The Washington Consensus (WC)

This period emerged in the late 1970s and early 1980s. This was a period when economists viewed market openness as a solution to the problems created by unnecessary state-intervention in the development process. In economic literature, this period of consensus was popularly called the Washington Consensus (WC). Proponents of the WC strongly argued that the state was inefficient and that therefore, it had to be replaced by an efficient market. This period laid down the foundation for a strong commitment to the free-market and the presumption of government intervention as both inefficient and corrupt, not least through rent-seeking (Krueger, 1974). This was in fact a questioning of the misguided policies of the state. The WC strongly advocated globalization in developing countries and encouraged World Bank and International Monetary Fund to enforce reforms through structural adjustments and conditionalities imposed on poor countries facing balance of payment disequilibrium (Filho, 2010).

Sustainable Development

The idea of sustainable development was introduced by the Brundtland Commission (1987) and popularised by the World Bank and the United Nations Environment Programme. It brought an environmental dimension to development thinking on international and national strategies for growth and development. Sustainable development has been defined in many ways, but among the multiple definitions, the most ideal one has been put forward by the World Commission (1987) - sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. From this standpoint, it can be stated that sustainable development is an "environmentally responsible" and "environmentally-friendly" development that sets out short term and long term objectives for present and future considerations. Meadows et al. (1972) outlined the limits to growth in a report for the Club of Rome's projects on the predicament of mankind. Their study concluded that if the present growth trends in world population, industrialization, pollution, food production and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next one hundred years and the most probable result will be the sudden and uncontrollable decline in both population and industrial capacity. It is possible to alter these growth trends and to establish a condition of ecological and economic stability that is sustainable far into the future. The state of global equilibrium could be designed in such a way that the basic material needs of each person on earth are satisfied and each person has an equal opportunity to realize his or her individual human potential. If the world's people decide to strive for the second outcome rather than the first, the sooner they begin working to attain it, the greater will be their chances of success (Meadows et al., 1972).

Human Development

The human cost of structural adjustment programmes in the 1980s undertaken in many developing countries under the directions of the World Bank and the IMF had been extremely harsh. These programmes prompted questions about the human face of adjustment and about whether alternative policy options were available to balance financial budgets while protecting the interests of the weakest and most vulnerable sections of the society. The negative externalities of fast economic growth reminded policy makers about the diseconomies of conventional economic growth models. At this point of time, Mahbub Ul Haq (1995) presented the idea of preparing an annual human development report to the UNDP. Thus came the first Human Development Report in May, 1990. In the year 1990, UNDP published its first Human Development Report, with its newly devised Human Development Index (HDI). The main reason for this paradigm shift to human development can be attributed to the wrong picture given by income based measurement of national progress. Economists agree that income cannot be the sole determinant of national progress, though it is undoubtedly a highly influential factor. The first HDR published in London on 24th May 1990 addressed some of these issues and explored the relationship between economic growth and human development. Along with per capita income, it also considered the factors of health and education in the ranking of countries. It was a path-breaking moment in development economics since it challenged the conventional wisdom and reached some important policy conclusions that have redefined development economics. The human development approach has profoundly influenced all policy makers across the world.

The Post-Washington Consensus (Post-WC)

Mostly, this period refers to the 1990s. Following the so-called miracle of economic success in East Asia, WC policies came under the careful scrutiny of the World Bank. The appointment of Joseph Stiglitz, one of the main proponents of new institutional economies, as the Chief Economist of the World Bank promoted post-WC policies. During this period, there was a shift from the virtues of the market to the issues of institutional settings of economic activity, the significance of market imperfections, the potential outcome of diffusion or changes in institutions, social inclusion and distribution of property rights, work pattern, urbanization and family structures. While WC was getting the prices right, the post-WC was getting the institutions right (Filho, 2010).

The Pro-Poor Growth (PPG)

The mainstream was compelled to admit that poverty had to be addressed directly through a dedicated set of socio-economic policy tools. The focus on policy reform rather than on growth at any cost contributed to downplaying the trade-off and trickle-down view (Kanbur, 2000). There are two compelling definitions of pro-poor growth (PPG) which are commonly found in the literature. For Kakwani and Pernia (2000), pro-poor growth (PPG) is defined by the increase in the income share of the poor. Therefore, in pro-poor growth (PPG), the income of the poor grows faster than that of the non-poor, which means that poverty falls faster than it would if all the incomes grew at the same rate. In contrast, Ravallion (2004) focused on the absolute improvement of the living standards of the poor, regardless of changes in inequality. Typically, Ravallion (2004) stressed the pro-poor implications of growth. While Kakwani and Pernia rejected Ravallion's definition of pro-poor growth (PPG) because it is too elastic and can potentially include most growth processes in history, Ravallion criticized Kakwani and Pernia for the alleged inconsistency of their definition of pro-poor growth (PPG). Three potential sources of pro-poor growth (PPG) were identified by Kraay (2004) - a high rate of growth of average income, a high sensitivity of poverty to growth in average income and a poverty reducing pattern of growth in relative incomes. According to Kraay (2004), 66% - 90% of the variation in poverty can be accounted for by the growth in average income, the remainder being due to the changes in relative income.

If pro-poor growth (PPG) is defined as growth that promotes equity, then equity dominates the socio-economic policies framed by the governments and only those policies that directly promote equity are pro-poor. On the other hand, if pro-poor growth (PPG) is defined as growth that improves the absolute standard of living of the poor people, then any anti-poverty policy is pro-poor. In such cases, equity remains solely as a tool which may be used to enhance the poverty alleviating impact of a given set of economic policies. Poverty reduction comes primarily from faster economic growth rather than from poverty eradication policies (Filho, 2010).

Millennium Development Goals (MDGs)

In September 2000, leaders of 189 countries met at the United Nations in New York and endorsed the most significant policy initiation - Millennium Declaration, a commitment to work together to build a safer, more prosperous and equitable world. The Declaration was translated into a roadmap setting out eight time-bound and measurable goals to be reached by the year 2015, known as the Millennium Development Goals - MDGs (United Nations, 2000). This vision has remained as an overarching development framework of world countries for the past 15 years.

Inclusive Growth

The debates and discourses on inclusive growth gained momentum in the early 2000s with development thinkers such as Kakwani and Pernia (2000), Prahlad (2004), Ali (2007), Ali and Son (2007) exploring alternative development strategies to pro-poor growth (PPG) in development economies. They profoundly argued that pro-poor growth is not sufficient to face the challenges posed by the fast growth of global economies such as continuing poverty, wide-spread inequalities, and unemployment. They argued that policy makers should not only focus on sharing the benefits of growth to the poor, but should also make the poor an integral part of the growth process and ensure equal access to economic opportunities for all parties involved, particularly the poor. United Nations Development Programme (UNDP) has set up an exclusive centre - International Policy Centre for Inclusive Growth (IPC-IG). It is a global forum for South-South dialogue on exploring innovative development policies guided by a partnership agreement between United Nations Development Programme and the Government of Brazil. Its mandate is to promote the production and dissemination of research studies and policy recommendations. It also facilitates the exchange of these practices in development initiatives and the expansion of South-South cooperation. The IPC-IG has both international and national partners which carry out its activities, either by specific agreements or by joint collaboration. Ravallion and Chen (1997) studied the changes in the distribution of the gains from growth by analysing the relationship between poverty and inequality. The distributional changes can be considered as pro-poor if the redistribution is poverty reducing in character (Ravallion, 2004).

The World Bank (2006) stated that inclusive growth can be achieved by focusing on expanding the regional scope of economic growth, enhancing access to assets and thriving markets and establishing equity in opportunities for the next generation of citizens, no matter who they are or where they live. According to Ali (2007), the key elements in inclusive growth are employment and productivity, development in human capabilities, social safety nets and the targeted intervention process. Inclusiveness of economic growth is gross domestic product growth that leads to significant poverty reduction. Ali and Son (2007) define inclusive growth as the growth process that increases the social opportunity function which depends on the average opportunities available to the population and the way these opportunities are shared among the population, particularly among the poor. The concept of productive employment as a fundamental element in inclusive growth was stressed by Bhalla (2007) who considered productivity growth of existing firms as an integral factor for inclusive growth. To assess the inclusiveness of growth, he proposed combined measures of productive employment and productivity growth in lower income employment. According to Ali and Zhuang (2007), an effective inclusive growth strategy should incorporate the twin objectives of sustainable growth—to create productive and decent employment opportunities—and social inclusion—to ensure equal access to opportunities by all. Within this framework, growth can be accelerated through market integration, and exploring the potential market integration as a powerful source of growth is an essential factor in this respect.

Ianchavichina and Lundistoram, (2009) stated that inclusive growth can be achieved by focusing on expanding the regional scope of economic growth, enhancing access to assets and thriving markets, and establishing equity in opportunities for the next generations. Inclusive growth is about raising the pace of growth and enlarging the size of economy while leveling the playing field for investment and increasing productive employment. Ianchavichina and Lundistoram developed an analytical framework in line with HRV1 Growth Diagnostic Approach. Klasen (2010) pointed out that inclusive growth is a strategic pillar for guiding the policies of Asian Development Bank in its operational strategy. According to McKinley (2010), inclusive growth entails achieving sustainable growth that will create and expand economic opportunities and ensure broader access to these opportunities so that members of the society can participate in and benefit from growth. In reviewing the ADB literature, Rauniyar and Kanbur (2010a) pointed out that while there is no common definition for inclusive growth or inclusive development, the term is understood to refer to growth coupled with equal opportunities, which consists of economic, social and institutional dimensions. They further pointed out that inclusive growth is accompanied by lower income inequality so that the increment of income accrues disproportionately to those with lower incomes (Rauniyar and Kanbur, 2010b).

Asian Development Bank Framework for Inclusive Growth (Asian Development Bank, 2011) advocates three pillars for fostering inclusive growth - expansion of economic opportunity, achievement of social inclusion to promote equal access to opportunities and establishment of social safety nets supported by good governance and strong institutions. Asian Development Bank (ADB, 2011) defines inclusive growth as economic growth that results in a wider access to sustainable socio-economic opportunities for a broader number of people, regions or countries while protecting the vulnerable, all being done in an environment of fairness, equal justice, and political plurality. Within the inclusive framework, the relationship between informality and growth is particularly relevant (Heintz, 2012). Inclusiveness of growth refers to the growth elasticity of poverty in the sense that poverty reduction is the overall objective of any policy debate over a period of time (Hann and Thorat, 2013). It depends on two factors: (a) income growth and (b) income distribution. Macro-economic stability, human capital and structural changes are found to be the key determinants of inclusive growth (Anand et al., 2013). Hausmann, Rodrik and Velasco (2005) developed a comprehensive analytical framework for growth diagnostics, which is a strategy for figuring out the policy priorities by identifying the binding constraints to economic growth that may vary from country to country. The study found that a unified policy framework for different countries with different business environments may not be operationalised. Increasing economic growth is the central challenge for developing nations and, therefore, reform strategies should be targeted at raising growth rates. There cannot be an identical growth strategy for different countries with different business environments. Hence, it is not in any sense helpful to provide governments with a long list of reforms, many of which may not be targeted at the most binding constraints on economic growth. Ramos et al. (2013) studied the inclusive growth analysis by dividing it into two dimensions - benefit sharing through analysis of income inequality and poverty reduction and participants through employment indicators. The study constructed an exclusive Composite Inclusive Index (CII) for cross-national comparisons utilizing the indicators of poverty and inequality to study the aspects of benefits sharing, and the factor of employment to study the aspect of participation. Fiscal consolidation is very important to ensure inclusive growth. Governments can design their spending programmes and tax revenue sources in ways that reduce inequality. They can also calibrate their spending programmes or revenue sources to promote inclusive growth. (Asian Development Bank, 2014a). The Nordic Model which features extensive fiscal interventions in Labour markets while also allowing for strong labour unions combines both economic dimensions with comprehensive social protection. The Nordic model countries like Belgium, Denmark, Finland, Netherland and Sweden adopted a high level of spending and a mix of taxes (Asian Development Bank, 2014b).

Another factor that worries researchers across the world is the nexus between informality, employment and economic growth. Informality may constrain inclusive growth by impacting growth and jobs in the formal sector. Informal employment, however, promotes inclusive growth by acting as a buffer to unemployment and by creating opportunities for a wide segment of the population, and in particular, the vulnerable sections of the society (Fedesarrollo, 2015). Sammans et al. (2015) constructed an actionable framework incorporating seven pillars for fostering inclusive growth - education and skill development, employment and labor compensation, Asset Building and entrepreneurship, financial intermediation of real economy investment, corruptions and rents, basic services and infrastructure and fiscal transfers. Shearer et al. (2016) constructed a unique "Metro Monitor" for tracking growth, prosperity and inclusion across 100 largest metropolitan areas in the U.S.A. The study considered changes in the median wage, changes in the relative income poverty and changes in employment rate to assess the inclusive growth outcome of these metropolitan areas. Beatty et al. (2016) focused on the impact of inclusive growth in the UK and found that inclusion can be measured by using the dimensions of income, living cost and labor market exclusion. Similarly, prosperity can be measured by using the dimensions of output growth, employment, and human capital. The study concluded that an inclusive growth monitor can be used to reflect broad policy implications for spatial policy, and policymakers clearly need to address how the benefits of the growth process might be shared more equitably. This explains why many governments across the world have devised fiscal stimulus packages to bail out their sinking economies.

## 3. METHODOLOGY

Organization for Economic Cooperation and Development (OECD) Guidelines for Composite Index Construction The composite index which compares economic performance is gaining increasing recognition as a useful tool in policy analysis. The composite index for inclusive growth in the Indian context has adhered to the steps of Handbook on Constructing Composite Indictors: Methodology and User Guide (Organization for Economic Cooperation and Development, 2008).

### 3.1 Building Inclusive Growth Conceptual Framework

A conceptual model of inclusive growth analytical framework has been constructed incorporating different determinants of inclusive growth as given in the following table. The multiple perspectives of inclusive growth need to be explored. This research proposes the following conceptual framework which incorporates the multiple perspectives of inclusive growth.

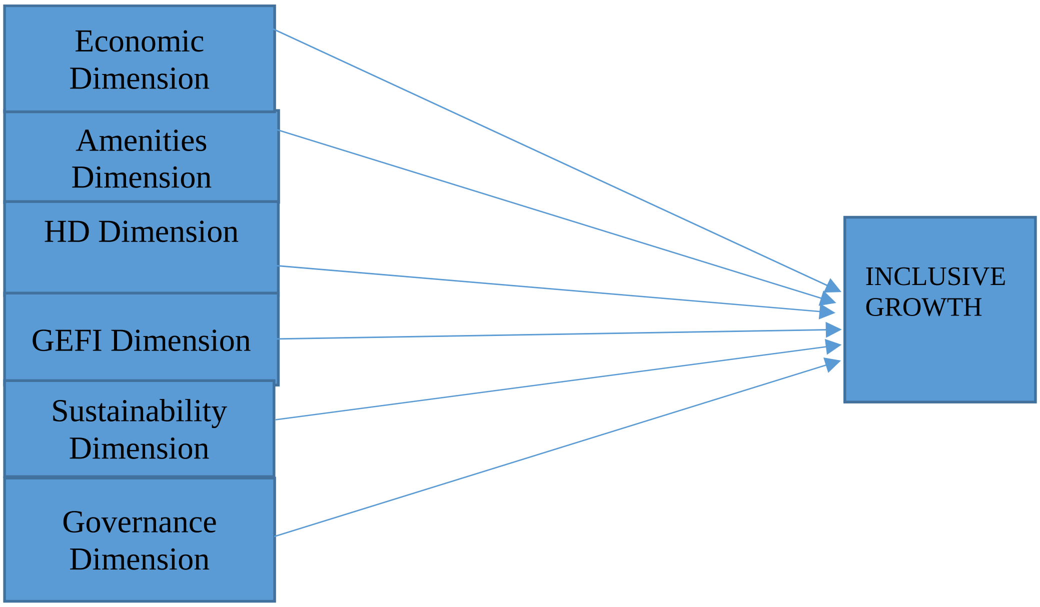


**Figure 1.**
**Conceptual Framework for Inclusive Growth**

3.2 Identification of Indian states

The study identifies 15 major Indian states based on the following three criteria.

**Table 1. Criteria for Identifying Major Indian States**

| States | Share of Population to India (%) | Geographical Area (lac sq.km.) | Share of SDP to India's GDP (%) |
|---|---|---|---|
| AP | 7.00 | 2.75 | 7.65 |
| Assam | 2.58 | 0.78 | 1.61 |
| Bihar | 8.68 | 0.94 | 2.89 |
| Gujarat | 4.99 | 1.96 | 6.84 |
| Haryana | 2.09 | 0.44 | 3.70 |
| Karnataka | 5.05 | 1.92 | 5.49 |
| Kerala | 2.76 | 0.38 | 3.85 |
| MP | 6.00 | 3.08 | 3.48 |
| Maharashtra | 9.29 | 3.08 | 14.04 |
| Odisha | 3.47 | 1.56 | 2.71 |
| Punjab | 2.29 | 0.50 | 3.36 |
| Rajasthan | 5.67 | 3.42 | 4.09 |
| Tamil Nadu | 5.96 | 1.36 | 6.88 |
| UP | 16.49 | 2.41 | 8.35 |
| WB | 7.55 | 0.89 | 7.18 |
| | **89.77** | **25.47** | **82.12** |

AP: Andhra Pradesh MP: Madhya Pradesh UP: Uttar Pradesh WB: West Bengal
Source: Census (2011)

We can see from Table 1 that the chosen states for this study constitute 77% of India's geographical area, 89.77% of India's population and 82.12% of India's Gross Domestic Product (GDP). Further city based urbanized states like Delhi and the newly created states like Uttarakhand, Jharkhand and Chhattisgarh are not considered due to non-availability of data. This study presents a comparative performance of these states and discusses the shift in rank from the year 2001 to the year 2011.

Selection of Indicators: Table 2 shows the list of indicators selected against each dimension of inclusive growth for this study.

**Table 2. Selection of Indicators and Data Source**

| Indicators | Dimension | 2001-02 | 2011-12 |
|---|---|---|---|
| Income – MPCE | **Economic** | 2004-05 – NSSO 60th Round | NSSO 68th Round July 2011 to June 2012 |
| Poverty | | Planning Commission 2004-05 | Planning Commission 2011-12 |
| Employment | | Census 2001 | NSSO – 68th Round |
| Inequalities(Gini Coefficient) | | Planning commission(2014b) | Planning Commission(2014b) |
| Per Capita consumption Of Electricity | **Amenities** | Central Electricity Authority, Ministry of Power, GoI | Central Electricity Authority, Ministry of Power, GoI |
| Access to Drinking Water | | Census-2001 | Census-2011 |
| Access to Toilet | | Census-2001 | Census-2011 |
| Pucca Houses | | Census-2001 | Census-2011 |
| Transport – Road Length per 100 Sq.km. | | Economic Survey of Maharashtra – 2005-06 | Economic Survey of Maharashtra – 2012-13 |
| % of women in LWF | **Gender Equity and Financial Inclusion** | Census-2001 | Census-2011 |
| % of Girls in School Ed | | Census-2001 | Census 2011 |
| % of HH with banking | | Census-2001 | Census-2011 |
| Literacy Rate | **Human Development** | Census-2001 | Census-2011 |
| Life Expectancy | | Census-2001 | Census-2011 |
| Health – IMR | | SRS Bulletin 2005-06 Home Ministry, GoI. | SRS Bulletin Oct.2012 Home Ministry, GoI. |
| % of Development Expenditure to Total Expenditure | **Governance** | Finance Accounts of States and CSO | Finance Accounts of States and CSO |
| % of Tax Revenue to GSDP | | Finance Accounts of States and CSO | Finance Accounts of States and CSO |
| Crime Rate | **Sustainability** | National Crime Records Bureau, Home Ministry, GoI-Report-2001 | National Crime Records Bureau, Home Ministry, GoI-Report-2011 |
| Air Quality | | Institute for Financial Management & Research-IFMR | Institute for Financial Management & Research-IFMR |

3.3 The Weightage Scheme

The weightage scheme was done using the statistical tool of Principal Component Analysis (PCA), and the SPSS 19 version software which was given to the researcher during a workshop conducted by Indian Council for Social Science Research (ICSSR), in New Delhi, India.

### 3.4 The Normalization Procedure and Aggregation Method

The raw data obtained for different socio-economic variables is normalised through Z-score before the component index is prepared by multiplying the Z-score with the weight of the concerned indicator. Linear aggregation method is used for the construction of the Composite Index for Inclusive Growth.

### 3.5 Robustness Checking

This study has implemented four different means to check the robustness of the composite index for inclusive growth: (1) the use of equal weightage scheme instead of Principal Component Analysis (PCA), (2) the use of "Average of Average" method of aggregation instead of simple linear aggregation, (3)the correlation of the findings of a composite index for inclusive growth with that of Underdevelopment/Need Index which was developed by Raghuram G Rajan (Government of India, 2013), and (4) the comparison of the findings of composite index for inclusive growth with other development indices in the Indian context.

**Table 3. Weightage as per Principal Component Analysis**

| Indicators | Dimension | 2001 | 2011 |
|---|---|---|---|
| Income – MPCE | Economics | 0.02 | **0.15** |
| Poverty | | 0.34 | **0.24** |
| Employment | | 0.21 | **0.20** |
| Gini – Rural | | 0.22 | **0.20** |
| Gini – Urban | | 0.21 | **0.21** |
| | Total | 100% | **100%** |
| Per Capita consumption Of Electricity | Amenities | 0.10 | **0.20** |
| Access to Drinking Water | | 0.20 | **0.21** |
| Access to Toilet | | 0.03 | **0.20** |
| Pucca Houses | | 0.46 | **0.21** |
| Transport – Road Length per 100 Sq.km. | | 0.21 | **0.18** |
| | Total | 100% | **100%** |
| % of women in LWF | Gender Equity and Financial Inclusion | 0.33 | **0.33** |
| % of Girls in School Ed | | 0.33 | **0.33** |
| % of HH with access to banking | | 0.33 | **0.33** |
| | Total | 100% | **100%** |
| Literacy Rate | Human Development | 0.37 | **0.36** |
| Life Expectancy | | 0.55 | **0.32** |
| Health – IMR | | 0.08 | **0.32** |
| | Total | 100% | **100%** |
| % of Development Exp. to Total Exp. | Governance | 0.50 | **0.50** |
| % of Tax Revenue to GSDP | | 0.50 | **0.50** |
| | Total | 100% | **100%** |
| Crime Rate | Sustainability | 0.50 | **0.50** |
| Air Quality | | 0.50 | **0.50** |
| | Total | 100% | **100%** |

## 4. RESULTS AND DISCUSSION

Actual data was converted into z-score for each indicator which was then multiplied by the concerned weight to obtain the value of each indicator. Then, the index value of all the indicators was aggregated to get the index of each dimension and the sum of scores of all the dimensions was taken as the composite score for a state. This study has developed the composite inclusive growth index for 15 major Indian states both for 2001 as well as 2011. This is a unique measure of inclusive growth developed perhaps for the first time in India using inter-temporal study for comparing the inclusive growth outcomes of major Indian states for two different time periods- - 2001 and 2011. It is clear that while Kerala retained the first rank, Tamil Nadu has made tremendous progress and moved from the 7th rank in 2001 to the 2nd rank in 2011. Maharashtra also moved from the 8th rank in 2001 to the 4th rank in 2011. The state of Haryana moved back from the 3rd rank in 2001 to the 8th rank in 2011. UP, Bihar, and Odisha continue to be the worst performing states. They have inherited a very poor ranking in the composite index for inclusive growth in 2001. These states are also listed among the poor performing states in the human development dimension. They invested very little in strengthening education, health, employment and poverty reduction programmes.

**Table 4. Composite Index for Inclusive Growth, 2001**

| States | Economic Dimension | | Amenities Dimension | | Human Development Dimension | | **GEFI Dimension | | Governance Dimension | | Sustainability Dimension | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Index | *R | Index | R | Index | R | Index | R | Index | **R** | Index | R | *****CI-IG** | **R** |
| AP | 1.07 | **1** | 0.01 | **8** | -0.22 | **9** | 0.11 | **8** | 0.78 | **4** | -0.20 | **7** | 1.55 | **6** |
| Assam | 0.19 | **6** | -1.26 | **14** | -0.81 | **12** | -0.63 | **12** | -0.54 | **10** | 1.12 | **1** | -1.94 | **10** |
| Bihar | -0.34 | **12** | -0.49 | **10** | -1.07 | **15** | -0.58 | **11** | -1.46 | **15** | -0.41 | **12** | -4.35 | **14** |
| Gujarat | 0.31 | **5** | 0.4 | **4** | 0.08 | **8** | 0.18 | **6** | 1.10 | **2** | -0.39 | **11** | 1.69 | **5** |
| Haryana | 0.44 | **3** | 0.44 | **3** | 0.29 | **5** | 0.4 | **5** | 0.95 | **3** | 0.38 | **4** | 2.89 | **3** |
| Karnataka | 0.31 | **5** | 0.12 | **6** | 0.15 | **7** | 0.53 | **3** | 1.30 | **1** | -0.22 | **8** | 2.18 | **4** |
| Kerala | -0.51 | **11** | 0.52 | **2** | 2.48 | **1** | 0.54 | **2** | 0.04 | **8** | 0.15 | **5** | 3.23 | **1** |
| MP | -0.30 | **7** | -0.62 | **12** | -0.93 | **13** | -0.13 | **10** | 0.18 | **7** | -0.37 | **10** | -2.17 | **11** |
| Maharashtra | -0.47 | **10** | 0.2 | **5** | 0.78 | **3** | 1.08 | **1** | 0.26 | **6** | -0.50 | **13** | 1.35 | **8** |
| Odisha | -0.43 | **9** | -0.83 | **13** | -0.76 | **11** | -0.67 | **14** | -0.76 | **12** | 0.76 | **2** | -2.69 | **13** |
| Punjab | 0.91 | **2** | 1.42 | **1** | 0.79 | **2** | 0.15 | **7** | -0.92 | **13** | 0.58 | **3** | 2.93 | **2** |
| Rajasthan | 0.43 | **4** | -0.01 | **9** | -0.54 | **10** | 0.05 | **9** | -0.03 | **9** | -0.59 | **14** | -0.69 | **9** |
| Tamil Nadu | -0.51 | **11** | 0.4 | **4** | 0.53 | **4** | 0.41 | **4** | 0.70 | **5** | -0.07 | **6** | 1.46 | **7** |
| UP | -0.79 | **13** | 0.02 | **7** | -0.94 | **14** | -0.83 | **15** | -0.71 | **11** | -1.09 | **15** | -4.34 | **14** |
| WB | -0.32 | **8** | -0.3 | **10** | 0.17 | **6** | -0.63 | **12** | -0.92 | **14** | -0.25 | **9** | -2.25 | **12** |

*R: Rank **GEFI: Gender Equity and Financial Inclusion ***CI-IG: Composite Index for Inclusive Growth

Furthermore, these states fall under the category of BIMARU states and policy makers were not able to identify the state- specific problems for the right kind of policy intervention in the development process. This is contrary to the states of Kerala, Tamil Nadu, Punjab Maharashtra and Karnataka, where policy makers were able to identify the barriers and implement appropriate policies accordingly. In the year 2001, the states of Kerala and Punjab emerged as the leading states in human development dimension, which helped them to be the leading states in the composite index for inclusive growth as well. In the year 2011, the top four states in human development—Kerala, Maharashtra, Tamil Nadu and Punjab—also proved to be the best performing states in the composite index for inclusive growth for the year 2011. This further demonstrates that those states which perform better in the human development dimension are the best performing states in inclusive growth as well. These findings have exposed the much hyped Gujarat model of development in India. Gujarat ranked as the 5th best in the year 2001 in the composite index for inclusive growth, but moved backward to the 7th rank in the year 2011. The state moved backward in the governance area of inclusive growth from the 2nd rank in the year 2001 to the 5th rank in the year 2011.

## 5. ROBUSTNESS

This study has checked the robustness of the composite index for inclusive growth by resorting to the following three different means: (1) By using the Equal Weightage Scheme instead of Principal Component Analysis (PCA), (2) by implementing the alternate aggregation method of Average of Average instead of the Simple Linear Aggregation method, and (3) by correlating the composite index for inclusive growth with Underdevelopment/Need index developed by Raghuram G Rajan (Government of India, 2013), and comparing the outcome of composite index for inclusive growth with that of other development indices in the Indian context.

Equal Weightage Scheme

The composite index for inclusive growth 2001 using PCA and equal weight was put to correlation analysis and the results obtained show that there is a high correlation rate of 0.99 for the year 2011.

**Table 5. Composite Index for Inclusive Growth, 2011**

| States | Economic Dimension | | Amenities Dimension | | Human Development Dimension | | **GEFI Dimension | | Governance Dimension | | Sustainability Dimension | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Index | *R | Index | R | Index | R | Index | R | Index | R | Index | R | *****CI-IG** | **R** |
| AP | 0.89 | **1** | 0.32 | **4** | -0.57 | **12** | 0.35 | **5** | 0.68 | **3** | -0.22 | **7** | **1.45** | **6** |
| Assam | -0.14 | **9** | -0.58 | **13** | -0.77 | **13** | -0.99 | **15** | -0.47 | **11** | 0.65 | **3** | **-2.30** | **12** |
| Bihar | 0.14 | **7** | -0.61 | **14** | -0.77 | **13** | -0.58 | **13** | -0.60 | **13** | -0.36 | **9** | **-2.77** | **13** |
| Gujarat | 0.37 | **2** | 0.42 | **3** | 0.11 | **6** | -0.08 | **8** | 0.40 | **5** | -0.26 | **8** | **0.96** | **7** |
| Haryana | -0.08 | **8** | 0.68 | **2** | -0.03 | **8** | -0.2 | **10** | 0.30 | **6** | 0.17 | **4** | **0.84** | **8** |
| Karnataka | -0.50 | **14** | 0.03 | **8** | 0.05 | **7** | 0.49 | **4** | 1.55 | **1** | -0.16 | **6** | **1.47** | **5** |
| Kerala | -0.08 | **8** | 0.24 | **5** | 2.63 | **1** | 0.88 | **2** | -0.48 | **12** | 0.12 | **5** | **3.31** | **1** |
| MP | -0.40 | **12** | -0.49 | **11** | -0.87 | **11** | 0.14 | **6** | 0.71 | **2** | -0.46 | **10** | **-1.38** | **10** |
| Maharashtra | 0.09 | **6** | 0.15 | **6** | 0.88 | **2** | 0.68 | **3** | 0.26 | **7** | -0.55 | **12** | **1.51** | **4** |
| Odisha | -0.39 | **11** | -0.59 | **12** | -0.66 | **10** | -0.6 | **14** | -0.03 | **8** | 0.72 | **2** | **-1.56** | **11** |
| Punjab | 0.27 | **4** | 1.04 | **1** | 0.39 | **4** | 0.05 | **7** | -1.05 | **14** | 0.81 | **1** | **1.51** | **3** |
| Rajasthan | 0.26 | **5** | -0.3 | **10** | -0.61 | **9** | -0.09 | **9** | -0.09 | **9** | -0.46 | **10** | **-1.28** | **9** |
| Tamil Nadu | 0.33 | **3** | 0.14 | **7** | 0.76 | **3** | 1.03 | **1** | 0.48 | **4** | -0.22 | **7** | **2.51** | **2** |
| UP | -0.44 | **13** | -0.16 | **9** | -0.87 | **11** | -0.49 | **12** | -0.21 | **10** | -0.88 | **13** | **-3.06** | **14** |
| WB | -0.36 | **10** | -0.3 | **10** | 0.34 | **5** | -0.47 | **11** | -1.44 | **15** | -0.54 | **11** | **-2.77** | **13** |

*R: Rank **GEFI: Gender Equity and Financial Inclusion ***CI-IG: Composite Index for Inclusive Growth AP: Andhra Pradesh MP: Madhya Pradesh UP: Uttar Pradesh WB: West Bengal

### 5.1 Average

This study has also checked the robustness of the composite index for inclusive growth by resorting to an alternate aggregation method i.e. by using the average of average method instead of the linear aggregation method. Under average of average, we computed the summation of all the scores of a particular dimension, which was then divided by the number of variables considered in that particular dimension. For example, in the case of economic dimension, there were 5 indicators which meant the aggregate index score for economic dimension was divided by 5. This was done for all the six dimensions. Finally, the composite score was achieved by the summation of all dimension scores, which was then divided by 6 (since there are six different dimensions). The results show that there is a strong correlation coefficient of 0.93 for the year 2001 and 0.94 for the year 2011, which demonstrates the robustness of our study.

5.2 Correlation with Underdevelopment/Need Index

This composite index for inclusive growth is also correlated with the underdevelopment/need Index of the Government of India (2013), which was constructed under the chairmanship of Raghuram G Rajan, Ministry of Finance, Government of India for the purpose of identifying the criteria for allocation of funds from the Centre to the states based on the states' development needs, as well as their development performance. The composite index for inclusive growth is strongly and negatively correlated with the Underdevelopment/Need Index with a spearman's rank correlation coefficient of -0.84. It is important to note here that a higher value of underdevelopment/need index indicates a greater underdevelopment rate, contrary to the composite index for inclusive growth where a higher value denotes a greater development rate. This further confirms the robustness of the composite index for inclusive growth that has been developed in this study.

5.3 Correlation with Other Major Development Indices in the Indian Context

The findings of the composite index for inclusive growth have been validated with the findings of other major studies conducted by the Government of India and other important research agencies. The best performing Indian states in the composite index for inclusive growth also rank among the best performing states in other performance indices such as human development index (Government of India, 2011), underdevelopment/need index (Government of India, 2013), Economic Freedom of states of India (Debroy et al., 2013), Policy Effectiveness Index (Malhotra, 2014) and Governance Performance Index (Mundle et al., 2016) Similarly, the worst performing Indian states in the composite index for inclusive growth also rank among the worst performing states in other performance indices. This study was carried out to identify the best performing states as well as the worst performing states and to check the robustness of the composite index for inclusive growth in the Indian context. The results are given in the following tables.

**Table 6. Best Performing Indian States**

| Underdevelopment Index (GoI, 2013a) | Economic Freedom of States of India (Debroy et al.,2013) | Policy Effectiveness Index – India Public Policy (Malhotra,2014) | Governance Performance Index (Mundle et al., 2016) | India Human Development Report (2011b) | Composite Index for Inclusive Growth** |
|---|---|---|---|---|---|
| Kerala | Gujarat | Punjab | Gujarat | Delhi* | Kerala |
| Tamil Nadu | Tamil Nadu | HP* | Tamil Nadu | Kerala | Tamil Nadu |
| Punjab | AP | Karnataka | AP | Goa* | Punjab |
| Maharashtra | Haryana | Haryana | Kerala | HP* | Maharashtra |
| Karnataka | HP* | Maharashtra | Punjab | Punjab | Karnataka |
| Gujarat | MP | Tamil Nadu | Karnataka | Maharashtra | AP |

From the above table, it is clear that the best performing states as identified by this study in the composite index for inclusive growth are also listed among the best performing states under the rankings of other major studies in Indian context, particularly the Underdevelopment/Need Index developed by the Government of India (2013). The state of Kerala has implemented kudumbasery2 programme which has ensured women empowerment, social inclusion and financial inclusion, whereas the state of Tamil Nadu has outperformed other states in the better implementation of Mahatma Gandhi National Rural Employment Guarantee Act, 2005 -MGNREGA3, which is also reflected by the underdevelopment index (Government of India, 2013), Governance performance index (Mundle et al., 2016) and India human development report (Government of India, 2011). The state of Punjab and Maharashtra which have ranked among the most performing states in this study have also been revealed to achieve the same performance level by other studies such as underdevelopment index (Government of India, 2013a), Policy Effectiveness Index (Malhotra, 2014) and India human development report (Government of India, 2013). The state of Gujarat could not secure itself a place among the best performing group of states in this study, though the state has ranked in the best performing group of states as per the Economic Freedom of States of India (Debroy et al., 2013), Underdevelopment Index (Government of India,2013), Governance Performance Index (Mundle et al., 2016).

Kudumbasree, the poverty eradication mission of the state of Kerala, is a community-based self-help initiative involving poor women. It has been envisaged as an approach to poverty alleviation focusing primarily on microfinance and micro-enterprise development and integrally linked to local self-government institutions. The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is a unique right-based employment scheme which is perhaps the world's largest inclusive growth programme. Mahatma Gandhi National Rural Employment Guarantee Act MGNREGA, 2005 was launched on 7th September 2005. In the first phase, the Act was put into effect in 200 rural districts as of 2nd February 2006, being subsequently extended to an additional 130 districts. MGNREGA Act came into effect as of 01st April 2008 in the remaining districts and covered the entire country with the exception of those districts with 100 percent urban population. The mandate of the Act is to provide 100 days of guaranteed wage employment in a financial year (FY) to every rural household whose adult members volunteer to do unskilled manual work.

From the table below, it is clear that the worst performing states as identified by this study have also ranked in the worst performing group of states under other major studies in Indian context with an exception of the state of Kerala which has been categorized as one of the worst performing states under the Policy Effectiveness Index of India Public Policy (Malhotra, 2014). Bihar always figured in the BIMARU4 (Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh) category of backward states in India. This is reflected in its poor rank in the composite index for inclusive growth in the year 2001. Though the state improved its composite index value in the year 2011, it still ranked poorly because it had inherited a very poor state of affairs in the year 2001.

**Table 7. Worst Performing Indian States**

| Underdevelopment Index (GoI, 2013a) | Economic Freedom of States of India (Debroy et al., 2013) | Policy Effectiveness Index – India Public Policy (Malhotra, 2014) | Governance Performance Index (Mundle et al., 2016) | India Human Development Report, (GoI, 2011b) | Composite Index for Inclusive Growth** |
|---|---|---|---|---|---|
| Odisha | Odisha | Kerala | UP | Jharkhand* | UP |
| Bihar | UP | West Bengal | Bihar | Odisha | Bihar |
| Madhya Pradesh | West Bengal | Assam | Jharkhand* | Chhattisgarh* | West Bengal |
| Assam | Jharkhand* | MP | Odisha | MP | Assam |
| Uttar Pradesh | Assam | Bihar | West Bengal | Bihar | Odisha |
| Rajasthan | Bihar | Odisha | Assam | UP | MP |

Jharkhand and Chhattisgarh have not been considered in this study since data availability in these newly-created states is a major constraint. The states of Odisha, Bihar, Madhya Pradesh, Assam, Uttar Pradesh, and West Bengal have also ranked as the worst performing states in other major studies, which validates the findings of this study. The states of Bihar and Odisha have ranked in the worst performing states of all the studies listed above including the present study, which reiterates and validates the findings of this study. The state of UP has also proven to be one of the worst performing states in major studies listed above including this study, except in the policy effectiveness index (Malhotra, 2014). In the mid -1980s, economist Ashish Bose coined an acronym-BIMARU—which bears a resemblance to the Hindi word, "bimar" meaning sick—in a paper submitted to the then Prime Minister of India, Rajiv Gandhi, in order to describe the poor state of development in the states of Bihar, Madhya Pradesh, Rajasthan and UP, which affected the GDP growth in India. Later, Odisha was added to this club, and the acronym is spelled "BIMAROU").

## 6. CONCLUSION

There are five major contributions of this study to the existing state of knowledge. First, this study is the first major attempt in developing an analytical framework for inclusive growth in the Indian context. The conceptual framework has accommodated all the important dimensions of inclusive growth. Second, there was no evidence of any study on inclusive growth which used cross section data in the Indian context. This study bridges this important gap. Third, this study has developed an exclusive composite index for inclusive growth which is a major direction for inclusive growth diagnosis and the monitoring of its implementation in the Indian context. The measurement of inclusive growth had always been a serious challenge to researchers. Fourth, an econometric model has been developed to authenticate the statistical significance of the variables and indicators of inclusive growth, which will add a new dimension to the existing state of knowledge. Finally, the comparative study of inclusive growth outcome of major Indian states through the findings of this research will help policy makers in framing an appropriate policy mix for achieving and sustaining inclusive growth in respective states. There are few issues which remain unresolved: The relationship between fiscal redistribution and inclusive growth, the impact of monetary policies in general and inflation in particular on inclusive growth, the impact of technological advancement on growth inclusiveness, the impact of informal employment on inclusive growth and vice versa etc. which need to be probed further. More grounded theories are necessary for further advancing the debate on inclusive growth.

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