



Spatial Analysis of Human Development in Bihar

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Abstract

The real development of nation lies in its people. Sustainable human development does not only mean high economic growth rate, rather it emphasises on enhancement of human capabilities. In this regard, Human Development Index was developed by United Nations Development Programme (UNDP) for giving ranking to the countries on the basis of their performance in the area of health, education as well as standard of living. According to Human Development Index (HDI) ranking 2022 India holds 130th rank with 0.64 points which declined to 0.633 in the year 2021. Bihar with 3 percent of the total geographical area and about 9 percent of the total population (Census of India, 2011) holds last place as per the HDI of major states of the country released in the year 2017. In this regard, the present paper aims to analyse and compare the inter-district data of state on human development indicators in the year 2006 and 2016 in order to identify the priority areas of work for policy and decision makers. For which five indicators namely IMR, institutional delivery, literacy rate, Gross Enrolment Ratio and Gross State Domestic Product(GSDP) has been taken as variables for HDI calculations.

Keywords: Human Development, Infant Mortality Rate, Gross Enrolment Ratio, Bihar

Introduction:

Development is removing barriers from a person's life by focusing on various dimensions of human development including income, education, food and nutrition, Health Care, social security, water and sanitation and social and political freedom (UNDP,1990). The Human Development is uplifting the quality of life of people by making continuous improvement in their health, knowledge, participation in community and participation in local government decisions, civil, political activities which has been referred as 'basic functionings' & 'complex functionings' by Sen (1985) respectively. The concept of Human Development is intrinsic to economic development (IHDR,2011). The traditional welfare approach of measuring development considering three dimensions; income, education and health still holds its importance in post-modern era of rapid urbanization in developing nations.

In 1990 the first Human Development Report introduced a new approach for advancing human wellbeing in the form of Human Development Index which is a policy tool that compares developments in various countries of the world, states and districts or regions of any country, over a period of time. HDI ranking is based on three indicators (a long and healthy life, access to knowledge, and a decent standard of living) of human development, on a scale of 0 to 1. HDI rank 0 is lowest while 1 is highest human development. The human development outcomes are a function of economic growth, social policy and poverty reduction measures at the individual and Societal level i.e. micro and macro-level respectively.

As per Human Development Report 2011, India ranked "119th among 192 countries with an index value of 0.512" which put it in a Low-middle-income category however, in the year 2020, India ranked 131 among 189 nations of the world with an index of 0.645 as per Human Development Report published by the United Nations Development Programme (UNDP HDR 2020;243), while in HDR 2021-22 global ranking of India went down

once again from 130th to 132. During pandemic the fall of HDI is seen to -1.4%. The synergistic relations of Human-capital formation, income, reduction in poverty and economic growth has been witnessed in recent decade in India (Gandhi & Malhotra, 2012; 4).

The developing nations like India which shows medium human development has few less developed states which includes Bihar but it showed remarkable improvement as per human development index in recent years (IHDR, 2011). Bihar being one of the least developed states of our country, achieving the goals of human development becomes crucial. So, the need of time is to ensure human development by assuring social and economic security to its people.

Bihar with 3 % of the total geographical area and about 9 % of the total population of the country (Census of India, 2011) holds last place as per the HDI of major states of the country released in the year 2018. Bihar is one of the backward states of India but recent high growth recorded by the Bihar economy has drawn nationwide attention. It showed improvement in Human Development with index value of 0.376 in the year 1990, 0.414 in 1996, to 0.436 in 2000, 0.478 in 2006, 0.567 in 2016 to 0.576 in the year 2018ⁱ and 0.536 in 2019.

Economic growth of Bihar is important but emphasis must be on the basic elements of the society that acts as pillars of society is often ignored. They must be a part and parcel of the economic journey of the state contributing to its growth and development. The Human Development Report of Bihar would be incomplete if inter-district analysis of aspects of people's life is not taken into consideration. Thus, this paper considers the human development indicators on district level, which will help in understanding which district needs more attention on which aspect of human development and policies could be formulated accordingly.

Considering the diverse nature of social and economic entities in the country national estimates or sub-national aggregates cannot be simply taken as the basis for policy decisions at disaggregated level, especially, in developing states like Bihar. *“Disaggregated Human Development Index allows inter-region comparisons which are more justifiable than sub-national or regional comparison with national estimates.”* (Maurya, 2015) It plays pivotal role in identifying focus areas for each district. To ensure that human development indexes prove significant policy intervention tool, disaggregated human development index (HDI) is more suitable, it allows inter-region comparisons which are more justifiable than sub-national or regional comparison with national estimates. Disaggregated HDI also helps to decide which districts or regions need more attention and for which indicators (Ivanov & Peleah, 2011; Katoch, 2003; de la Torre & Moreno, 2010).

Objective

- To make an spatial analysis and compare the HDI indicators of districts of Bihar for the year 2006 and 2016.

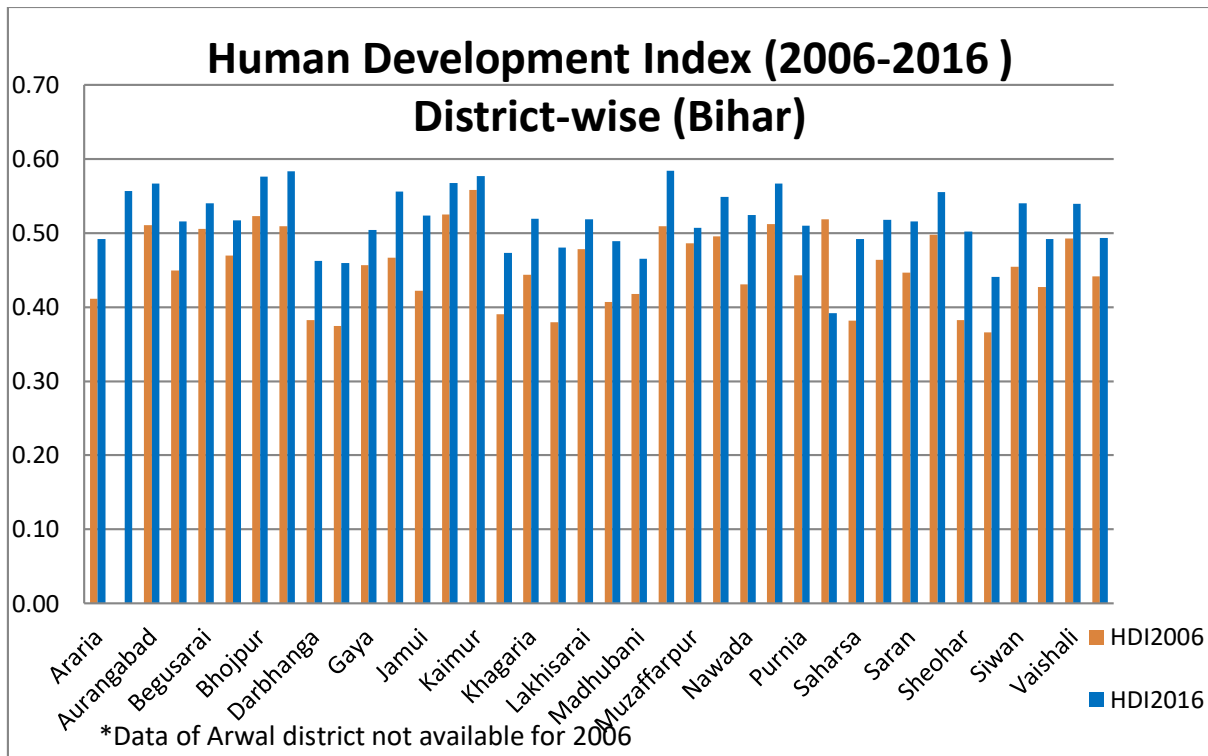
Key Findings:

- The absolute HDI score for Bihar has shown an improvement over the years (Table:1). The HDI score moved from 0.44 (2006) to 0.52 (2016) which means an increase of 18.18 % in 10 years. Complying with the UNDP (2014) categorisation, this score puts the state in 'low' HDI bracket.

Table:1

| Dimension | Variable | 2006 | 2016 |
|--------------------|-------------------------|------|------|
| Health Index | IMR | 0.27 | 0.31 |
| | Institutional Delivery | 0.56 | 0.66 |
| Education Index | Literacy Rate | 0.45 | 0.62 |
| | Gross Enrolment Ratio | 0.45 | 0.52 |
| Standard of Living | GDDP(at constant Price) | 0.46 | 0.65 |
| | HDI | 0.44 | 0.52 |

Fig: 1



The above graph represents an increment in the HDI scores of all the districts over the period. In 2016, districts from the southern part of Bihar has shown considerable increase which puts them into medium human development category. Infrastructure and Communication and hospitality sector-trade are one of the major drivers of change

Table:2

| Level of Human Development | Score in Development Index | Number of Districts (2006) | Number of Districts (2016) |
|----------------------------|----------------------------|----------------------------|----------------------------|
| Very High | Above 0.80 | - | - |
| High | Between 0.70 up to 0.79 | - | - |
| Medium | Between 0.55 up to 0.69 | - | 10 |
| Low | Below 0.55 | 38 | 28 |

Source: Global Ranking Base UNDP ,2011;Bihar Statistical Handbook,2016

Kaimur comes under the most improved districts of Bihar in the Health facility sector. The growth and development in Munger is mainly attributed to Industrial sector. Buxar ,Bhojpur and Jehanabad has shown much improvement on the Agriculture sector and has vast potential in the development of Agro-based industries.

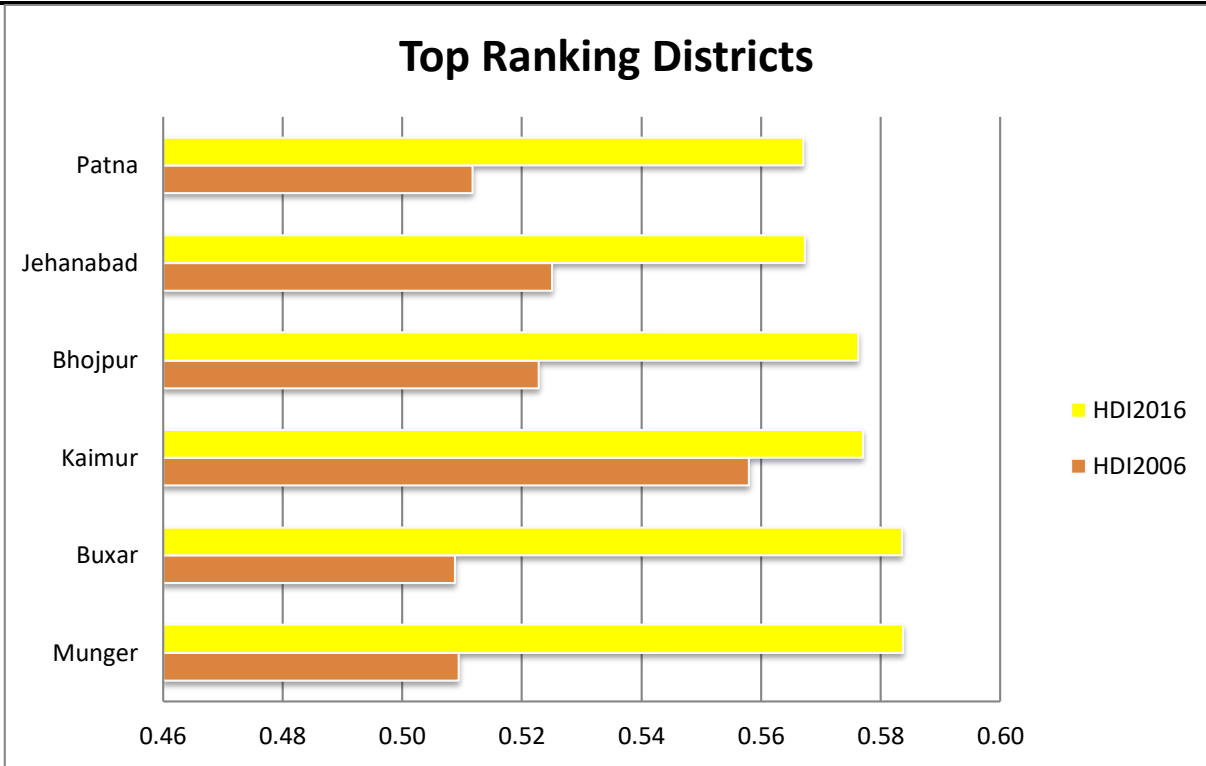
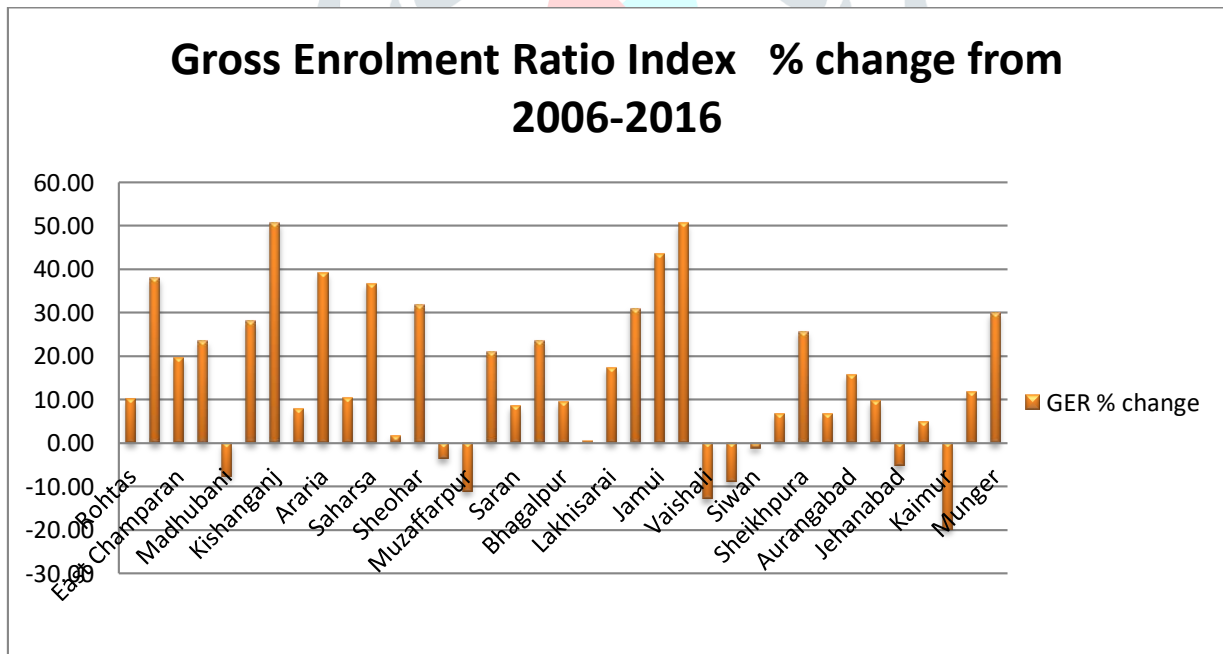


Fig:2

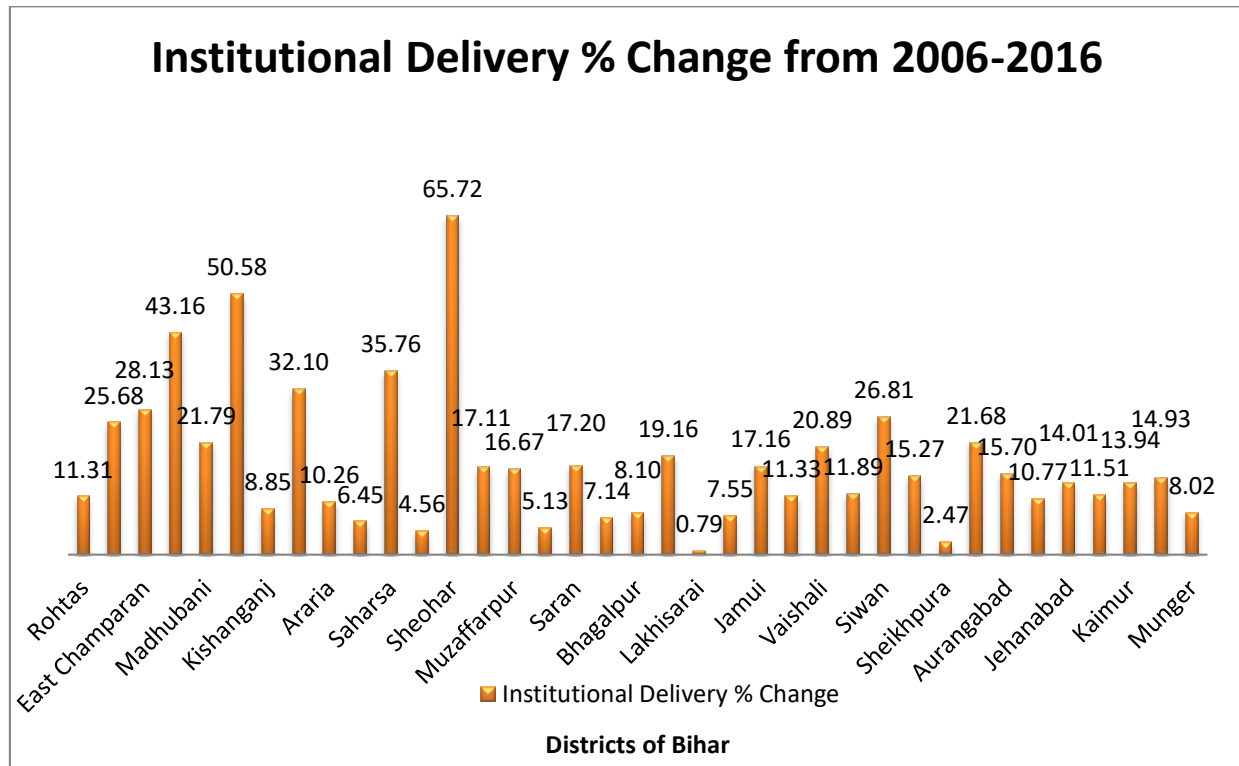
Madhubani , Gaya, Vaishali, Begusarai, Kaimur has shown negative change in GER from 2006-2016 owing to out-migration to the neighbouring districts in search of better educational facilities.

Fig:3



Source: A Snapshot of Bihar Elementary Education District-wise Statistical Report (UNICEF, 2016).

Fig:4



Source: Bihar Statistical Handbook, 2006 & 2016.

Ante-Natal Care and entitlements under Janani Suraksha Yojana has given a major boost to increase in Institutional delivery in Bihar. Over all, there is 13.94 percent change from 2006 to 2016 in this aspect.

Conclusion and Suggestions

Human development includes whole process of expanding people's choices and level of attainment of well-being of people which is determined by its economic growth, poverty reduction and functions of social policies from micro to macro-level. The proper functions of economic and social policies together with poverty alleviation programmes would lead to Human Development (The India Human Development Report, 2011) as it engulfs into it the concepts of equity, sustainability, productivity and empowerment. Our findings suggest that the State along with health and education should also try to reduce income inequalities by positive income generating policy interventions. In this regard, strengthening of MGNREGA and skill development programmes will certainly prove beneficial.

It is evident from UNDP reports, that there has been enormous growth in population of India and development in some of the areas could be seen but overall quality of life of people still requires attention of the planners and policy makers. Bihar being at the bottom of HDI among states and Union Territories looks forward for societal well-being by adopting method of growth which be accompanied by improvement in the quality of life of the people through holistic development. The Human Development Report of Bihar would be incomplete if inter-district analysis of aspects of people's life is not taken into consideration. Thus, this paper considers the human development indicators on district level, which will help in understanding which district needs more attention on which aspect of human development and policies could be formulated accordingly.

In today's modern world, advance educational and health facilities, security and technological prowess has become necessity, but the state is lagging behind, even in providing basic facilities to its people. It is mainly because of social discrimination and regional disparity, which stands as a challenge in the way of attainment of human development in Bihar. In any nation, human development (HD) outcomes are a function of economic growth, social policy and poverty reduction measures at the macro-level. Sen (1985) points out that the

opportunities provided to people, the quality of life they lead and freedoms they get are vital aspects that must be considered whenever development of a district, a state or a nation is under concern.

The developmental process operates at micro and macro level in Bihar. From the perspective of socio-economic diversity of India, national estimates or sub-national aggregates cannot be simply taken as the basis for policy decisions at disaggregated level, especially, in states like Bihar. The interventions for improvement in all the dimensions of development are key to attain socio-economic growth in the state. The analysis of several factors contributing to Human Development at district level needs more attention of the government, policy makers as well as the scholars as it is the best way to cater the issues at ground level and improve ranking of Bihar and ultimately of the nation.

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ⁱ Sub-National HDI (2013-2021). Global Data Lab, Institute of Management Research, Radboud University