ISSN: 2278-4632
Vol-10 Issue-5 No. 16 May 2020

Environmentally Adjusted Human Development in Indian States

Dr. Pramod Pandurangrao Lonarkar
Assistant Professor, School of Social Sciences
S.R.T.M. University, Nanded

Abstract:

Recently, the HDR is highlighting the status of human development more comprehensively, in the form of other composite indices including the aspects like Human Development Adjusted with Inequalities, Gender wise Human Development and the index highlighting poverty in different aspects, i.e. Multidimensional Poverty Index etc. But the growing crisis of climate change and ecological breakdown highlighted the limitations of HDI. So for considering the ecological stability, computation of Human development adjusted with environment is important to highlight the Sustainable Human Development. This paper explores the Environmentally Adjusted Human Development Status of Indian States.

Keywords: Human Development Index (HDI), Environmental Performance Index (EPI), Environmentally Adjusted Human Development (EAHDI), Sustainable Development.

Introduction:

Development is a dynamic concept, and taken many shapes since last three decades. The idea of development is shaped and presented in its new forms time to time, by researchers, policy makers, social work practitioners and international institutions to highlight and to incorporate the important aspects of human life. National income as an indicator of development is quit questioned on the ground of unequal distribution of Income and other social aspects. The first constructive concept of development is given by Pakistani economist Mahbub ul Haq and Indian Nobel laureate Amartya Sen. United Nations Development Programme (UNDP) in 1990 and termed it as Human Development. Human development is about enlarging human choices and it focuses on the richness of human lives instead of the concentration on richness of economies (HDR-2015). The human development is measured in the form if Human Development Index. This index made it possible the comparison between the nations, regions, sub-regions to identify their status of development and to implement the measures of correcting the lacunas of any. Since 1990, every year UNDP is publishing the Human Development Report for the world. Taking the guiding methodology of measuring human development index many countries are developing and publishing their national and sub-national level human development reports. In India first Human Development Report is published in 2002 for the year 2001. Madhya Pradesh was the first state in publishing it's state Human Development Report in 1995 followed by Karnataka, and Sokkim.

The Human Development Index comprises three dimensions of Human Life i.e. long and healthy life, the ability to acquire knowledge and the ability to achieve a decent standard of

 Copyright © 2020 Authors

ISSN: 2278-4632
Vol-10 Issue-5 No. 16 May 2020

living. The values of this HDI ranges in between 0 to 1, where 0 express the poor performance and 1 represent the high performance.

Recently, the HDR is highlighting the status of human development more comprehensively, in the form of other composite indices including the aspects like Human Development Adjusted with Inequalities, Gender wise Human Development and the index highlighting poverty in different aspects, i.e. Multidimensional Poverty Index etc.

But the limitations of HDI have become clear in the 21st century, given a growing crisis of climate change and ecological breakdown (Goldsmiths, University of London, United Kingdom 2020). In HDI computation standard of living, health and education is highly correlated with the ecological losses. The idea of sustainable development expects the improvement after compensation the losses including the ecological loss.

So for considering the ecological stability, computation of Human development adjusted with environment is important to highlight the Sustainable Human Development.

Objectives of the Study:

1) To highlight the progress of human development in India.
2) To focus the region wise progress of human development.
3) To explore the region wise environmental performance.
4) To calculate region wise environmentally adjusted human development status

Methodology:

This study is based on Secondary data compiled from the various sources like published reports and websites. This research paper is exploratory in nature. The use of quantitative tools like estimation of trend line using regression and calculation of environmentally adjusted Index is made. Environmentally adjusted human development index is calculated as under.

Environmentally Adjusted Human Development Index = HDI x EPI

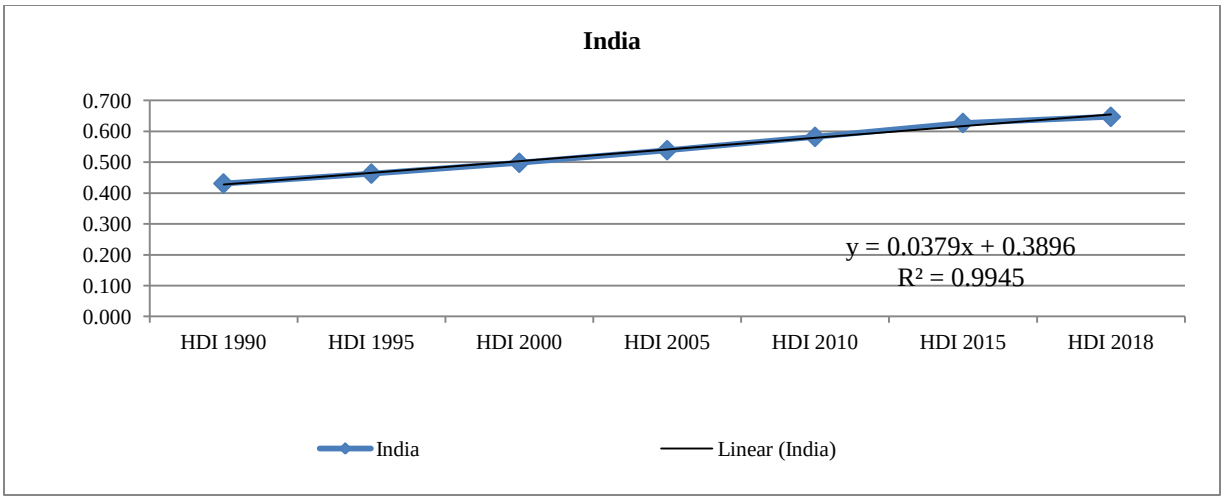
Trend of India's Human Development

The aim of HDI is to highlight the lacunas in achieving participatory development and development with sustainable production. This human development report highlighted a complex relationship between economic growth and social concern. This can be easily seen in the frowth performance of individual indicators like Health, Education and Income. As in the first HDR India's place in as per the ranking of HDI was 123 and the value of HDI was 0.431. During the year 1990 to 2018 India's HDI value has increased by 50 percent (from 0.431 to 0.647). During this period life expectancy at birth increased by 11.6 years, mean and expected years of schooling increased by 3.5 years and 4.7 years respectively and Income increased by 262.9 percent. This shows that unequal progress in achieving development, where income indicator has increased very fast.

Figure:1.1 Trend of India's Human Development

 Copyright © 2020 Authors

ISSN: 2278-4632
Vol-10 Issue-5 No. 16 May 2020



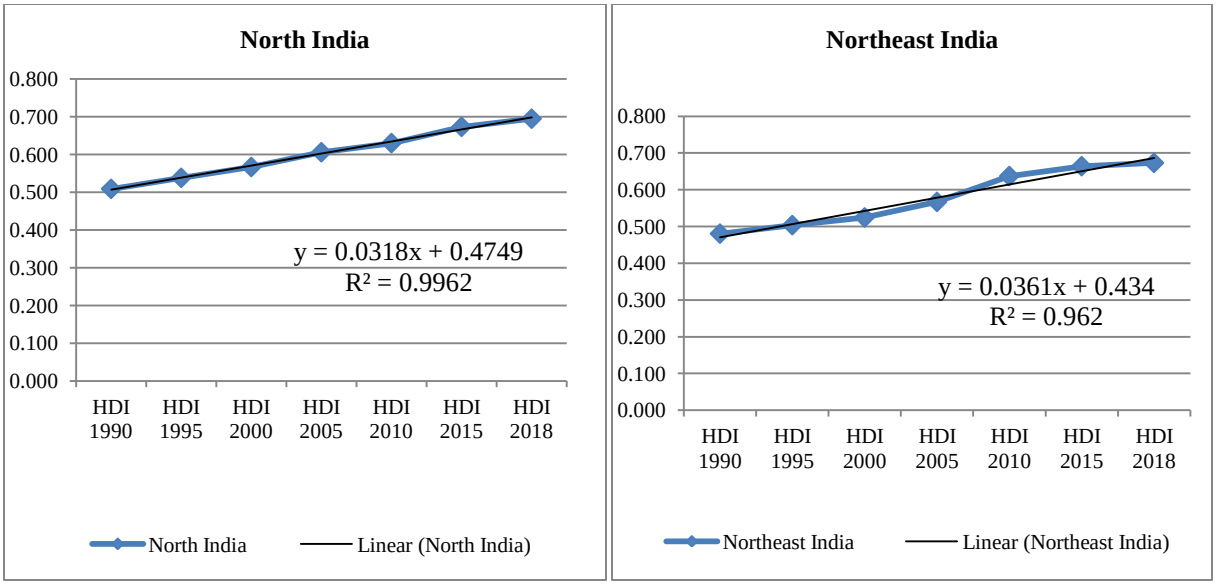
Source: HDR Various Issues & Wikipedia*

In the above figure trend of India's human development is shown which shows continuous increase in HDI value. The equation displayed on the graph shows that intercept value of HDI is 0.389. This shows minimum constant performance of nation in human development. The slope value shows the increase in human development index in each time interval of five years by 0.037. This shows very slow growth in human development in last three decade.

Human Development Progress across the region in India.

In the following section region wise progress in human development is given where all the states and union territories are fragmented in to five regions namely, North India, Northeast India, East India, West India and South India and a progress of human development is given for five years interval period,

Figure: 1.2 Trend of HDI in North and Northeast India



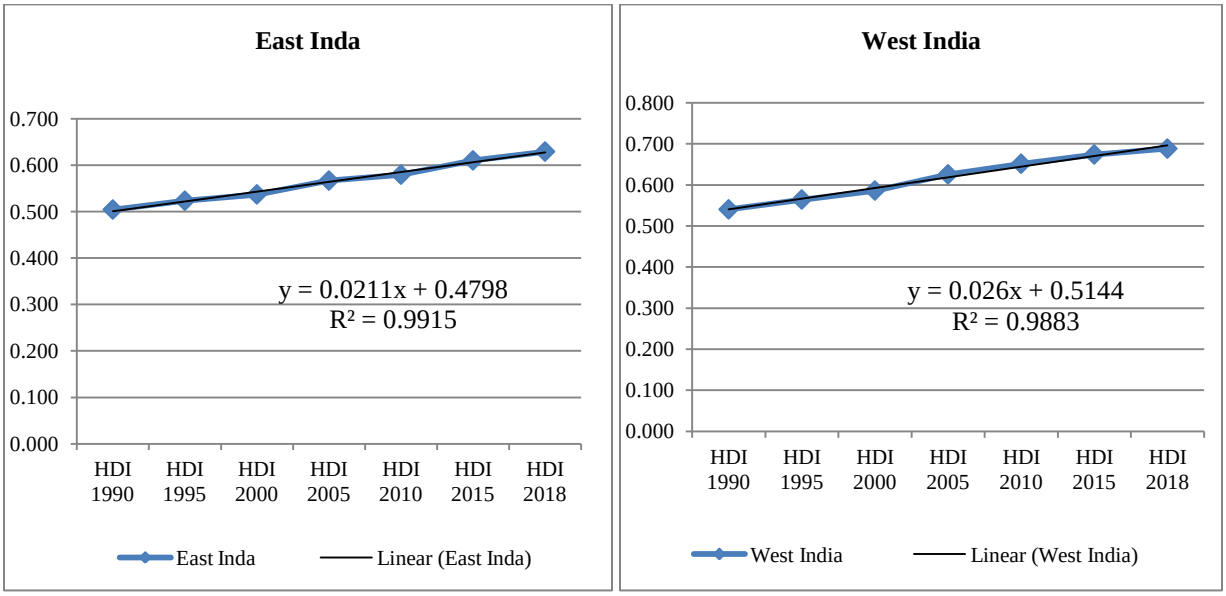
 Copyright © 2020 Authors

ISSN: 2278-4632
Vol-10 Issue-5 No. 16 May 2020

Source: HDR Various Issues & Wikipedia*

In the above figure trend of human development progress is given for North India and North East India. The North India comprises Chandigarh, New Delhi, Haryana, Himachal Pradesh, Jammu and Kashmir, Madhya Pradesh, Punjab, Uttar Pradesh and Uttarahhand. The Northeast India comprises Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The progress in human development in North India shows 0.474 value of intercept and 0.031 value of slope this shows that during this period HDI value of north Indian states is started with good value and increased steadily with 0.031 in each time interval of five years. Similarly in the Northeast States constat value of HDI during the same period is found 0.434 and it has increased by 0.037 during each time interval of five years.

Figure: 1.3 Trend of HDI in East and West India



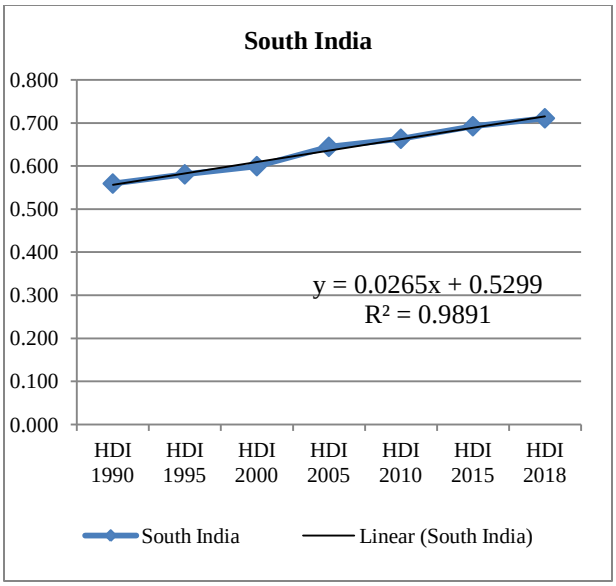
Source: HDR Various Issues & Wikipedia*

In the above figure HDI progress in Eastern and Western states and union territories of India is shown. The Eastern states and UT's are Andaman & Nikobar, West Bengal, Bihar, Chhattisgarh, Jharkhand and Odisha. The Western States and UT's are Dadra and Nagar Haveli, Daman & Diu, Goa, Gujarat, Maharashtra and Rajasthan. In eastern part the constant HDI value is found quite high i.e. 479, but the increase in this value during five years interval is found very low i.e. only 0.021. In western part constant HDI value is found very high i.e. 0.514, but the increase in this value during the same time interval is found quite less i.e. 0.026.

Figure:1.4 Trend of HDI in South India

 Copyright © 2020 Authors

ISSN: 2278-4632
Vol-10 Issue-5 No. 16 May 2020



Source: HDR Various Issues & Wikipedia

In above figure human development progress is given this comprises Andhra Pradesh, Karnataka, Kerala, Lakshadweep, Puducherry, Tamil Nadu and Telangana. The constant HDI during the period is found comparatively very high i.e. 0.529 and it has increased by 0.026 during five years time interval.

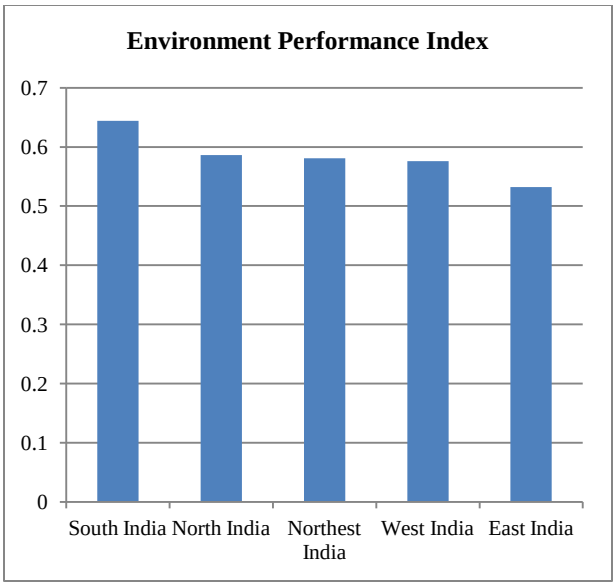
Environmental Performance Index

As mentioned above the HDI only shows the progress in human choices it has to go ahead for highlighting the sustainability in some important aspect. The ecological sustainability is important in this regard. There are various studies which measured the environmental sustainability or the performance related to environment, because while achieving the growth there should be effective and balanced utilization of the country's resources. Considering the influence of natural resources depletion and unabated pollution on many sectors of the economy, an environmental performance index (EPI) was evolved to recognize the efforts made by the states to arrest degradation of the environment (Indrani Chandrasekharan and others 2013). The region wise environment related performance is given in the following figure.

Figure: 1.5 Region wise environment performance index.

 Copyright © 2020 Authors

ISSN: 2278-4632
Vol-10 Issue-5 No. 16 May 2020



Source: http://www.spc.tn.gov.in/pdfs/EPI.pdf

The environment performance index comprises five categories namely Air pollution, Forests Cover, Water quality, Waste Management, Climate Change. These five categories also subdivided in to 16 indicators. Based on the five categories and sixteen indicators an index showing highest value represent best performer and lowest value represents less performance. From the above figure it is depicted that Southern states has shown good performance in environmental wellbeing with EPI value 0.644. This is followed by North India 0.586, Northeast India 0.581, West India 0.576 and East India at the bottom with 0.532.

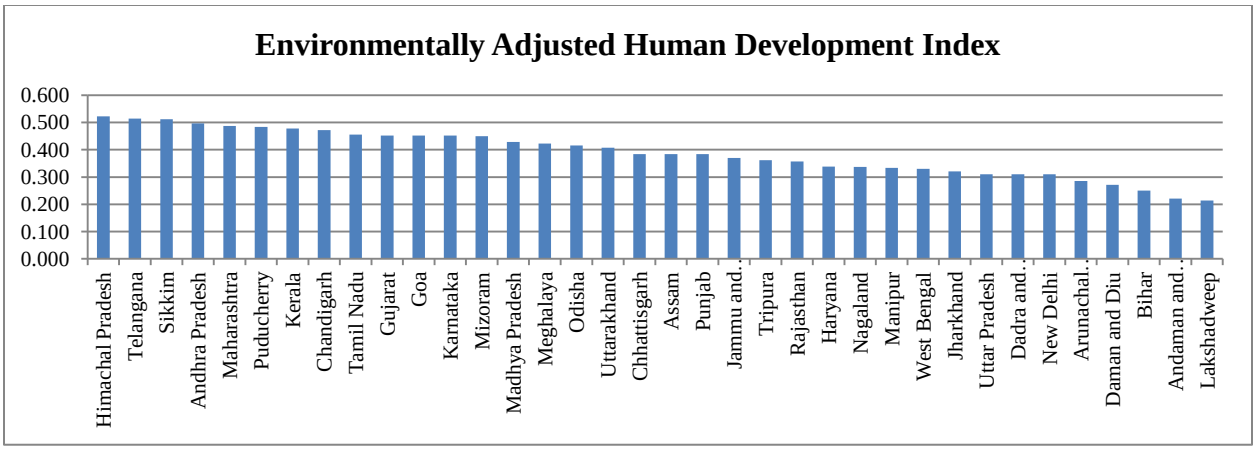
Environmentally Adjusted Human development

To make Human Development Index more realistic an attempt has been made here to adjust the HDI with Environmental Performance. To adjust it HDI values of each state is multiplied with EPI of respective state. The state wise situation of environmentally adjusted human development index is given in the following table.

Figure: 1.6 State wise Environmentally Adjusted Human Development Index

 Copyright © 2020 Authors

ISSN: 2278-4632
Vol-10 Issue-5 No. 16 May 2020



It is seen that Himachal Pradesh, Telangana, Sikkim, Andhra Pradesh and Maharashtra are the states showing good sort of achievement in environmentally adjusted human development index whose value ranges from 0.5 and above. In second group there are 11 States and UTs namely Puducherry, Kerala, Chandigarh, Tamil Nadu, Gujarat, Goa, Karnataka, Mizoram, Madhya Pradesh, Meghalaya Odisha and Uttarakhand whose value ranges between 04 to 0.5. The remaining states and UT's are falling in low performing category whose value is below 0.4 percent.

Conclusion:

From the above analysis it can be concluded that India's performance in increasing HDI value is clearly showing (positive) upward moving trend. Region wise comparison shows that South India is showing good performance in achieving HDI value as 0.711 in 2018. This is followed by North India, West India and Northeast India and East Indian states and UTs. In achieving environmental performance again the South India stands at the top followed by North India, Northeast India, West India and East India. In the Environmentally Adjusted Human Development Index again South India stands first, followed by North, West, Northeast and East India. So policy initiatives are important in the East Indian States and UT's and followed by Northeast, West and North India to bring sustainable human development adjusted with environment.

References:

1) Indrani Chandrasekharan, R. Sendhil Kumar, Seena Raghunathan and Shweta Chandrasekaran (2013), Construction of environmental performance index and ranking of states, Current Science, VOL. 104, NO. 4, p-435 to 439.
2) Mukherjee, S. and Kathuria, V. (2006), Is economic growth sustainable? Environmental quality of Indian States after 1991. Int. J. Sustain., **9**, P-38 to 60.

 Copyright © 2020 Authors

ISSN: 2278-4632
Vol-10 Issue-5 No. 16 May 2020

3) Valeria Costantini ∗, Salvatore Monni (2008), Environment, human development and economic growth, Ecological Economics, Vol-64, No-4, P- 867 to 880.
4) Human Development Report Various Issues (1990 to 2018)
5) Eric Neumayer (2011), Sustainability and Inequality in Human Development, Human Development Research Paper, UNDP
6) Subhra Bhattacharjee and Usman Ali Iftikhar, Greening Human Development: Capturing Wins in Equity and Environmental Sustainability, UNDP
7) Sacchidananda Mukherjee & Debashis Chakraborty (2007), Environment, Human Development and Economic Growth after Liberalisation: An Analysis of Indian States, Working Paper 16/2007 Madras School of Economics.
8) Green Growth and Sustainable Development in India: Towards the 2030 Development Agenda, This report is based on close collaboration between Global Green Growth Institute (GGGI) and The Energy and Resources Institute (TERI).
9) *https://en.wikipedia.org/wiki/List_of_Indian_states_and_territories_by_Human_Development_Index

 Copyright © 2020 Authors