

International Journal of Applied Business and Economic Research

ISSN : 0972-7302

available at http://www.serialsjournals.com

© Serials Publications Pvt. Ltd.

Volume 15 • Number 16 (Part - II) • 2017

Millennium Development Goals and India: A Cross Sectional Analysis

Dr. Rajesh Panda and Dr. Madhvi Sethi

Symbiosis Institute of Business Management Bengaluru, Symbiosis International University, Pune

Abstract: In 2000, 189 nations made a promise to free people from extreme poverty and multiple deprivations. This pledge became the eight Millennium Development Goals to be achieved by 2015. These goals deal with human development in terms of poverty alleviation, access to education, gender equality etc. This paper deals with the Millennium Development goals for India and their status by 2015. The analysis has been done across different states of India by collecting data from various domestic and international sources. The analysis shows that India as a nation has improved substantially in few of the goals while a lot needs to be done for the rest of the goals. However, the state level analysis showed that some of the states are lagging behind the others in achieving the goals and hence no policy decision can be taken at a central level without considering state level nuances. The paper also attempts to create a Developmental Goal Index and rates various states of India based on the present status of these states on the various Millennium Development Goals. The paper concludes with policy suggestions to achieve parity on these goals across different states. It tries to bring forth the potential for government initiatives and the areas of focus in the coming years.

Keywords: Millennium Development Goals, human development, index, policy, India

JEL Classification: H5, I18, I28, J1, R11,

INTRODUCTION

Millennium Development Goals (MDGs) were formulated with the basic premise to eradicate extreme poverty and several other shortcomings and deprivations in the world. Close to 189 countries came together in the year 2000 to commit to these goals and it was agreed that each one will strive to meet these goals by 2015. The eight goals which were defined included:

- Eradicate Extreme Hunger and Poverty
- Achieve Universal Primary Education
- Promote Gender Equality and Empower Women

- Reduce Child Mortality
- Improve Maternal Health
- Combat HIV/AIDS, Malaria and Other Diseases
- Ensure Environmental Sustainability
- Develop a Global Partnership For Development

In 2015, the UNDP report (UNDP, The Millennium Development Goals Report, 2015)[1] showcased the achievements of different countries and highlighted the fact that practical steps towards the goals have indeed led to upliftment of lives out of poverty, hunger and illiteracy. The goals have helped tremendously in developing the lives of underprivileged and giving them hope for their future. Countries have proved that they can enable better improved lives by prioritizing the MDGs in their initiatives and future plans. The implementation of plans therefore would lead to make the world a better place to live. The 2015 report brought out several significant statistics. Table 1 provides some key metrics of the MDGs achievement.

MDGs main metrics	1990	2015
Extreme poverty in developing economies	47%	14%
Global out of school children of primary school age	100 million	57 million
Net enrolment rate (primary schools) in developing economies	83%*	91%
Promote Gender Equality and Empower Women (Women as a % of paid workers outside the agricultural sector)	35%	41%
Reduce Child Mortality (Global number of deathsof children under five)	12.7 million	6 million
Improve Maternal Health (Global maternal mortalityratio (deaths per 100,000 live births))	380	210**
Combat HIV/AIDS, Malaria and Other Diseases (New HIV infections)	3.5 million*	2.1 million**
Access to Piped Drinking Water	2.3 billion people	4.2 billion people
Internet penetration	6 % of the world's population*	43% of the world's population

 Table 1

 Key metrics under MDGs : A comparison between 1990 and 2015

* 2000 figure

** 2013 figure

Source: UNDP Report, 2015

The table clearly lays down the major achievements of the MDGs. However, if we go to granular level and assess the developing economies, there is a lot which needs to be achieved, especially for a country like India. Table 2 highlights the major metrics for India and where it stands in terms of meeting the MDGs.

MDGs	2015
Combating extreme poverty and hunger	The target of Poverty Head Count Ratio (PHCR) of 23.9% by 2015. India's PHCR reached 21.9% in 2011-12.
	Malnourishment for India was 40% in 2015 when the target was to reach 26%.
Achieving universal primary education	In 2013-14, the net enrolment ratio was 88%.
Promote Gender Equality and Empower Women (Women as a % of paid workers outside the agricultural sector)	Only 19.3% in 2011-12. Being the largest democracy, it had only 12.25% seats occupied by women in parliament in 2015 where the target was 50%. Female literacy rates are way below the targets.
Reduce Child Mortality (Child/Infant Mortality Rate(IMR))	The target Under Five Mortality (U5MR) was 42 per 1000 live births while India had achieved 49 per 1000 live births.
Improve Maternal Health (Maternal Mortality Rate (MMR) per 100,000 births)	In 2011-13, the MMR for India was 167 which was way behind the target of 109.
Combat HIV/AIDS, Malaria and Other Diseases (New HIV infections)	Adult prevalence has come down from 0.45 percent in 2002 to 0.36 in 2009
Ensure environment sustainability (Access to Piped Drinking Water, % of forest coverage)	The overall proportion of households having access to improved water sources increased from 68.2 percent in 1992-93 to 90.6 percent in 2011-12.India lags behind in sanitation facilities.Increase in forest coverage to 21.23%.
Develop a Global Partnership for Development (Internet penetration, telecom etc.)	Expanded drastically.

Table 2	
MDG Progress report: India	ι

Source: UNDP in India, http://www.in.undp.org/content/india/en/home/post-2015/mdgoverview.html, accessed on 15th September, 2017.

Though India has made progress in some of the MDGs, it has a long way to go in meeting the targets. It is believed that India has done moderately well in terms of the achievements but it still has a lot of challenges in terms of poverty alleviation, women empowerment, maternal health and sanitation. Also, India being a nation where there is extreme disparity amongst states, the questions which arise include – Are these achievements representative of all the states? Should policy makers focus on meeting MDGs at the national level or at the state level? If India has to meet these goals, the policies have to be customized as per the status of the goals at the state level. How far has that happened? Can we rate the states by an index which helps in policy making? This paper tries to answer these questions and provides basic policy implications for achievement of MDGs at state-level and track the MDGs in the form of a proposed MDG index.

The objective of the paper is to understand the Millennium Development goals for India and their status by 2015 across different states of India. The analysis shows that India as a nation has improved substantially in few of the goals while a lot needs to be done for the rest of the goals. However, the state level analysis showed that some of the states are lagging behind the others in achieving the goals and hence no policy decision can be taken at a central level without considering state level nuances. The paper also attempts to create a Developmental Goal Index and rates various states of India based on the present

status of these states on the various Millennium Development Goals. The paper concludes with policy suggestions to achieve parity on these goals across different states. It tries to bring forth the potential for government initiatives and the areas of focus in the coming years.

REVIEW OF LITERATURE

The focus of development shifted from economic development to human development in the 1990s. Researchers like Sen A., (1985, 1987) and Dasgupta (1993) provoked the thought of improving quality of living through development of human capabilities. UNDP (UNDP, Human Development Report, 1990) highlighted this aspect and laid the foundations of human development index. In the 2000s, the millennium development goals were accepted to fight extreme poverty. Since then the assessment of these goals have been a point of research and argument amongst scholars. In 2004, many believed that low income countries would find it difficult to meet the health goals by 2015 (World Bank, 2003; Clemens, Kenny and Moss, 2004). It was also found that by 2005, many countries had made a lot of progress especially Asia but there was a lot of disparity (Sachs & McArthur, 2005). Sach et. al also pointed out that Sub Saharan Africa, some countries in Asia, Latin America and Middle East were far from achieving the poverty alleviation goals. They also found that all countries were lagging behind in their efforts to meet environmental sustainability, gender equality and maternal mortality. Several scholars looked into analyzing each goal individually and tried to provide remedial actions and challenges regarding them so that governments could take necessary steps and policy measures to move towards achieving the targets by 2015 ((Murray, Laakso, Shibuya, Hill, & Lopez, (2007); Hogan, et al., (2010); Liu, et al., (2015)). A review by Palma et. al. (2009) highlighted that the most researched MDGs included infant mortality and maternal mortality (Palma, et al., 2009).

The assessment of the goals was also done country-wise and several research studies contributed to the understanding of the goals. With specific reference to India, Nath (2011), found that India had done well when it came to education and growth but had lagged behind considerably in improvement of health related metrics. Reddy et. al. (2012) focused on achievement of MDG 4 and 5 i.e infant and maternal mortality and assessed the progress of Indian states' contribution towards achievement of these goals (Reddy, Pradhan, Ghosh, & Khan, 2012). State-wise assessment plays an important role in assessing the progress of these variables due to disparity amongst the Indian states in terms of governance, socio-economic and cultural factors. Ghosh (2017), evaluated the human development and economic growth relationship and found that poor states in India could meet the human development parameters and caught up with the rich states though there was a huge difference in their per capital income. Such divergence has been scantily studied at the state-level for a country like India and for evaluation of millennium development goals. This paper fills this gap in research and contributes by providing an index which could help policy makers in focusing their efforts towards state-level MDG achievement and help in reaching the targets.

The objectives of the paper include:

- Assessment of different MDGs at the state level
- Creation of an index which could help in identifying the ranking of states in their achievements of MDGs

The next section describes data and methodology used to meet the objectives.

DATA AND METHODOLOGY

There are several metrics used for determining each MDG. In this paper, we collect data of one of the many metrics for each goal based on availability of data for the different states in India. The data has been collected from different secondary sources. The variable definitions and sources of data are provided in Table 3.

MDG No.	Variable Used	Year	Source of Data
1	% Below Poverty Line	2011-12	RBI (https://www.rbi.org.in/Scripts/AnnualPublications.aspx?head= Handbook%20of%20Statistics%20on%20Indian%20Economy#)
2	Literacy rate	2011	Ministry of Statistics and Programme Implementation (http://www.mospi.gov.in/publication/women-and-men-india-2016)
3	Work force participation	2011	Census of India, 2011- (http://www.mospi.gov.in/publication/women-and-men-india-2016)
4	Infant Mortality Rate	2013	Sample Registration System, Office of the Registrar General, India., Sept 2014-(http://www.mospi.gov.in/sites/default/files/ reports_and_publication/statistical_publication/social_statistics/ WM16Chapter2.pdf)
5	Maternal Mortality Rate	2013	Sample Registration System, Office of the Registrar General, India., Sept 2014-(http://www.mospi.gov.in/sites/default/files/ reports_and_publication/statistical_publication/social_statistics/ WM16Chapter2.pdf)
7	% Forest Cover	2015	Ministry of Statistics and Programme Implementation (http://www.mospi.gov.in/sites/default/files/reports_and_publication/ statistical_publication/social_statistics/CHAPTER_Three_comp2016.pdf)
	GDP Per Capita (current prices)	2014- 2015	RBI (https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications, http://niti.gov.in/content/capita-nsdp-current-prices-2004-05-2014-15)

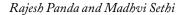
Table 3Variable Definition and Source of Data

The index calculation methodology has been adopted from the UNDP's calculation of Human Development Index (UNDP, UNDP Human Development Report, 2016). Figure 1 presents the methodology used.

After the index is calculated, each state is ranked on the basis of the Index number arrived. The next section provides the analysis and findings of the study.

ANALYSIS AND DISCUSSION

To achieve the first objective of the study, various metrics were collected for the states of India. Table 4 provides the data and mean values of the states for the different MDGs. It can be seen that for MDG 1, amongst the 29 states, Goa has the least percentage of population below poverty line (5.09%) while Chattisgarh has the highest (39.93%). The average of this parameter comes around 19.39% while the value of this for India is around 21.92%. In terms of MDG 2, the literacy rate is highest for the state of Kerela



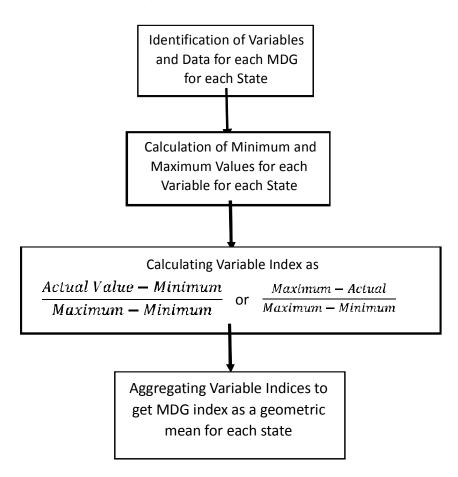


Figure 1: Methodology to Calculate MDG Index

(94%) while lowest for Bihar (61.8%) and the average for all the states comes to 76.32%. Literacy rate for entire Indian sub continent is 74%. MDG 3, which is measured by workforce participation rate, has its highest contributor in Delhi with 42.41% and least in Nagaland. India's infant mortality rate (MDG 4) is 40% and the states with the highest IMR include Assam and Madhya Pradesh. The data for MMR was available for a few states only. This ratio was 167 for India where Assam is the highest contributor. MDG 7 represents ensuring environmental sustainability and the metric used is forest cover as a percentage of geographical area. India has 21.35% forest cover overall with Sikkim being the state with the highest forest cover. This analysis clearly shows that Indian states contribute to the MDGs in different capacities and policies which would work for one state might not be applicable to other states. The areas of focus need to be diverse so that collectively the states can lead to meeting the MDGs, not only at the nation level but also at the grassroot level.

To understand the situation better, the MDG index was developed. The maximum and minimum values (Table 4) have been taken as hypothetical values which are representing a logical range within which the values of a particular MDG might lie. Though there is no literature available on this, the research assumes that like HDI, the thresholds could be arrived at by the respective governments of different countries for the parameters mentioned in calculating the MDG Index as well. The proposed index values are presented in Table 5. There are three index values which have been calculated. Methodology 1 takes

International Journal of Applied Business and Economic Research

	Sta	atewise Data fo	or Major Metrics	for MDG		
	MDG 1	MDG 2	MDG 3	MDG 4	MDG 5**	MDG 7
States	% BPL	% Literacy	% Workforce	% IMR	No. MMR	% forest
	(2011-12)	rate (2011)	Participation	(2013)	(2013)	<i>cover</i>
Andhra Pradesh	0.20	(7	(2011)	20	02	(2015)
	9.20	67	20.82	39 22	92 NA	23.26
Arunachal Pradesh	34.67	65.4	13.62	32	NA	61.39
Assam	31.98	72.2	31.13	54	300	32.21
Bihar	33.74	61.8	27.4	42	208	6.87
Chhattisgarh	39.93	70.3	15.89	46	NA	44.21
Delhi	9.91	86.2	42.41	24	NA	6.88
Goa	5.09	88.7	34.84	9	NA	33.09
Gujarat	16.63	78	33.78	36	112	11.04
Haryana	11.16	75.6	32.65	41	127	3.53
Himachal Pradesh	8.06	82.8	13.87	35	NA	66.52
Jammu & Kashmir	10.35	67.2	29	37	NA	9.1
Jharkhand	36.96	66.4	20.66	37	NA	29.61
Karnataka	20.91	75.4	27.13	31	133	19.96
Kerala	7.05	94	34.5	12	61	29.1
Madhya Pradesh	31.65	69.3	20.92	54	221	30.72
Maharashtra	17.35	82.3	24.94	24	68	20.01
Manipur	36.89	79.2	13.02	10	NA	78.01
Meghalaya	11.87	74.4	14.5	47	NA	42.34
Mizoram	20.40	91.3	16.19	35	NA	26.76
Nagaland	18.88	79.6	8.68	18	NA	55.62
Odisha	32.59	72.9	28.95	51	222	37.34
Punjab	8.26	75.8	41.24	26	141	6.12
Rajasthan	14.71	66.1	16.35	47	244	9.57
Sikkim	8.19	81.4	20.59	22	NA	82.31
Tamil Nadu	11.28	80.1	27.51	21	79	17.59
Tripura	14.05	87.2	32.2	26	NA	60.02
Uttarakhand	11.26	67.7	30.96	50	NA	71.05
Uttar Pradesh	29.43	78.8	22.99	32	285	6.88
West Bengal	19.98	76.3	38.99	31	113	13.38
All India	21.92	74	27.75	40	167	21.35
Mean	19.39	76.32	25.37	33.41	160.40	32.22
Minimum	0.00	50.00	0.00	0.00	0.00	0.00
Maximum	50.00	100.00	50.00	60.00	500.00	90.00

Table 4Statewise Data for Major Metrics for MDG*

*MDG 6 and 8 metric data was unavailable for majority of the states so they have been ignored in this analysis

** Maternal Mortality Ratio is the number of maternal deaths per 100,000 live births.

433

				MDG It	MDG Index Calculation	ation				
	1	2	3	4	5	6	7	Methodology 1	Methodology 1 Methodology 2 Methodology 3	Methodology 3
	MDG 1	MDG 2	MDG 3	MDG 4	MDG 5	MDG 7	GDP PC (current prices)	MDG Index	MDG Index (without forest cover)	MDG Index with GDP
	(Max- Actual)/ (Max-Min)	(Actual- Min)/ (Max-Min)	(Max- Actual)/ (Max-Min)	(Max- Actual)/ (Max-Min)	(Max- Actual)/ (Max-Min)	(Actual- Min)/ (Max-Min)	(Actual- Min)/ (Max-Min)	Geometric Mean of Col 1 to Col 6	Geometric Geometric Mean of Mean of Col 1 to Col 6 Col 1 to Col 5	Geometric Mean of Col 1 to Col 7
States	% BPL (2011-12)	literacy rate (2011)	Disparity- Employment	IMR (2013)	MMR (2013)	% forest cover (2015)	GDP 2014-15			
Andhra Pradesh	0.8160	0.3400	0.5836	0.3500	0.8160	0.2584	0.3191	0.4782	0.5408	0.4513
Arunachal Pradesh	0.3065	0.3080	0.7276	0.4667	NA	0.6821	0.3397	0.4655	0.4231	0.4417
Assam	0.3603	0.4440	0.3774	0.1000	0.4000	0.3579	0.1631	0.3086	0.2996	0.2818
Bihar	0.3252	0.2360	0.4520	0.3000	0.5840	0.0763	0.0748	0.2782	0.3604	0.2306
Chhattisgarh	0.2014	0.4060	0.6822	0.2333	NA	0.4912	0.2538	0.3640	0.3378	0.3428
Delhi	0.8018	0.7240	0.1518	0.6000	NA	0.0764	0.9129	0.3321	0.4795	0.3931
Goa	0.8982	0.7740	0.3032	0.8500	NA	0.3677	1.0000	0.5804	0.6506	0.6355
Gujarat	0.6675	0.5600	0.3244	0.4000	0.7760	0.1227	0.4286	0.4081	0.5190	0.4109
Haryana	0.7769	0.5120	0.3470	0.3167	0.7460	0.0392	0.5264	0.3295	0.5043	0.3523
Himachal Pradesh	0.8388	0.6560	0.7226	0.4167	NA	0.7391	0.4286	0.6570	0.6380	0.6119
Jammu & Kashmir	0.7930	0.3440	0.4200	0.3833	NA	0.1011	0.2048	0.3385	0.4578	0.3113
Jharkhand	0.2608	0.3280	0.5868	0.3833	NA	0.3290	0.1712	0.3633	0.3725	0.3205
Karnataka	0.5818	0.5080	0.4574	0.4833	0.7340	0.2218	0.4599	0.4690	0.5447	0.4677
Kerala	0.8589	0.8800	0.3100	0.8000	0.8780	0.3233	0.4851	0.6133	0.6971	0.5931
Madhya Pradesh	0.3670	0.3860	0.5816	0.1000	0.5580	0.3413	0.1703	0.3409	0.3408	0.3087
Maharashtra	0.6530	0.6460	0.5012	0.6000	0.8640	0.2223	0.4649	0.5384	0.6426	0.5273
Manipur	0.2622	0.5840	0.7396	0.8333	NA	0.8668	0.1540	0.6061	0.5542	0.4823

43.		1	2	c	4	5	6	~	Methodology 1	Methodology 1 Methodology 2 Methodology 3	Methodology 3
5		MDG 1 MDG 2	MDG 2	MDG 3	MDG 4	MDG 5	MDG 7	GDP PC (current prices)	MDG Index	MDG Index MDG Index MDG Index (without forest with GDP cover)	MDG Index with GDP
		(Max- (Actual- Actual)/ Min)/ (Max-Min) (Max-Min)	(Actual- Min)/ (Max-Min)	(Max- Actual)/ (Max-Min)	(Max- Actual)/ (Max-Min)	(Max- Actual)/ (Max-Min)	(Actual- Min)/ (Max-Min)	(Actual- Min)/ (Max-Min)	Geometric Mean of Col 1 to Col 6	GeometricGeometricGeometricMean ofMean ofMean ofCol 1 to Col 6Col 1 to Col 51 to Col 7	Geometric Mean of Col 1 to Col 7
	Meghalaya	0.7626	0.4880	0.7100	0.2167	NA	0.4704	0.2104	0.4854	0.4892	0.4223
	Mizoram	0.5919	0.8260	0.6762	0.4167	NA	0.2973	0.2810	0.5278	0.6092	0.4752
	Nagaland	0.6224	0.5920	0.8264	0.7000	NA	0.6180	0.2539	0.6667	0.6795	0.5676
	Odisha	0.3482	0.4580	0.4210	0.1500	0.5560	0.4149	0.1954	0.3639	0.3545	0.3330
	Punjab	0.8349	0.5160	0.1752	0.5667	0.7180	0.0680	0.3908	0.3575	0.4983	0.3621
	Rajasthan	0.7058	0.3220	0.6730	0.2167	0.5120	0.1063	0.2477	0.3489	0.4425	0.3322
т	Sikkim	0.8362	0.6280	0.5882	0.6333	NA	0.9146	0.7548	0.7088	0.6651	0.7163
	Tamil Nadu	0.7743	0.6020	0.4498	0.6500	0.8420	0.1954	0.4502	0.5310	0.6486	0.5187
	Tripura	0.7190	0.7440	0.3560	0.5667	NA	0.6669	0.2279	0.5908	0.5732	0.5040
1 1	Uttarakhand	0.7748	0.3540	0.3808	0.1667	NA	0.7894	0.1222	0.4242	0.3632	0.3448
ī	Uttar Pradesh	0.4115	0.5760	0.5402	0.4667	0.4300	0.0764	0.4676	0.3539	0.4808	0.3683
nal c	West Bengal	0.6004	0.5260	0.2202	0.4833	0.7740	0.1487	0.2553	0.3962	0.4820	0.3721
C											

0 7 7 A A A A

into account all the MDGs, Methodology 2 ignores forest cover and Methodology 3 introduces GDP in the calculations. Figure 2 provides the snapshot of MDG Index.

Table 6 provides the rankings of the states based on the three indices. As can be seen, as per methodology 1 calculation, the highest number is for the state of Sikkim while the lowest is for the state of Bihar. But if we ignore forest cover, we can see that Kerala is ranked the highest and Assam is ranked the lowest. It is important to factor the GDP of the state and when we do that Sikkim again tops the charts and Bihar lags behind the most. Looking at the numbers presented in Table 5 and the ranks in Table 6, the state which is performing the worst in a particular MDG could be identified and hence, policy measures could be directed towards that factor. States like Chattisgarh and Jharkhand need to provide measures to reduce poverty and states of Bihar and Arunachal Pradesh need to improve literacy rates. The index provides a progress report which could help in determining overall effectiveness of the initiatives taken by the states. Not only does it provide the success of the past policies but also provides the road map for the future initiatives.

Methodology 1		Methodology 2		Methodology 3	
	MDG Index		DG Index thout forest cover)		MDG Index with GDP
States	Rank	States	Rank	States	Rank
Sikkim	1	Kerala	1	Sikkim	1
Nagaland	2	Nagaland	2	Goa	2
Himachal Pradesh	3	Sikkim	3	Himachal Pradesh	3
Kerala	4	Goa	4	Kerala	4
Manipur	5	Tamil Nadu	5	Nagaland	5
Tripura	6	Maharashtra	6	Maharashtra	6
Goa	7	Himachal Pradesh	7	Tamil Nadu	7
Maharashtra	8	Mizoram	8	Tripura	8
Tamil Nadu	9	Tripura	9	Manipur	9
Mizoram	10	Manipur	10	Mizoram	10
Meghalaya	11	Karnataka	11	Karnataka	11
Andhra Pradesh	12	Andhra Pradesh	12	Andhra Pradesh	12
Karnataka	13	Gujarat	13	Arunachal Pradesh	13
Arunachal Pradesh	14	Haryana	14	Meghalaya	14
Uttarakhand	15	Punjab	15	Gujarat	15
Gujarat	16	Meghalaya	16	Delhi	16
West Bengal	17	West Bengal	17	West Bengal	17
Chhattisgarh	18	Uttar Pradesh	18	Uttar Pradesh	18

Table 6 State-wise Ranking based on MDG Index

contd. table 6

States	Rank	States	Rank	States	Rank
Odisha	19	Delhi	19	Punjab	19
Jharkhand	20	Jammu & Kashmir	20	Haryana	20
Punjab	21	Rajasthan	21	Uttarakhand	21
Uttar Pradesh	22	Arunachal Pradesh	22	Chhattisgarh	22
Rajasthan	23	Jharkhand	23	Odisha	23
Madhya Pradesh	24	Uttarakhand	24	Rajasthan	24
Jammu & Kashmir	25	Bihar	25	Jharkhand	25
Delhi	26	Odisha	26	Jammu & Kashmir	26
Haryana	27	Madhya Pradesh	27	Madhya Pradesh	27
Assam	28	Chhattisgarh	28	Assam	28
Bihar	29	Assam	29	Bihar	29

Millennium Development Goals and India: A Cross Sectional Analysis

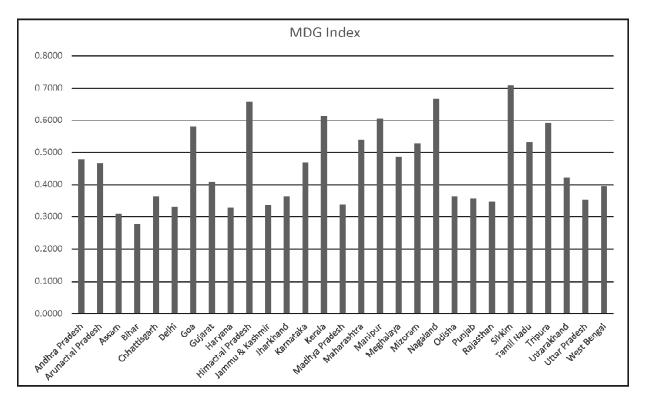


Figure 1: MDG Index for Indian States

CONCLUSION

Millennium Development Goals have gained a lot of significance in eradication of poverty and human development. Countries have taken a lot of initiatives to meet the targets for the same and have achieved progress in this regard. However, countries like India, need to keep approaching the targets as they have progressed in some goals and lagged behind in others. With social spending on interventions such as MGNREGA and the National Rural Health Mission (NRHM), introduction of Right of Children to Free

and Compulsory Education Act (RTE), National Policy on Children (2013); National Policy on Early Childhood Care and Education; Integrated Child Development Services (ICDS) and other initiatives focusing on holistic child development, introduction Janani Suraksha Yojana etc. the government has shown commitment towards meeting the global targets for the eight MDGs. However, progress has been slow. Since India is a conglomeration of diverse states, it becomes imperative to analyse the achievement of MDGs at state-level. This paper tries to analyse some metrics of the MDGs and provides a state-wise comparison of the same. The paper also proposes an index to aid in ranking the states so that state-wise policies could be initiated in developing the parameter in which the state lags behind. This research study contributes to the immense developmental economics literature and tries to provide implications for policy makers in a developing economy like India. It not only highlights the past success but also suggests a way to provide roadmap for policy initiatives in the future. There are some limitations of this study and there is a lot of scope to take this research further. The limitations include data availability for the states and hence only some metrics for MDGs could be used. If the data is made available then the index could be made more accurate and comprehensive.

REFERENCES

- Clemens, M., Kenny, C., & Moss, T. (2004). The trouble with the MDGs:confronting expectations of aid and development success. *Working Paper No* 40. Washington DC, Washington DC: Center for Global Development.
- Dasgupta, P. (1993). An Inquiry into Well-being and Destitution. Oxford: Clarendon Press.
- Ghosh, M. (2017). Regional Disparities in Education, Health and Human Development in India. *Indian Journal of Human Development*, 5(1), 5-28.
- Hogan, M. F., Naghavi, M., Ahn, S. Y., Wang, M., Makela, S. M., Lopez, A. D., . . . Murray, C. J. (2010). Maternal mortality for 181 countries, 1980–2008: a systematic analysis of progress towards Millennium Development Goal 5. *The lancet,* 375(9726), 1609-1623.
- Liu, L., Oza, S., Hogan, D., Perin, J., Rudan, I., Lawn, J., . . . Black, R. (2015). Global, regional, and national causes of child mortality in 2000–13, with projections to inform post-2015 priorities: an updated systematic analysis. *The Lancet, 385*(9966), 430-440.
- Murray, C. J., Laakso, T., Shibuya, K., Hill, K., & Lopez, A. D. (2007). Can we achieve Millennium Development Goal 4? New analysis of country trends and forecasts of under-5 mortality to 2015. *The Lancet*, 370(9592), 1040-1054.
- Nath, A. (2011). India's progress toward achieving the millennium development goals. Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine, 36(2), 85.
- Palma, M., Hernández, I., Alvarez-Dardet, C., Gil-González, D., Ruiz, M., & Medina, M. (2009). Economic factors related to the Millennium Development Goals: a literature review. *Pan American Journal of Public Health*, 26(2), 161-171.
- Reddy, H., Pradhan, M. R., Ghosh, R., & Khan, A. G. (2012). India's progress towards the Millennium Development Goals 4 and 5 on infant and maternal mortality. *WHO South-East Asia Journal of Public Health*, 1(3), 279-289.
- Sachs, J., & McArthur, J. (2005). The millennium project: a plan for meeting the millennium development goals. *The Lancet,* 365(9456), 347.
- Sen, A. (1987). Standard of Living. New York: Cambridge University Press.

Sen, A. K. (1985). Commodities and Capabilities . North Holland: Oxford University Press.

UNDP. (1990). Human Development Report. New York: Oxford University Press.

UNDP. (2015). The Millennium Development Goals Report. New York: United nations.

UNDP. (2016). UNDP Human Development Report. http://hdr.undp.org/en/content/calculating-indices: UNDP.

World Bank. (2003). The Millennium Development Goals for health. Washington: World Bank.

International Journal of Applied Business and Economic Research