# Trends in Determinants of Human Development: Case of India 

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#### Abstract

The paper attempted to review trends which had existed with respected to various determinants of human development in India. For such a purpose, authors extracted relevant statistics in context with economic, education, health, and gender dimensions of human development from the World Bank's depository. Extracted statistics followed conceptual frameworks as designed by various international bodies such as the International Labour Organisation (ILO), the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the United Nations Population Division (UNPD), the United Nations Statistical Division (UNSD), et cetera in order to arrange statistical and quantitative information on these particular dimensions. After tabulating and analysing statistics, these trends became apparent. It was evident that some determinants exhibited increasing trends, whereas others exhibited decreasing trends. Statistics also rendered gender gaps in context with some of the determinants. It endeavoured to make an appropriate conclusion at the end recording certain implications yielding positive and negative impacts on human development.


Keywords: Human Development, Economic, Education, Health, Gender, Gaps.

## 1. CONTEXTUAL BACKGROUND

While investigating economic growth of India, Klein and Palanivel (2000) attempted to put some light on the fact that the new economic policy of the 1990s had enabled the economy to accelerate its growth. It had, previously, grown at 3.7 per cent per year from 1960 to 1980, whereas it had, further, improved substantially to grow at 5.8 per cent per year in the 1980s, and it laid the basis for introduction of the new economic reforms which had yielded positive impacts on economic growth. As a consequence, the economy had grown at 5.1 per cent per year in the first half of the 1990s and at 6.5 per cent per year in the second half of 1990s. From 1994 to 1997, the economy had grown consistently at more than 7 per cent per year and allowed itself to secure a position amongst the best performing economies in the world. Such a position also allowed targeting growth rate at 8 per cent per year. A growth rate like this could be attained if investments rates and efficiency levels were to be raised. When taking a note of employment in India, Mehrotra, Parida, Sinha, and Gandhi (2014) explored employment trends from 1993-94 to 2011-12. They made use of the unit-level data of National Sample Survey Organisation (NSSO). One of the major findings of their study was that there had been a structural transformation in employment in the shape of an absolute fall in agricultural employment and a clear rise in non-agricultural employment. They also observed a declining trend in context with child labour. It was discovered that due to farm mechanisation, rising real wages in rural areas leading to decline in workforce, and improving living standards, this structural transformation was possible. It was also found that, from 2004-05 to 2009-10, due to fall in demand for manufacturing exports and rise in capital intensity, employment in manufacturing sector had decreased. A dire need was felt to generate 17 million jobs per year in non-agricultural sector from 2012 to 2017.

For examining trends and gender gaps in various aspects of education in India, Siddhanta and Nandy (2003) stressed upon advocating equal access to educational opportunities, and they laid emphasis on the fact that gender gaps in educational attainment were evident and quite strong. They also recorded a gap between female and male literacy rate at national level as well as state level, respectively, and they traced that these gaps, in equitable educational development, primarily existed due to gender gaps in mean years of schooling. Recording trends and gender gaps in education, Sundaram and Vanneman (2008) tracked that these gaps were expanding, and they also unveiled that females' higher proportion in labour force was responsible for such a condition. Registering gender gaps, Ganguli, Hausmann, and Viarengo (2011) claimed that these gaps were declining in many countries, but were rising in India. Talking in context with enrolment rate, Self and Grabowski (2004) investigated female and male enrolment at primary and secondary levels of education, and they found obvious differences between female and male enrolment. It was also noticed that such a difference had contracted a little at primary level of education, but had remained persistent at secondary level of education.

On similar notes, Bandyopadhyay and Subrahmanian (2008) enquired that female enrolment at primary and secondary levels of education had increased, but had remained less than their male counterparts. Exploring enrolment at primary level of education, Ramachandran (2009) discovered the fact that while enrolment was above 100 per cent, gender gaps were evident. She uncovered the fact that these gaps in enrolment were contracting, but persisted in context with drop-out rate.

Upon enquiring opportunities and challenges in health system in India, Ramani and Mavalankar (2005) explored a strong correlation between health and socio-economic development. They found these two to be inseparable. They claimed that economic growth was rising consistently and health system was at crossroads. They traced that initiatives taken by government in public health sector were successful up to a greater extent and had allowed India to stand at $118^{\text {th }}$ rank amongst 191 World Health Organisation (WHO) member nations in context with overall health performance. They observed that establishing public health system which was responsive to the needs of common masses, especially poor, was a challenging task as it had to meet politically difficult and administratively demanding choices. It was believed that India was in an ideal position to introduce reforms in its public health system so as to meet rising aspirations, expectations, and demands of its users and staffs. Tracking health expenditure as a percentage of GDP in India, it was revealed that public health expenditure as a percentage of GDP had increased from 1.16 per cent in 2010 to 1.40 per cent in 2014, private health expenditure as a percentage of GDP had increased from 3.11 per cent in 2010 to 3.27 per cent in 2014, and total health expenditure as a percentage of GDP had increased from 4.29 per cent in 2010 to 5.04 per cent in 2014. With an increasing trend in health expenditure as a percentage of GDP, it could be claimed that a larger section of population might be provided with greater coverage under health care facilities (World Development Indicators, 2014).

Noticing gender discrimination in India, Ghose (2011) reported about gender bias against females, and he explained that parents were spending little on their daughters and relatively more on their sons. Similarly, Waris and Viraktamath (2013) recorded gender discrimination and women's empowerment and talked about considering gender equality as an important ingredient in attaining social and institutional change that would lead to sustainable development with equity and growth. They found gender inequalities, most commonly, in context with health and education, participation in public life and policy making, economic development, violence against women, et cetera. A skewed sex-ratio of 933 females to 1,000 males was found to be one of the most prevalent evidences of gender discrimination, and maternal mortality stood at the second highest spot in the world. Around one million females died due to pregnancy and related issues every year. They also unveiled the fact that a lower literacy rate in the case of females than their male counterparts also reflected gender discrimination and low level of women's empowerment. Females' early marriage was also one of the key determinants of gender discrimination.

## 2. STATISTICS OF DETERMINANTS OF HUMAN DEVELOPMENT IN INDIA

The section on statistics of determinants of human development in India has further been divided into the following sub-sections:

- Economic dimension of human development
- Education dimension of human development
- Health dimension of human development
- Gender dimension of human development


### 2.1. ECONOMIC DIMENSION OF HUMAN DEVELOPMENT

While investigating national income and national income per capita, table 1 exhibits statistics for Adjusted Net National Income ${ }^{1}$ (ANNI) and Adjusted Net National Income Per Capita (ANNIPC). Talking about ANNI at current US \$, it was \$ 1571244966925.36 in 2011, whereas it was \$ 1577445710644.43 in 2012. In 2013, it was \$ 1604116158274.06 . It was $\$ 1765897572592.46$ in 2014, whereas it was $\$ 1805374507497.47$ in 2015. Annual \% growth in ANNI was 6.43 per cent in 2011, whereas it was 5.28 per cent in 2012. In 2013, it was 5.59 per cent. It was 7.60 per cent in 2014, whereas it was 6.80 per cent in 2015. Talking about ANNIPC at current US \$, it was \$ 1259.78 in 2011, whereas it was $\$ 1248.90$ in 2012. In 2013, it was $\$ 1254.62$. It was $\$$ 1264.82 in 2014, whereas it was $\$ 1379.14$ in 2015. Annual \% growth in ANNIPC was 5.04 per cent in 2011, whereas it was 3.96 per cent in 2012. In 2013, it was 4.31 per cent. It was 6.33 per cent in 2014 , whereas it was 5.56 per cent in 2015.

TABLE 1: ADJUSTED NET NATIONAL INCOME (ANNI) AND ADJUSTED NET NATIONAL INCOME PER CAPITA (ANNIPC)

| Year | ANNI $^{*}$ and ANNI ${ }^{\#}$ |  | ANNIPC $^{\text {** }}$ and ANNIPC $^{\text {\#\# }}$ |  |
| :--- | :---: | :---: | :---: | :---: |
| 2011 | 1571244966925.36 | 6.43 | 1259.78 | 5.04 |
| 2012 | 1577445710644.43 | 5.28 | 1248.90 | 3.96 |


| 2013 | 1604116158274.06 | 5.59 | 1254.62 | 4.31 |
| :--- | :--- | :--- | :--- | :--- |
| 2014 | 1765897572592.46 | 7.60 | 1364.82 | 6.33 |
| 2015 | 1805374507497.47 | 6.80 | 1379.14 | 5.56 |

Notes:* Current US \$.
${ }^{* *}$ Current US \$.
\#Annual \% growth.
\#\# Annual \% growth.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
When taking note of employment, table 2 interprets statistics for employment to population ratio (modelled ILO estimates) ${ }^{2}$. Talking about employment to population ratio (modelled ILO estimates) for population ages 15 and above (\%), it was 26.48 per cent in the case of females, 77.41 per cent in the case of males, and 52.70 per cent in totality in 2011, whereas it was 25.69 per cent in the case of females, 76.81 per cent in the case of males, and 52.01 per cent in totality in 2012. In 2013, it was 25.67 per cent in the case of females, 76.62 per cent in the case of males, and 51.90 per cent in totality. It was 25.61 per cent in the case of females, 76.42 per cent in the case of males, and 51.77 per cent in totality in 2014 , whereas it was 25.75 per cent in the case of females, 76.44 per cent in the case of males, and 51.85 per cent in totality in 2015. Talking about employment to population ratio (modelled ILO estimates) for population ages 15-24 (\%), it was 16.34 per cent in the case of females, 47.69 per cent in the case of males, and 32.75 per cent in totality in 2011, whereas it was 15.53 per cent in the case of females, 46.02 per cent in the case of males, and 31.51 per cent in totality in 2012. In 2013, it was 15.21 per cent in the case of females, 45.46 per cent in the case of males, and 31.09 per cent in totality. It was 14.97 per cent in the case of females, 45.01 per cent in the case of males, and 30.75 per cent in totality in 2014 , whereas it was 15.14 per cent in the case of females, 45.02 per cent in the case of males, and 30.85 per cent in totality in 2015.

TABLE 2: EMPLOYMENT TO POPULATION RATIO (MODELLED ILO ESTIMATES)

| Year | Population Ages 15 and Above (\%) |  | Population Ages 15-24 (\%) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Female | Male | Total | Female | Male | Total |
| 2011 | 26.48 | 77.41 | 52.70 | 16.34 | 47.69 | 32.75 |
| 2012 | 25.69 | 76.81 | 52.01 | 15.53 | 46.02 | 31.51 |
| 2013 | 25.67 | 76.62 | 51.90 | 15.21 | 45.46 | 31.09 |
| 2014 | 25.61 | 76.42 | 51.77 | 14.97 | 45.01 | 30.75 |
| 2015 | 25.75 | 76.44 | 51.85 | 15.14 | 45.02 | 30.85 |

Note: Values after decimals are approximate values.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
For examining unemployment, table 3 presents statistics for unemployment (modelled ILO estimates) $(\%)$. It was 4.34 per cent in the case of females, 3.27 per cent in the case of males, and 3.53 per cent in totality in 2011, whereas it was 4.23 per cent in the case of females, 3.42 per cent in the case of males, and 3.62 per cent in totality in 2012. In 2013, it was 4.17 per cent in the case of females, 3.38 per cent in the case of males, and 3.57 per cent in totality. It was 4.00 per cent in the case of females, 3.38 per cent in the case of males, and 3.52 per cent in totality in 2014, whereas it was 3.88 per cent in the case of females, 3.62 per cent in the case of males, and 3.49 per cent in totality in 2015.

TABLE 3: UNEMPLOYMENT (MODELLED ILO ESTIMATES) (\%)

| Year | Female $^{*}$ | Male $^{* *}$ | Total $^{* * *}$ |
| :---: | :---: | :---: | :---: |
| 2011 | 4.34 | 3.27 | 3.53 |
| 2012 | 4.23 | 3.42 | 3.62 |
| 2013 | 4.17 | 3.38 | 3.57 |
| 2014 | 4.00 | 3.38 | 3.52 |
| 2015 | 3.88 | 3.62 | 3.49 |

Notes: Values after decimals are approximate values.
*\% of female labour force.
${ }^{* *} \%$ of male labour force.
${ }^{* * *} \%$ of total labour force.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
Table 4 records statistics for employment in agriculture, industry, and services (\%). Talking about employment in agriculture, it was 70.91 per cent in the case of females, 49.25 per cent in the case of males, and
55.81 per cent in totality in 2005 , whereas it was 65.26 per cent in the case of females, 46.13 per cent in the case of males, and 51.06 per cent in totality in 2010. Talking about employment in industry, it was 14.35 per cent in the case of females, 20.97 per cent in the case of males, and 18.96 per cent in totality in 2005 , whereas it was 17.76 per cent in the case of females, 23.97 per cent in the case of males, and 22.37 per cent in totality in 2010. Talking about employment in services, it was 14.72 per cent in the case of females, 29.76 per cent in the case of males, and 25.20 per cent in totality in 2005, whereas it was 16.96 per cent in the case of females, 29.88 per cent in the case of males, and 26.56 per cent in totality in 2010.

TABLE 4: EMPLOYMENT IN AGRICULTURE, INDUSTRY, AND SERVICES (\%)

| Year | Agriculture |  |  | Industry |  |  | Services |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Female ${ }^{*}$ | Male ${ }^{* *}$ | Total ${ }^{* * *}$ | Female ${ }^{\text {\# }}$ | Male ${ }^{\text {\#\# }}$ | Total ${ }^{\text {\#\#\# }}$ | Female ${ }^{\wedge}$ | Male ${ }^{\wedge \wedge}$ | Total ${ }^{\wedge \wedge \wedge}$ |
| 2005 | 70.91 | 49.25 | 55.81 | 14.35 | 20.97 | 18.96 | 14.72 | 29.76 | 25.20 |
| 2010 | 65.26 | 46.13 | 51.06 | 17.76 | 23.97 | 22.37 | 16.96 | 29.88 | 26.56 |

Notes: Values after decimals are approximate values
***, \#, \& ^\% of female employment.
${ }^{* *}$ \# \# $^{*} \&^{\wedge} \%$ of male employment.
${ }^{* * *}$, \#\#\#, \& ${ }^{\wedge \wedge} \%$ of total employment.
Source: Authors' tabulation using statistics of World Bank's depository - 2005 \& 2010.
Registering child labour, table 5 renders statistics for children in employment (\% of children ages 7$14)^{3}$. It was 4.20 per cent in the cases of both females and males as well as in totality in 2005 , whereas it was 2.10 per cent in the case of females, 2.80 per cent in the case of males, and 2.50 per cent in totality in 2010.

TABLE 5: CHILDREN IN EMPLOYMENT (\% OF CHILDREN AGES 7-14)

| Year | Female | Male | Total |
| :---: | :---: | :---: | :---: |
| 2005 | 4.20 | 4.20 | 4.20 |
| 2010 | 2.10 | 2.80 | 2.50 |

Source: Authors' tabulation using statistics of World Bank’s depository - 2005 \& 2010.

### 2.2. EDUCATION DIMENSION OF HUMAN DEVELOPMENT

While investigating literacy, table 6 exhibits statistics for Youth Literacy Rate (YLR) (\%) and Adult Literacy Rate (ALR) (\%). Talking about YLR (\%), it was 67.74 per cent in the case of females and 84.19 per cent in the case of males in 2001, whereas it was 74.35 per cent in the case of females and 88.41 per cent in the case of males in 2006. It was 81.84 per cent in the case of females and 90.04 per cent in the case of males in 2011, whereas it was 87.25 per cent in the case of females and 91.83 per cent in the case of males in 2015. Talking about ALR (\%), it was 47.84 per cent in the case of females and 73.41 per cent in the case of males in 2001, whereas it was 50.82 per cent in the case of females and 75.19 per cent in the case of males in 2006. It was 59.27 per cent in the case of females and 78.87 per cent in the case of males in 2011, whereas it was 62.98 per cent in the case of females and 80.93 per cent in the case of males in 2015.

TABLE 6: YOUTH LITERACY RATE (YLR) (\%) AND ADULT LITERACY RATE (ALR) (\%)

| Year | YLR $^{*}$ (\%) |  | ALR $^{* *}$ (\%) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Female | Male | Female | Male |
| 2001 | 67.74 | 84.19 | 47.84 | 73.41 |
| 2006 | 74.35 | 88.41 | 50.82 | 75.19 |
| 2011 | 81.84 | 90.04 | 59.27 | 78.87 |
| 2015 | 87.25 | 91.83 | 62.98 | 80.93 |

Notes: Values after decimals are approximate values.
*Percentage of population ages 15 to 24.
${ }^{* *}$ Percentage of population ages 15 and above.
Source: Authors' tabulation using statistics of World Bank's depository - 2001, 2006, 2011, \& 2015.
When taking note of enrolment at school level, table 7 interprets statistics for Gross Enrolment Ratio (GER) at primary and secondary levels of education (statistics for GER at tertiary level of education are not available). Talking about GER at primary level of education, it was 110.02 in the case of females and 106.89 in the case of males in 2011, whereas it was 111.72 in the case of females and 107.99 in the case of males in 2012. In 2013, it was 116.98 in the case of females and 104.85 in the case of males. It was 114.08 in the case of females and 102.40 in the case of males in 2014, whereas it was 115.06 in the case of females and 102.81 in the
case of males in 2015. Talking about GER at secondary level of education, it was 64.41 in the case of females and 68.23 in the case of males in 2011, whereas it was 67.37 in the case of females and 70.77 in the case of males in 2012. In 2013, it was 69.23 in the case of females and 68.59 in the case of males. It was 74.79 in the case of females and 73.81 in the case of males in 2014, whereas it was 74.45 in the case of females and 73.53 in the case of males in 2015.

TABLE 7: GROSS ENROLMENT RATIO (GER) AT PRIMARY AND SECONDARY LEVELS OF EDUCATION*

| Year | Primary |  | Secondary |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Female | Male | Female | Male |
| 2011 | 110.02 | 106.89 | 64.41 | 68.23 |
| 2012 | 111.72 | 107.99 | 67.37 | 70.77 |
| 2013 | 116.98 | 104.85 | 69.23 | 68.59 |
| 2014 | 114.08 | 102.40 | 74.79 | 73.81 |
| 2015 | 115.06 | 102.81 | 74.45 | 73.53 |

Notes: Values after decimals are approximate values.
*Statistics for GER at tertiary level of education are not available.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
For examining parity between females and males in context with enrolment at various levels of education, table 8 presents statistics for Gender Parity Index (GPI) for GER at primary, secondary, and tertiary levels of education ${ }^{4}$. Talking about GPI for primary GER, it was 1.03 in both 2011 and 2012, whereas it was 1.11 in both 2013 and 2014. It was 1.12 in 2015. Talking about GPI for secondary GER, it was 0.94 in 2011, whereas it was 0.95 in 2012. In 2013, 2014, and 2015, it was 1.01 , respectively. Talking about GPI for tertiary GER, statistics were not available for 2011 and 2012. It was $0.93,0.98$, and 0.99 in 2013, 2014, and 2015, respectively.

TABLE 8: GENDER PARITY INDEX (GPI) FOR GER AT PRIMARY, SECONDARY, AND TERTIARY LEVELS OF EDUCATION

| Year | GPI for Primary GER | GPI for Secondary GER | GPI for Tertiary GER |
| :--- | :---: | :---: | :---: |
| 2011 | 1.03 | 0.94 | NA |
| 2012 | 1.03 | 0.95 | NA |
| 2013 | 1.11 | 1.01 | 0.93 |
| 2014 | 1.11 | 1.01 | 0.98 |
| 2015 | 1.12 | 1.01 | 0.99 |

Notes: Values after decimals are approximate values.
NA implies non-availability of statistics.
Source: Authors' tabulation using statistics of World Bank’s depository - 2011-2015.
Table 9 records statistics for educational attainment of population ages 25 and above (\%). In 2011, 12.54 per cent of females and 15.15 per cent of males had completed primary education, 8.29 per cent of females and 12.95 per cent of males had completed lower secondary education, and 6.70 per cent of females and 11.46 per cent of males had completed bachelor's degree or equivalent education, respectively.

TABLE 9: EDUCATIONAL ATTAINMENT OF POPULATION AGES 25 AND ABOVE (\%)

| Year | Completed Primary <br> Education* |  | Completed Lower Secondary <br> Education** | Completed Bachelor's <br> Degree or Equivalent <br> Education*** |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Female | Male | Female | Male | Female | Male |
| 2011 | 12.54 | 15.15 | 8.29 | 12.95 | 6.70 | 11.46 |

Notes: Values after decimals are approximate values.
*Attained primary education as the highest level of education.
${ }^{* *}$ Attained lower secondary education as the highest level of education.
${ }^{* * *}$ Attained bachelor's degree or equivalent education as the highest level of education.
Source: Authors' tabulation using statistics of World Bank's depository - 2011.
Registering completion of education at various levels, table 10 renders statistics for completion rate (\% of relevant age group). Talking about primary completion rate, it was 65.45 per cent in the case of females and 78.82 per cent in the case of males in 2011 , whereas it was 77.29 per cent in the case of females and 83.04 per
cent in the case of males in 2012. In 2013, it was 95.14 per cent in the case of females and 94.80 per cent in the case of males. It was 93.28 per cent in the case of females and 92.51 per cent in the case of males in 2014, whereas it was 100.11 per cent in the case of females and 95.24 per cent in the case of males in 2015. Talking about secondary completion rate, it was 65.23 per cent in the case of females and 71.07 per cent in the case of males in 2011, whereas it was 75.38 per cent in the case of females and 77.41 per cent in the case of males in 2012. In 2013, it was 88.41 per cent in the case of females and 78.68 per cent in the case of males. It was 88.17 per cent in the case of females and 83.36 per cent in the case of males in 2014, whereas it was 88.13 per cent in the case of females and 83.18 per cent in the case of males in 2015 . Talking about tertiary completion rate, statistics were not available for 2011 and 2012. In 2013, it was 32.39 per cent in the case of females and 30.17 per cent in the case of males. It was 28.09 per cent in the case of females and 24.92 per cent in the case of males in 2014, whereas it was 30.59 per cent in the case of females and 26.99 per cent in the case of males in 2015.

TABLE 10: COMPLETION RATE (\% OF RELEVANT AGE GROUP)

| Year | Primary |  | Secondary |  | Tertiary |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Female | Male | Female | Male | Female | Male |
| 2011 | 65.45 | 78.82 | 65.23 | 71.07 | NA | NA |
| 2012 | 77.29 | 83.04 | 75.38 | 77.41 | NA | NA |
| 2013 | 95.14 | 94.80 | 88.41 | 78.68 | 32.39 | 30.17 |
| 2014 | 93.28 | 92.51 | 88.17 | 83.36 | 28.09 | 24.92 |
| 2015 | 100.11 | 95.24 | 88.13 | 83.18 | 30.59 | 26.99 |

Notes: Values after decimals are approximate values.
NA implies non-availability of statistics.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
While investigating persistence of students at primary level of education and progression to secondary level of education, table 11 exhibits statistics for persistence to grade 5 ( $\%$ of cohort) ${ }^{5}$ and progression to secondary school (\%) ${ }^{6}$. Talking about persistence to grade 5 ( $\%$ of cohort), it was 63.53 per cent in the case of females and 59.70 per cent in the case of males in 2001, whereas it was 81.47 per cent in the case of females and 82.18 per cent in the case of males in 2013. Talking about progression to secondary school (\%), it was 90.96 per cent in the case of females and 94.73 per cent in the case of males in 2001 , whereas it was 91.19 per cent in the case of females and 91.14 per cent in the case of males in 2013.

TABLE 11: PERSISTENCE TO GRADE 5 (\% OF COHORT) AND PROGRESSION TO SECONDARY SCHOOL (\%)

| Year | Persistence to Grade 5 (\% of Cohort) |  | Progression to Secondary School (\%) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Female | Male | Female | Male |
| 2001 | 63.53 | 59.70 | 90.96 | 94.73 |
| 2013 | 81.47 | 82.18 | 91.19 | 91.14 |

Note: Values after decimals are approximate values.
Source: Authors' tabulation using statistics of World Bank's depository - 2001 \& 2013.

### 2.3. HEALTH DIMENSION OF HUMAN DEVELOPMENT

When taking note of fertility, table 12 interprets statistics for Adolescent Fertility Rate (AFR) and Total Fertility Rate (TFR). Talking about AFR, it was 33.26 in 2011, whereas it was 30.43 in 2012. In 2013, it was 28.05. It was 25.67 in 2014, whereas it was 23.29 in 2015. Talking about TFR, it was 2.56 in 2011, whereas it was 2.51 in 2012. In 2013, it was 2.46. It was 2.42 in 2014, whereas it was 2.39 in 2015.

TABLE 12: ADOLESCENT FERTILITY RATE (AFR) AND TOTAL FERTILITY RATE (TFR)

| Year | AFR $^{*}$ | TFR $^{* *}$ |
| :---: | :---: | :---: |
| 2011 | 33.26 | 2.56 |
| 2012 | 30.43 | 2.51 |
| 2013 | 28.05 | 2.46 |
| 2014 | 25.67 | 2.42 |
| 2015 | 23.29 | 2.39 |

Notes: Values after decimals are approximate values.
*Births per 1,000 women ages 15-19.
${ }^{*}$ Births per women.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.

For examining births and deaths, table 13 presents statistics for Crude Birth Rate (CBR) and Crude Death Rate (CDR) ${ }^{7}$. Talking about CBR, it was 21.11 in 2011, whereas it was 20.67 in 2012. In 2013, it was 20.29. It was 19.95 in 2014, whereas it was 19.65 in 2015. Talking about CDR, it was 7.52 in 2011, whereas it was 7.44 in 2012. In 2013, it was 7.38. It was 7.33 in 2014, whereas it was 7.30 in 2015.

TABLE 13: CRUDE BIRTH RATE (CBR) AND CRUDE DEATH RATE (CDR)

| Year | CBR $^{*}$ | CDR $^{* *}$ |
| :---: | :---: | :---: |
| 2011 | 21.11 | 7.52 |
| 2012 | 20.67 | 7.44 |
| 2013 | 20.29 | 7.38 |
| 2014 | 19.95 | 7.33 |
| 2015 | 19.65 | 7.30 |

Notes: Values after decimals are approximate values.
*Per 1,000 people.
${ }^{*}$ Per 1,000 people.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
Table 14 records statistics for life expectancy at birth (years). It was 68.19 years in the case of females, 65.67 years in the case of males, and 66.90 years in totality in 2011, whereas it was 68.66 years in the case of females, 65.98 years in the case of males, and 67.28 years in totality in 2012. In 2013, it was 69.09 years in the case of females, 66.29 years in the case of males, and 67.66 years in totality. It was 69.49 years in the case of females, 66.60 years in the case of males, and 68.01 years in totality in 2014, whereas it was 69.85 years in the case of females, 66.91 years in the case of males, and 68.34 years in totality in 2015.

TABLE 14: LIFE EXPECTANCY AT BIRTH (YEARS)

| Year | Female | Male | Total |
| :---: | :---: | :---: | :---: |
| 2011 | 68.19 | 65.67 | 66.90 |
| 2012 | 68.66 | 65.98 | 67.28 |
| 2013 | 69.09 | 66.29 | 67.66 |
| 2014 | 69.49 | 66.60 | 68.01 |
| 2015 | 69.85 | 66.91 | 68.34 |

Note: Values after decimals are approximate values.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
Registering mortality, table 15 renders statistics for Mortality Rate (MR) and Maternal Mortality Ratio (MMR). Talking about MR, it was 57.20 in the case of children under-5 and 189.86 in the case of adults in 2011, whereas it was 54.40 in the case of children under-5 and 261.94 in the case of adults in 2012. In 2013, it was 52.10 in the children under- 5 and 257.37 in the case of adults. It was 49.80 in the case of children under-5 and 252.80 in the case of adults in 2014 , whereas it was 47.70 in the case of children under- 5 and 248.24 in the case of adults in 2015. Talking about MMR, it was 206 in 2011, whereas it was 197 in 2012. In 2013, it was 189. It was 181 in 2014, whereas it was 174 in 2015.

TABLE 15: MORTATILITY RATE (MR) AND MATERNAL MORTALITY RATIO (MMR)

| Year | MR |  | $\mathbf{N M R}^{* * *}$ |
| :---: | :---: | :---: | :---: |
|  | Children Under-5* $^{*}$ | Adult $^{* *}$ |  |
| 2011 | 57.20 | 189.86 | 206 |
| 2012 | 54.40 | 261.94 | 197 |
| 2013 | 52.10 | 257.37 | 189 |
| 2014 | 49.80 | 252.80 | 181 |
| 2015 | 47.70 | 248.24 | 174 |

Notes: In the case of adult MR, values after decimals are approximate values.
*Per 1,000 live births.
${ }^{*}$ Per 1,000 adults.
${ }^{* * *}$ Per 1,00,000 live births (modelled estimates).
Source: Authors' calculations and tabulation using statistics of World Bank's depository - 2011-2015.
While investigating people living with HIV, table 16 exhibits statistics for adults and children newly infected with HIV. Talking about adults and children together, the number was 99,000 in 2011, whereas it was

96,000 in 2012. In 2013, it was 93,000 . It was 89,000 in 2014, whereas it was 86,000 in 2015. Talking about adults only, the number was 82,000 in 2011, whereas it was 80,000 in 2012. In 2013, it was 79,000 . It was 77,000 in 2014, whereas it was 76,000 in 2015.Talking about children only, the number was 17,000 in 2011, whereas it was 16,000 in 2012. In 2013, it was 14,000 . It was 12,000 in 2014, whereas it was 10,000 in 2015.

TABLE 16: ADULTS AND CHILDREN NEWLY INFECTED WITH HIV

| Year | Adults $^{*}$ and Children <br> Together | Adults $^{* * *}$ Only | Children $^{* * *}$ Only |
| :---: | :---: | :---: | :---: |
| 2011 | 99000 | 82000 | 17000 |
| 2012 | 96000 | 80000 | 16000 |
| 2013 | 93000 | 79000 | 14000 |
| 2014 | 89000 | 77000 | 12000 |
| 2015 | 86000 | 76000 | 10000 |

Notes: *Ages 15 and above.
${ }^{* *}$ Ages 0-14.
${ }^{* * * * *}$ Ages 15 and above.
${ }^{* * *}$ Ages 0-14.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
When taking note of women living with HIV, table 17 interprets statistics for women's share of population ages $15+$ living with HIV (\%). It was 38.59 per cent in 2011, whereas it was 39.01 per cent in 2012. In 2013, it was 39.41 per cent. It was 39.78 per cent in 2014, whereas it was 40.12 per cent in 2015.

TABLE 17: WOMEN'S SHARE OF POPULATION AGES 15+ LIVING WITH HIV (\%)

| TABLE 17: WOMEN'S SHARE OF POPULATION AGES 15+ LIVING WITH HIV (\%) |  |
| :--- | :---: |
| Year | Women's Share of Population Ages 15+ Living with HIV (\%) |
| 2011 | 38.59 |
| 2012 | 39.01 |
| 2013 | 39.41 |
| 2014 | 39.78 |
| 2015 | 40.12 |

Note: Values after decimals are approximate values.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
For examining coverage of provision of drugs for treatment of people with HIV, table 18 presents statistics for Antiretroviral Therapy Coverage (ATC). Talking about \% of people living with HIV receiving ATC, it was 24 per cent in 2011, whereas it was 29 per cent in 2012. In 2013, it was 36 per cent. It was 40 per cent in 2014, whereas it was 43 per cent in 2015. Talking about $\%$ of pregnant women living with HIV receiving ATC, it was 0 per cent in 2011, whereas it was 4 per cent in 2012. In 2013, it was 13 per cent. It was 27 per cent in 2014, whereas it was 38 per cent in 2015.

TABLE 18: ANTIRETROVIRAL THERAPY COVERAGE (ATC)

| Year | \% of People Living with HIV Receiving ATC | \% of Pregnant Women Living with HIV <br> Receiving ATC |
| :---: | :---: | :---: |
| 2011 | 24 | 0 |
| 2012 | 29 | 4 |
| 2013 | 36 | 13 |
| 2014 | 40 | 27 |
| 2015 | 43 | 38 |

Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
Table 19 records statistics for incidences of tuberculosis and malaria. Talking about incidences of tuberculosis, the number was 241 in 2011, whereas it was 234 in 2012. In 2013, it was 228. It was 223 in 2014, whereas it was 217 in 2015. Talking about incidences of malaria, the number 18.60 in 2015 (statistics for 20112014 were not available).

## TABLE 19: INCIDENCES OF TUBERCULOSIS AND MALARIA

| Year | Tuberculosis ${ }^{*}$ |  |  |
| :---: | :---: | :---: | :---: |
|  | 241 |  | Malaria $^{* *}$ |
| 2011 |  | NA |  |
| DOI: $10.9790 / 0837-2211020115$ | www.iosrjournals.org | $8 \mid$ Page |  |


| 2012 | 234 | NA |
| :---: | :---: | :---: |
| 2013 | 228 | NA |
| 2014 | 223 | NA |
| 2015 | 217 | 18.60 |

Notes: NA implies non-availability of statistics.
${ }^{*} \% ~ 100,000$ people.
** Per 1,000 population at risk.
Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.
Registering anaemia, table 20 renders statistics for prevalence of anaemia (\%). Talking about prevalence of anaemia amongst children, it was 62.90 per cent in 2007, whereas it was 62.00 per cent in 2008. In 2009, it was 60.90 per cent. It was 60.00 per cent in 2010, whereas it was 59.00 per cent in 2011. Talking about prevalence of anaemia amongst non-pregnant women, it was 52.50 per cent in 2007, whereas it was 51.40 per cent in 2008. In 2009, it was 50.20 per cent. It was 48.90 per cent in 2010, whereas it was 47.80 per cent in 2011. Talking about prevalence of anaemia amongst pregnant women, it was 54.70 per cent in 2007, whereas it was 54.40 per cent in 2008 . In 2009 , it was 54.20 per cent. It was 53.90 per cent in 2010 , whereas it was 53.60 per cent in 2011. Talking about prevalence of anaemia amongst women of reproductive age, it was 52.60 per cent in 2007 , whereas it was 51.60 per cent in 2008 . In 2009 , it was 50.40 per cent. It was 49.20 per cent in 2010, whereas it was 48.10 per cent in 2011.

TABLE 20: PREVALENCE OF ANAEMIA (\%)

| Year | Prevalence of Anaemia (\%) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Children $^{*}$ | Non-Pregnant <br> Women** $_{* * *}^{* * *}$ | Pregnant Women | Women of <br> Reproductive <br> Age $^{* * * *}$ |
| 2007 | 62.90 | 52.50 | 54.70 | 52.60 |
| 2008 | 62.00 | 51.40 | 54.40 | 51.60 |
| 2009 | 60.90 | 50.20 | 54.20 | 50.40 |
| 2010 | 60.00 | 48.90 | 53.90 | 49.20 |
| 2011 | 59.00 | 47.80 | 53.60 | 48.10 |

Notes: *\% of children under-5.
${ }^{* *} \%$ of women ages 15-49.
${ }^{* * *} \%$ of pregnant women.
${ }^{* * * *} \%$ of women ages 15-49.
Source: Authors' tabulation using statistics of World Bank's depository - 2007-2011.
While investigating undernourishment, table 21 exhibits statistics for prevalence of undernourishment (\% of population). It was 15.60 per cent in 2011, whereas it was 15.40 per cent in 2012. In 2013, it was 14.40 per cent. It was 15.30 per cent in 2014, whereas it was 15.20 per cent in 2015.

TABLE 21: PREVALENCE OF UNDERNOURISHMENT (\% OF POPULATION)

| Year | Prevalence of Undernourishment (\% of Population) |
| :---: | :---: |
| 2011 | 15.60 |
| 2012 | 15.40 |
| 2013 | 14.40 |
| 2014 | 15.30 |
| 2015 | 15.20 |

Source: Authors' tabulation using statistics of World Bank's depository - 2011-2015.

### 2.4. GENDER DIMENSION OF HUMAN DEVELOPMENT

When taking note of gender equality, table 22 interprets statistics for CPIA Gender Equality Rating ${ }^{8}$ (CPIA GER). It was 3.50 in both 2009 and 2010. In 2011, 2012, and 2013, it was 3.00, respectively.

TABLE 22: CPIA GENDER EQUALITY RATING (CPIA GER)

| Year | CPIA GER* |
| :---: | :---: |
| 2009 | 3.50 |
| 2010 | 3.50 |
| 2011 | 3.00 |
| 2012 | 3.00 |


| 2013 | 3.00 |
| :---: | :---: |
| Notes: Values after decimals are approximate values. |  |
| ${ }^{*} 1$ (low) to 6 (high). |  |
| Source: Authors' tabulation using statistics of World Bank's depository - 2009-2013. |  |
| For examining women participation in taking decisions, table 23 presents statistics for women |  |
| participating in decisions like own health care, major household purchases, and visiting family (\%). \% of |  |
| participation by women in such decisions was 39.30 per cent in 2006. |  | .

# TABLE 23: WOMEN PARTICIPATING IN DECISIONS LIKE OWN HEALTH CARE, MAJOR HOUSEHOLD PURCHASES, AND VISITING FAMILY (\%) 

| Year | \% of Participation by Women in Such Decisions |
| :---: | :---: |
| 2006 | 39.30 |

Note: * \% of women ages 15-49.
Source: Authors' tabulation using statistics of World Bank's depository - 2006.
Table 24 records statistics for women who believed a husband was justified in beating his wife (\%). In 2006, 30.30 per cent women believed a husband was justified in beating his wife when she argued with him, 20.40 per cent women believed a husband was justified in beating his wife when she burnt the food, 29.00 per cent women believed a husband was justified in beating his wife when she went out without telling him, 34.70 per cent women believed a husband was justified in beating his wife when she neglected the children, and 14.10 per cent women believed a husband was justified in beating his wife when she refused sex with him.

TABLE 24: WOMEN WHO BELIEVED A HUSBAND WAS JUSTIFIED IN BEATING HIS WIFE (\%)

| Year | When |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | She Argued <br> with Him | She Burnt the <br> Food | She went Out <br> Without Telling <br> Him | She Neglected <br> the Children | She Refused <br> Sex with Him |
| 2006 | 30.30 | 20.40 | 29.00 | 34.70 | 14.10 |

Source: Author 24s' tabulation using statistics of World Bank's depository - 2006.
Registering early marriages of women, table 25 renders statistics for women who were first married by age 18 (\% of women ages 20-24). It was 39.90 per cent in 2006.

TABLE 25: WOMEN WHO WERE FIRST MARRIED BY AGE 18 (\% OF WOMEN AGES 20-24)

| Year | Women Who Were First Married by Age 18 (\% of Women Ages 20-24) |
| :--- | :---: |
| 2006 | 39.30 |

Source: Authors' tabulation using statistics of World Bank's depository - 2006.

## 3. TRENDS IN DETERMINANTS OF HUMAN DEVELOPMENT IN INDIA

- From 2011 to 2015, ANNI at current US \$ had, more or less, certainly increased. Similarly, during the same time period, annual \% growth in ANNI had overall increased, but had shown a fluctuating trend. It had decreased substantially in 2012, increased marginally in 2013, increased substantially in 2014, and decreased by some proportion in 2015. From 2011 to 2015, ANNIPC at current US \$ had, more or less, certainly increased. Similarly, during the same time period, annual \% growth in ANNIPC had overall increased, but had shown a fluctuating trend. It had decreased substantially in 2012, increased marginally in 2013, increased substantially in 2014, and decreased by some proportion in 2015.
- From 2011 to 2015, employment to population ratio (modelled ILO estimates), talking about population ages 15 and above (\%), had decreased marginally in the cases of both females and males as well as in totality. During the same time period, it, talking about population ages 15-24 (\%), had decreased by some proportion. In this time period, it had remained much higher in the case of males than their female counterparts in both age groups.
- From 2011 to 2015, unemployment (modelled ILO estimates) had decreased marginally in the case of females and had increased marginally in the case of males as well as in totality. In this time period, it had remained marginally higher in the case of females than their male counterparts.
- From 2005 to 2010, employment in agriculture had decreased substantially in the cases of both females and males as well as in totality. Employment in industry had decreased by some proportion in the cases of both females and males as well as in totality. Employment in services had increased by some proportion in the case of females, increased marginally in the case of males, and increased by some proportion in totality. In
this time period, employment had remained higher in the case of females than their male counterparts in agriculture, whereas it had remained higher in the case of males than their female counterparts in both industry and services.
- From 2005 to 2010, children in employment (\% of children ages 7-14) had decreased substantially in the cases of both females and males as well as in totality. It had remained same in the cases of both females and males in 2005, whereas it had remained higher in the case of males than their female counterparts in 2010.
- From 2001 to 2015, YLR (\%) had increased substantially in the case of females, whereas it had increased by some proportion in the case of males. Similarly, during the same time period, ALR (\%) had increased substantially in the case of females, whereas it had increased by some proportion in the case of males. In this time period, both YLR (\%) and ALR (\%) had remained higher in the case of males than their female counterparts.
- From 2011 to 2015, GER at primary level of education had increased by some proportion in the case of females, whereas it had decreased by some proportion in the case of males. Similarly, during the same time period, GER at secondary level of education had increased substantially in the case of females, whereas it had decreased by some proportion in the case of males. In this time period, GER at primary level of education had remained higher in the case of females than their male counterparts, whereas GER at secondary level of education had, initially, remained higher in the case of males than their female counterparts while it had, later on, remained higher in the case of females than their male counterparts.
- From 2011 to 2015, GPI for GER at primary, secondary, and tertiary levels of education had increased, respectively.
- In 2011, educational attainment of population ages 25 and above (\%), who had completed primary education, lower secondary education, and bachelor's degree or equivalent education, had remained higher in the case of males than their female counterparts, respectively.
- From 2011 to 2015, both primary and secondary completion rates (\% of relevant age group) had increased substantially in the cases of both females and males, whereas tertiary completion rate ( $\%$ of relevant age group) had decreased marginally in the case of females and decreased by some proportion in the case of males. In this time period, both primary and secondary completion rates (\% of relevant age group) had, initially, remained higher in the case of males than their female counterparts while these had, later on, remained higher in the case of females than their male counterparts, whereas tertiary completion rate (\% of relevant age group) had remained higher in the case of females than their male counterparts throughout.
- From 2001 to 2013 , persistence to grade 5 (\% of cohort) had increased substantially in the cases of both females and males and progression to secondary school (\%) had increased marginally in the case of females, whereas it had decreased by some proportion in the case of males. In this time period, persistence to grade 5 (\% of cohort) had, initially, remained higher in the case of females than their male counterparts while it had, later on, remained higher in the case of males than their female counterparts. Progression to secondary school (\%) had, initially, remained higher in the case of males than their female counterparts while it had, later on, remained higher in the case of females than their male counterparts.
- From 2011 to 2015, AFR had decreased substantially, whereas TFR had decreased marginally.
- From 2011 to 2015, CBR had decreased by some proportion, whereas CDR had decreased marginally.
- From 2011 to 2015, life expectancy at birth (years) had increased by some proportion in the cases of both females and males as well as in totality. In this time period, it had remained higher in the case of females than their male counterparts.
- From 2011 to 2015 , MR had, talking about children under-5, decreased substantially, whereas it had, talking about adults, increased substantially. During the same time period, MMR had decreased substantially.
- From 2011 to 2015, talking about number of adults and children together who were newly infected with HIV had decreased substantially, and this number had decreased substantially for adults and children too, when considered separately. In this time period, number of adults who were newly infected with HIV had remained higher than number of children who were newly infected with HIV.
- From 2011 to 2015, women's share of population ages 15+ living with HIV (\%) had increased marginally.
- From 2011 to 2015, both \% of people living with HIV receiving ATC and \% of pregnant women living with HIV receiving ATC had increased substantially.
- From 2011 to 2015, incidences of tuberculosis had decreased by some proportion, whereas incidences of malaria did not exhibit any trend as statistics were available only for 2015.
- From 2007 to 2011, prevalence of anaemia (\%) amongst children, non-pregnant women, and women of reproductive age had decreased by some proportion, whereas it had decreased marginally amongst pregnant women. In this time period, prevalence of anaemia (\%) had remained higher amongst children followed by pregnant women, women of reproductive age, and non-pregnant women throughout, respectively.
- From 2011 to 2015, prevalence of undernourishment (\% of population) had decreased marginally.
- From 2009 to 2013, CPIA GER had decreased by some proportion.
- Women participating in decisions like own health care, major household purchases, and visiting family (\%) did not exhibit any trend as statistics were available only for 2006.
- Women who believed a husband was justified in beating his wife (\%), when she argued with him, when she burnt the food, when she went out without telling him, when she neglected the children, and when she refused sex with him, did not exhibit any trend as statistics were available only for 2006.
- Women who were first married by age 18 (\% of women ages 20-24) did not exhibit any trend as statistics were available only for 2006.


## 4. CONCLUDING REMARKS

After discussing in details the trends in determinants of human development in India, many important evidences in context with various dimensions of human development, viz., economic, education, health, and gender, were traced. Both ANNI and ANNIPC at current US \$ had increased. Similarly, annual \% growth in both ANNI and ANNIPC had overall increased, but had shown a fluctuating trend. Both increasing ANNI and ANNIPC at current US \$ as well as increasing annual \% growth in both ANNI and ANNIPC had produced positive impact on human development as increasing national income as well as increasing per capita income depict, most likely, high living standards. Employment to population ratio (modelled ILO estimates) in both age groups had decreased for both males and females as well as in totality. It had remained much higher in the case of males than their female counterparts in both age groups. Decreasing employment to population ratio (modelled ILO estimates) in the cases of both females and males as well as in totality had produced negative impact on human development as such a decreasing ratio depicts that an important proportion of population in working age is unemployed, and it yields negative impact on GDP per capita. Unemployment (modelled ILO estimates) had decreased in the case of females, whereas it had increased in the case of males as well as in totality. But it had remained higher in the case of females than their male counterparts. Decreasing unemployment (modelled ILO estimates) in the case of females had produced positive impact on human development as it depicts that job creation is taking place in the case of females, whereas increasing unemployment (modelled ILO estimates) in the case of males as well as in totality had produced negative impact on human development as it depicts that job creation is not taking place in the case of males due to which total unemployment has also increased. Employment in agriculture and employment in industry had decreased in the cases of both females and males as well as in totality, whereas employment in services had increased in the cases of both females and males as well as in totality. Employment had remained higher in the case of females than their male counterparts in agriculture, whereas it had remained higher in the case of males than their female counterparts in both industry and services. Decreasing employment in agriculture and employment in industry in the cases of both females and males as well as in totality and increasing employment in services in the cases of both females and males as well as in totality had produced positive impact on human development as in a growing economy, share of employment in services must be higher than industry followed by agriculture. Children in employment (\% of children ages 7-14) had decreased in the cases of both females and males as well as in totality. It had, initially, remained same, whereas it had, later on, remained higher in the case of males than their female counterparts. Decreasing children in employment (\% of children ages 7-14) had produced positive impact on human development as it depicts a decreasing trend in child labour.

Both YLR (\%) and ALR (\%) had increased in the cases of both females and males. These had remained higher in the cases of males than their female counterparts. Both increasing YLR (\%) and ALR (\%) in the cases of both females and males had produced positive impact on human development as these depict an increasing trend in literacy rate. GER at primary level of education and GER at secondary level of education had increased in the case of females, whereas these had decreased in the case of males. GER at primary level of education had remained higher in the case of females than their male counterparts, whereas GER at secondary level of education had, initially, remained higher in the case of males than their females counterparts while it had, later on, remained higher in the case of females than their male counterparts. Increasing GER at primary level of education and increasing GER at secondary level of education in the case of females had produced positive impact on human development as these depict that more and more of females are availing opportunities of getting enrolled in school, whereas decreasing GER at primary level of education and GER at secondary level of education in the case of males had produced negative impact on human development as these depict that less and less of males are availing opportunities of getting enrolled in school. GPI for GER at primary, secondary, and tertiary level of education had increased, respectively. Increasing GPI for GER at primary, secondary, and tertiary levels of education had produced positive impact on human development as it depicts that achieving parity between females and males at these levels of education has been more and more successful. Educational attainment of population ages 25 and above (\%) had remained higher in the case of males than their female counterparts at every level of education. Educational attainment of population ages 25 and above (\%) had remained higher in the case of males than their female counterparts at every level of education, and it had produced positive impact on human development in the case of males and negative impact on human
development in the case of females as it depicts a huge gender gap favouring males lies in educational attainment at every level of education. Both primary and secondary completion rates (\% of relevant age group) had increased in the cases of females and males, whereas tertiary completion rate ( $\%$ of relevant age group) had decreased in the cases of both females and males. Both primary and secondary completion rates (\% of relevant age group) had, initially, remained higher in the case of males than their female counterparts while these had, later on, remained higher in the case of females than their male counterparts, whereas tertiary completion rate (\% of relevant age group) had remained higher in the case of females than their male counterparts throughout. Both increasing primary and secondary completion rates (\% of relevant age group) in the cases of both females and males had produced positive impact on human development as these depict that more and more of both females and males are completing education at both primary and secondary levels of education, whereas decreasing tertiary completion rate (\% of relevant age group) in the cases of both females and males had produced negative impact on human development as it depicts that less and less of both males and females are completing education at tertiary level of education. Persistence to grade 5 (\% of cohort) had increased in the cases of both females and males, whereas progression to secondary school (\%) had increased in the case of females, and it had decreased in the case of males. Persistence to grade 5 (\% of cohort) had, initially, remained higher in the case of females than their male counterparts while it had, later on, remained higher in the case of males than their female counterparts, whereas progression to secondary school (\%) had, initially, remained higher in the case of males than their female counterparts while it had, later on, remained higher in the case of females than their male counterparts. Increasing persistence to grade 5 ( $\%$ of cohort) in the cases of both females and males had produced positive impact on human development as it depicts that more and more of both females and males are reaching the final grade of primary school, and increasing progression to secondary school (\%) in the case of females had produced positive impact on human development as it depicts that more and more of females are getting enrolled in secondary school, whereas decreasing progression to secondary school (\%) in the case of males had produced negative impact on human development as it depicts that less and less of males are getting enrolled in secondary school.

Both AFR and TFR had decreased. Both decreasing AFR and TFR had produced positive impact on human development as these depict healthy sign of controlling population in an overpopulated country like India. CBR and CDR had decreased Decreasing CBR had produced positive impact on human development as high CBR is associated with health issues, low life expectancy, low living standards, et cetera, and decreasing CDR had produced positive impact on human development as it depicts that enhancements in improved medical facilities, public health programs, spread of education, improved status of women, increased life expectancy, et cetera have taken place, and these enhancements have helped control CDR. Life expectancy at birth (years) had increased in the cases of both females and males as well as in totality. It had remained higher in the case of females than their male counterparts. Increasing life expectancy at birth (years) in the cases of both females and males as well as in totality had produced positive impact on human development as it depicts that medical advancements, public health programs, better nutrition, et cetera have helped it improving living standards which, further, have added years to life. MR, talking about children under-5, had decreased, whereas it, talking about adults, had increased. MMR had decreased. Decreasing MR, for children under- 5 and adults, and MMR had produced positive impact on human development as these depict medical advancements, public health programs, better nutrition, increased life expectancy, et cetera. Number of adults and children, together as well as separately, who were newly infected with HIV had decreased. Number of adults who were newly infected with HIV had remained higher than number of children who were newly infected with HIV. Decreasing number of adults and children, together as well as separately, who were newly infected with HIV had produced positive impact on human development as these numbers depict that provision of ATC, improved health facilities, hygiene, better nutrition, et cetera have been increasingly provided to general population. Women's share of population ages $15+$ living with HIV had increased. Increasing women's share of population ages 15+ living with HIV had produced negative impact on human development as it depicts that women are the most vulnerable section of population who have not been protected against deadly disease like HIV-AIDS. Both \% of people living with HIV receiving ATC and \% of pregnant women living with HIV receiving ATC had increased. Both increasing \% of people living with HIV receiving ATC and \% of pregnant women living with HIV receiving ATC had produced positive impact on human development as these depict that provision of ATC against HIV has been increasing. Incidences of tuberculosis had decreased, whereas incidences of malaria did not exhibit any trend as statistics were available for one year only. Decreasing incidences of tuberculosis had positive impact on human development as it depicts that provisions of advanced medical facilities, better nutrition, health and hygiene, improved living standards, et cetera have been increasingly provided to general population (due to availability of statistics for malaria for one year only, no trend was traced). Prevalence of anaemia (\%) amongst children, non-pregnant women, pregnant women, and women of reproductive age had decreased. Prevalence of anaemia (\%) had remained higher amongst children followed by pregnant women, women of reproductive age, and non-pregnant women throughout, respectively. Decreasing prevalence of anaemia (\%) amongst children, non-pregnant women, pregnant women, and women of reproductive age had
produced positive impact on human development as it depicts that required levels of iron and other vital nutrients amongst these sections of population have been increasingly achieved. Prevalence of undernourishment ( $\%$ of population) had decreased. Decreasing prevalence of undernourishment ( $\%$ of population) had produced positive impact on human development as it depicts that provision of better nutrition has been increasingly provided to general population.

CPIA GER had decreased. Decreasing CPIA GER had produced negative impact on human development as it depicts a lowering gender equality rating. Women participating in decisions like own health care, major household purchases, and visiting family (\%) did not exhibit any trend as statistics were available for one year only, but such a percentage was quite high, and it had produced negative impact on human development as it depicts low level of women's empowerment. Women who believed a husband was justified in beating his wife (\%), when she argued with him, when she burnt the food, when she went out without telling him, when she neglected the children, and when she refused sex with him, did not exhibit any trend as statistics were available for one year only, but when women justified this action of their husbands, it had produced negative impact on human development as it also depicts low level of women's empowerment. Women who were first married by age 18 (\% of women ages 20-24) did not exhibit any trend as statistics were available for one year only, but such a percentage was quite high, and it had produced negative impact on human development as it also depicts low level of women's empowerment.

## 5. NOTES

1. It is GNI minus consumption of fixed capital and depletion of natural resources.
2. It is proportion of population (working age) of a country that is employed.
3. This refers to children who are involved in any economic activity for at least one hour in reference week of survey.
4. It is ratio of girls to boys enrolled at primary, secondary, and tertiary levels of education, respectively in public and private schools.
5. This refers to proportion of children who were enrolled in primary school's grade 1 and eventually reached primary school's grade 5 . Reconstructed cohort method is brought to use to calculate persistence to grade 5 (\% of cohort).
6. This refers to number of new entrants to secondary school's grade 1 in a given year as a percentage of number of students enrolled in primary school's final grade in previous year (subtracting number of repeaters from primary school's last grade in a given year).
7. Subtracting CDR from CBR gives rate of natural increase, which is equal to population change rate when migration is not taking place.
8. Gender equality measures limit to which the country has made provisions for installing institutions as well as programs which enforce laws and policies to promote equal access for females and males in education, health, economy, and protection under law.

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