

## **The Next Frontier: Human Development and the Anthropocene**

*Briefing note for countries on the 2020 Human Development Report*



### **Madagascar**

#### **Introduction**

This year marks the 30th Anniversary of the first Human Development Report and of the introduction of the Human Development Index (HDI). The HDI was published to steer discussions about development progress away from GDP towards a measure that genuinely “counts” for people’s lives.

Introduced by the Human Development Report Office (HDRO) thirty years ago to provide a simple measure of human progress – built around people’s freedoms to live the lives they want to - the HDI has gained popularity with its simple yet comprehensive formula that assesses a population’s average longevity, education, and income. Over the years, however, there has been a growing interest in providing a more comprehensive set of measurements that capture other critical dimensions of human development.

To respond to this call, new measures of aspects of human development were introduced to complement the HDI and capture some of the “missing dimensions” of development such as poverty, inequality and gender gaps. Since 2010, HDRO has published the Inequality-adjusted HDI, which adjusts a nation’s HDI value for inequality within each of its components (life expectancy, education and income) and the Multidimensional Poverty Index that measures people’s deprivations directly. Similarly, HDRO’s efforts to measure gender inequalities began in the 1995 Human Development Report on gender, and recent reports have included two indices on gender, one accounting for differences between men and women in the HDI dimensions, the other a composite of inequalities in empowerment and well-being.

This briefing note is organized into six sections. The first section presents information on the country coverage and methodology for the 2020 Human Development Report. The next five sections provide information about key composite indices of human development: the HDI, the Inequality-adjusted Human Development Index (IHDI), the Gender Development Index (GDI), the Gender Inequality Index (GII), and the Multidimensional Poverty Index (MPI).

The tables presented in this note depict the state of human development before the COVID-19 pandemic based on available data for 2019 and earlier years. Data reflecting changes caused by the COVID-19 pandemic and its socioeconomic fallout in 2020 will be available in 2021 and will be presented in tables and related analyses of the 2021 Human Development Report.

It is important to note that national and international data can differ because international agencies standardize national data to allow comparability across countries and in some cases may not have access to the most recent national data.

## **1- Country coverage and the methodology of the 2020 Human Development Report**

The 2020 Human Development Report presents the 2019 HDI (values and ranks) for 189 countries and UN-recognized territories, along with the IHDI for 152 countries, the GDI for 167 countries, the GII for 162 countries, and the MPI for 107 countries.<sup>1</sup>

It is misleading to compare values and rankings with those of previously published reports, because of revisions and updates of the underlying data and adjustments to goalposts. Readers are advised to assess progress in HDI values by referring to Table 2 ('Human Development Index Trends') in the 2020 Human Development Report. Table 2 is based on consistent indicators, methodology and time-series data and, thus, shows real changes in values and ranks over time, reflecting the actual progress countries have made. Small changes in values should be interpreted with caution as they may not be statistically significant due to sampling variation. Generally speaking, changes at the level of the third decimal place in any of the composite indices are considered insignificant.

Unless otherwise specified in the source, tables use data available to HDRO as of 15 July 2020. All indices and indicators, along with technical notes on the calculation of composite indices, and additional source information are available online at <http://hdr.undp.org/en/data>

For further details on how each index is calculated please refer to [Technical Notes 1-6](#) and the associated background papers available on the Human Development Report website: <http://hdr.undp.org/en/data>

## **2- Human Development Index (HDI)**

The HDI is a summary measure for assessing long-term progress in three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. A long and healthy life is measured by life expectancy. Knowledge level is measured by mean years of schooling among the adult population, which is the average number of years of schooling received in a life-time by people aged 25 years and older; and access to learning and knowledge by expected years of schooling for children of school-entry age, which is the total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life. Standard of living is measured by Gross National Income (GNI) per capita expressed in constant 2017 international dollars converted using purchasing power parity (PPP) conversion rates. For more details see [Technical Note 1](#).

To ensure as much cross-country comparability as possible, the HDI is based primarily on international data from the United Nations Population Division (the life expectancy data), the United Nations Educational, Scientific and Cultural Organization Institute for Statistics (the mean years of schooling and expected years of schooling data) and the World Bank (the GNI per capita data). As stated in the introduction, the HDI values and ranks in this year's report are not comparable to those in past reports because of some revisions to the component indicators. To allow for assessment of progress in HDIs, the 2020 Human Development Report includes recalculated HDIs from 1990 to 2019 using consistent series of data.

### **2.1- Madagascar's HDI value and rank**

Madagascar's HDI value for 2019 is 0.528— which put the country in the low human development category—positioning it at 164 out of 189 countries and territories.

Between 2000 and 2019, Madagascar's HDI value increased from 0.462 to 0.528, an increase of 14.3 percent. Table A reviews Madagascar's progress in each of the HDI indicators. Between 1990 and 2019, Madagascar's life expectancy at birth increased by 16.0 years, mean years of schooling increased by 0.9 years and expected years of schooling increased by 3.8 years. Madagascar's GNI per capita decreased by about 10.4 percent between 1990 and 2019.

---

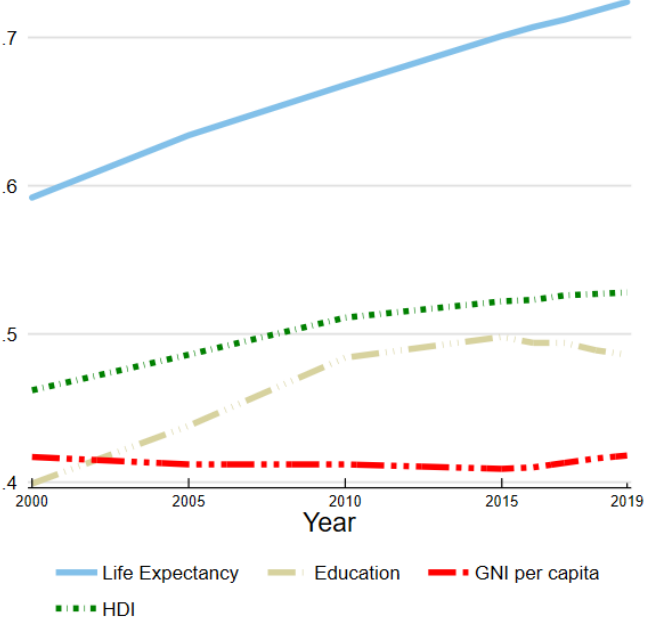
<sup>1</sup> Throughout this note, the term country refers to countries or UN-recognized territories.

**Table A: Madagascar’s HDI trends based on consistent time series data and new goalposts**

	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2017 PPP\$)	HDI value
1990	51.0	6.4		1,781	
1995	54.6	7.3		1,506	
2000	58.5	8.2	5.2	1,583	0.462
2005	61.2	9.1	5.6	1,529	0.486
2010	63.4	10.2	6.0	1,532	0.511
2015	65.5	10.6	6.1	1,495	0.522
2016	65.9	10.4	6.1	1,507	0.523
2017	66.3	10.4	6.1	1,541	0.526
2018	66.7	10.3	6.1	1,569	0.527
2019	67.0	10.2	6.1	1,596	0.528

Figure 1 below shows the contribution of each component index to Madagascar’s HDI since 2000.

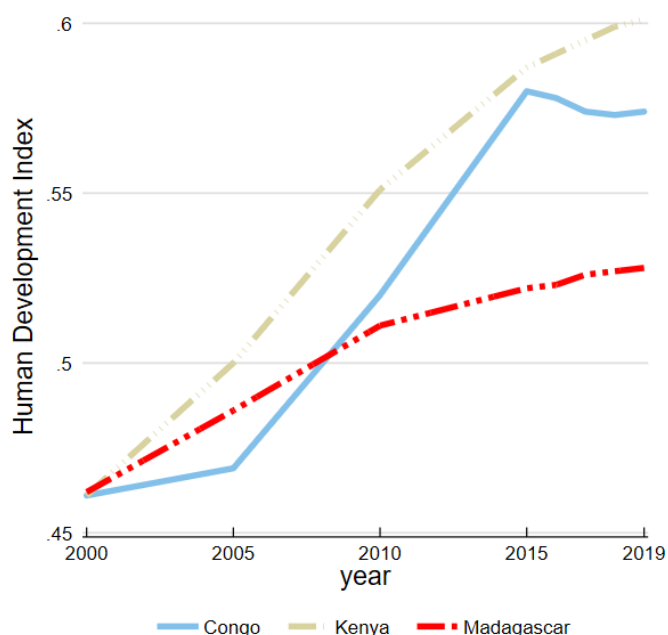
**Figure 1: Trends in Madagascar’s HDI component indices 2000-2019**



**2.2- Assessing progress relative to other countries**

Human development progress, as measured by the HDI, is useful for comparison between two or more countries. For instance, during the period between 2000 and 2019 Madagascar, Kenya and Congo experienced different degrees of progress toward increasing their HDIs (see Figure 2).

**Figure 2: HDI trends for Madagascar, Kenya and Congo, 2000-2019**



Madagascar's 2019 HDI of 0.528 is above the average of 0.513 for countries in the low human development group and below the average of 0.547 for countries in Sub-Saharan Africa. From Sub-Saharan Africa, Madagascar is compared with Cameroon and Uganda, which have HDIs ranked 153 and 159, respectively (see Table B).

**Table B: Madagascar's HDI and component indicators for 2019 relative to selected countries and groups**

	HDI value	HDI rank	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2017 PPP US\$)
<b>Madagascar</b>	0.528	164	67.0	10.2	6.1	1,596
<b>Cameroon</b>	0.563	153	59.3	12.1	6.3	3,581
<b>Uganda</b>	0.544	159	63.4	11.4	6.2	2,123
<b>Sub-Saharan Africa</b>	0.547	—	61.5	10.1	5.8	3,686
<b>Low HDI</b>	0.513	—	61.4	9.4	4.9	2,745

### 3- Inequality-adjusted HDI (IHDI)

The HDI is an average measure of basic human development achievements in a country. Like all averages, the HDI masks inequality in the distribution of human development across the population at the country level. The 2010 Human Development Report introduced the IHDI, which takes into account inequality in all three dimensions of the HDI by 'discounting' each dimension's average value according to its level of inequality. The IHDI is basically the HDI discounted for inequalities. The 'loss' in human development due to inequality is given by the difference between the HDI and the IHDI, and can be expressed as a percentage. As the inequality in a country increases, the loss in human development also increases. We also present the coefficient of human inequality as a direct measure of inequality which is an unweighted average of inequalities in three dimensions. The IHDI is calculated for 152 countries. For more details see [Technical Note 2](#).

Madagascar's HDI for 2019 is 0.528. However, when the value is discounted for inequality, the HDI falls to 0.390, a loss of 26.1 percent due to inequality in the distribution of the HDI dimension indices. Cameroon and Uganda show losses due to inequality of 33.4 percent and 26.7 percent, respectively. The average loss due to inequality for low HDI countries is 31.4 percent and for Sub-Saharan Africa it is 30.5 percent. The Human inequality coefficient for Madagascar is equal to 26.0 percent (see Table C).

**Table C: Madagascar's IHDI for 2019 relative to selected countries and groups**

	IHDI value	Overall loss (%)	Human inequality coefficient (%)	Inequality in life expectancy at birth (%)	Inequality in education (%)	Inequality in income (%)
<b>Madagascar</b>	0.390	26.1	26.0	21.1	29.3	27.6
<b>Cameroon</b>	0.375	33.4	33.4	33.5	31.7	35.0
<b>Uganda</b>	0.399	26.7	26.7	27.2	27.9	24.9
<b>Sub-Saharan Africa</b>	0.380	30.5	30.5	29.7	34.1	27.6
<b>Low HDI</b>	0.352	31.4	31.3	30.8	37.9	25.1

#### 4- Gender Development Index (GDI)

In the 2014 Human Development Report, HDRO introduced a new measure, the GDI, based on the sex-disaggregated Human Development Index, defined as a ratio of the female to the male HDI. The GDI measures gender inequalities in achievement in three basic dimensions of human development: health (measured by female and male life expectancy at birth), education (measured by female and male expected years of schooling for children and mean years for adults aged 25 years and older) and command over economic resources (measured by female and male estimated GNI per capita). For details on how the index is constructed refer to [Technical Note 3](#). Country groups are based on absolute deviation from gender parity in HDI. This means that the grouping takes into consideration inequality in favour of men or women equally.

The GDI is calculated for 167 countries. The 2019 female HDI value for Madagascar is 0.513 in contrast with 0.539 for males, resulting in a GDI value of 0.952, placing it into Group 2.<sup>2</sup> In comparison, GDI values for Cameroon and Uganda are 0.864 and 0.863, respectively (see Table D).

**Table D: Madagascar's GDI for 2019 relative to selected countries and groups**

	F-M ratio	HDI values		Life expectancy at birth		Expected years of schooling		Mean years of schooling		GNI per capita	
	GDI value	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
<b>Madagascar</b>	0.952	0.513	0.539	68.7	65.4	10.2	10.2	6.4	5.8	1,273	1,921
<b>Cameroon</b>	0.864	0.521	0.603	60.6	58.0	11.3	12.9	4.7	8.0	2,973	4,189
<b>Uganda</b>	0.863	0.503	0.582	65.6	61.0	10.6	12.2	4.9	7.6	1,591	2,671
<b>Sub-Saharan Africa</b>	0.894	0.516	0.577	63.3	59.8	9.5	10.6	4.9	6.7	2,937	4,434
<b>Low HDI</b>	0.861	0.474	0.551	63.0	59.9	8.7	10.1	3.9	6.0	2,043	3,446

#### 5- Gender Inequality Index (GII)

The 2010 Human Development Report introduced the GII, which reflects gender-based inequalities in three dimensions – reproductive health, empowerment, and economic activity. Reproductive health is measured by maternal mortality and adolescent birth rates; empowerment is measured by the share of parliamentary seats held by women and attainment in secondary and higher education by each gender; and economic activity is measured by the labour market participation rate for women and men. The GII can be interpreted as the loss in human development due to inequality between female and male achievements in the three GII dimensions. For more details on GII please see [Technical Note 4](#). Due to a lack of relevant data, the GII has not been calculated for this country.

<sup>2</sup> Countries are divided into five groups by absolute deviation from gender parity in HDI values. Group 1 comprises countries with high equality in HDI achievements between women and men (absolute deviation of less than 2.5 percent), group 2 comprises countries with medium to high equality in HDI achievements between women and men (absolute deviation of 2.5–5 percent), group 3 comprises countries with medium equality in HDI achievements between women and men (absolute deviation of 5–7.5 percent), group 4 comprises countries with medium to low equality in HDI achievements between women and men (absolute deviation of 7.5–10 percent) and group 5 comprises countries with low equality in HDI achievements between women and men (absolute deviation from gender parity of more than 10 percent).

## **6- Multidimensional Poverty Index (MPI)**

The 2010 Human Development Report introduced the MPI, which identifies multiple overlapping deprivations suffered by individuals in 3 dimensions: health, education and standard of living. The health and education dimensions are based on two indicators each, while standard of living is based on six indicators. All the indicators needed to construct the MPI for a country are taken from the same household survey. The indicators are weighted to create a deprivation score, and the deprivation scores are computed for each individual in the survey. A deprivation score of 33.3 percent (one-third of the weighted indicators) is used to distinguish between the poor and nonpoor. If the deprivation score is 33.3 percent or greater, the household (and everyone in it) is classified as multidimensionally poor. Individuals with a deprivation score greater than or equal to 20 percent but less than 33.3 percent are classified as vulnerable to multidimensional poverty. Finally, individuals with a deprivation score greater than or equal to 50 percent live in severe multidimensional poverty.

Since 2018, HDRO and the Oxford Poverty and Human Development Initiative jointly produce and publish the MPI estimates. The latest release from July 2020 covers 107 developing countries (countries that lack survey data that allow for the calculation of the MPI are not included): [‘Charting pathways out of multidimensional poverty: Achieving the SDGs’](#) (also available in [French](#) and [Spanish](#)). Definitions of deprivations in each indicator, as well as methodology of the MPI are given in [Technical note 5](#). Continuing with the practice from the previous years, HDRO is making public the statistical programs used in the calculation of the 2020 MPI for a large selection of countries (see <http://hdr.undp.org/en/content/mpi-statistical-programmes>).

The most recent survey data that were publicly available for Madagascar’s MPI estimation refer to 2018. In Madagascar, 69.1 percent of the population (18,142 thousand people) are multidimensionally poor while an additional 14.3 percent are classified as vulnerable to multidimensional poverty (3,746 thousand people). The breadth of deprivation (intensity) in Madagascar, which is the average deprivation score experienced by people in multidimensional poverty, is 55.6 percent. The MPI, which is the share of the population that is multidimensionally poor, adjusted by the intensity of the deprivations, is 0.384. Cameroon and Uganda have MPIs of 0.243 and 0.269, respectively.

Table F compares multidimensional poverty with income poverty, measured by the percentage of the population living below 2011 PPP US\$1.90 per day. It shows that income poverty only tells part of the story. The multidimensional poverty headcount is 8.5 percentage points lower than income poverty. This implies that individuals living below the income poverty line may have access to non-income resources. Table F also shows the percentage of Madagascar’s population that lives in severe multidimensional poverty. The contributions of deprivations in each dimension to overall poverty complete a comprehensive picture of people living in multidimensional poverty in Madagascar. Figures for Cameroon and Uganda are also shown in the table for comparison.

**Table F: The most recent MPI for Madagascar relative to selected countries**

	Survey year	MPI value	Headcount (%)	Intensity of deprivations (%)	Population share (%)			Contribution to overall poverty of deprivations in (%)		
					Vulnerable to multidimensional poverty	In severe multidimensional poverty	Below income poverty line	Health	Education	Standard of living
<b>Madagascar</b>	2018	0.384	69.1	55.6	14.3	45.5	77.6	15.5	33.1	51.5
<b>Cameroon</b>	2014	0.243	45.3	53.5	17.3	25.6	23.8	23.2	28.2	48.6
<b>Uganda</b>	2016	0.269	55.1	48.8	24.9	24.1	41.7	22.4	22.5	55.1
<b>Sub-Saharan Africa</b>	-	0.299	55.0	54.3	17.9	32.9	45.7	22.4	29.3	48.4