

**Sustainability and Equity:  
A Better Future for All**



*Explanatory note on 2011 HDR composite indices*

**Madagascar**

**HDI values and rank changes in the 2011 Human Development Report**

**Introduction**

The 2011 Human Development Report presents 2011 Human Development Index (HDI) values and ranks for 187 countries and UN-recognized territories, along with the Inequality-adjusted HDI for 134 countries, the Gender Inequality Index for 146 countries, and the Multidimensional Poverty Index for 109 countries. Country rankings and values in the annual Human Development Index (HDI) are kept under strict embargo until the global launch and worldwide electronic release of the Human Development Report. The 2011 Report will be launched globally in November 2011.

It is misleading to compare values and rankings with those of previously published reports, because the underlying data and methods have changed, as well as the number of countries included in the HDI. The 187 countries ranked in the 2011 HDI represents a significant increase from the 169 countries included in the 2010 Index, when key indicators for many countries were unavailable.

Readers are advised in the Report to assess progress in HDI values by referring to Table 2 ('Human Development Index Trends') in the Statistical Annex of the 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.

For further details on how each index is calculated please refer to Technical Notes 1-4 in the 2011 Report and the associated background papers available on the Human Development Report website.

**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. As in the 2010 HDR a long and healthy life is measured by life expectancy, access to knowledge is measured by: i) mean years of adult education, which is the average number of years of education received in a life-time by people aged 25 years and older; and ii) expected years of schooling for children of school-entrance age, which is the total number of years of schooling a child of school-entrance 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 2005 PPP\$.

To ensure as much cross-country comparability as possible, the HDI is based primarily on international data from the UN Population Division, the UNESCO Institute for Statistics (UIS) and the World Bank. As stated in the introduction, the HDI values and ranks in this year's report are not comparable to those in past reports (including the 2010 HDR) because of a number of revisions done to the component indicators by the mandated agencies. To allow for assessment of progress in HDIs, the 2011 report includes recalculated HDIs from 1980 to 2011.

## Madagascar's HDI value and rank

Madagascar's HDI value for 2011 is 0.480—in the low human development category—positioning the country at 151 out of 187 countries and territories. Between 2000 and 2011, Madagascar's HDI value increased from 0.427 to 0.480, an increase of 12.0 per cent or average annual increase of about 1.1 per cent.

The rank of Madagascar's HDI for 2010 based on data available in 2011 and methods used in 2011 is 149 out of 187 countries. In the 2010 HDR, Madagascar was ranked 135 out of 169 countries. However, it is misleading to compare values and rankings with those of previously published reports, because the underlying data and methods have changed, as well as the number of countries included in the HDI.

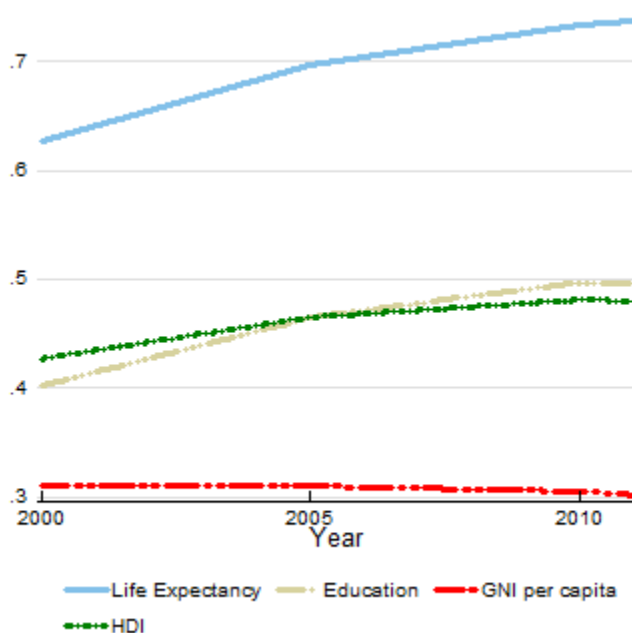
Table A reviews Madagascar's progress in each of the HDI indicators. Between 1980 and 2011, Madagascar's life expectancy at birth increased by 18.5 years and expected years of schooling increased by 2.7 years. Madagascar's GNI per capita decreased by about 35.0 per cent between 1980 and 2011.

**Table A: Madagascar's HDI trends based on consistent time series data, new component indicators and new methodology**

	Life expectancy at birth	Expected years of schooling	Means years of schooling	GNI per capita (2005 PPP\$)	HDI value
1980	48.2	8.0	..	1,274	..
1985	49.3	8.1	..	1,006	..
1990	50.7	6.6	..	994	..
1995	54.9	6.3	..	819	..
2000	59.7	7.0	5.2	869	0.427
2005	64.1	9.4	5.2	870	0.465
2010	66.5	10.7	5.2	840	0.481
2011	66.7	10.7	5.2	824	0.480

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

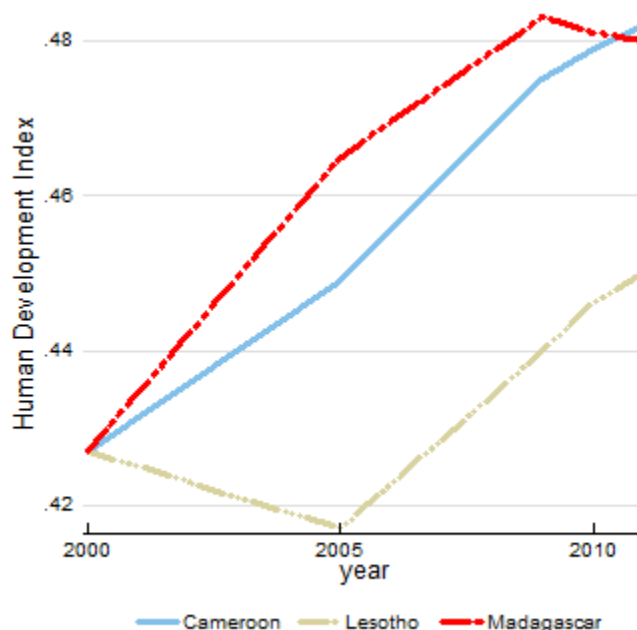
**Figure 1: Trends in Madagascar's HDI component indices 2000-2011**



## Assessing progress relative to other countries

Long-term progress can be usefully assessed relative to other countries—both in terms of geographical location and HDI value. For instance, during the period between 2000 and 2011 Madagascar, Lesotho and Cameroon experienced different degrees of progress toward increasing their HDIs (See Figure 2).

**Figure 2: Trends in Madagascar's HDI 2000-2011**



Madagascar's 2011 HDI of 0.480 is above the average of 0.456 for countries in the low human development group and above the average of 0.463 for countries in Sub-Saharan Africa. From Sub-Saharan Africa, countries which are close to Madagascar in 2011 HDI rank and population size are Cameroon and Uganda which have HDIs ranked 150 and 161 respectively (see Table B).

**Table B: Madagascar's HDI indicators for 2011 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 (PPP US\$)
<b>Madagascar</b>	0.480	151	66.7	10.7	5.2	824
<b>Cameroon</b>	0.482	150	51.6	10.3	5.9	2,031
<b>Uganda</b>	0.446	161	54.1	10.8	4.7	1,124
<b>Sub-Saharan Africa</b>	0.463	—	54.4	9.2	4.5	1,966
<b>Low HDI</b>	0.456	—	58.7	8.3	4.2	1,585

### 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 HDR introduced the 'inequality adjusted HDI (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 HDI can be viewed as an index of 'potential' human development and IHDI as an index of actual human development. The 'loss' in potential human development due to inequality is given by the difference between the HDI and the IHDI, and can be expressed as a percentage. (For more details see the technical note 2).

Madagascar's HDI for 2011 is 0.480. However, when the value is discounted for inequality, the HDI falls to 0.332, a loss of 30.7 per cent due to inequality in the distribution of the dimension indices. Cameroon and Uganda show losses due to inequality of 33.4 per cent and 33.6 per cent respectively. The average loss due to inequality for low HDI countries is 33.3 per cent and for Sub-Saharan Africa it is 34.5 per cent.

**Table C: Madagascar's IHDl for 2011 relative to selected countries and groups**

	IHDl value	Overall Loss (%)	Loss due to inequality in life expectancy at birth (%)	Loss due to inequality in education (%)	Loss due to inequality in income (%)
<b>Madagascar</b>	0.332	30.7	25.6	30.1	36.1
<b>Cameroon</b>	0.321	33.4	43.0	35.3	19.9
<b>Uganda</b>	0.296	33.6	39.1	32.2	29.1
<b>Sub-Saharan Africa</b>	0.303	34.5	39.0	35.6	28.4
<b>Low HDI</b>	0.304	33.3	35.6	39.2	24.2

### **Gender Inequality Index (GII)**

The Gender Inequality Index (GII) reflects gender-based inequalities in three dimensions – reproductive health, empowerment, and economic activity. Reproductive health is measured by maternal mortality and adolescent fertility rates; empowerment is measured by the share of parliamentary seats held by each gender and attainment at secondary and higher education by each gender; and economic activity is measured by the labour market participation rate for each gender. The GII replaced the previous Gender-related Development Index and Gender Empowerment Index. The GII shows 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 3 in the Statistics Annex.) Due to a lack of relevant data, the GII has not been calculated for this country.

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

The 2010 HDR introduced the Multidimensional Poverty Index (MPI), which identifies multiple deprivations in the same households in education, health and standard of living. The education and health dimensions are based on two indicators each while the standard of living dimension is based on six indicators. All of the indicators needed to construct the MPI for a household are taken from the same household survey. The indicators are weighted, and the deprivation scores are computed for each household in the survey. A cut-off of 33.3 percent, which is the equivalent of one-third of the weighted indicators, is used to distinguish between the poor and nonpoor. If the household deprivation score is 33.3 percent or greater, that household (and everyone in it) is multidimensionally poor. Households with a deprivation score greater than or equal to 20 percent but less than 33.3 percent are *vulnerable* to or at risk of becoming multidimensionally poor.

The most recent survey data that were publically available for Madagascar's MPI estimation refer to 2009. In Madagascar 66.9 per cent of the population suffer multiple deprivations while an additional 17.9 per cent are vulnerable to multiple deprivations. The breadth of deprivation (intensity) in Madagascar, which is the average percentage of deprivation experienced by people in multidimensional poverty, is 53.3 per cent. The MPI, which is the share of the population that is multi-dimensionally poor, adjusted by the intensity of the deprivations, is 0.357. Cameroon and Uganda have MPIs of 0.287 and 0.367 respectively.

Table E compares income poverty, measured by the percentage of the population living below PPP US\$1.25 per day, and multidimensional deprivations in Madagascar. It shows that income poverty only tells part of the story. The multidimensional poverty headcount is 0.9 percentage points lower than income poverty. This implies that individuals living below the income poverty line may have access to non-income resources. Table E also shows the percentage of Madagascar's population that live in

severe poverty (deprivation score is 50 per cent or more) and that are vulnerable to poverty (deprivation score between 20 and 30 per cent). Figures for Cameroon and Uganda are also shown in the table for comparison.

**Table E: Madagascar's MPI for 2011 relative to selected countries**

	MPI value	Head count (%)	Intensity of deprivation (%)	Population vulnerable to poverty (%)	Population in severe poverty (%)	Population below income poverty line (%)
<b>Madagascar</b>	0.357	66.9	53.3	17.9	35.4	67.8
<b>Cameroon</b>	0.287	53.3	53.9	19.3	30.4	9.6
<b>Uganda</b>	0.367	72.3	50.7	19.4	39.7	28.7