

Inequalities in Human Development in the 21st Century

Briefing note for countries on the 2019 Human Development Report



Madagascar

Introduction

The main premise of the human development approach is that expanding peoples' freedoms is both the main aim of, and the principal means for sustainable development. If inequalities in human development persist and grow, the aspirations of the 2030 Agenda for Sustainable Development will remain unfulfilled. But there are no pre-ordained paths. Gaps are narrowing in key dimensions of human development, while others are only now emerging. Policy choices determine inequality outcomes – as they do the evolution and impact of climate change or the direction of technology, both of which will shape inequalities over the next few decades. The future of inequalities in human development in the 21st century is, thus, in our hands. But we cannot be complacent. The climate crisis shows that the price of inaction compounds over time as it feeds further inequality, which, in turn, makes action more difficult. We are approaching a precipice beyond which it will be difficult to recover. While we do have a choice, we must exercise it now.

Inequalities in human development hurt societies and weaken social cohesion and people's trust in government, institutions and each other. They hurt economies, wastefully preventing people from reaching their full potential at work and in life. They make it harder for political decisions to reflect the aspirations of the whole society and to protect our planet, as the few pulling ahead flex their power to shape decisions primarily in their interests. Inequalities in human development are a defining bottleneck in achieving the 2030 Agenda for Sustainable Development.

Inequalities in human development are not just about disparities in income and wealth. The 2019 Human Development Report (HDR) explores inequalities in human development by going beyond income, beyond averages, and beyond today. The proposed approach sets policies to redress these inequalities within a framework that links the formation of capabilities with the broader context in which markets and governments function.

Policies matter for inequalities. And inequalities matter for policies. The human development lens is central to approaching inequality and asking why it matters, how it manifests itself and how best to tackle it. Imbalances in economic power are eventually translated into political dominance. And that, in turn, can lead to greater inequality and environmental disasters. Action at the start of this chain is far easier than relying on interventions farther down the track. The 2019 HDR contributes to that debate by presenting the facts on inequalities in human development and proposing ideas to act on them over the course of the 21st century.

This briefing note is organized into seven sections. The first section presents information on the country coverage and methodology for the 2019 Human Development Report. The next five sections provide information about key composite indices of human development: the Human Development Index (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 final section covers five dashboards: quality of human development, life-course gender gap, women's empowerment, environmental sustainability, and socioeconomic sustainability.

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 2019 Human Development Report

The 2019 Human Development Report presents the 2018 HDI (values and ranks) for 189 countries and UN-recognized territories, along with the IHDI for 150 countries, the GDI for 166 countries, the GII for 162 countries, and the MPI for 101 countries.

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 2019 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 the Human Development Report Office (HDRO) as of 15 July 2019. 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 2011 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 2019 Human Development Report includes recalculated HDIs from 1990 to 2018 using consistent series of data.

2.1- Madagascar's HDI value and rank

Madagascar's HDI value for 2018 is 0.521— which put the country in the low human development category—positioning it at 162 out of 189 countries and territories.

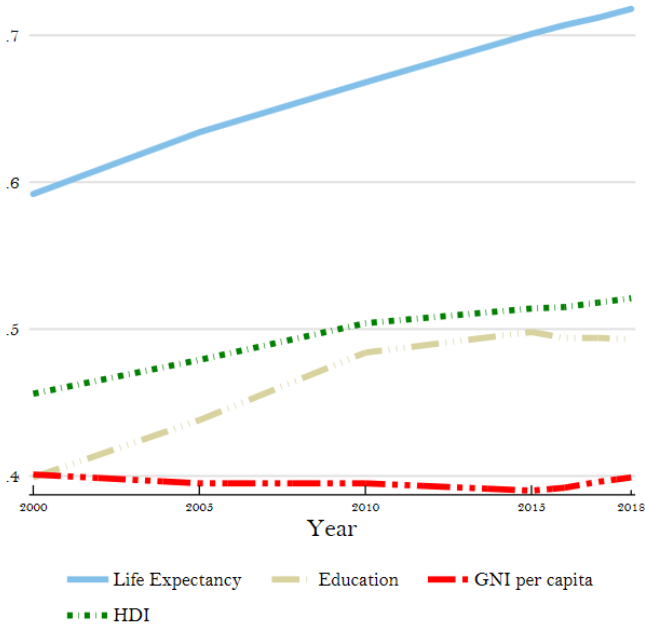
Between 2000 and 2018, Madagascar’s HDI value increased from 0.456 to 0.521, an increase of 14.3 percent. Table A reviews Madagascar’s progress in each of the HDI indicators. Between 1990 and 2018, Madagascar’s life expectancy at birth increased by 15.7 years, mean years of schooling increased by 0.9 years and expected years of schooling increased by 4.0 years. Madagascar’s GNI per capita decreased by about 11.7 percent between 1990 and 2018.

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 (2011 PPP\$)	HDI value
1990	51.0	6.4		1,590	
1995	54.6	7.3		1,334	
2000	58.5	8.2	5.2	1,418	0.456
2005	61.2	9.1	5.6	1,368	0.479
2010	63.4	10.2	6.0	1,371	0.504
2015	65.5	10.6	6.1	1,323	0.514
2016	65.9	10.4	6.1	1,339	0.515
2017	66.3	10.4	6.1	1,374	0.518
2018	66.7	10.4	6.1	1,404	0.521

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

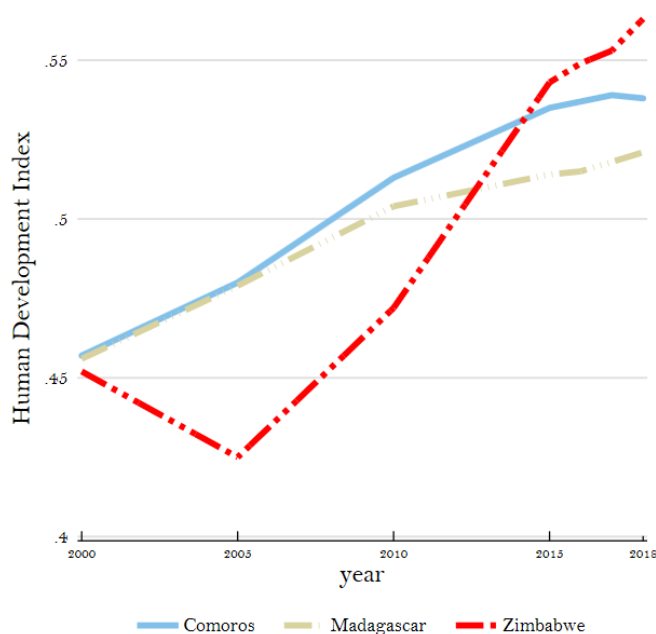
Figure 1: Trends in Madagascar’s HDI component indices 2000-2018



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 2018 Madagascar, Comoros and Zimbabwe experienced different degrees of progress toward increasing their HDIs (see Figure 2).

Figure 2: HDI trends for Madagascar, Comoros and Zimbabwe, 2000-2018



Madagascar's 2018 HDI of 0.521 is above the average of 0.507 for countries in the low human development group and below the average of 0.541 for countries in Sub-Saharan Africa. From Sub-Saharan Africa, countries which are close to Madagascar in 2018 HDI rank and to some extent in population size are Cameroon and Uganda, which have HDIs ranked 150 and 159 respectively (see Table B).

Table B: Madagascar's HDI and component indicators for 2018 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 (2011 PPP US\$)
Madagascar	0.521	162	66.7	10.4	6.1	1,404
Cameroon	0.563	150	58.9	12.7	6.3	3,291
Uganda	0.528	159	63.0	11.2	6.1	1,752
Sub-Saharan Africa	0.541	—	61.2	10.0	5.7	3,443
Low HDI	0.507	—	61.3	9.3	4.8	2,581

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 HDR 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 150 countries. For more details see [Technical Note 2](#).

Madagascar's HDI for 2018 is 0.521. However, when the value is discounted for inequality, the HDI falls to 0.386, a loss of 25.8 percent due to inequality in the distribution of the HDI dimension indices. Cameroon and Uganda show losses due to inequality of 34.1 percent and 26.7 percent respectively. The average loss due to inequality for low HDI countries is 31.1 percent and for Sub-Saharan Africa it is 30.5 percent. The Human inequality coefficient for Madagascar is equal to 25.5 percent (see Table C).

Table C: Madagascar's IHDI for 2018 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 (%)
Madagascar	0.386	25.8	25.5	21.1	35.0	20.4
Cameroon	0.371	34.1	34.1	33.5	33.0	35.9
Uganda	0.387	26.7	26.7	27.2	27.9	24.9
Sub-Saharan Africa	0.376	30.5	30.4	29.7	34.0	27.6
Low HDI	0.349	31.1	30.9	30.4	37.4	25.0

4- Gender Development Index (GDI)

In the 2014 HDR, 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 166 countries. The 2018 female HDI value for Madagascar is 0.504 in contrast with 0.533 for males, resulting in a GDI value of 0.946, placing it into Group 3. In comparison, GDI values for Cameroon and Uganda are 0.869 and 0.863 respectively (see Table D).

Table D: Madagascar's GDI for 2018 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
Madagascar	0.946	0.504	0.533	68.3	65.1	10.3	10.4	6.4	5.8	1,119	1,690
Cameroon	0.869	0.522	0.601	60.2	57.7	11.9	13.6	4.8	7.8	2,724	3,858
Uganda	0.863	0.484	0.561	65.2	60.7	10.4	11.5	4.8	7.4	1,272	2,247
Sub-Saharan Africa	0.891	0.507	0.569	62.9	59.4	9.3	10.4	4.8	6.6	2,752	4,133
Low HDI	0.858	0.465	0.542	63.0	59.7	8.5	9.9	3.8	5.8	1,928	3,232

5- Gender Inequality Index (GII)

The 2010 HDR 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.

6- Multidimensional Poverty Index (MPI)

The 2010 HDR 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. The MPI is calculated for 101 developing countries in the 2019 HDR. Definitions of deprivations in each indicator, as well as methodology of the MPI are given in [Technical Note 5](#).

The most recent survey data that were publicly available for Madagascar's MPI estimation refer to 2008/2009. In Madagascar, 77.8 percent of the population (19,885 thousand people) are multidimensionally poor while an additional 11.8 percent are classified as vulnerable to multidimensional poverty (3,017 thousand people). The breadth of deprivation (intensity) in Madagascar, which is the average deprivation score experienced by people in multidimensional poverty, is 58.2 percent. The MPI, which is the share of the population that is multidimensionally poor, adjusted by the intensity of the deprivations, is 0.453. 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 PPP US\$1.90 per day. It shows that income poverty only tells part of the story. The multidimensional poverty headcount is 0.2 percentage points higher than income poverty. This implies that individuals living above the income poverty line may still suffer deprivations in health, education and/or standard of living. 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
Madagascar	2008/2009	0.453	77.8	58.2	11.8	57.1	77.6	17.5	31.8	50.7
Cameroon	2014	0.243	45.3	53.5	17.3	25.6	23.8	23.2	28.2	48.6
Uganda	2016	0.269	55.1	48.8	24.9	24.1	41.7	22.4	22.5	55.1

7- Dashboards 1-5

Countries are grouped partially by their performance in each indicator into three groups of approximately equal size (terciles), thus, there is the top third, the middle third and the bottom third. The intention is not to suggest the thresholds or target values for these indicators but to allow a crude assessment of country's performance relative to others. Three-colour coding visualizes a partial grouping of countries by indicator. It can be seen as a simple visualization tool as it helps the users to immediately picture the country's performance. A country that is in the top group performs better than at least two thirds of countries (i.e., it is among the top third performers); a country that is in the middle group performs better than at least one third but worse than at least one third (i.e., it is among the medium third performers); and a country that is

in the bottom third performs worse than at least two thirds of countries (i.e., it is among the bottom third performers). More details about partial grouping in this table are given in [Technical Note 6](#).

7.1- Dashboard 1: Quality of human development

This dashboard contains a selection of 14 indicators associated with the quality of health, education and standard of living. The indicators on quality of health are lost health expectancy, number of physicians, and number of hospital beds. The indicators on quality of education are pupil-teacher ratio in primary schools, primary school teachers trained to teach, percentage of primary (secondary) schools with access to the internet, and the Programme for International Student Assessment (PISA) scores in mathematics, reading and science. The indicators on quality of standard of living are the proportion of employed people engaged in vulnerable employment, the proportion of rural population with access to electricity, the proportion of population using improved drinking water sources, and proportion of population using improved sanitation facilities.

A country that is in the top third group on all indicators can be considered a country with the highest quality of human development. The dashboard shows that not all countries in the very high human development group have the highest quality of human development and that many countries in the low human development group are in the bottom third of all quality indicators in the table.

Table G provides the number of indicators in which Madagascar performs: better than at least two thirds of countries (i.e., it is among the top third performers); better than at least one third but worse than at least one third (i.e., it is among the medium third performers); and worse than at least two thirds of countries (i.e., it is among the bottom third performers). Figures for Cameroon and Uganda are also shown in the table for comparison.

Table G: Summary of Madagascar’s performance on the Quality of human development indicators relative to selected countries

	Quality of health (3 indicators)			Quality of education (7 indicators)			Quality of standard of living (4 indicators)			Overall (14 indicators)			Missing indicators
	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	
	Number of indicators												
Madagascar	1	0	2	0	0	2	0	0	4	1	0	8	5
Cameroon	0	1	2	0	1	2	0	0	4	0	2	8	4
Uganda	0	1	2	0	1	1	0	0	4	0	2	7	5

7.2- Dashboard 2: Life-course gender gap

This dashboard contains a selection of 12 key indicators that display gender gaps in choices and opportunities over the life course – childhood and youth, adulthood and older age. The indicators refer to education, labour market and work, political representation, time use, and social protection. Three indicators are presented only for women and the rest are given in the form of female-to-male ratio. Countries are grouped partially by their performance in each indicator into three groups of approximately equal size (terciles). Sex ratio at birth is an exception - countries are grouped into two groups: the natural group (countries with a value of 1.04-1.07, inclusive) and the gender-biased group (countries with all other values). Deviations from the natural sex ratio at birth have implications for population replacement levels, suggest possible future social and economic problems and may indicate gender bias.

Table H provides the number of indicators in which Madagascar performs: better than at least two thirds of countries (i.e., it is among the top third performers), better than at least one third but worse than at least one third (i.e., it is among the medium third performers), and worse than at least two thirds of countries (i.e., it is among the bottom third performers). Figures for Cameroon and Uganda are also shown in the table for comparison.

Table H: Summary of Madagascar’s performance on the Life-course gender gap dashboard relative to selected countries

	Childhood and youth (5 indicators)			Adulthood (6 indicators)			Older age (1 indicator)			Overall (12 indicators)			Missing indicators
	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	
	Number of indicators												
Madagascar	2	1	2	1	2	0	0	0	0	3	3	2	4
Cameroon	0	2	3	2	1	3	0	0	0	2	3	6	1
Uganda	0	1	3	1	0	3	0	0	0	1	1	6	4

7.3- Dashboard 3: Women’s empowerment

This dashboard contains a selection of 13 woman-specific empowerment indicators that allows empowerment to be compared across three dimensions – reproductive health and family planning, violence against girls and women, and socioeconomic empowerment. Three-color coding visualizes a partial grouping of countries by indicator. Most countries have at least one indicator in each tercile, which implies that women’s empowerment is unequal across indicators and countries.

Table I provides the number of indicators in which Madagascar performs: better than at least two thirds of countries (i.e., it is among the top third performers), better than at least one third but worse than at least one third (i.e., it is among the medium third performers), and worse than at least two thirds of countries (i.e., it is among the bottom third performers). Figures for Cameroon and Uganda are also shown in the table for comparison.

Table I: Summary of Madagascar’s performance on the Women’s empowerment dashboard relative to selected countries

	Reproductive health and family planning (4 indicators)			Violence against girls and women (4 indicators)			Socioeconomic empowerment (5 indicators)			Overall (13 indicators)			Missing indicators
	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	
	Number of indicators												
Madagascar	0	2	2	0	0	1	0	2	3	0	4	6	3
Cameroon	0	1	3	1	1	2	0	1	1	1	3	6	3
Uganda	0	2	2	1	0	2	0	1	1	1	3	5	4

7.4- Dashboard 4: Environmental sustainability

This dashboard contains a selection of 11 indicators that cover environmental sustainability and environmental threats. The environmental sustainability indicators present levels of or changes in energy consumption, carbon-dioxide emissions, change in forest area, fresh water withdrawals, and natural resource depletion. The environmental threats indicators are mortality rates attributed to household and ambient air pollution, and to unsafe water, sanitation and hygiene services, percentage of land that is degraded, and the International Union for Conservation of Nature Red List Index value, which measures change in aggregate extinction risk across groups of species. The percentage of total land area under forest is not coloured because it is meant to provide context for the indicator on change in forest area.

Table J provides the number of indicators in which Madagascar performs: better than at least two thirds of countries (i.e., it is among the top third performers), better than at least one third but worse than at least one third (i.e., it is among the medium third performers), and worse than at least two thirds of countries (i.e., it is among the bottom third performers). Figures for Cameroon and Uganda are also shown in the table for comparison.

Table J: Summary of Madagascar’s performance on the Environmental Sustainability dashboard relative to selected countries

	Environmental sustainability (7 indicators)			Environmental threats (4 indicators)			Overall (11 indicators)			Missing indicators
	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	
	Number of indicators									
Madagascar	1	1	1	0	0	4	1	1	5	4
Cameroon	4	1	1	1	1	2	5	2	3	1
Uganda	2	0	2	0	0	4	2	0	6	3

7.5- Dashboard 5: Socioeconomic sustainability

This dashboard contains a selection of 11 indicators that cover economic and social sustainability. The economic sustainability indicators are adjusted net savings, total debt service, gross capital formation, skilled labour force, diversity of exports, and expenditure on research and development. The social sustainability indicators are old age dependency ratio projected to 2030, the ratio of the sum of education and health expenditure to military expenditure, changes in inequality of HDI distribution, and changes in gender and income inequality. Military expenditure is not coloured because it is meant to provide context for the indicator on education and health expenditure and it is not directly considered as an indicator of socioeconomic sustainability.

Table K provides the number of indicators in which Madagascar performs: better than at least two thirds of countries (i.e., it is among the top third performers), better than at least one third but worse than at least one third (i.e., it is among the medium third performers), and worse than at least two thirds of countries (i.e., it is among the bottom third performers). Figures for Cameroon and Uganda are also shown in the table for comparison.

Table K: Summary of Madagascar's performance on the Socioeconomic sustainability dashboard relative to selected countries

	Economic sustainability (6 indicators)			Social sustainability (5 indicators)			Overall (11 indicators)			Missing indicators
	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	Top third	Middle third	Bottom third	
	Number of indicators									
Madagascar	2	1	3	2	1	1	4	2	4	1
Cameroon	0	4	1	1	2	2	1	6	3	1
Uganda	1	3	2	2	2	1	3	5	3	0