



## **The Rise of the South: Human Progress in a Diverse World**

### ***Explanatory note on 2013 HDR composite indices***

## **Paraguay**

### **HDI values and rank changes in the 2013 Human Development Report**

#### **Introduction**

The *2013 Human Development Report* presents Human Development Index (HDI) values and ranks for 187 countries and UN-recognized territories, along with the Inequality-adjusted HDI for 132 countries, the Gender Inequality Index for 148 countries, and the Multidimensional Poverty Index for 104 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.

It is misleading to compare values and rankings with those of previously published reports, because the underlying data and methods have changed. 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. Caution is requested when interpreting small changes in values because they may not be statistically significant due to the sampling variation. Generally speaking, changes in third decimal of all composite indices are considered insignificant.

For further details on how each index is calculated please refer to Technical Notes 1-4 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 2011 HDR a long and healthy life is measured by life expectancy. Access to knowledge is measured by: i) mean years of schooling for the adult population, 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 international dollars converted using purchasing power parity (PPP) rates.

To ensure as much cross-country comparability as possible, the HDI is based primarily on international data from the United Nations Population Division, the United Nations Educational, Scientific and Cultural Organization (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 2011 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 2013 report includes recalculated HDIs from 1980 to 2012.

## Paraguay's HDI value and rank

Paraguay's HDI value for 2012 is 0.669—in the medium human development category—positioning the country at 111 out of 187 countries and territories. Between 1980 and 2012, Paraguay's HDI value increased from 0.549 to 0.669, an increase of 22 percent or average annual increase of about 0.6 percent.

The rank of Paraguay's HDI for 2011 based on data available in 2012 and methods used in 2012 was—109 out of 187 countries. In the 2011 HDR, Paraguay was ranked 107 out of 187 countries. However, it is misleading to compare values and rankings with those of previously published reports, because the underlying data and methods have changed.

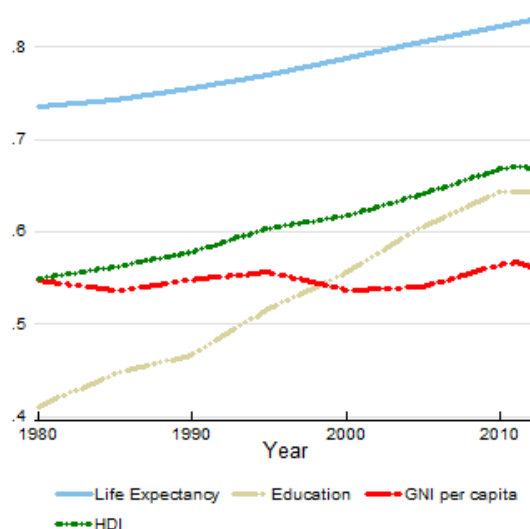
Table A reviews Paraguay's progress in each of the HDI indicators. Between 1980 and 2012, Paraguay's life expectancy at birth increased by 5.9 years, mean years of schooling increased by 3.1 years and expected years of schooling increased by 3.9 years. Paraguay's GNI per capita increased by about 10 percent between 1980 and 2012.

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

	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2005 PPP\$)	HDI value
1980	66.8	8.2	4.6	4,084	0.549
1985	67.3	8.5	5.3	3,767	0.562
1990	68	8.5	5.8	4,098	0.578
1995	68.9	9.8	6.1	4,327	0.604
2000	70	11.8	5.9	3,810	0.617
2005	71.2	12	6.9	3,870	0.641
2010	72.3	12.1	7.7	4,550	0.668
2011	72.5	12.1	7.7	4,657	0.670
2012	72.7	12.1	7.7	4,497	0.669

Figure 1 below shows the contribution of each component index to Paraguay's HDI since 1980.

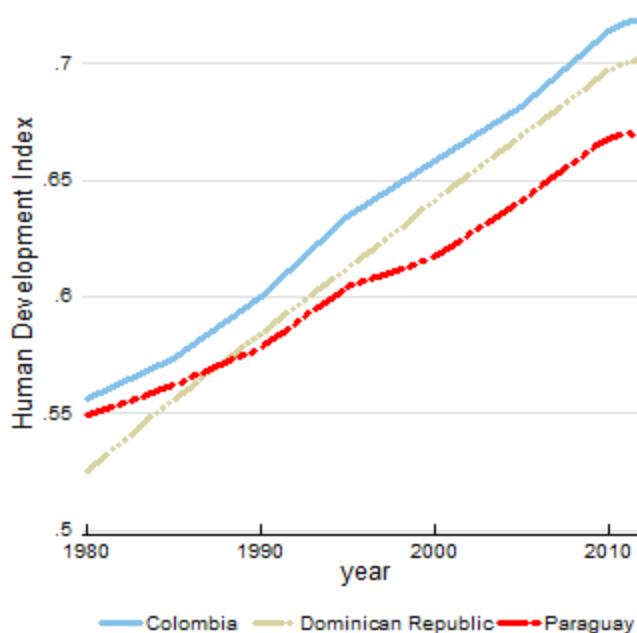
**Figure 1: Trends in Paraguay's HDI component indices 1980-2012**



## 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 1980 and 2012 Paraguay, Colombia and Dominican Republic experienced different degrees of progress toward increasing their HDIs (see figure 2).

**Figure 2: Trends in Paraguay's HDI 1980-2012**



Paraguay's 2012 HDI of 0.669 is above the average of 0.64 for countries in the medium human development group and below the average of 0.741 for countries in Latin America and the Caribbean. From Latin America and the Caribbean, countries which are close to Paraguay in 2012 HDI rank and population size are Bolivia (Plurinational State of) and Guyana, which have HDIs ranked 108 and 118 respectively (see table B).

**Table B: Paraguay's HDI indicators for 2012 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>Paraguay</b>	0.669	111	72.7	12.1	7.7	4,497
<b>Bolivia (Plurinational State of)</b>	0.675	108	66.9	13.5	9.2	4,444
<b>Guyana</b>	0.636	118	70.2	10.3	8.5	3,387
<b>Latin America and the Caribbean</b>	0.741	—	74.7	13.7	7.8	10,300
<b>Medium HDI</b>	0.64	—	69.9	11.4	6.3	5,428

### 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 the 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 technical note 2). Due to a lack of relevant data, the IHDI has not been calculated for this country.

### **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).

Paraguay has a GII value of 0.472, ranking it 95 out of 148 countries in the 2012 index. In Paraguay, 13.6 percent of parliamentary seats are held by women, and 35 percent of adult women have reached a secondary or higher level of education compared to 39 percent of their male counterparts. For every 100,000 live births, 99 women die from pregnancy related causes; and the adolescent fertility rate is 66.7 births per 1000 live births. Female participation in the labour market is 57.9 percent compared to 86.3 for men.

In comparison Bolivia (Plurinational State of) and Guyana are ranked at 97 and 104 respectively on this index.

**Table D: Paraguay's GII for 2012 relative to selected countries and groups**

	GII value	GII Rank	Maternal mortality ratio	Adolescent fertility rate	Female seats in parliament (%)	Population with at least secondary education (%)		Labour force participation rate (%)	
						Female	Male	Female	Male
<b>Paraguay</b>	0.472	95	99	66.7	13.6	35	39	57.9	86.3
<b>Bolivia (Plurinational State of)</b>	0.474	97	190	74.7	30.1	39.8	49.7	64.1	80.9
<b>Guyana</b>	0.49	104	280	53.9	31.3	61.5	48.8	41.8	79.1
<b>Latin America and the Caribbean</b>	0.419	—	74	70.6	24.4	49.8	51.1	53.7	79.9
<b>Medium HDI</b>	0.457	—	121	44.7	18.2	42.1	58.8	50.5	79.9

### **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 available for estimating MPI figures for Paraguay were collected in 2002/2003. In Paraguay 13.3 percent of the population lived in multidimensional poverty (the MPI 'head

count') while an additional 15 percent were vulnerable to multiple deprivations. The intensity of deprivation – that is, the average percentage of deprivation experienced by people living in multidimensional poverty – in Paraguay was 48.5 percent. The country's MPI value, which is the share of the population that is multi-dimensionally poor adjusted by the intensity of the deprivations, was 0.064. Bolivia (Plurinational State of) and Guyana had MPI values of 0.089 and 0.03 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 Paraguay. It shows that income poverty only tells part of the story. The multidimensional poverty headcount is 6.1 percentage points higher than income poverty. This implies that individuals living above the income poverty line may still suffer deprivations in education, health and other living conditions. Table E also shows the percentage of Paraguay's population that live in severe poverty (deprivation score is 50 percent or more) and that are vulnerable to poverty (deprivation score between 20 and 30 percent). The contributions of deprivations in each dimension to overall poverty complete a comprehensive picture of people living in poverty in Paraguay. Figures for Bolivia (Plurinational State of) and Guyana are also shown in the table for comparison.

**Table E: The most recent MPI figures for Paraguay relative to selected countries**

	Survey year	MPI value	Headcount (%)	Intensity of deprivation (%)	Population			Contribution to overall poverty of deprivations in		
					Vulnerable to poverty (%)	In severe poverty (%)	Below income poverty line (%)	Health	Education	Living Standards
<b>Paraguay</b>	2002/2003	0.064	13.3	48.5	15	6.1	7.2	19	35.1	45.9
<b>Bolivia (Plurinational State of)</b>	2008	0.089	20.5	43.7	18.7	5.8	15.6	27.5	19.8	52.6
<b>Guyana</b>	2009	0.03	7.7	39.2	12.3	1		50.4	17.4	32.2