

Unmasking disparities by ethnicity, caste and gender

Briefing note for countries on the 2021 Multidimensional Poverty Index



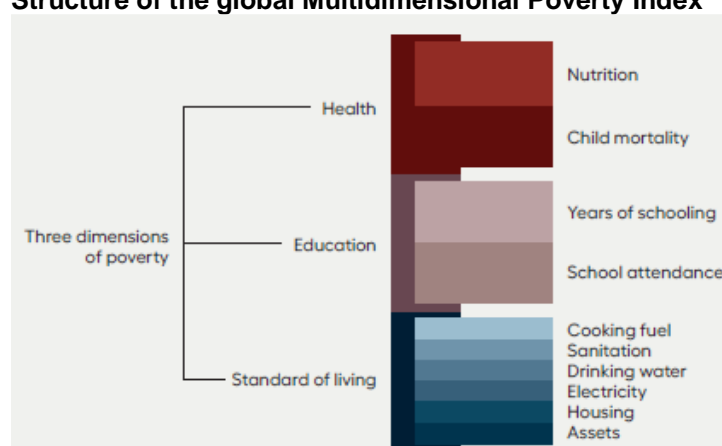
Tonga

What is the global Multidimensional Poverty Index?

Sustainable Development Goal 1 aims to end poverty in all its forms everywhere. The global Multidimensional Poverty Index (MPI) measures acute multidimensional poverty across more than 100 developing countries. It does so by measuring each person's overlapping deprivations across 10 indicators in three equally weighted dimensions: health, education and standard of living (see figure). 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. Each indicator is equally weighted within its dimension, so the health and education indicators are weighted 1/6 each, and the standard of living indicators are weighted 1/18 each. The MPI is the product of the headcount or incidence of multidimensional poverty (proportion of people who are multidimensionally poor) and the intensity of multidimensional poverty (average share of weighted deprivations, or average deprivation score,¹ among multidimensionally poor people) and is therefore sensitive to changes in both components. A deprivation score of 1/3 (one-third of the weighted indicators) is used to distinguish between the multidimensionally poor and nonpoor. If the deprivation score is 1/3 or greater, the household (and everyone in it) is classified as multidimensionally poor. Individuals with a deprivation score greater than or equal to 1/5 but less than 1/3 are classified as vulnerable to multidimensional poverty. Finally, individuals with a deprivation score greater than or equal to 1/2 live in severe multidimensional poverty. The MPI ranges from 0 to 1, and higher values imply higher multidimensional poverty. The MPI complements the international \$1.90 a day poverty rate by identifying who is multidimensionally poor and also the composition of multidimensional poverty.

Structure of the global Multidimensional Poverty Index



Source: OPHI 2018.

¹ The deprivation score of a multidimensionally poor person is the sum of the weights associated with each indicator in which the person is deprived.

Multidimensional Poverty Index for Tonga

The 2010 Human Development Report introduced the MPI and since 2018 the Human Development Report Office (HDRO) and the Oxford Poverty and Human Development Initiative jointly produce and publish the MPI estimates. The latest release from October 2021 covers 109 developing countries (countries that lack survey data that allow for the calculation of the MPI are not included): '[Unmasking disparities by ethnicity, caste and gender](#)' (also available in [French](#) and [Spanish](#)). The full table with MPI estimates is available at <http://hdr.undp.org/en/2021-MPI>; this year we are releasing a disaggregation by ethnicity/race/caste of the household head for 41 countries with available information. Definitions of deprivations in each indicator, as well as the full methodology are given in the MPI [Technical note](#). Continuing with the practice from the previous years, HDRO is making public the statistical programs used in the calculation of the 2021 MPI in Stata format for a large selection of countries (see <http://hdr.undp.org/en/content/mpi-statistical-programmes>). In 2020 HDRO released for the first time programs that calculate the MPI in R, a free software available at <https://www.r-project.org/>. For now, these programs are available for 4 selected countries (Benin, Republic of Congo, India and Iraq). Finally, a set of MPI frequently asked questions is available at <http://hdr.undp.org/en/mpi-2021-faq>.

The most recent survey data that were publicly available for Tonga's MPI estimation refer to 2019. Based on these estimates, 0.9 percent of the population in Tonga (1 thousand people in 2019) is multidimensionally poor while an additional 6.4 percent is classified as vulnerable to multidimensional poverty (7 thousand people in 2019). The intensity of deprivations in Tonga, which is the average deprivation score among people living in multidimensional poverty, is 38.1 percent. The MPI value, which is the share of the population that is multidimensionally poor adjusted by the intensity of the deprivations, is 0.003. In comparison, Kiribati and Papua New Guinea have MPI values of 0.080 and 0.263, respectively.

Table A compares multidimensional poverty with monetary poverty measured by the percentage of the population living below 2011 PPP US\$1.90 per day. It shows that monetary poverty only tells part of the story. The headcount or incidence of multidimensional poverty is 0.1 percentage points lower than the incidence of monetary poverty. This implies that individuals living below the monetary poverty line may have access to non-income resources. Table A also shows the percentage of Tonga'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. Figures for Kiribati and Papua New Guinea are also shown in the table for comparison.

Table A: The most recent MPI for Tonga relative to selected countries and region

	Survey year	MPI value	Head-count (%)	Intensity of deprivations (%)	Population share (%)			Contribution to overall poverty of deprivations in (%)		
					Vulnerable to multidimensional poverty	In severe multidimensional poverty	Below monetary poverty line	Health	Education	Standard of living
Tonga	2019	0.003	0.9	38.1	6.4	0.0	1.0	38.2	40.7	21.1
Kiribati	2018/2019	0.080	19.8	40.5	30.2	3.5	..	30.3	12.1	57.6
Papua New Guinea	2016/2018	0.263	56.6	46.5	25.3	25.8	38.0	4.6	30.1	65.3
East Asia and the Pacific	-	0.023	5.4	42.5	14.5	1.0	1.2	27.6	35.5	36.9

Note: Not all indicators were available for all countries, so caution should be used in cross-country comparisons. When an indicator is missing, weights of available indicators are adjusted to total 100 percent. See MPI Technical note at http://hdr.undp.org/sites/default/files/hdr2021_technical_notes.pdf for details.