

September 2022 Update to the Poverty and Inequality Platform (PIP)

What's New

*R. Andres Castaneda Aguilar, Carolina Diaz-Bonilla, Tony H. M. J. Fujs, Dean Jolliffe,
Christoph Lakner, Daniel G. Mahler, Minh C. Nguyen, Marta Schoch,
Samuel K. Tetteh-Baah, Martha C. Viveros Mendoza, Haoyu Wu, Nisbant Yonzan*

September 2022

(Updated March 2023)*

Keywords: What's New; September 2022; PPP.



Development Data Group
Development Research Group
Poverty and Equity Global Practice Group

Abstract

The September 2022 update to the Poverty and Inequality Platform (PIP) involves two changes to the data underlying the global poverty estimates. First, this update adopts the 2017 Purchasing Power Parities (PPPs) as announced by the World Bank in May 2022. Second, this update includes five new rounds of survey data for India, making it possible to monitor poverty in the country between 2015 and 2019. This document explains these changes in detail and the reasoning behind them.

All authors are with the World Bank. Corresponding authors: Christoph Lakner (clakner@worldbank.org) and Minh C. Nguyen (mnguyen3@worldbank.org). The authors are thankful for comments and guidance received from Benu Bidani, Deon Filmer, Haishan Fu, and Carolina Sánchez-Páramo. We would also like to thank the countless Poverty Economists that have provided data and documentation, and patiently answered our questions. Without them the database of household surveys that underpins the World Bank's global poverty measures would not exist. The authors gratefully acknowledge financial support from the UK government through the Data and Evidence for Tackling Extreme Poverty (DEEP) Research Programme. This note has been cleared by Umar Serajuddin.

*March 2023 update:

- The description of the 2017 PPPs at the bottom of page 6 has been corrected. The previous version of the document had omitted the Marshall Islands from the text. For the Marshall Islands, no official 2017 PPP estimate is published, so extrapolated 2011 PPPs are relied upon (as is the case for Kiribati or Tuvalu for example).

The Global Poverty Monitoring Technical Note Series publishes short papers that document methodological aspects of the World Bank's global poverty estimates. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent. Global Poverty Monitoring Technical Notes are available at pip.worldbank.org.

Contents

1. Introduction.....	2
2. 2017 PPPs	4
3. New data for India	8
4. Comparability database.....	10
5. Economy-years added.....	11
6. References.....	11

1. Introduction

The September 2022 global poverty update from the World Bank presents new global poverty estimates for the reference year 2019. It revises the previously published global estimates for the period between 1981 to 2018, as well as the regional estimates from 1981 to 2019. The update includes new surveys for India and adopts the 2017 Purchasing Power Parities (PPPs) as announced by the World Bank in May 2022 (see Jolliffe et al, 2022, Filmer et al., 2022, and Tetteh-Baah et al, 2022). As a result of the adoption of 2017 PPPs the global poverty lines have been revised from US\$1.90 to US\$2.15, from US\$3.20 to US\$3.65, and from US\$5.50 to US\$6.85. This document outlines the changes made to the underlying data and explains the reasons why the changes have been made.

Table 1 documents revisions to the regional and global poverty estimates between the June 2022 data vintage (in 2011 PPPs) and the September 2022 data vintage (in 2017 PPPs). As mentioned above, these changes are driven by the adoption of 2017 PPPs and by new data for India, which also affects data coverage for South Asia and the availability of poverty estimates for the region. Section 2 and 3 will focus on each of these changes and explain separately how they affect the overall revisions presented in this section.

The global poverty headcount in 2018 is revised slightly up from 8.7 to 8.9 percent, resulting in a revision in the number of poor from 659 to 674 million. As explained in more detail below, the 2017 PPPs by themselves reduce global poverty, which is more than offset by the new estimates for India that increase global poverty. These two forces are readily apparent from the regional trends. On the one hand, the adoption of the 2017 PPPs substantially reduces the poverty *levels* in Sub-Saharan Africa with the poverty rate decreasing from 38.9 percent to 35.7 percent. On the other hand, the adoption of new data for India drives an increase in the poverty rate and number of poor in South Asia. At the higher poverty lines, both the adoption of 2017 PPPs and new data for India drive an increase in the global poverty rate, which is more pronounced at the \$6.85 poverty line (relative to the \$5.50 poverty line in 2011 PPPs). The larger change at the \$6.85 line is explained by upward revisions in the national poverty lines of upper-middle-income countries in addition to revised PPPs (see Section 2 for a discussion).

Table 1 Poverty estimates for reference year 2018, changes between June 2022 and September 2022 vintage by region and poverty lines

Region	Survey Coverage (%)	\$1.90/\$2.15				\$3.20/\$3.65				\$5.50/\$6.85			
		Headcount ratio (%)		Number of poor (mil)		Headcount ratio (%)		Number of poor (mil)		Headcount ratio (%)		Number of poor (mil)	
		Jun 2022	Sept 2022	Jun 2022	Sept 2022	Jun 2022	Sept 2022	Jun 2022	Sept 2022	Jun 2022	Sept 2022	Jun 2022	Sept 2022
East Asia and Pacific	97.5	1.2	1.5	25	32	7.4	9.4	154	196	26.4	34.9	552	730
Europe and Central Asia	89.4	1.0	2.4	5	12	4.0	6.1	20	30	11.7	15.5	58	76
Latin America & Caribbean	86.7	4.0	4.3	25	27	9.9	10.7	63	68	23.7	28.3	151	180
Middle East and North Africa	50.9	7.5	7.5	29	29	20.0	15.9	78	62	44.1	45.1	171	175
Rest of the World	82.4	0.6	0.6	7	7	0.8	0.8	9	9	1.3	1.4	14	15
South Asia	96.4	n/a	10.0	n/a	182	n/a	45.6	n/a	828	n/a	82.4	n/a	1495
Sub-Saharan Africa	72.6	38.9	35.7	420	385	65.4	63.1	705	680	85.3	86.8	920	936
East & Southern Africa	60.4	44.0	40.8	283	262	68.8	66.4	442	427	86.7	87.5	558	563
Western & Central Africa	90.6	31.4	28.2	137	123	60.4	58.1	263	253	83.1	85.7	362	373
World Total	87.7	8.7	8.9	659	674	23.2	24.7	1764	1880	42.9	47.4	3262	3607

Note: Survey coverage for low- and lower-middle-income countries for 2018 is: 87.0%.

This update publishes global poverty estimates for 2019 (Table 2). Availability of new data for India significantly increases data coverage in lower-middle-income countries, which increases from 43 percent in the June 2022 vintage to 90 percent in this update.¹ The new data for India also drives an increase in data coverage for South Asia (from 22 percent to 96 percent of the regional population) allowing us to publish poverty estimates for South Asia for the period after 2014. Global poverty has declined slightly between 2018 and 2019, with the poverty headcount rate at the international poverty line of US\$2.15 (2017PPPs) decreasing from 8.9 percent to 8.4 percent. At the regional level, revisions to the poverty estimates in 2019 are in line with those outlined for 2018. With the exception of Sub-Saharan Africa, these latest regional estimates show an upward revision to the global poverty headcount at the three values of the poverty line translating into a higher share of the global population living in poverty in 2019, before the pandemic started. The Poverty and Shared Prosperity Report 2022 will analyze this trend in further detail and add additional evidence on the state of global poverty after 2019 (World Bank, forthcoming).

¹ For each reference year, coverage is calculated using economies with survey data within a three-year window either side of a reference year.

Table 2 Poverty estimates for reference year 2019, changes between June 2022 and September 2022 vintage by region and poverty lines

Region	Survey Coverage (%) Sept 2022	\$1.90/\$2.15				\$3.20/\$3.65				\$5.50 /\$6.85			
		Headcount ratio (%)		Number of poor (mil)		Headcount ratio (%)		Number of poor (mil)		Headcount ratio (%)		Number of poor (mil)	
		Jun 2022	Sept 2022	Jun 2022	Sept 2022	Jun 2022	Sept 2022	Jun 2022	Sept 2022	Jun 2022	Sept 2022	Jun 2022	Sept 2022
East Asia and Pacific	95.9	0.9	1.1	18	24	5.9	7.6	125	160	23.7	32.1	499	674
Europe and Central Asia	87.4	1.1	2.4	5	12	4.1	6.2	20	31	11.5	15.0	57	74
Latin America & Caribbean	86.8	4.1	4.3	26	28	9.9	10.6	64	68	23.6	28.0	151	180
Middle East and North Africa	47.9	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rest of the World	82.5	0.6	0.6	7	7	0.7	0.8	8	9	1.2	1.4	13	15
South Asia	96.4	n/a	8.5	n/a	156	n/a	42.0	n/a	772	n/a	82.2	n/a	1508
Sub-Saharan Africa	55.4	38.3	35.1	424	389	64.7	62.4	716	691	85.0	86.5	941	958
East & Southern Africa	32.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Western & Central Africa	90.0	30.5	27.2	136	122	59.4	57.1	266	255	82.4	85.1	368	380
World Total	84.5	n/a	8.4	n/a	648	n/a	23.5	n/a	1803	n/a	46.7	n/a	3590

Note: Survey coverage for low- and lower-middle-income countries for 2019 is: 79.2%.

2. 2017 PPPs

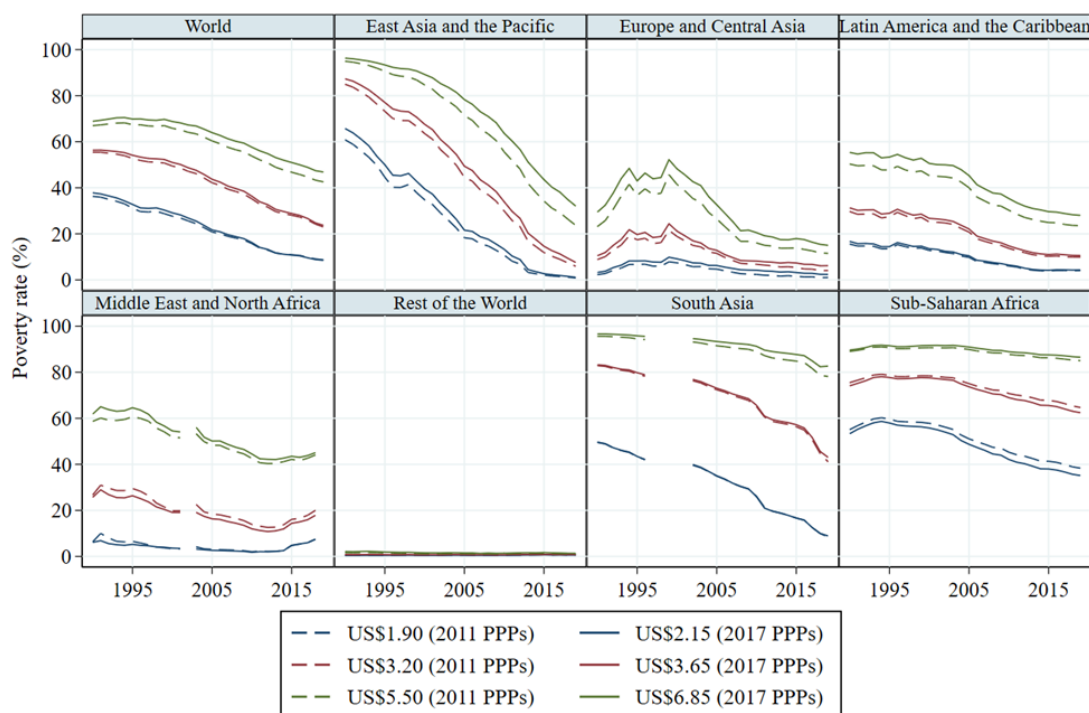
This update adopts the 2017 Purchasing Power Parities (PPPs) as announced by the World Bank in May 2022 (see Filmer et al. 2022; Jolliffe et al. 2022; Tetteh Baah et al. 2022). A legacy series using the older 2011 PPPs will continue to be available in PIP.² Having both PPP series available improves the transparency of the global poverty numbers and is an attempt to partially address the Atkinson Commission’s recommendation that the World Bank should provide a sense of the uncertainty surrounding its global poverty estimates. It also provides flexibility to users, some of whom might prefer to continue with the 2011 PPPs, especially in light of the recommendation by the Atkinson Commission to not change PPPs until 2030.³

² The legacy series in 2011 PPPs refers to the 2011 PPPs available in PIP at the time of the June 2022 update. It should be noted that this is the second version of 2011 PPPs released in 2017 and adopted by the World Bank in 2020 (World Bank, 2020). This series is also referred to as the revised 2011 PPPs in Jolliffe et al. 2022.

³ Sir Anthony Atkinson recommended in the *Commission on Global Poverty* that the World Bank should keep reporting poverty estimates on the basis of the 2011 PPPs and not switch to new ICP rounds until 2030, the target date for the end poverty goal by the Sustainable Development Goals and the World Bank (World Bank 2017). Atkinson was concerned that new ICP rounds might *shift the goalposts*, especially in light of earlier PPP revisions which caused large swings in global poverty estimates. This recommendation has the downside of excluding up-to-date price information from global poverty estimates. Recognizing this tradeoff, the World Bank responded that it would still

This section provides a short overview of the main differences between the regional and global results using the 2011 PPPs and the 2017 PPPs. Figure 1 shows the global and regional poverty trends with both revised 2011 and 2017 PPPs at all three poverty lines. The main takeaway of this comparison is that the poverty *trends* at the global and regional level are consistent between the 2017 PPPs series and the legacy series in 2011 PPPs (Jolliffe et al. 2022).

Figure 1 Global and regional poverty trends at the three lines, 2017 PPPs vs. legacy series in 2011 PPPs.



Source: Jolliffe et al. (2022) updated.

Note: The figure shows the global and regional poverty trends at the three poverty lines and compares the 2017 PPP-based estimates to those based on the 2011 PPPs legacy series. September 2022 data vintage is used.

The switch from the 2011 PPPs to 2017 PPPs has however important implications for global, regional, and country-level poverty *levels*. The regional extreme poverty estimates slightly *increase* in all regions, except Sub-Saharan Africa. In 2019, the 2017 PPP-based estimate at the international poverty line in Sub-Saharan Africa is 4 percentage points *lower* than the equivalent

adopt future ICP rounds if new PPPs were driven by new price information and not changes in ICP methodology as in earlier rounds (World Bank 2016). Recent research has documented the stability of the ICP methodology between the 2011 and 2017 rounds and this was one of the reasons why the World Bank has decided to adopt the 2017 PPPs (World Bank 2020; Deaton and Schreyer 2022; Jolliffe et al. 2022).

in 2011 PPPs, translating into 42 million fewer people (see Table 1). This drives a downward revision in the global extreme poverty estimate in recent years. Moving from the \$3.20 (2011 PPP) to the \$3.65 (2017 PPP) poverty line causes a similarly small change in the global poverty headcount (0.5 percentage points lower in 2018). This can be explained by offsetting changes at the regional level. Poverty increases in East Asia and the Pacific, Europe and Central Asia, Latin America and the Caribbean, and South Asia, while poverty decreases in Sub-Saharan Africa and the Middle East and North Africa (see Table 3).

In contrast, the revision to the poverty line for upper-middle-income-countries from \$5.50 (2011 PPPs) to \$6.85 (2017 PPPs) is relatively high and drives an upward revision in poverty rates for all regions, including Sub-Saharan Africa. As explained in more detail in Jolliffe et al (2022) the increase in this poverty line is explained by an upward revision to the typical national poverty line observed in upper-middle-income countries independent of the new PPPs. The poverty rate at this line increases by 4.2 percentage points in 2019, equivalent to 320 million more poor people (half of which live in East Asia and the Pacific alone).

For a subset of countries, the new PPPs lead to very large changes in their real living standards. In line with prior adoptions of new PPP rounds, imputed PPPs are relied upon in some of these cases (Ferreira et al. 2016). Imputed PPPs are generated using the model that the International Comparison Program uses to generate PPPs for countries that did not collect the necessary price data. For the 2017 round, this concerns eight countries --- Belize, Egypt, Guinea, Iraq, Nigeria, São Tomé and Príncipe, Sudan, and Trinidad and Tobago --- for which the average of official and imputed PPPs are used (see Jolliffe et al. (2022) for details on this). For another eight countries without an official 2017 PPP estimate --- Kiribati, Marshall Islands, Nauru, Somalia, Syrian Arab Republic, Tuvalu, Venezuela, Yemen --- extrapolated 2011 PPPs are relied upon.⁴ Extrapolated PPPs use PPPs from a prior round, here the 2011 round, and express them in 2017 prices using a scalar factor of domestic to US inflation between 2011 and 2017. For another set of countries, notably Ghana, Liberia, Sierra Leone and Timor-Leste the 2017 PPPs are used but more work is

⁴ Somalia has an official 2017 PPP estimate, which yields an extreme poverty estimate that is atypically low for a low-income, fragile, and conflict-affected country. More work is being done to understand what is driving this result. Until that work is completed, an extrapolated 2011 PPP is used for Somalia.

being carried out to understand why they generate large differences in poverty rates when compared to the 2011 PPPs.

Table 3 Changes in global and regional poverty in 2018 and 2019, 2017 PPPs vs. legacy series in 2011 PPPs

Region	2018		2019	
	Poverty rate, % (2011 PPP)	Poverty rate, % (2017 PPP)	Poverty rate, % (2011 PPP)	Poverty rate, % (2017 PPP)
<i>US\$1.90 (2011 PPP) vs. US\$2.15 (2017 PPP)</i>				
East Asia and Pacific	1.2	1.5	0.9	1.1
Europe and Central Asia	1.0	2.4	1.1	2.4
Latin America and the Caribbean	4.0	4.3	4.1	4.3
Middle East and North Africa	7.5	7.5	-	-
Rest of the world	0.6	0.6	0.6	0.6
South Asia	10.0	10.0	8.4	8.5
Sub-Saharan Africa	38.9	35.7	38.3	35.1
World	9.1	8.9	8.7	8.4
<i>US\$3.20 (2011 PPP) vs. US\$3.65 (2017 PPP)</i>				
East Asia and Pacific	7.4	9.4	5.9	7.6
Europe and Central Asia	4.0	6.1	4.1	6.2
Latin America and the Caribbean	9.9	10.7	9.9	10.6
Middle East and North Africa	20.0	17.9	-	-
Rest of the world	0.8	0.8	0.7	0.8
South Asia	44.7	45.6	41.1	42.0
Sub-Saharan Africa	65.4	63.1	64.7	62.4
World	24.2	24.7	23.0	23.5
<i>US\$5.50 (2011 PPP) vs. US\$6.85 (2017 PPP)</i>				
East Asia and Pacific	26.4	34.9	23.7	32.1
Europe and Central Asia	11.7	15.5	11.5	15.0
Latin America and the Caribbean	23.7	28.3	23.6	28.0
Middle East and North Africa	44.1	45.1	-	-
Rest of the world	1.3	1.4	1.2	1.4
South Asia	78.7	82.4	78.2	82.2
Sub-Saharan Africa	85.3	86.8	85.0	86.5
World	43.3	47.4	42.6	46.7

Note: World Bank calculations based on Jolliffe et al. 2022. Also see World Bank (forthcoming).

Note: The table shows poverty estimates for 2018 and 2019 for all regions using 2017 PPPs versus the legacy series in 2011 PPPs. Data coverage for the Middle East and North Africa is below 50 percent in 2019, hence the estimate is not reported. PPP = purchasing power parity.

3. New data for India

This update includes five new surveys for India for each of the following years: 2015/16, 2016/17, 2017/18, 2018/19, 2019/20. The last survey data that was released by India's National Sample Survey Office and that can be used to measure poverty in India dates to the 2011/12 National Sample Survey (NSS). The government of India decided not to release the 2017/18 NSS round due to concerns over data quality (see Box 1.2 in World Bank, 2020). This update publishes global and regional estimates based on new data for India available for years 2015/16, 2016/17, 2017/18, 2018/19, 2019/20. The household consumption data used for poverty monitoring is based on the analysis by Roy and Van der Weide (2022) and uses new household survey data from the Consumer Pyramids Household Survey (CPHS) conducted by the Center for Monitoring Indian Economy (CMIE), a private data company.

Roy and Van der Weide (2022) find that poverty has declined in India since 2011 and that this reduction is driven by a larger poverty reduction in rural areas. Overall, poverty in the country has declined, but less than what earlier estimates used for global poverty measurement suggested (World Bank 2020). Previous estimates suggested a poverty headcount rate at the \$1.90 poverty line of 10.4 percent in 2017, with a 95 percent confidence interval between 8.1 and 11.3 (World Bank, 2020). The latest estimate based on Roy and Van der Weide (2022) show that poverty at the \$1.90 poverty line was 13.6 in 2017.

The main advantage of the CPHS data is that it allows monitoring poverty in India throughout the period 2015 to 2019, considerably improving our understanding of poverty in the country and the world in recent years. The CPHS data also has some limitations, and it is different from the official NSS data traditionally used for global poverty monitoring. For example, concerns have been raised about the sampling and the fact that the consumption aggregate is not directly comparable to the NSS (Dreze and Somanchi 2021). To address these issues, Roy and Van der Weide (2022) make several adjustments to the CPHS data. They reweight the data with the objective to transform the CPHS into a nationally representative survey and correct for the sampling biases. In addition, they transform the measured CPHS consumption into an NSS-type consumption for each year of data. The authors also compare their results with a wide range of supplementary data that show broadly similar trends.

The estimates in this update adopt the 2017 PPPs and show that the poverty headcount rate at the \$2.15 poverty line is 10.0 percent in 2019/20 (11.9 percent in rural areas and 6.4 percent in urban areas, see Table 4).

Table 4 Poverty and Inequality survey estimates for India, 2015-2019

Year		Poverty rate \$2.15 (%)			Poverty rate \$3.65 (%)			Poverty rate \$6.85 (%)			Gini Index		
		Rural	Urban	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban	National
India	2015/16	22.00	12.02	18.73	66.51	49.51	60.94	92.72	81.06	88.90	31.26	37.88	34.71
India	2016/17	20.09	14.11	18.11	65.96	47.47	59.83	92.56	80.92	88.70	31.01	38.29	34.77
India	2017/18	14.60	10.94	13.37	62.18	38.88	54.35	90.10	75.94	85.34	31.27	39.58	35.94
India	2018/19	11.68	9.94	11.09	54.14	32.69	46.84	89.29	69.53	82.56	31.05	36.22	34.59
India	2019/20	11.92	6.39	10.01	51.36	32.28	44.78	89.60	72.86	83.83	30.86	39.37	35.73

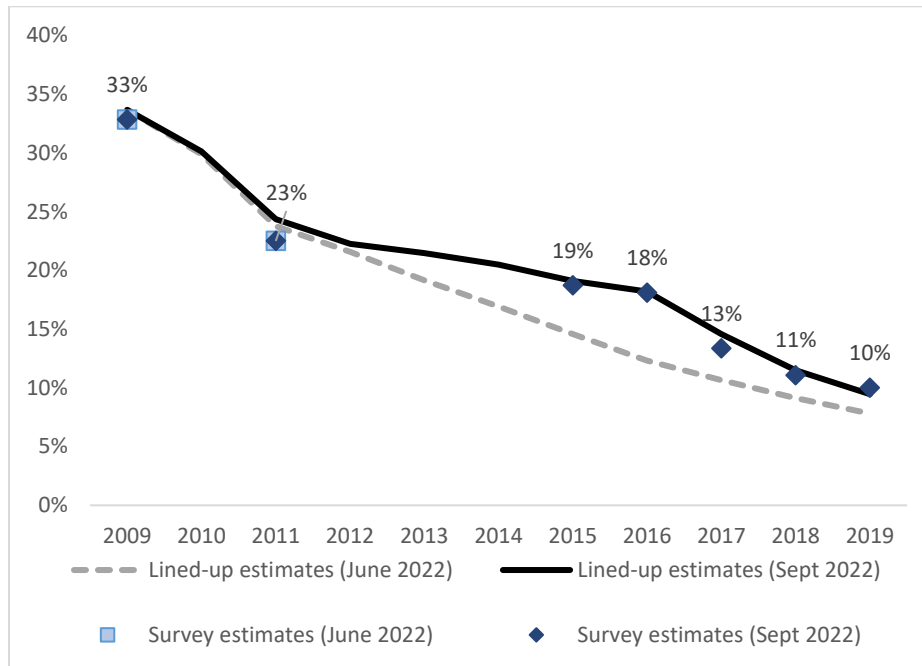
Source: PIP, Roy and Van der Weide (2022).

The new data also affects the lined-up series for India. Figure 2 compares the latest lined-up trend based on the September data vintage, i.e., including the new data for India, to the trend previously used for global poverty measurement (June 2022 data vintage), both expressed in 2011 PPPs to only capture the effect of the new India data.^{5,6} The availability of new data for India also affects the regional poverty estimates for South Asia, which reflect this change and show an upward revision after 2014 (see Table 1 and 2 above).

⁵ Previous lined-up estimates for India available in PIP extrapolated the 2011/12 survey estimates using growth rates in national accounts calibrated to match the 2014/15 poverty rate estimate in Newhouse and Vyas (2019). Further details on previous estimates for India used for global poverty measurement can be found in World Bank (2018; 2020) and Edochie et al (2022). With this update, the lined-up estimates for India after 2011 interpolate between the 2011/12 survey estimate and the new CPHS-imputed data added with this update following the same methodology used for all other countries and outlined in Prydz et al (2019).

⁶ Switching from 2011 PPPs to 2017 PPPs has a very small impact on India's poverty estimates. For example, the poverty headcount rate at the \$1.90 poverty line (in 2011 PPPs) is 10.01 percent in 2019 and at the \$2.15 poverty line (in 2017 PPPs) is 10.00 percent.

Figure 2 Lined-up and survey poverty estimate at the \$1.90 poverty line (2011 PPPs), India 2009-2019



Source: PIP.

Note: The figure shows survey and lined-up poverty estimates in 2011 PPPs at the \$1.90 poverty line for India 2009-2019, comparing the May 2022 PIP data vintage with the September 2022 PIP data vintage. Because the lined-up series uses calendar years (e.g. 2011 and 2012), while the survey year series is for fiscal years (e.g. 2011/12), it appears as if the lined-up series does not cross directly through the survey estimates

4. Comparability database

Since September 2019, we provide metadata on comparability of poverty estimates within countries over time. The assessment of comparability is country-dependent and relies on the accumulation of knowledge from past and current Bank staff in the countries, as well as close dialogue with national data producers with knowledge of survey design and methodology (see Atamanov et al. 2019 for more information on reasons that break comparability). With this data update, we have also updated the database to include the new Indian datapoints.

More information about the comparability database and how to use it is available at <https://worldbank.github.io/PIP-Methodology/welfareaggregate.html#comparability>. The PIP website also now indicates comparability in its main output.

5. Economy-years added

The table below gives the list of new economy-years added to the PIP database. A total of 5 new economy-years were added.

Table 5 Economies-years added in September 2022 PIP update

Economy	Year	Survey Name
India	2015-2019	CPHS-CMIE

6. References

- Castaneda, R. Andres, Reno Dewina, Carolina Diaz-Bonilla, Ifeanyi N. Edochie, Tony Fujs, Dean Jolliffe, Jonathan Lain, et al. 2022. “April 2022 Update to the Poverty and Inequality Platform (PIP): What’s New,” Global Poverty Monitoring Technical Note Series, no. 20 (April), World Bank.
- Deaton, Angus, and Paul Schreyer. 2022. “GDP, Wellbeing, and Health: Thoughts on the 2017 Round of the International Comparison Program.” *Review of Income and Wealth* 68 (1): 1–15. <https://doi.org/10.1111/roiw.12520>.
- Dreze, Jean, and Anmol Somanchi. 2021. “View: New Barometer of India’s Economy Fails to Reflect Deprivations of Poor Households.” *The Economic Times*, June 2021. <https://economictimes.indiatimes.com/opinion/et-commentary/view-the-new-barometer-of-indias-economy-fails-to-reflect-the-deprivations-of-poor-households/articleshow/83696115.cms>.
- Edochie, Ifeanyi Nzegwu, Samuel Freije-Rodriguez, Christoph Lakner, Laura Moreno Herrera, David Locke Newhouse, Sutirtha Sinha Roy, and Nishant Yonzan. 2022. “What Do We Know about Poverty in India in 2017/18?” Policy Research Working Paper, no. 9931, World Bank. <https://doi.org/10.1596/1813-9450-9931>.
- Filmer, Deon, Haishan Fu, and Carolina Sanchez Paramo. 2022. “An Adjustment to Global Poverty Lines.” *Voices* (blog). May 2022. <https://blogs.worldbank.org/voices/adjustment-global-poverty-lines>.
- Jolliffe, Dean, Daniel Gerszon Mahler, Christoph Lakner, Aziz Atamanov, and Samuel Kofi Tetteh Baah. 2022. “Assessing the Impact of the 2017 PPPs on the International Poverty Line and Global Poverty,” Policy Research Working Paper, no. 9941, World Bank.
- Newhouse, David Locke, and Pallavi Vyas. 2019. “Estimating Poverty in India Without Expenditure Data: A Survey-to-Survey Imputation Approach.” Policy Research Working Paper, no. 8878, World Bank.
- Prydz, Espen Beer, Dean Jolliffe, Christoph Lakner, Daniel Gerszon Mahler, and Prem Sangraula. 2019. “National Accounts Data Used in Global Poverty Measurement.” Global Poverty Monitoring Technical Note Series, no. 8, World Bank.
- Roy, Sutirtha Sinha, Roy van der Weide. 2022. “Poverty in India Has Declined over the Last Decade But Not As Much As Previously Thought”, Policy Research Working Paper, no. 9994, World Bank.

- Tetteh Baah, Samuel Kofi, Aziz Atamanov, Dean Mitchell Jolliffe, Christoph Lakner, and Daniel Gerszon Mahler. 2022. "Updating the International Poverty Line with the 2017 PPPs." *World Bank Data Blog* (blog). May 2022. <https://blogs.worldbank.org/opendata/updating-international-poverty-line-2017-ppps>.
- World Bank. 2016. "Poverty and Shared Prosperity 2016: Taking on Inequality." 109215. Washington DC: World Bank. <http://documents.worldbank.org/curated/en/242251476706821424/Poverty-and-shared-prosperity-2016-taking-on-inequality>.
- . 2018. "Poverty and Shared Prosperity 2018: Piecing Together the Poverty Puzzle." Washington, DC: World Bank. <https://doi.org/10.1596/978-1-4648-1330-6>.
- . 2020. *Poverty and Shared Prosperity 2020*. Washington, DC: World Bank. <https://doi.org/10.1596/978-1-4648-1602-4>.
- . Forthcoming. "*Poverty and Shared Prosperity 2022: Correcting Course*". Washington, DC: World Bank.