

Policy Brief: Poverty Rate Measurement: International vs National Standards

Key Messages

- The International Poverty Line (IPL) refers to the level of extreme poverty in the base year of 2011, namely those living below US\$1.90 PPP per day. The poverty line in Indonesia is measured by calculating the cost of a basket of food consumables needed to fulfill a minimum nutrition requirement of 2,100 kilo calories per person per day.
- The use of US\$ currency rate in PPP is different to the general understanding of nominal currency exchange rate. The PPP concept is closely related to the definition of the level of prices in each country that constitute the weighted average prices of a number of goods of the same types and weight in the relevant country.
- The national standard poverty line calculated by BPS of Rp 425,250 per month per capita is higher than the international standard of US\$1.90 PPP and equivalent to an IPL of US\$2.50 PPP per day.
- Given that these two methodologies are often the subject of debate and news coverage, it is necessary to conduct a further analysis on each methodology to obtain a more comprehensive understanding.

Introduction

The use of a standard poverty line to measure poverty is often questioned. This is because the Government of Indonesia through Statistics Indonesia (Badan Pusat Indonesia: BPS) routinely calculates the national poverty line to measure annual progress in development achievements. On the other hand, international organisations, such as the World Bank, also release the results of poverty line calculations for a number of

countries including Indonesia by using an approach based on purchasing power parity (expressed in US\$ PPP) in a certain base year.

The main purpose of measuring global poverty is to determine progress on achieving the poverty alleviation targets throughout the world that are set out in the Millennium Development Goals (MDG) 1990 to 2015

(Ferreira et al. 2015). The MDGs have been extrapolated by both the World Bank which aims to end extreme poverty by 2030 and the United Nations that has set a target to eliminate all forms of poverty by 2030 through the Sustainable Development Goals (SDG). To monitor the global poverty rate, the measurement to be made must be comparable between one country and another.

The Concept of Purchasing Power Parity (PPP)

PPP is an international price index measured by an amount of money required to buy the same basket of goods in each country of comparison using the US\$ (Deaton and Aten 2017). The concept of PPP is closely related to the definition of price levels in every country constituting the weighted average prices of a basket of goods of similar types and in similar quantity between the countries (Feenstra and Taylor 2017). Furthermore, it is assumed that PPP will be applicable insofar as the price levels in those countries are compared in the same currency units. As a simple illustration of the concept of PPP, if the price of one banana in the USA is US\$1.00, while the price of a banana of the same type in Indonesia is Rp 500, the PPP is US\$0.002/Rupiah.

The source of information regarding PPP exchange rates for the purpose of calculating the IPL is the International Comparison Program (ICP) which is a partnership of statistics offices from several countries. As of 2011, a total of 199 countries covering 97 percent of the global population or approximately 99 percent of global gross domestic product were participating in the ICP (World Bank 2015).

International Poverty Line (IPL)

In the baseline year of 2011 extreme poverty was defined as those people living below US\$1.90 PPP per day (Table 1). The history of the use of PPP dollars was initiated in World Development Report 1990. At that time, the benchmark for the IPL was US\$1.00 PPP based on the ICP for the base year of 1985 (Ravallion et al. 1991). To develop its initial IPL in 1990 the World Bank used national poverty line samples from 33 countries. Subsequently, there were eight of the poorest countries were used as the basis for the IPL of US\$1.00 PPP per day (Kenya, Nepal, Tanzania, Bangladesh, Indonesia, Morocco, Philippines, and Pakistan).

Tabel 1 History of the Use of US\$ PPP

Name	ICP Base Year	Reference Population	Method	Poverty Line
1979: "India Line"	1975	India	Percentile 46 of Indian Population	\$0.56
1990: "Dollar a Day"	1985	Kenya; Nepal; Tanzania; Bangladesh; Indonesia; Morocco; Philippines; Pakistan	<i>Inspection' (rounded)</i>	\$1.01
2001: 1.08/day	1993	China; Tanzania; Zambia; India; Indonesia; Thailand; Nepal; Bangladesh; Tunisia; Pakistan	Median	\$1.08
2008: 1.25/day	2005	Malawi; Mali; Ethiopia; Sierra Leone;	Mean	\$1.25
2011: 1.90/day	2011	Niger; Uganda; Gambia, The; Rwanda; Guinea-Bissau; Tanzania; Tajikistan; Mozambique; Chad; Nepal; Ghana.	Mean (rounded)	\$1.90

Sumber: Ferreira, 2015

The use of a currency exchange rate in PPP is different to the definition of a nominal currency exchange rate. In the ICP report for the base year of 2011, the exchange rate used was US\$1.00 = Rp 8,770. If the IPL for the base year of 2011 was US\$1.90 PPP per day, the conversion of the IPL into rupiah should not be based on the aforementioned nominal exchange rate of Rp 8,770 per US\$1.00 but should use the PPP exchange rate set out in the table of household consumption individual expenditures in the ICP report of 2011 (**Table 2**).

Table 2: PPP Exchange Rate for the Base Year of 2011 (Indonesia)

Area	US\$1.00 PPP per day (in Rupiah)
Urban	4,360.50
Rural	3,666.16
Indonesia	4,091.90

Source: Ferreira, 2015.

A poverty line measurement for Indonesia by referring to IPL is more specific, because it adjusts for urban and rural bias (Chen and Ravallion 2010). The ratio of IPLs for urban and rural areas is equal to the ratio between the urban and rural poverty lines calculated by BPS, namely 1.19. The amount of exchange rate for US\$1.00 PPP per day in the base year of 2011 is presented in Table 2 (Ferreira et al. 2015).

Measurement of the Indonesian National Poverty Line

Cost of Basic Need (CBN) approach is a poverty measurement methodology officially released by the BPS. This approach calculates the food consumption expenditures necessary to fulfill the minimum nutritional requirement of 2,100 calories per person per day (Haughton and Khandker 2009). Several essential nonfood expenditures are also included in the calculation of the poverty line (BPS 2016). The value of the minimum requirement for the nonfood group to be used is the ratio of expenditure for each item of nonfood expenditures to the total expenditures obtained from the survey on the basic needs commodity basket.

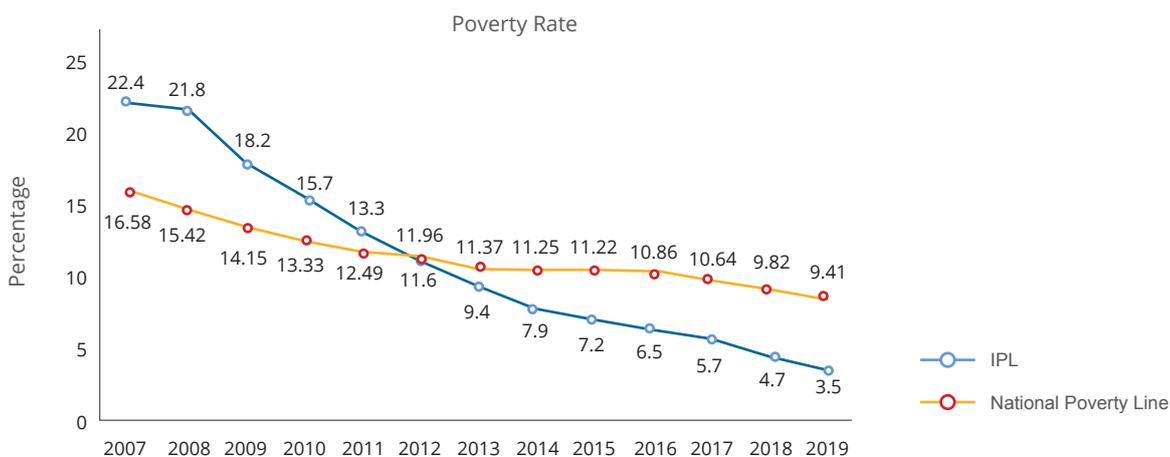
The source of data for the measurement of the national poverty line is the consumption module of the national socioeconomic survey (Susenas). The calculation of food consumption expenditures in the national poverty line includes 52 commodities, while nonfood consumption comprises 51 items for urban areas and 47 items for rural areas (BPS 2016).

Poverty Rate Based on the Two Approaches to Poverty Line Measurement

Trends in the poverty rate based on the two poverty line methodologies are presented in Figure 1. Prior to 2012,

the national poverty rate calculated by BPS was lower than the poverty rate calculated by using the IPL (US\$1.90 PPP per day), however, the poverty rate based on the national poverty line has been higher since 2012.

Figure 1 Comparison of Poverty Rate Methodologies (2007-19)

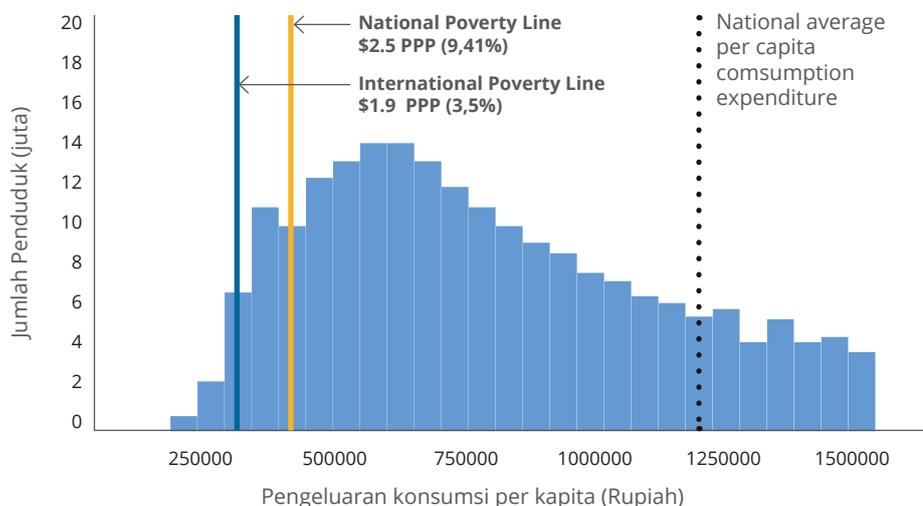


Source: BPS and World Bank.

The distribution of general consumption expenditure per capita for 2019 is illustrated in Figure 2. The distribution of consumption expenditure per capita in Indonesia tends to be right-skewed. The data used is the data of Susenas March 2019. The national average monthly consumption

expenditure is Rp 1,165,241 per capita (BPS 2019). This illustration indicates the large number of people whose per capita consumption expenditure is below the national average.

Figure 2: Distribution of Per Capita Consumption Expenditure (2019)



Source: BPS (Susenas, processed).

Note: GK Nasional = National poverty line; GK Internasional = IPL; Total penduduk (juta) = Total population (millions); and Pengeluaran konsumsi per kapita = Per capita consumption expenditure.

The national poverty line calculated by BPS (US\$2.50) is higher than the IPL (US\$1.90 PPP) per day in the base year of 2011 with a poverty rate in 2019 of 9.41 percent (BPS 2019). By referring to consumer price index (CPI) inflation rate and IPL of US\$1.90 PPP per day in the base year of

2011, the estimated poverty rate using IPL of US\$1.90 PPP per day is 3.5 percent, while the national poverty line according to BPS is Rp 425,250 per month per capita or equivalent to IPL of US\$2.50 PPP per day.

Closing

Each of the two types of poverty line has a different objective. The national poverty line serves as a reference in calculating the poverty rate for monitoring progress in achieving development goals related to poverty indicators with a minimum cost of living. As the follow up, the estimated rate is subsequently translated into a number of programs for poverty alleviation. Meanwhile, IPL is prepared as a tool for international poverty analysis that requires the comparability of the selected commodities and prices through PPP calculation.

Furthermore, the nominal exchange rate of the rupiah against the US dollar cannot be used for the conversion of domestic exchange rate of IPL for the designated base year by applying the IHK inflation rate, for example for the year 2011.

There is a growing discourse on using the national poverty line for measuring poverty rate which is lower than IPL. The fact is that poverty rate calculated based on IPL is gradually decreasing even faster from year to year than the poverty line calculated by using the national poverty line. In fact, as of 2012, poverty rate based on IPL has been lower than poverty rate calculated using national poverty line. Accordingly, Indonesian national poverty line calculated by BPS since 2012 is still higher than IPL.

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