

Policy Brief: Poverty Dynamics in Indonesia

Key Messages

While the overall poverty rate in Indonesia has declined by almost 50 percent in the 20 years to 2018, many Indonesians are still vulnerable to poverty.

While a small percentage of Indonesians are chronically poor, poverty in Indonesia is largely a transient phenomenon. The number of transient poor—those moving in and out of poverty—was estimated at 17.92 percent of the population or 44.2 million people in 2013.

The chronic poor and transient poor share common characteristics. The majority of household heads are self-employed with lower levels of educational attainment. They mostly work in the agricultural sector, have less access to formal funding and basic services, and own fewer assets.

For the transitory poor, government needs to provide a better safety net and coping mechanisms to reduce their vulnerability. The chronic poor need basic services (especially in rural areas) and programs that can support a sustainable increase in their income.

Background

For the first time in Indonesia's efforts to reduce poverty, the poverty headcount touched a single digit figure in March 2018 and continued to fall to its lowest level of 9.66 percent in September of that year. This declining trend began following the Asian financial crisis in 1998 when the poverty headcount spiked to 24.2 percent. Since then, the number of poor has almost halved—from 49.5 million in 1998 to 25.67 million people in September 2018.

Despite this achievement, the so-called trend (static) analysis masks the dynamic problems of poverty—with many Indonesians still vulnerable to poverty. The bottom 40 percent of Indonesian households have at

least a one in ten chance of going from not poor one year to being poor the following year (World Bank 2012). This results in a considerable number of people moving in and out of poverty. On the other hand, some of the poor have been trapped in poverty for an extended period. Getting a more holistic picture of the issues may aid in providing a better policy input.

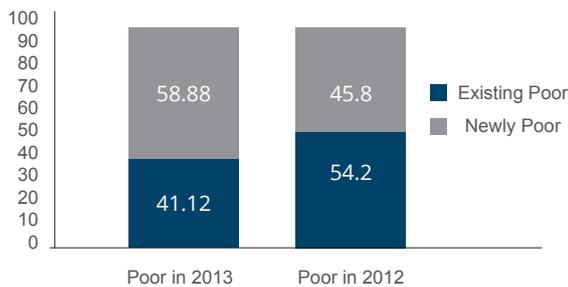
The availability of the latest Susenas panel data (2011-2013)¹ presents an opportunity to revisit the latest condition of poverty dynamics in Indonesia. Analysing the panel data allows us to better understand this dynamic problem. It can show the transition of poverty over more than one year and enable us to identify both the chronic and transient poor.

¹ A reweighting is still needed to represent the national poverty headcount in each year. The reweighting is conducted on the balanced panel data based on the population projection frame (urban/rural, age, sex) and poverty status.

Poverty Transition

During the observation period of 2011-2013, the poverty rate declined every year—from 12.49 percent in 2011 to 11.96 percent in 2012 and, finally, 11.37 percent in 2013. Nevertheless, there are still many newly poor in each year which accounts for 45-59 percent of the total number of poor in Indonesia. For instance, 45.8 percent of the poor in 2012 were not poor in the previous year (Figure 1). This confirms a high rate of poverty churn in Indonesia.

Figure 1: New and Existing Poor



Source: Estimate based on Susenas balanced panel data 2011-2013.

The analysis further shows that more than 20 percent of the population had experienced poverty at least once during the course of 2011-2013 (Figure 2). Moreover, it also found that 2.91 percent of individuals stayed poor within the observed period.

Figure 2: Number of Years Being Poor



Source: Estimate based on Susenas balanced panel data 2011-2013.

Identifying Chronic and Transient Poor

One of the main approaches to modelling poverty dynamics is using the period that focuses on the transition from one welfare status to another (Yaqub 2000). It distinguishes the poor based on the length of time someone experiences poverty. People who experience short periods of poverty (in and out) are deemed to be transient poor while those who are always poor or being 'long-enough' in poverty are considered as chronically poor.

Using the spell approach, we estimate around 2.91 percent of Indonesians are chronically poor. In 2013, this represents more than 7 million people who have been poor for at least the whole three years of the observed duration. Nevertheless, poverty in Indonesia is still found to be largely a transient phenomenon. The transient poor is estimated at 17.92 percent which was equivalent to 44.2 million people in 2013 (Table 1).

Table 1: Estimating Chronic Poor in 2013

| Poverty Dynamics* | Number of People | Percentage |
|-------------------|------------------|------------|
| Chronic Poor | 7,174,814 | 2.91 |
| Transient Poor | 44,265,141 | 17.92 |
| Never Poor | 195,539,847 | 79.17 |
| Total | 246,979,802 | 100.00 |

Source: Estimate based on Susenas balanced panel data 2011-2013.

The Characteristics

Those who have been identified as chronically poor seem to share some common characteristics.²

First, the chronic poor have an unfavourable demographic structure. They have a high rate of household dependency which is marked by big household size, especially with more members belonging to the unproductive group: under-fives, school-aged children and the elderly (Appendix B).

Second, most of the chronic poor live in rural areas (65.4 percent). This not only means that the poverty rate in rural areas is higher, it also comprises of more chronic poor. In addition, they lack access to some basic services such as electricity, modern fuels for cooking and safe sanitation. These conditions lead to some disadvantages. Foster and Tre (2000) show, for example, that the unit cost of lighting with electricity is cheaper per kilowatt-hour than lighting with candles or kerosene; and (ii) the net price of using fuelwood for cooking is just as costly as propane gas. Furthermore, both using fuelwood for cooking and lack of access to safe sanitation makes the poor also more vulnerable to health problems.

Third, most of the households' heads are self-employed (Appendix C). Banerjee and Duflo (2007) explain that this phenomenon is likely explained by their lack of skills and capital. They suggest that being an entrepreneur seems to be an easier way for them to generate an income compared to finding a job with an employer. Given their condition, however, their businesses are often inevitably small. Our findings are indeed in line with the argument; the head of a chronically poor household is found to have much lower educational attainment (almost 50 percent did not finish elementary school) and mostly work in the agricultural sector (64 percent). The chronic poor are also found to have lower access to formal funding and this probably correlates with their lack of assets (collateral) too.

The transient poor share a similar characteristic with the chronic poor, albeit to a lesser degree. Their demographic structure, access to basic services, asset ownership and the heads' profile are all disadvantages, although not as bad as for the chronic poor.

² The full details are available in Appendixes B and C.

Conclusions and Recommendations

Poverty dynamics analysis enables us to discover the problems that are masked by a simple trend analysis.

First, by using Susenas balanced panel data 2011-2013, we found that poverty in Indonesia is largely a transient phenomenon. Around 17.92 percent of the population have temporarily experienced poverty (transient poor) and the proportion of newly poor is around 45-59 percent every year. This reiterates the importance of Indonesia's social protection system which targets not only the poor but also vulnerable groups.

Second, the chronically poor population is estimated at around 2.91 percent. These are people who have been trapped in poverty for at least three years (the observed duration). They have higher dependency, reside mostly in rural areas, lack access to basic services, and their household heads have less educational attainment and are mostly self-employed in agriculture with low access to financial markets.

With a considerable number of transitory poor, government needs to constantly think about improving the effectiveness of its social protection system. The goal would be to provide a better safety net and coping mechanisms to reduce their vulnerability. Improving the quality of the Unified Database—which records the poorest 40 percent—and its operational mechanism should be part of the future agenda.

Efforts to address the chronic poor might need longer-term goals. These should be directed to provision of basic services (especially in rural areas) and programs that could support a sustainable increase in their income. Increasing farming productivity, providing financing options and new job opportunities, as well as relaxing some rigidities in the labour market to make it easier for the poor to find jobs in the formal sector should be considered.

References

- Banerjee, A. and Duflo, E. 2007. The Economic Lives of the Poor. *Journal of Economic Perspectives*, 21(1), pp.141-167.
- Foster, V., and J-P. Tre. 2000. *Measuring the Impact of Energy Interventions on the Poor—An Illustration from Guatemala*. [online] World Bank. http://siteresources.worldbank.org/INTPSIA/Resources/490023-1120845825946/guatemala_impact_of_energy_reform.pdf http://siteresources.worldbank.org/INTPSIA/Resources/490023-1120845825946/guatemala_impact_of_energy_reform.pdf [Accessed 9 Apr. 2015].
- World Bank. 2012. *Targeting Poor and Vulnerable Households in Indonesia*. Washington DC: The World Bank.
- Yaqub, S. 2000. *Poverty Dynamics in Developing Countries*. Brighton, United Kingdom: Institute of Development Studies. <http://www.ophi.org.uk/wp-content/uploads/ssYaqub-2000.pdf> [Accessed 28 May 2019].

Appendix A: Poverty Transition

| Combination Code* | Note | Individuals | Percent | Cumulative |
|-------------------|-----------------------------|--------------------|---------------|------------|
| 000 | Never Poor | 195,539,847 | 79.17 | 79.17 |
| 001 | Poor once in 2013 | 10,310,209 | 4.17 | 83.34 |
| 010 | Poor once in 2012 | 3,937,332 | 1.59 | 84.93 |
| 011 | Poor twice in 2012 and 2013 | 4,366,694 | 1.77 | 86.70 |
| 100 | Poor once in 2011 | 16,207,700 | 6.56 | 93.26 |
| 101 | Poor twice in 2011 and 2013 | 6,218,233 | 2.52 | 95.78 |
| 110 | Poor twice in 2011 to 2012 | 3,224,973 | 1.31 | 97.09 |
| 111 | Always poor | 7,174,814 | 2.91 | 100.00 |
| | Total | 246,979,802 | 100.00 | |

Source: Susenas balanced panel data 2011-2013; authors' calculation.

Note: * The three digits represent three years of observation. The first digit is for the poor status in 2011, the second digit for 2012, and the last one for 2013 where 1 equals being poor and 0 is not poor.

Appendix B: Household Characteristics

| Characteristics | Chronic Poor | Transient Poor | Never Poor | Total |
|--|--------------|----------------|------------|-------|
| Household size (person) | 6.38 | 5.48 | 4.51 | 4.74 |
| Female | 3.30 | 2.68 | 2.23 | 2.34 |
| Under 5 years | 0.82 | 0.60 | 0.42 | 0.46 |
| Productive age (15-64) | 3.35 | 3.16 | 2.95 | 3.00 |
| Elderly (64+) | 0.24 | 0.22 | 0.19 | 0.19 |
| School age (6-21) | 2.60 | 2.06 | 1.41 | 1.56 |
| Access to electricity (%) | 88.00 | 89.70 | 96.90 | 95.30 |
| Owned house (%) | 92.80 | 85.60 | 84.30 | 84.70 |
| No toilet (%) | 37.50 | 26.80 | 13.40 | 16.50 |
| Using traditional fuel to cook (%) | 85.80 | 68.80 | 46.20 | 51.40 |
| HH received rice assistance - RASKIN (%) | 85.80 | 73.00 | 42.60 | 49.30 |
| HH received working loan (%) | 8.45 | 11.70 | 12.00 | 11.80 |
| Government working loan: PNPM (%) | 5.02 | 3.92 | 3.20 | 3.38 |
| Government working loan: KUR (%) | 0.00 | 1.13 | 1.72 | 1.56 |
| Live in rural area (%) | 65.40 | 61.50 | 47.10 | 50.20 |
| Assets ownership | | | | |
| Bike (%) | 31.10 | 34.60 | 39.20 | 38.20 |

| Characteristics | Chronic Poor | Transient Poor | Never Poor | Total |
|-------------------|--------------|----------------|------------|-------|
| Motorbike (%) | 28.10 | 47.70 | 77.00 | 70.30 |
| Boat (%) | 5.73 | 3.72 | 2.57 | 2.87 |
| Cable TV (%) | 6.91 | 5.20 | 10.10 | 9.12 |
| AirCon (%) | 0.00 | 0.25 | 5.31 | 4.25 |
| Water heater (%) | 0.00 | 0.46 | 3.10 | 2.54 |
| LPG tube 12kg (%) | 0.93 | 3.05 | 17.20 | 14.20 |
| Refrigerator (%) | 4.08 | 13.30 | 49.60 | 41.70 |
| Motorboat (%) | 2.56 | 1.15 | 1.94 | 1.82 |
| Car (%) | 0.00 | 0.86 | 10.90 | 8.78 |

Source: Susenas balanced panel data 2011-2013; authors' calculation.

Appendix C: Head of Household Characteristics (%)

| Characteristics | Chronic Poor | Transient Poor | Never Poor | Total |
|----------------------------------|--------------|----------------|------------|-------|
| Females | 4.77 | 8.02 | 8.35 | 8.19 |
| Married | 93.40 | 91.30 | 89.90 | 90.30 |
| Working in agriculture | 64.00 | 54.20 | 32.40 | 37.20 |
| Self-employed | 60.00 | 57.00 | 49.80 | 51.40 |
| Did not finish elementary school | 48.70 | 35.00 | 22.10 | 25.20 |
| Finished elementary school | 36.50 | 41.20 | 28.20 | 30.70 |
| Finished junior high school | 7.66 | 12.70 | 15.40 | 14.70 |
| Finished senior high school | 5.77 | 10.60 | 25.50 | 22.30 |
| Finished a higher degree | 1.45 | 0.61 | 8.77 | 7.09 |

Source: Susenas balanced panel data 2011-2013; authors' calculation.

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