Philippine Institute for Development Studies
Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas
POLICY NOTES
ISSN 2508-0865 (electronic)
No. 2018-16 (November 2018)

Why vulnerability assessment matters for poverty reduction

Jose Ramon G. Albert and Jana Flor V. Vizmanos

Poverty eradication is at the core of development concerns. It is among the priority socioeconomic goals and targets underscored in the *Philippine Development Plan 2017–2022* (NEDA 2017) and also highlighted as 1 of the 17 Sustainable Development Goals (SDGs) that 193 nations committed to achieving by 2030. Goal 1 of SDGs specifically states to "end poverty in all its forms everywhere" (UN 2015).

In the last decade, the Philippines experienced a robust economic growth. From 2003 to 2015, the country's gross domestic product recorded an average annual growth of 5.3 percent. This growth, however, was not inclusive, although all sectors registered positive growth. Growth of the agriculture sector (2.1%), where most of the poor are dependent for their livelihood, was outpaced by the industry (5.4%) and services (6.0%) sectors. Output and employment in the agriculture sector have been declining in recent decades (Albert et al. 2015).

Further, estimates of the growth elasticity of poverty (GEP) for the Philippines are rather low at below 1.0 percent between 2006 and 2015, compared to the global average of 2.5 percent. GEP refers to the percentage reduction in poverty rates associated with a percentage change in mean (per capita) income (Ravallion 2013). Low GEP implies that poverty has not been considerably reduced, partly because growth has not been propoor. High income inequalities have prevented growth from benefiting the entire income distribution, especially low-income classes, thus minimizing the effects of growth on reducing poverty (Albert et al. 2017).

This *Policy Note* examines why, despite the Philippines' robust economic growth in the last decade, the proportion of Filipinos living in poverty has not been significantly reduced. It explains the importance and implication of vulnerability in the assessment of poverty reduction. It provides policy recommendations to better estimate vulnerability and suggests crafting a road map that accounts for both poverty and vulnerability.

Estimating household vulnerability to poverty

Household vulnerability to poverty was first estimated by obtaining estimates of the probability of being poor in the future based on per-capita income data sourced from the five latest waves of the *Family Income and Expenditure Surveys* (FIES) conducted by the Philippine

Statistics Authority (PSA 2003, 2006, 2009, 2012, 2015a). These estimates used slightly modified probit model previously used by Albert et al. (2008) and Albert and Ramos (2010), taking into account household characteristics such as employment, education, location, dwelling characteristics, experience in price surges, and experience of severe storms. Using the resulting estimates, households were classified as vulnerable or nonvulnerable, while the vulnerable were further classified as highly vulnerable or relatively vulnerable. A household was considered vulnerable if the probability of being poor exceeds the national poverty rate. Further, it is highly vulnerable if the probability of getting poor was more than half and relatively vulnerable if between the national poverty rate and 50 percent.

An examination of FIES (panel) households interviewed from 2003 to 2009 showed that some poor households in 2003 exited poverty in 2009, and some nonpoor households in 2003 fell into poverty by 2009 (Table 1). Moreover, 3 out of 10 near-poor households were more vulnerable to poverty than the nonpoor households who were not near poor.

When the vulnerability estimation approach was tested on the panel data, nearly half (47.4%) of households identified as highly vulnerable in 2003 were also poor in both 2006 and 2009, and more than a quarter (28.1%) experienced poverty either in 2006 or 2009, but not during both years. Among relatively vulnerable households in 2003, about two-thirds (65.4%) were low income and possibly poor in either 2006 or 2009. Four-fifths (81.4%) of nonvulnerable households in 2003 were not low income in both 2006 and 2009. Low-income households are those with per-capita income less than 1.5 times the poverty line while near-poor households are those with per-capita income greater or equal to the poverty line but less than 1.5 times the poverty line. These results suggested that the vulnerability estimation model employed in this study had strong predictive power of identifying the future poverty status of households.

Vulnerability to poverty

Figure 1 shows the proportion of households vulnerable to poverty across the Philippine population in 2003, 2009, and 2015, by poverty status. Across the years, the proportion of households vulnerable to income poverty was about double to triple the corresponding official estimates (55.1% vulnerable compared to 20% poor in 2003, and to 48.5% vulnerable compared to 17% poor in 2015).

Among poor households, the proportion of highly vulnerable to poverty decreased from 54.5 percent in

Table 1. Poverty transition matrix: Philippines, 2003–2009 (percent of households in 2003)

Poverty Status in 2003	Poverty Status in 2009					
	Food Poor	Poor but Not Food Poor	Near Poor[a]	Low Income[b] but Not Near Poor	Rest of Households	Total
Food poor	3.27	2.79	1.86	0.31	0.22	8.45
Poor but not food poor	2.25	3.32	3.34	1.38	1.11	11.41
Near poor[a]	1.67	4.23	5.73	3.71	3.23	18.57
Low income[b] but not near poor	0.34	1.58	4.04	3.54	4.84	14.34
Rest of households	0.28	0.94	4.55	4.92	36.54	47.23
Total	7.81	12.86	19.52	13.87	45.94	100.00

[a] Near-poor households are defined in this study as those with per-capita income greater or equal to the poverty line but less than 1.5 times the poverty line.
[b] Low-income households are those with per-capita income less than twice the poverty line.
Source: Authors' calculations based on *Family Income and Expenditure Surveys* (FIES) (PSA 2003, 2006, 2009)

2003 to 40.5 percent in 2015. The overall percentage of households relatively vulnerable to poverty also decreased but at substantially lesser rates from 36.7 percent in 2003 to 34.5 percent in 2015. Although the proportion of nonpoor households relatively vulnerable to poverty declined, the proportion of poor households relatively vulnerable increased.

In 2015, three-fifths (58.8%) of nonpoor households were classified as nonvulnerable to poverty. However, majority (71.0%) of vulnerable households continued to be nonpoor. About one-seventh (13.9%) of households were highly vulnerable and a little more than one-third (34.9%) were relatively vulnerable. In general, about half (48.5%) of households in 2015 were vulnerable to poverty, a third of which were highly vulnerable.

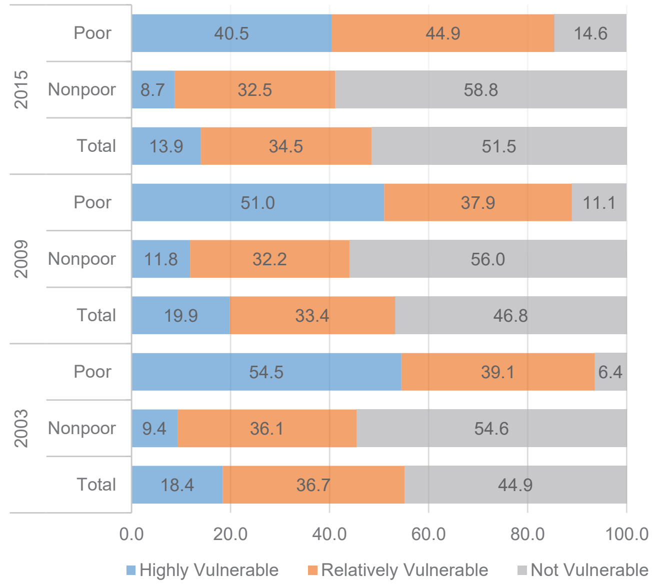
The rural population was more vulnerable than its urban counterpart, with the vulnerability rate at 69.3 percent in 2015, compared to 40.4 percent in urban areas. While vulnerability is a largely rural phenomenon, the proportion of highly vulnerable households in rural areas declined by 7.1-percentage points, from 27.6 percent in 2003 to 20.5 percent in 2015.

The Autonomous Region in Muslim Mindanao had the highest vulnerability rate (83.3%) with more than two-fifths of its vulnerable households being highly vulnerable to poverty (Figure 2). Ilocos Region had the lowest proportion (3.8%) of households highly vulnerable to poverty but 52 percent of its households were relatively vulnerable. The National Capital Region and Central Luzon were the only regions with overall vulnerability rates below 35 percent, at 26.6 percent and 34.9 percent, respectively.

Poverty among the basic sectors

The PSA computed poverty estimates of the basic sectors using the merged Labor Force Survey-FIES (PSA 2015b, 2017). Poverty estimates were obtained for 9 out of 14 basic sectors identified under Republic Act 8425 (or the Social Reform and Poverty Alleviation Act), which requires focused intervention for poverty alleviation, for

Figure 1. Incidence of household vulnerability, by poverty status: Philippines, 2003, 2009, 2015



Source: Authors' calculations based on FIES (PSA 2003, 2009, 2015a)

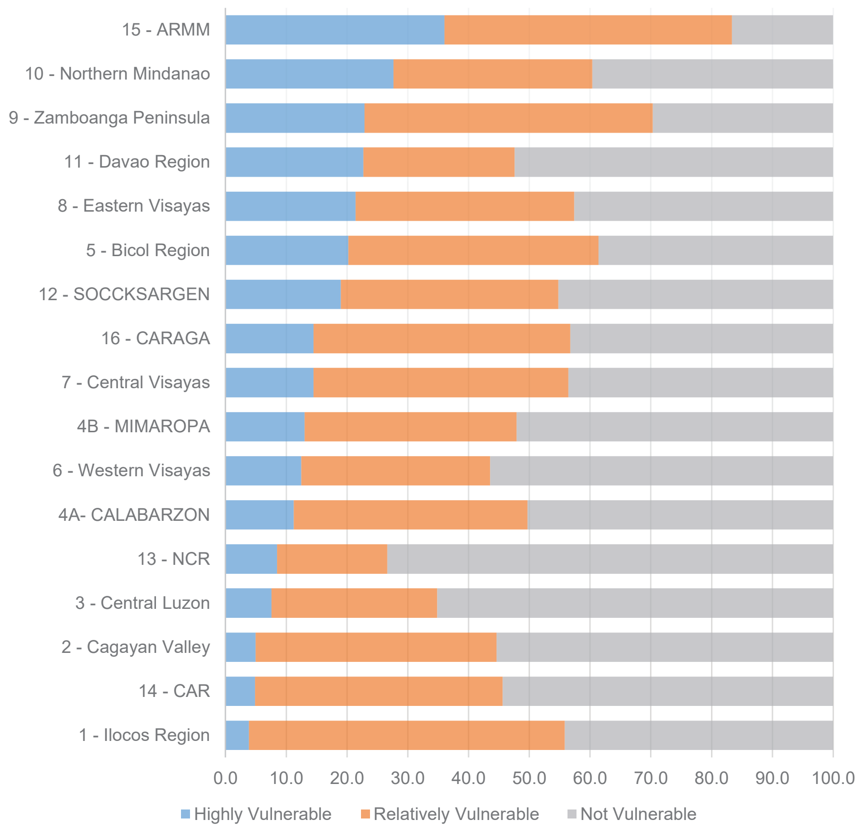
the following groups, namely, (1) farmer-peasant, (2) artisanal fisherfolk, (3) workers in the formal sector and migrant workers, (4) workers in the informal sector, (5) women, (6) senior citizens, (7) youth and students, (8) children, and (9) urban poor.

Results revealed that vulnerability rates for the basic sectors were much larger than corresponding shares of the population in poverty (Table 2). Consistent with poverty estimates, vulnerability rates and the proportions of the basic sectors highly vulnerable to poverty were highest among fisherfolk, farmers, and children. The lowest vulnerability rates were also observed among those residing in urban areas and senior citizens, also consistent with patterns in poverty rates.

Policy implications to poverty interventions

While the country achieved some progress in reducing poverty from 1990, the rate of reduction has been rather minimal in recent years, with a substantial proportion (16.5%) of households remaining poor as of 2015 and about three times as many households (48.5%) were vulnerable to poverty. The government and all poverty stakeholders must recognize the importance of forward-

Figure 2. Incidence of household vulnerability to poverty, by region, 2015



ARMM = Autonomous Region in Muslim Mindanao; SOCCSKSARGEN = South Cotabato, Cotabato, Sultan Kudarat, Sarangani, and General Santos City; MIMAROPA = Occidental Mindoro, Oriental Mindoro, Marinduque, Romblon, and Palawan; CALABARZON = Cavite, Laguna, Batangas, Rizal, and Quezon; NCR = National Capital Region; CAR = Cordillera Administrative Region
Source: Authors' calculations based on FIES (PSA 2015a)

looking planning and risk resilience building in a context of uncertainty to overcome obstacles in reducing poverty. The government needs to strengthen social protection by progressively targeting the vulnerable and implementing programs accounting for varying circumstances of poor or vulnerable households.

Poverty alleviation and social protection efforts have typically revolved around the formulation and implementation of "one-size-fits-all" strategies. Approaches to poverty have largely been curative (i.e., alleviating conditions of the poor, and/or helping them exit poverty), but not preventive (i.e., protecting the vulnerable from the risks and harmful effects of poverty by building the resilience of the vulnerable).

In the Philippines, large social protection programs, such as the *Pantawid Pamilyang Pilipino* Program (4Ps) and the Social Pension (SocPen), are intended to address poverty. These programs, both implemented by the Department of Social Welfare and Development, involve the provision of a uniform cash assistance to all beneficiaries, rather than accounting for differentiated needs.

Under the SocPen, for instance, beneficiaries receive PHP 500 monthly pensions, although under the law, only indigent senior citizens are entitled, not all senior citizens. Meanwhile, beneficiaries of the 4Ps program receive PHP 300 monthly education grants for preprimary and primary school students, PHP 500 monthly education assistance for high school students, and PHP 500 monthly health grants to households, without recognizing differences in opportunity costs for schooling between boys and girls, or cost of living differences across the country. Further, support is also provided to the poor during extreme crises. The United Nations Children's Fund (UNICEF), for instance, provided unconditional cash transfers (UCTs) for six months to 10,000 poor household victims of Super Typhoon Yolanda (international name Haiyan) amounting to USD 100 monthly. Under the recently enacted Tax Reform for Acceleration and Inclusion (TRAIN) law, UCT support in the amount of PHP 200 per month is provided this year to 10 million lower-income beneficiaries including the over 4 million 4Ps beneficiaries and the 3 million SocPen elderly beneficiaries. In 2019 and 2020, government support due to TRAIN law is expected to increase at PHP 300 per month (Velarde and Albert 2018).

Table 2. Poverty and vulnerability to poverty among basic sectors: Philippines, 2015

Basic Sector	Poverty Rate	Proportion of Persons		
		Highly Vulnerable	Relatively Vulnerable	Nonvulnerable
Farmers	34.3	24.7	48.2	27.1
Fisherfolk	34.0	33.4	50.5	16.1
Children	31.4	25.4	41.4	33.2
Self-employed and unpaid family workers	25.0	18.3	42.5	39.2
Women	22.5	18.1	37.9	44.0
Youth	19.4	14.6	38.4	47.1
Migrants and workers employed in formal sector	13.4	11.5	35.0	53.6
Senior citizens	13.2	7.5	31.5	61.0
Individuals in urban areas	11.5	14.7	23.2	62.1

Source: Authors' calculations based on Merged Labor Force Survey-FIES (PSA 2015b)

The one-size-fits-all approach was a common characteristic of the above poverty reduction programs, including the UNICEF's UCT program for Typhoon Yolanda victims, both in terms of assistance and payment modes (Reyes et al. 2018). Although communicated as poverty reduction programs, the SocPen and 4Ps are actually government assistance programs meant to build resilience of the poor, especially as cash transfers are meager and do not necessarily change the beneficiary's poverty status. Nonetheless, studies showed that UCTs cushion the impact of tax reforms and reduce poverty gaps (i.e., the difference between the poverty thresholds and the poor's income) of the 4.4 million 4Ps beneficiaries and the indigent elderly among the 3 million SocPen beneficiaries (Orbeta and Paqueo 2016; Velarde and Albert 2018).

For poverty reduction efforts to have greater impact, government needs to build an enabling environment for shared action and responsibility among local governments and other stakeholders. An action agenda that addresses all relevant risks to vulnerability is important. Such action agenda should jointly consider synergies, trade-offs, and priorities in policy responses, using all available resources, institutions, and means of implementation across different contexts. Poverty reduction and social protection programs should not only "cure" poverty but also prevent it, or at least mitigate its harm to people who are at risk.

The National Anti-Poverty Commission (NAPC) currently espouses a comprehensive, universal, and transformative social policy, including a rights-based approach, to ensure that reaching zero (poverty) becomes the cornerstone of Philippine development policies (NAPC 2018). The NAPC has taken cognizance that poverty has many facets, including vulnerabilities stemming from risks to welfare, such as uncertainties from lack of decent work and educational attainment of household members, insecurity from land tenure and lack of productive assets, imperfect and asymmetric information on opportunities, as well as food insecurity, uncertain access to public goods, and asset damages from disasters and violence.

Differentiated rather than one-size-fits-all interventions are required to manage the risks among various poverty vulnerable groups. Risk resilience measures based on an examination of data on both poverty and vulnerability will allow vulnerable households to reduce the effects of adverse events on their conditions, as well as empower them to seize the moment for improving prospects for a better future today.

References

Albert, J.R., R. Asis, and J.F. Vizmanos. 2017. National accounts and household survey estimates of household expenditures: Why do they differ and why should we be concerned? PIDS Discussion Paper No. 2017-20. Quezon City, Philippines: Philippine Institute for Development Studies.

Albert, J.R., J. Dumagan, and A. Martinez Jr. 2015. Inequalities in income, labor, and education: The challenge of inclusive growth. PIDS Discussion Paper No. 2015-01. Makati City, Philippines: Philippine Institute for Development Studies.

Albert, J.R., L. Elloso, and A.P. Ramos. 2008. Toward measuring household vulnerability to income poverty in the Philippines. *Philippine Journal of Development* 35(64):23–53. https://dirp3.pids.gov.ph/ris/dps/pidsdps0716.pdf (accessed on April 29, 2018).

Albert, J.R. and A.P. Ramos. 2010. Trends in household vulnerability. PIDS Discussion Paper No. 2010-01. Makati City, Philippines: Philippine Institute for Development Studies. https://dirp4.pids.gov.ph/ris/dps/pidsdps1001.pdf (accessed on April 29, 2018).

National Anti-Poverty Commission (NAPC). 2018. Reforming Philippine anti-poverty policy. Quezon City, Philippines: NAPC. https://www.napc.gov.ph/sites/default/files/documents/articles/Reforming%20Philippine%20Anti-Poverty%20Policy.pdf (accessed on April 29, 2018).

National Economic and Development Authority (NEDA). 2017. *Philippine Development Plan 2017–2022*. Pasig City, Philippines: NEDA. http://pdp.neda.gov.ph/wp-content/uploads/2017/01/PDP-2017-2022-07-20-2017.pdf (accessed on April 29, 2018).

Orbeta, A. Jr. and V. Paqueo. 2016. *Pantawid Pamilya Pilipino* Program: Boon or bane? PIDS Discussion Paper No. 2016-56. Quezon City, Philippines: Philippine Institute for Development Studies.

Philippine Statistics Authority (PSA). 2003. *2003 Family Income and Expenditure Survey*. Manila, Philippines: PSA.

———. 2006. *2006 Family Income and Expenditure Survey*. Manila, Philippines: PSA.

———. 2009. *2009 Family Income and Expenditure Survey*. Manila, Philippines: PSA.

———. 2012. *2012 Family Income and Expenditure Survey*. Manila, Philippines: PSA.

———. 2015a. *2015 Family Income and Expenditure Survey*. Quezon City, Philippines: PSA.

———. 2015b. *Merged 2015 Labor Force Survey-Family Income and Expenditure Survey*. Quezon City, Philippines: PSA.

———. 2017. Farmers, fishermen, and children consistently posted the highest poverty incidence among basic sectors. Quezon City, Philippines: PSA. https://psa.gov.ph/content/farmers-fishermen-and-children-consistently-posted-highest-poverty-incidence-among-basic (accessed on April 29, 2018).

Ravallion, M. 2013. How long will it take to lift one billion people out of poverty? Policy Research Working Paper 6325. Washington, D.C.: The World Bank. http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2013/01/22/000158349_201301220912/Rendered/PDF/wps6325.pdf (accessed on April 29, 2018).

Reyes, C., J.R. Albert, and C.C. Reyes. 2018. Lessons on providing cash transfers to disaster victims: A case study of UNICEF's unconditional cash transfer program for Super Typhoon Yolanda victims. PIDS Discussion Paper No. 2018-04. Quezon City, Philippines: Philippine Institute for Development Studies.

United Nations (UN). 2015. Transforming our world: The 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on September 25. http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E (accessed on April 29, 2018).

Velarde, R. and J.R. Albert. 2018. The SocPen and its role in closing the coverage gap among poor elderly Filipinos. World Bank Social Protection Policy Note No. 14. Washington, D.C.: World Bank; and Canberra, Australia: Australian Aid.

Contact us

Address: **Research Information Department**
Philippine Institute for Development Studies
18/F Three Cyberpod Centris - North Tower
EDSA corner Quezon Avenue, Quezon City
Telephone: (+63-2) 877-4000, 372-1291 to 92
Email: publications@mail.pids.gov.ph
Website: www.pids.gov.ph

PIDS Policy Notes are analyses written by PIDS researchers on certain policy issues. The treatise is holistic in approach and aims to provide useful inputs for decisionmaking.

The authors are senior research fellow and research analyst, respectively, at the Philippine Institute for Development Studies (PIDS). The views expressed are those of the authors and do not necessarily reflect those of the PIDS or any of the study's sponsors.