

Provision of Macro and Micro Data for Anti-poverty Program in Indonesia: Challenges and Responses

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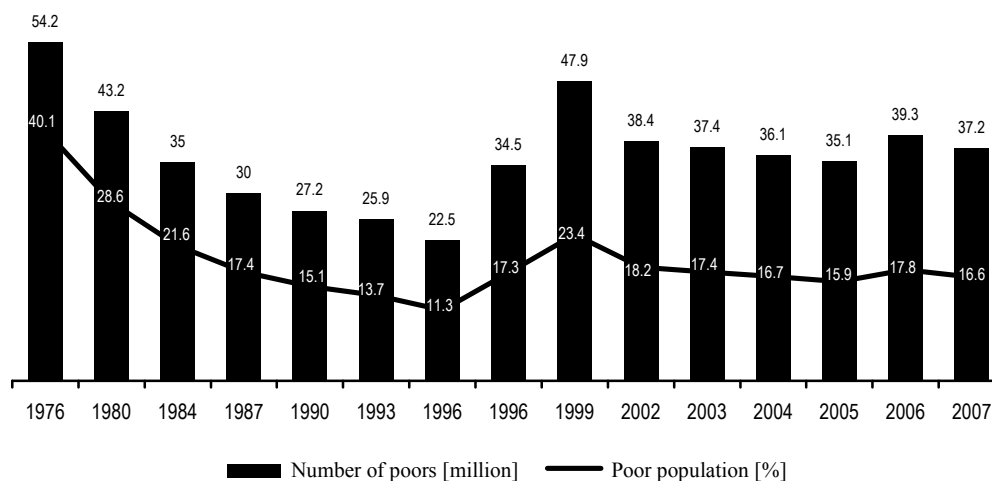
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Introduction

1. For the period of 25 years beginning 1970 Indonesia had experienced having good records in achieving economic and social developments. During this period, poverty reduced remarkably by more than halves while other social indicators such as infant mortality rate and illiteracy rate showed declining significantly as well. However, in the second half of 1990s Indonesia had also experienced multi-dimensional crises that make for instance poverty rate increased from 17 per cent in 1996 to 24 per cent in 1999 and the schooling drop-out rate was also suspected to increase.
2. Government of Indonesia set priorities in the Midterm National Development Plan (RPJMN) 2004-2009 where the MDGs targets had inspired the planners when determining the target to be achieved by 2009. Among the targets set in the RPJMN, three targets can be assumed as the soul of the plan, where the focus of the plan is placed on poverty reduction, job creation, and sustainable economic growth. This focus is named as triple-track strategy in which the targets had been specified using the statistical indicators as follows (i) reducing poverty rate to 8.2 per cent by 2009 from 16.4 per cent in 2004, (ii) reducing (open) unemployment rate to 5.1 per cent by 2009 from 10 per cent in 2004, and (iii) creating economic growth rate of more than 7 per cent.
3. As mandated by the constitution, President annually gives a presidential address before the parliament (DPR – house of representative) on August 16th to commemorate August 17th independence day. In this address, president reports to the people at large and the DPR in particular the achievement of the government programs implemented during the previous years in the areas of economic, social, politics, law and order compare to the targets set forth in the RPJMN. Two developments in the social sector that always attract most people to look at are poverty reduction and job creation as indicated by the declining trends. These two issues have always created a pro-cons public debate that takes place in the medias in the forms of TV talk shows and exchange of views of the observers, politicians, academes in the newspapers. Clearly, poverty is a critical social issue in the country that attracting attentions not only from academes and NGOs but also from the politician to commenting on the government performance in combating poverty.
4. The basic mandate of BPS is mainly to provide statistical information to government as principal users and other users either business firms or social organizations including individuals and international agencies. Most statistics used in the August 16th presidential address are provided by BPS that previously published in the BPS dissemination system. Even though the statistics reported in the address have previously been known by the public through BPS' official press release, the poverty incidence and unemployment rate in particular are always interesting to be discussed especially regarding the criteria and source of data used to estimate the statistics.
5. This paper basically is a collection of the episodes in which BPS – *Statistics Indonesia* took initiatives to respond to the increasing demands for macro and micro data for combating poverty at the crucial moments. The purpose of the paper is to shares experiences and challenges in provision statistical information regarding poverty issues. In particular, the paper reports the responses of BPS facing the doubtful regarding technical issues and methodological aspects of measurements, which are a part of the roles that BPS has been done previously.

Graph 1. Poverty trend in Indonesia: 1976-2007



Notes: Since 1999, the cost of education, health care and transportation in the nonfood bundle had been increased to cover improved services, i.e., from first level services to second level services. This minor change of methodology has impacted to the poverty line, that if the new methodology applies to the 1996 Susenas data the poverty line increased by about 10 percent, and the poverty incidence rose from 11.3% to 17.3%.

Measuring Poverty¹: The concerns of all parties

- Most interesting information on poverty is the number and percentage of poor population. The poor is defined as individuals whose monthly expenditure below poverty line, which is the amount of money needed to purchase minimum basic essentials to sustain life. Basic essentials incorporated in the computation of poverty line are classified into food bundle and nonfood bundle consist 52 items and 46 items respectively. Basically poverty line is constructed from consumption on basic essentials contained in the bundles of reference group, which is a group of people whose expenditures just above the poverty line. In operational terms, the poverty line is computed from the expenditure on food bundle to fulfill 2,100 kcal per capita per day and the expenditure on nonfood bundle of reference population. These expenditures then refer to food and nonfood poverty line, respectively and are presented in the Table 1 below for urban and rural.

Table 1
National Poverty Line [IDR, per capita per month]: Indonesia 2005-2007

Year	Urban Poverty Line			Rural Poverty Line			Proportion of Food	
	Food	Nonfood	Total	Food	Nonfood	Total	Urban	Rural
2005	103,992	46,807	150,799	84,014	33,245	117,259	0.69	0.72
2006	126,527	48,797	175,324	103,180	28,076	131,256	0.72	0.79
2007	132,259	55,683	187,942	116,265	30,572	146,837	0.70	0.79

- Among the various surveys in the BPS data collection system, the National Socio-economic Survey (Susenas) is the one most appropriately used for assessing the improvement of people welfare using

¹ Since poverty is ubiquitous and complex, there are two sets of definitions of poverty i.e., absolute poverty and relative poverty. Absolute poverty is broadly defined as an absence of means for the satisfaction of basic human needs that can be translated into financial requirement as poverty line. Relative poverty refers to falling behind most others in the community (UNDP, HDR 1997).

socio-economic indicators produced by the survey, including estimation the poverty statistics due the inclusion of consumption data. Susenas is a household survey conducted annually to collect information on the welfare aspects of the population. Socioeconomics characteristics and activities of the population are gathered through instrument called core questionnaire from more than 275,000 households throughout the country. Along with the core questionnaire another instrument called module questionnaire on consumption is collected from about 70,000 households. The core questionnaire covers numerous data items on population characteristics, among others, demographic, education, health, employment, housing characteristics and consumption is a source of data to produce about 32 MDGs indicators.

8. BPS has been estimating poverty incidence since 1984 using Susenas data. The estimates had been made for the years 1976, 1980 and 1984. Following the availability consumption and expenditure data from Susenas that conducted once in three years, the poverty incidence has been produced in three-year cycle until 2002. In response to the growing demands on poverty statistics, particularly the need for annually monitoring the progress on poverty reduction as mandated by target set in the Act No. 25 on National Development Program, since 2003 BPS annually conducts panel survey using consumption module questionnaire of Susenas 2002 over 10,000 households aims at producing national estimate of poverty incidence and other poverty related statistics. The panel sample is a sub sample of the 65,000 households interviewed in 2002 and the same households had been revisited for the 2004 panel survey.
9. Following public debates on the issue of poverty reduction in the mid 2006, there was growing needs on poverty and other welfare statistics demanded by government agencies in a more frequent basis and also the doubtful about accuracy estimating national level estimate of poverty statistics based on 10,000 panel household samples. In order for BPS to respond to the issues, starting 2007 BPS enlarged the sample size of panel survey² to about 70,000 household samples that conducted annually on March. Along with the consumption and expenditures questionnaire, the core questionnaires are also collected to the same households. The idea of the new arrangement of Susenas is to produce annually poverty statistics and other welfare statistics at the provincial level estimates so that monitoring the program of poverty reduction can be done.
10. The economic crisis that hit Indonesia since mid 1997 has blown up the number of poor people in 1998 compared to 1996, i.e. from about 34 million poor people in 1996 to about 49 million poor people in 1998. Since then, the demands for poverty statistics particularly the number of the poor has been increasing. Several poverty assessments have been conducted by many institutions. BPS attempted to estimate the figure using a certain model it came out with a shocking figure, i.e., 79.8 million or 39.7 percent of the population, while the World Bank claimed a much lower figure, i.e., 18 percent. In order to resolve the difference on the figures a quick survey intended to produce national level estimate of poverty statistics was conducted. In December 1998, a Susenas Type Survey funded by UNDP was implemented over 10,000 households with the intention to produce national level estimate of poverty rate and other related poverty statistics³. The survey resulted in a figure of 24.2 percent or 49.5 million people falling into the poor category. The 1999 Susenas with the sample size of more than 65,000 households, implemented in February 1999, estimated the corresponding figures of 23.7 percent, or 47.1 million people.

² Panel survey is useful to tracking the move in/out of poverty [transient poverty]

³ The adequate sample size for the survey needs to be determined. Using data set of 1996 Susenas consumption module the exercise to estimate poverty statistics using 5,000 households, 10,000 households and full sample size of Susenas, i.e., 65,000 households was done. The exercise suggested that poverty statistics estimated using 5,000 households and 10,000 households were not significantly different from that of resulted from 65,000 households.

11. In an attempt to alleviate poverty, there is a need for data support on the poor which are accurate and agreed upon by all parties. The use of poverty statistics for geographic budget allocation requires availability of the statistics not only at national level but also at lower level such as, province, district, and sub district. Another information requires for poverty alleviation program to operate successfully is the availability of individual data of the poor population. In this regards, poverty statistics is categorized as macro data and information on individual poor household indicating by name and address is called micro data.
12. Although the estimation of poverty statistics and poverty incidence in particular is done with same methodology since 1980s, the questions posted by the critics is whether the poverty line used to produced the poverty incidence reflects the level of living standard that the individuals whose income just about the line are not vulnerable. An arguments used to support the criticism is that the poverty line set by BPS is lower than it should be, so that if the line increases by 10 percent for instance, there will be a lot of people become poor. This group of people is called as transient poor and the illustration on how move in/out of the poor is presented in Table 2A. Table 2B illustrates how the different poverty lines affect the poverty incidence with special reference to international thresholds. The challenge for the BPS now is shifting from data provision in a regular basis to the validity, i.e., criterion used to estimate poverty incidence.

Table 2A
Illustration of Transient Poverty:
Poverty Incidence of NPL vs. NPL with 10% mark up

Year	Urban		Rural		National Poverty Incidence (%)	
	NPL (IDR)	1.10×NPL (IDR)	NPL (IDR)	1.10×NPL (IDR)	NPL	1.10×NPL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1996	38,246	42,032	27,413	31,366	11.3	17.3
2005	150,799	165,879	117,259	128,985	15.9	22.2
2006	175,324	192,856	131,256	144,382	17.8	23.6
2007	187,942	206,736	146,837	161,521	16.6	22.2

Table 2B
Illustration of Transient Poverty: NPL vs. International thresholds

2006 Poverty Threshold	IDR conversion [per month]	% increase of Poverty Line	% poor
(1)	(2)	(3)	(4)
US\$ 1.0 PPP per day	97,218		7.4
National Poverty Line [US\$ 1.55 PPP per day]	151,997	56.3	17.8
US\$ 2.0 PPP per day	194,439	27.9	49.0

Illustration of transient poverty by both tables suggests that it could create two controversial issues, i.e., (i) poverty line is very sensitive yardstick that its construction should clearly describe the concepts of minimum cost requires for decent living adopted, and (ii) even though transient poverty resulted from certain poverty line will be ‘a big portion’ of population, from the statistical

perspective an attempt to change the line should be carefully considered, due to the political ramification in the country.

13. Poverty has often been seen as a lack of income, the norm that universally adopted to estimate poverty incidence. There is a limitation to look at poverty in a single dimension (income) while ignoring the fact that the poor are incapable to access basic social services such as basic education, health care, safe water and sanitation that make low income people having difficulty to experience decent living. It suggests that tackling the issues of evaluating the progress of the access of low income people to basic social services requires some information related to what UNDP called as human poverty and it proposes to use Human Poverty Index (HPI). In the NHDR 2001 and 2004, poverty incidence and HPI of each districts and provinces are presented. To support poverty alleviation programs BPS provides statistical information on poverty that facilitating an individual and institution to monitor and evaluate the benefit implemented programs to the poor. It is desirable, however, that the poverty statistics provided should be as detailed as possible and disaggregated to the lowest level of administrative area. Table 3 and Table 4 below list the indicators of poverty provided by BPS where most of the data are available to the district level and presented annually. With the variety of indicators available annually it enables for various parties to make assessments on the progress made by anti-poverty programs.

Table 3
Monetary Poverty Indicator

Indicator	Level of Area Representativeness	Periodicity
Head Count Index	N, P [U/R], D	Annually
Poverty Gap Index	N, P [U/R], D	Annually
Poverty Severity Index	N, P [U/R], D	Annually
Gini Coefficient	N, P [U/R], D	Annually
Energy consumption per capita per day (kcal)	N,P [U/R]	Annually
Proportion of food expenditure (Engel coefficient)	N, P [U/R], D	Annually
Share of lowest quintile to total consumption	N, P [U/R], D	Annually

N: National, P: Province, D: District, U/R: Urban/Rural

Table 4.
Related Poverty Indicator

Indicator	Level of Area Representativeness	Periodicity
% population below minimum level of dietary energy consumption	N, P [U/R]	Annually
Adult illiteracy rate	N, P [U/R], D	Annually
Prevalence of underweight children under-5	N, P [U/R], D	Annually
% population without access to safe water	N, P [U/R], D	Annually
% population without access to basic sanitation	N, P [U/R], D	Annually
% households without access to electricity	N, P [U/R], D	Annually
% population 7-15 years who are not schooling	N, P [U/R], D	Annually
% households with dirt floor	N, P [U/R], D	Annually
% working children	N, P [U/R], D	Annually
Unemployment rate	N, P [U/R], D	Annually
% unemployed head of households	N, P [U/R], D	Annually
% informal sector employment	N, P [U/R], D	Annually

N: National, P: Province, D: Districts, U/R: Urban/Rural

Poverty Census: Identifying and Registration of Poor Households

14. To enable the poverty alleviation program to operate successfully it would require the availability database containing individual data of the poor households which are the target of poverty alleviation program. The key information that must be included in the database is the names and addresses of all poor households along with the basic characteristics on demographic [age, sex, relation to head of households], education [status of enrollment, education attainment], health, employment. In order to facilitate the distribution of unconditional cash transfer [UCT] to the poor households (including near poor households), government needs to have the database containing target households of UCT program. This program is intended to assist target households from the impact of increase of cost of living due to government plan to raise fuel prices. BPS was requested to undertake registration of the households that considered poor (including near poor) eligible for the UCT, and the database created from the registration should be available within 3 months for several districts.
15. There was discourse took place at several occasions amongst stakeholders of anti-poverty programs regarding the needs of such database for the use of designing more precisely poverty alleviation programs. At the same time, internally BPS, the same discussions had been through amongst directors and statisticians before final decision was made. It was realized that there would several challenges be facing in these undertaking, i.e., (i) on legal aspect about obligation of BPS not to disclose the individual characteristics, (ii) the methodology, particularly the criteria to identify the eligible households, (iii) the opposed thought from academes regarding the BPS responsibility and capacity as statistical institution, (iv) the right of BPS to determine which households are eligible for the program, and (v) the timeframe due to conflicting with the schedule of other BPS surveys.
16. Before the decision was made to undertake Poverty Census, BPS faced the dilemma between breaking the Statistical Law No. 16 year 1997 of disclosing individual household characteristics and the 'moral obligation' for the poor to facilitate better targeting of UCT program. An ample supports and encouragement come not only from all ministers in the cabinet but also from DPR and anti-poverty stakeholders to conduct the poverty census. On the other side BPS was also facing the possibility of lawsuit that might be taken by NGOs due to breaking the statistical law. This was a test case for BPS to step further working for the sake of the poor along with the issuance of President Instruction No. 12 year 2005 had push to the decision to conduct the census.
17. Under Presidential Instruction No. 12 year 2005, BPS is one of several institutions involved in the UCT program with responsibility to prepare database of individual poor households eligible receiving UCT. Enumeration was done throughout the country and covered about 1.1 million smallest neighborhood areas, a community of about 50 households, treated as enumeration area. Two-step data collection was adopted; at the first step, enumerator asked head of neighborhood area to identify and make list of households who are categorized as poor, then they visited all households on the list to verify, according to certain criteria, whether the households is poor household. From the first step a list of households considered poor agreed upon was resulted. At the second step, enumerator continued visiting every household to collect information on name of head of households and address along with households characteristics including consumption quality and behavior, quality of housing, education attainment and employment status of head of households. This information was then used to construct individual households index of poverty, and that using certain criteria, each household was classified into: (i) not poor, (ii) near poor, (iii) poor, and (iv) very poor, in which not poor households were deleted from database.

18. The list of eligible households was sent to BPS district offices for further verification and public examination, particularly to eliminate inclusion error, i.e., households according to field verification are considered not poor. Finally, not poor households were deleted from database. Data collection was done in two phases. In the first phase enumeration had done smoothly, where local government officials at all levels with their capacity, from villages to district, had supported BPS officials and enumerators. After first phase of UCT had been distributed in several districts and cities, there were a lot of non eligible people asking to government for the same treatment. The situation was happen everywhere and it seemed that it was going to be chaotic that local government were not able to handle the situation, while in several districts those people beginning to strike BPS districts offices and other local government offices. In order to accommodate people desires to get UCT, government asked the people to register in sub district offices and BPS had to verify about their eligibility. It was about 12.2 million households registered in the session and that about 4.28 million households found eligible.

Table 5
Number of Eligible Households for UCT Program

Data Collection Phase	Not Poor Households	Near Poor Households	Poor Households	Very Poor Households	Total Eligible Households
Phase I	1,599,616	5,178,494	6,204,164	3,438,176	14,820,834
Phase II	7,934,778	1,791,108	2,032,825	456,138	4,280,071
Total	9,534,394	6,969,602	8,236,989	3,894,314	19,100,905

19. In order for BPS to prepare data to be ready used beginning 2 months after preparation, there were two several arrangement in the data collection and data processing. They are: (i) assembly plant mechanisms was adopted so that once the enumeration had been done for certain villages or sub districts the documents had to be sent immediately to processing center established at BPS district offices, (ii) data captured done at processing center had to be sent to BPS province office for the compilation and merging for all sub districts and stored by districts, (iii) BPS provinces are requested to send data by district to BPS head quarter for further compilation and calculating individual households index of poverty.

20. BPS disseminated the database to all parties for further use on their own anti-poverty programs. In implementing anti-poverty programs National Logistics State-owned Enterprise (Bulog) and Ministry of Health, for instance, respectively allocate the quantity of rice for the Rice Subsidy Program for the poor and health insurance premium for the poor for each district, using database provided by BPS. BPS used the database as a data collection frame for the purpose identifying very poor households who are having under five children, schooling age children, and pregnant woman for the plan to include them in the pilot project for the conditional cash transfer (CCT) program.

Responses to the Current Issues

21. Presently, it is often that misinterpretation on poverty issues among the public caused by misunderstanding and the knowledge of journalists and the editor of the newspapers, so that the news appears in the papers tell the facts on the other way around. Public is often questioning about validity and reliability of the poverty incidence and about the independency of BPS. On the other hand, the academes share their views on the newspapers using BPS poverty statistics with their

own concept and perception about poverty measurement. In the several hearings held in DPR discussing BPS achievements, the member of parliament questioned on how BPS estimating poverty incidence and unemployment rate and they relating BPS figure with other figures such as USD 2.00 (PPP) a day poverty line World Bank figure.

22. This episode demonstrates that the level of knowledge of most members of parliament and stakeholders are not sufficient to understand the complication of estimating poverty statistics and poverty incidence in particular. To tackle the issues BPS uses two approaches, i.e., (i) public education on statistics and interpreting statistical information are imperative to be held in the forms training for journalist, seminar and workshop for critics and observers held, special session with DPR for explanations on technical estimation of poverty statistics and poverty incidence in particular, (ii) dissemination of publication on the metadata of various statistical indicators, including poverty stats, and explanation on how to interpret the indicators. The targets of the publication are members of parliament, journalists, and academes aiming at to have common interpretation on the indicators.
23. BPS always tries to be independent and professional institution by keeping the same distance from government and DPR, or other parties. However, in many cases, statistics produced by BPS influenced political interest of the politician. On the other hand BPS is also facing dilemma of willingness to support micro data provision for the program targeting and obligation of confidentiality of individual characteristics according to the Statistical Law No. 16/1997.

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