

## **Development of Poverty Statistics in Indonesia: Some Notes on BPS Contributions in Poverty Alleviation**

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### **Introduction**

Act No. 25 year 2000 on National Development Programs (PROPENAS) mandates Government of Indonesia to reduce poverty incidence at 14 percent by the end of 2004. To respond to the mandate, Government of Indonesia through Presidential Decree No. 124 year 2001 and was revised by Presidential Decree No. 8 year 2002 established National Committee on Poverty Reduction (KPK) with main function to formulate integrated policy and to advocate the local government to work hand-in-hand with other stakeholders in eradicating poverty. BPS - *Statistics Indonesia* is among the leading institution in the committee with the main task is to provide statistical information on poverty for the policy formulation. Business society and NGOs are also invited to actively take part in the committee activities.

In September 2000, the United Millennium Summit brought leaders from over 180 countries to the meeting pledged their commitment to work towards achieving specific goals that are henceforth known as Millennium Development Goals (MDGs). Some eight-development goals comprising 18 targets have to be monitored using 48 indicators. The first of the list of the goals is to eradicate extreme poverty and hunger, where the two targets under this goal is (i) Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day, and (ii) Halve, between 1990 and 2015, the proportion of people who suffer from hunger. This indicates that combating poverty is a top priority in the global development agenda.

Act No. 22 year 1999 on Local Government and Act No. 25 year 1999 on Financial Balance between Central and Regional Governments provide wide range autonomy to local government full authority in delivery public services and development. For that purpose a block grant (Dana Alokasi Umum) is distributed to each local government using certain scheme and formula. Poverty statistics, i.e., poverty gap index is one of the allocators to distribute about 10 percent of the total budget being allocated under that scheme. Other poverty statistics, i.e., Human Poverty Index is also used to allocate Special Fund (Dana Alokasi Khusus) aiming at delivering special programs such as free basic health care for poor families and rehabilitating infrastructure.

With supports from the World Bank and other international donor agencies, the Government of Indonesia established a committee for compilation Poverty Reduction Strategy Paper (PRSP). The members of the committee come not only from government agencies, but most of the members are from NGOs, business society, research centers and universities throughout the country reflected broad participation of multi stakeholders in the process. A set of poverty statistics and other development indicators has been identified during the process of compilation of the PRSP that BPS needs to anticipate the provision for the data.

Since 1984 BPS regularly publishes information on the number of poor people every three-year, while other poverty related statistics are also provided every year since 1994.<sup>1</sup> Information on the number of poor people is estimated using SUSENAS consumption and expenditure data collected every three-year and the poverty related statistics are produced using SUSENAS core data collected every year since 1992.

### **Special Efforts in Provision of Poverty Statistics**

The government of Indonesia has shown its strong commitment to reduce poverty and placed high priority in alleviating the poor people. The experience has indicated that during the period of 1970-1996 there was a remarkable decrease in the number of people living below poverty line, from 60 percent in 1970 to 11 percent in 1996. To continue its commitment beginning fiscal year 1994/95 the government launched the IDT program<sup>2</sup> in which an amount of Rp. 20 million was appropriated to each of the villages that identified as backward. Using data collected by village potential census, a data collection effort, which accompanied every census, conducted by BPS Statistics Indonesia (BPS), an attempt was made to rank villages according to village facilities thought to be indicating welfare. In other words, it was conceptualized that the population in the villages with such facilities fared better than the villages where those facilities were nonexistent. Using a system of arbitrary scaling, a score was computed for every village by which the rank of the villages was determined. Out of 65,554 villages

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<sup>1</sup> 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).

<sup>2</sup> The program was intended to accelerate poverty reduction to a mere of 3 percent of poverty incidence by 2005. This policy was chosen since the rate of poverty reduction during the early 1990s was noticeably slower than that during the 1970s and 1980s. It was hypothesized that the remaining poor might live scattered in poverty pockets that identified as backward villages.

that comprise the country, 20,633 villages were declared as backward in 1993. Backward villages were supposed to contain the bigger part, if not most, of the poor.

The economic crisis that hit Indonesia since mid 1997 has blown up the number of poor people in 1999 more than double compared to 1996, i.e. from about 22 million poor people in 1996 to about 48 million poor people in 1999. 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 statistics<sup>3</sup>. 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, gave the corresponding figures of 23.7 percent, or 47.1 million people. Another survey, called Susenas Mini conducted in August 1999 over 10,000 households, gave the corresponding figures at 18.4 percent or 38.7 million people.

ADB provided a technical assistance project (TA) for developing a statistical information system for poverty analysis and monitoring. The TA was meant to strengthen the capacity of BPS - *Statistics Indonesia* in supplying the required statistical information to enable the bureaucracy to take timely activities to prevent the aggravation of poverty. The TA focused on developing leading indicators of poverty based on data already collected by or reported to BPS. It has developed a consumer price index that reflects the goods and services purchased by the poor and tracked wages received by the poor for a number of items including the cost of a housemaid. However, data collection for the consumer price index is carried out in a limited number of urban markets.

In response to the growing demands on poverty statistics, particularly the need for annually monitoring the development of 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

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<sup>3</sup> 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.

households aims at producing national estimate of poverty incidence and other poverty related statistics. The respondents is sub sample of the 65,000 households interviewed in 2002 Susenas consumption module and the same households have been revisited for the 2004 panel survey.

These are among the episodes in which BPS – *Statistics Indonesia* took initiatives to respond to the increasing demands of specific poverty statistics at the crucial moments. Both attempts are a part of the roles that BPS has been done previously.

Another ADB TA is now underway to help strengthen the capacity of provincial and district level BPS offices to produce and disseminate relevant and reliable proxy indicators of poverty regularly and on a timely basis to enable relevant governments to take necessary action to arrest any undesirable trends. Specifically, the TA will (i) examine the degree to which markets are integrated and where additional effort is required to produce district level proxy indicators based on price and wages; (ii) develop the capacity of BPS to produce and routinely report on these proxy indicators to the Government and other poverty stakeholders; and (iii) train data users such as local government officials, members of local parliaments, local journalists and researchers and civil society in their use for formulating policy and programs, and for development planning and targeting of social safety nets.

### **Poverty Statistics**

In an attempt to alleviate poverty, there is a need for the support of data on the poor which are accurate and agreed upon by all parties. Poverty data are required not only at national level but also at lower level such as, municipality/regency, subdistrict and village. To enable the poverty alleviation program to operate successfully it would require the availability of individual data of the poor population which are the target of poverty alleviation program.

Information on poverty that most interested 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 1976-2002**

Year	Urban			Rural		
	Food	Nonfood	Poverty Line	Food	Nonfood	Poverty Line
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1984	...	...	13,731	...	...	7,746
1987	...	...	17,381	...	...	10,294
1990	17,520	3,094	20,614	12,617	678	13,295
1993	23,303	4,602	27,905	15,576	2,668	18,244
1996	29,681	8,565	38,246	23,197	4,216	27,413
	30,455	11,577	42,032	23,844	7,522	31,366
1996*						
1999	70,959	21,450	92,409	59,822	14,450	74,272
2002	93,351	37,148	130,499	73,030	23,482	96,512
2003**	96,468	42,334	138,803	78,940	26,948	105,888
2004**	98,332	45,123	143,455	80,470	27,805	108,275

Sources: Statistical Yearbook [various years]

Note: Poverty Line was split into Food and Nonfood since 1990, \* using 1998 method, \*\* produced using panel data

To support the poverty alleviation program BPS provides statistical information on poverty that facilitating an individual or an institution to monitor and evaluate the implemented programs. It is desirable, however, that the poverty statistics provided should be as detailed as possible and should be disaggregated to the lowest level of administrative. Table 2 and Table 3 below list the indicators of poverty that can be 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 government to alleviate the poor and to improve the poor livelihood.



**Table 2.**  
**Monetary Poverty Indicator**

<b>INDICATOR</b>	<b>LEVEL OF REPRESENTATIVENESS</b>	<b>PERIODICITY</b>
(1)	(2)	(3)
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	3 yearly
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 3.**  
**Related Poverty Indicator**

<b>INDICATOR</b>	<b>LEVEL OF REPRESENTATIVENESS</b>	<b>PERIODICITY</b>
(1)	(2)	(3)
% population below minimum level of dietary energy consumption	N, P, U/R	3 yearly
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

Other issues that need to be covered in the poverty assessment are gender and informal sector. The statistics for the two issues can be generated using Susenas data, since information on gender and employment are collected in the survey. Specific statistics on informal statistics particularly relating to the characteristics of economic activities can be produced using data gathered by Integrated Survey on Household, Small and Micro Enterprises (SUSI). This information is important and needed for

formulating policy in the strengthening informal sector and to develop micro credit scheme to SMEs.

### **SUSENAS: Main Sources of Data Produces Poverty Statistics<sup>4</sup>**

The statistical system adopted by BPS may be defined as a ten-year period system. During a ten-year span, there are to be three censuses, namely, Population Census in the years ending with zero, Agricultural Census in the years ending with three, and Economic Census in the years ending with six. Midway between two population censuses, the agency usually undertakes intercensal population survey by which similar data to that of the population census are gathered. Accompanying every census is the census of village potential. Village potential data collection includes data on village facilities relevant with any census. Thus for agricultural census village data on facilities related to agricultural activities are emphasized while for population census facilities that serve the people are required the most. The same is true for economic census. In order for BPS to provide more detailed information, regular surveys are conducted to collect information on social and economic developments.

Among the various surveys conducted by BPS the Susenas is the one most appropriately used for the estimation of poverty incidence due to the inclusion of consumption data in the survey. Susenas is a household survey conducted annually to collect information on the welfare aspects of the population. Information is gathered through instrument called core questionnaire that collected from more than 225,000 households throughout the country. Along with the core questionnaire another instrument called module questionnaire is also collected from about 66,000 households. There are three module-questionnaires that each of them is collected once in three years. The information on consumption and expenditure that used to estimate the number and percentage of poor population is collected through module Income and Expenditure, while information that used to produce other poverty related statistics are collected from core questionnaire.

The core questionnaire covers numerous data items on population characteristics, among others, demographic, education, health, employment, and housing characteristics. Due to greater flexibility possessed by a survey Susenas gathers many more data items, to meet the demands of data users.

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<sup>4</sup> To have more complete information on SUSENAS see Surbakti (1995)

As the name implied, the module is intended to collect data on consumption expenditure and income from selected households. The distinction was made in expenditure data between food and drinks on the one hand and nonfood on the other. In almost all cases, food and drinks items were recorded in the form of quantity and quality. Furthermore, they were differentiated according to the source from where each of them was obtained. There were three possible sources specified, i.e., purchase, own production, and gift. In terms of itemization, food and drinks were broken down by type. It can be seen in the questionnaire there are more than 200 food and drinks items and more than 100 items of nonfood.

The purpose of such a detailed questionnaire was, among others, to help the respondent to recall what was consumed during the reference period and to enable the data to be converted to calorie equivalent consumption. Such detailed and tedious questions, on the other hand, might be self-defeating due to long and tedious interviews. Both the enumerator and the respondent might have to sit down more than one hour, one thinking hard trying to remember what was being consumed and how much while the other busy recording the answers. One wondered if both the enumerator and respondent would not try to shorten the interview time and by so doing, miss some of the items that were consumed.

Another factor that was thought to be responsible for underestimation of consumption was the long reference period. The reference periods for nonfood items were either one month or one year. One month was used for items for which normal households were expected to make monthly transactions and one year was for items for which payments were usually made once a year or for durable items for which the amount of money spent would be outstanding.

Some improvements of the questionnaire were also made. For many food items in the prepared food group the quantity consumed were incorporated facilitating and improved estimated figures of calories and protein consumption. However, in most cases the person who responded to the enumerators' questions were housewives are not necessarily fully aware of what prepared food was consumed by their husbands or children while at work or school. The BPS study intended to estimate the rate of Susenas under estimation of prepared food consumption came up with a result indicating that Susenas estimates on prepared food consumption were low.

The NHDR, published in 1997, 2001 and 2004, presents individual (sectoral) indicators and four composite indices (HDI, GDI, GEM, and HPI) to reflect the state of human development as well as the achievement of human development during 1996-

2002 of each district and province. Discussions on several issues of poverty, including income and human poverty, of the report have attracted attention of national stakeholders that come to conclusion the importance of HCR and HPI to be used as yardsticks in the regional development planning. Most indicators presented in the Reports are produced using SUSENAS. Other indicators can be produced using other surveys and compilation of national account. The SUSENAS also provides the most data used for monitoring the achievements of MDGs.

### **Future Plans for Development of Poverty Statistics**

#### *Developing Poverty Database*

In response to the increasing demands of information on poverty, it is imperative to develop an information system on poverty that accessible to every individual. The use of the information system is mainly for the decision maker and planner to accurately allocate the budget and for programmer to precisely targeting the poor. Since the most important part of the system is the availability of poverty database, the development of the database is inevitable. In order for the system can provide information mostly needed, the poverty database should contain at least two things, i.e., (i) poverty statistics and poverty related indicators, and (ii) directory of the poor families by name and address.

BPS is requested by government to submit a proposal of conducting the census of poor families<sup>5</sup>. This initiative is based on the past experiences when most of distribution of specific program for the poor such as rice subsidy, free health care and fellowship to attending basic education is mistargeted. The government considers that it is important to develop database containing name and address of the poor families so that the leakage of implementation of program for the poor would be minimized in the future. The implementation of the census is scheduled for Fiscal Year 2005 and will be updated annually.

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<sup>5</sup> Up to the present, individual data on poor household/population which are collected using a procedure specifically designed to employ a standard concept of poverty indicator are available only in a limited number of provinces and districts. The data are collected through registration of poor households conducted in collaboration between local governments and the BPS regional offices. The information collected in the registration includes household size, employment characteristics, housing condition, structure of the household members, and other information related to the specific needs of the poor households.

## Monitoring MDGs

Some eight-development goals comprising 18 targets are identified from Millennium Development Goals (MDGs). To monitor the progress of the goals and targets 48 indicators were determined. The statistical data are those that are currently available to the various UN agencies and they relate to the 48 indicators, among which indicators with respect to monitoring the first six goals have been approved by the General Assembly, and the balance would be subject to approval by the same body. These indicators would eventually form the agreed basis against which progress by individual countries in respect of the various goals and targets would be monitored. There are 24 indicators that used to monitor the first six goals of MDG can be produced using SUSENAS, National Labor Force Survey, Demographic and Health Survey, and service statistics from Ministry of Health and Ministry of Education. The list of indicators for MDG and data sources and periodicity is attached in Appendix 1.

The official poverty statistics used for monitoring MDG as presented in Table 4. Basically all indicators are produced annually for national and provincial level estimates, except for indicator no. 5 that can only be produced three-yearly for provincial level estimates. It is important to monitor the progress of achieving the Goal 1 of MDG at district level to observe interdistrict disparity so that central government enables to make special intervention. Presently, indicator no. 1,2, and 4 are produced annually while indicator no. 5 cannot be produced due to inadequacy of sample size of Susenas consumption module. There are two options being considered in order of producing the statistics, i.e., (1) model estimation using existing data, and (2) extending sample size to a minimum size that allow direct estimation can be done, however the latter is not desirable due to budget constraint.

**Table 4.**  
**Poverty Statistics used for Monitoring Progress of MDG**

GOALS AND TARGETS (from the Millenium Declaration)		INDICATORS FOR MONITORING PROGRESS	
<b>GOAL 1. ERADICATE EXTREME POVERTY AND HUNGER</b>			
Target 1	Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1	Proportion of population below \$ 1 (PPP) per day
		2	Poverty gap ratio (incidence × depth of poverty)
		3	Share of poorest quintile in national consumption
Target 2	Halve, between 1990 and 2015, the proportion of people who suffer from hunger	4	Prevalence of underweight children under-5
		5	Proportion of population below minimum level of dietary energy consumption

It is apparent that the SUSENAS is the main sources of information for development and welfare indicators particularly required by NHDR and MDG. The questions contained in its 'core' questionnaire, are selected in a way that major indicators of the nine areas of development can be compiled from the data set it provides on a yearly basis. Meanwhile using the 'module' questionnaire, one can obtain more detailed information from a sample of households on their demographic characteristics, health and nutritional status, educational attainment, crime, travel, socio-culture circumstances, housing conditions and value of consumption and expenditure. However up to recently, SUSENAS data have only been good as far as compiling process, output and outcome indicators are concerned, excluding entirely the kind of data required for calculating the input indicators.

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