Internationales Asienforum, Vol. 34 (2003), No. 1–2, pp. 85–105

Poverty Alleviation and Measures of Poverty in Indonesia

SOLVAY GERKE

1. Poverty Alleviation as a Development Goal

This paper[1] responds to the often voiced need to identify the various dimensions of poverty. It discusses the problem of targeting the poor and the areas where they live and provides information on the main data sources in Indonesia and how poverty is measured on the national and local level.

Poverty alleviation emerged as one of the main goals of local and international development efforts in Indonesia in the 1990s, but became an urgent need since the economic crisis hit the country in 1997. In order to address poverty data are needed to identify the poor and the areas where they live. Furthermore information on the dimensions of poverty and its causes has to be made available in order to implement interventions and thus reduce poverty.

After a brief overview of what is known about poverty in Indonesia, including the impact of the financial crisis on the poor, different definitions of poverty in current use and different approaches to measuring poverty will be discussed. Indices of poverty and deprivation commonly used by the World Bank and the United Nations Development Programme will be introduced and compared with indicators of poverty used in Indonesia today. Furthermore, the main data sources on poverty and deprivation in Indonesia will be introduced and their relative reliability will be discussed.

2. Levels of Poverty in Indonesia

Academics and development experts generally consider that the New Order Regime under General Suharto was responsible for a substantial decline of

[1] I wish to thank Prof. Hans-Dieter Evers and Dr. Friedhelm Betke for valuable inputs and Dr. Birgit Kerstan and the project staff of GTZ/PRODA-NT, for whom an earlier version of this paper was prepared.

the poverty rate (Evers 1995). In 1976 there were an estimated 54.2 million people or 40.1 per cent of the population living below the poverty line. In 1987 the figure had declined to 30.0 million or 17.4 per cent, and in 1996 22.5 million people, or 11.3 per cent of the population, were living below the poverty line (Hayes 2000: 45ff). The decline in the poverty rate was visible in rural and urban areas, but the large majority of the poor is still rural. The decline in poverty during the New Order was reached through top-down, growth-oriented economic development rather than specific programs targeting the poor. Most poverty reduction resulted from sectoral improvements, mainly in the health sector, in agriculture and in education. One exception was the Inpres Desa Tertinggal (IDT) program, which operated during 1994–1996, targeting villages "left behind by development" (Hill 1996). Block transfers of 20 to 60 million rupiah per village per year were given to about 20,000 poor or less developed villages (about one third of all villages in Indonesia). The funds were allocated to promote income-generating activities. Those targeted by the program were poor households in less developed villages who were grouped into community groups called Pokmas. These Pokmas groups collectively received roll-over working capital to be used to establish their members' own productive enterprises. IDT was a short-term measure and the impact is still discussed quite controversially.[2]

Under the New Order, economic development was associated with an increase in real income at all income levels and Tjondronegoro et al. (1996: 98) argue that while the economy developed "personal income distribution ... also improved at the same time". Hayes (2000: 46) notes that while improvements in income distribution appear modest, income disparity did not increase. In 1976 the lowest 40 per cent of the total population accounted for 19.6 per cent of total expenditure. In 1987 they accounted for 20.9 per cent of total expenditure.

Tjondronegoro et al. (1996: 83) point out that the New Order Government was indeed sensitive to the need to reduce poverty, but the strong orientation toward economic growth hand in hand with a top-down planning approach tended to prevent the identification of poor people's real needs. SUSENAS data, for example, allowed the calculation of poverty, but the data were inadequate for distinguishing who was poor for identification and targeting purposes. The commonly used SUSENAS indicators of poverty and deprivation could characterize the situation in Indonesia, but could

[2] Alatas (1998, cited in Irawan 2001: 11), for example, considers that the program has performed quite well, estimating that it has reached around 27–30% of the poor, whereas Manning (1999: 141) argues that IDT was unlikely to be successful in achieving poverty reduction because the grants were too small and often mainly contributed to increased consumption instead of productive economic activities.

not identify empirically the poor groups in the country most in need of help. Especially in rural areas policies to alleviate poverty faced the problem of clearly identifying the target group.

According to Hill (1991), economic development during the New Order helped Indonesia to become a more integrated economic entity, even though serious economic disparities remained and still exist among provinces. In 1995, for example, GDP per capita was Rp 9.5 million in East Kalimantan, Rp 7.7 million in Jakarta and less than Rp 1 million in East and West Nusa Tenggara.

The financial crisis hit Indonesia in 1997 and there were quick predictions about its effects on poverty. ILO-UNDP, for example, projected in 1998 that the number of periods living in poverty would rise to 98.8 million by the end of 1998, or 48.3 per cent of the total population. But these predictions, which were usually based on the results obtained by changing the input values in pre-existing theoretical models, did not take the "coping strategies" of the people into account. These strategies which had already been described by scholars from the Sociology of Development Research Centre, University of Bielefeld (Evers/Sumardi 1982, 1985; Evers 1980, 1989) include taking on extra work, i.e. moving working activities to safer sectors; relying to a greater extent on subsistence production; changing diet, i.e. eating cheaper food; selling assets etc.

In 1999 first data became available and a more accurate picture emerged. The *Kecamatan* Survey (Sumarto et al. 1999), using a qualitative approach, found that the impact of the crisis was very heterogeneous. Urban areas appeared to be harder hit than rural areas, and the impact on Java was much more severe than elsewhere. Many of the Outer Islands like Sumatra, Sulawesi, Malukku and Bali seemed to be doing quite well. Areas characterized as very poor before the crisis were not necessarily the areas most severely affected.

SUSENAS provided the first quantitative assessment of the impact of the financial crisis for the whole country. The main findings indicated that there was a modest increase in unemployment, but not as high as perceived (Irawan/Suhaimi 1999), the reason being that many workers were able to work fewer hours and/or to take a second job rather than accept total unemployment. A significant number of housewives appear to have entered the labour force to help make up for lost household earnings. This process was described by Evers as coping strategies of the "floating mass" (Evers 1989).

There was, of course, a substantial increase in the incidence of poverty compared to the pre-crisis period, but the increase was not as dramatic as anticipated. In fact, "social resilience" was high in many areas (Betke 2002). Unfortunately we are not able to compare the 1996 and 1998 SUSENAS

data, because the bundle of items used to define the poverty line was significantly revised in December 1998, especially in the case of the non-food bundle, making the statistics incomparable.[3] Taking the different measures of poverty into account the crisis seems to have increased the number of poor people by about 14 to 15 million (about 6.5 per cent). But the poverty gap increased and the quality of poverty became worse, which want that poor people suffered more after than previously. The effects on education could be measured as school participation rates declined slightly in 1998. Furthermore, an increase from 34.9 per cent to 39.0 per cent of under-5 children with poor nutritional status was shown by the SUSENAS-type data (Irawan/Suhaimi 1999: 103). Some more recent data on poverty levels in NTB and NTT are found in our report on local economic data (Evers and Gerke 2002).

3. Measures of Poverty in Indonesia

In this section we provide some basic information about the most important indices of poverty used in Indonesia and internationally. Income poverty indices will be discussed as well as the more recent human poverty index used by UNDP.

3.1 General Measures of Poverty

Even today there is no generally accepted definition of poverty and there are different approaches to the study of poverty. Some analysts regard poor people as those who have yet not been reached by development or as "left behind", others stress that development itself is often part of the problem. But regardless of differences in the definition of poverty the approaches usually refer to poverty as income poverty. In 1990 the World Bank defined poverty "as the inability to attain a minimal standard of living" and regarded people in developing countries who live on less than US $ 1 a day as living in "absolute poverty". By 2001 the World Bank had adopted a broader approach to the nature and evolution of poverty. This approach is considered to lead to a deeper understanding of the causes of poverty, arguing, "that the experience of poverty goes beyond material deprivation and low levels of health and education. The inability to influence the decisions that effects one's life, ill treatment by state institutions, and the impediments created by

[3] For a lengthy description of the different standards in 1996 and 1998 see BPS Publikasi No. 04410.0002.

social barriers and norms are also dimensions of ill-being." (World Bank 2001: 29) Another dimension is vulnerability to adverse shocks, natural disasters, disease and violence.

3.2 The Poverty Line

But how can the minimal standard of living be defined? The general starting point for most approaches to the study of poverty and deprivation is to define a poverty line to separate those sections of the population who are living in absolute poverty from the group of poor people who can actually meet their subsistence needs.

Different approaches vary according to how they define the relevant minimal living standard and how they determine whether a household has sufficient resources to reach this standard. A poverty line that defines subsistence poverty is usually seen as relevant in the case of poor countries and is defined in terms of whether a household has enough food to meet the basic physical needs of its members. People who are not able to consume about 2,100 calories per day are described as "absolute poor". Another approach over the last 10 to 15 years is to define the minimal standard of living in terms of food consumption PLUS capacity to satisfy a short list of non-food, or so-called second floor basic needs like clothing, housing, basic health, basic education, access to information and social and political participation. All in all there is a common agreement that poverty and deprivation have to be regarded in both absolute and relative terms.

3.3 Income Poverty Indices

Absolute number of the Poor: The number of people below the poverty line by reference to the total population.

Headcount Index: The number of people below the poverty line expressed as a percentage of the population. It does not tell us anything about the quality of poverty, i.e. how poor the poor are.

Poverty Gap Index: The poverty gap index provides information about the extent to which the poor fall below the poverty line. It is defined as the total amount of money that would have to be transferred to bring the income of every poor person up to the poverty line, divided by the total population, and expresses this average value as a proportion or a percent of the value of the poverty line. A poverty gap index of 0.4, for example, means that the aggregate deficit of income among the poor when averaged for the total population amounts to 40 per cent of the value of the poverty line. The

World Bank (1990) expresses the poverty gap as a percentage of aggregate consumption.

3.4 Human Poverty Index (HPI)

In 1997 UNDP introduced a new poverty measure, the HPI, to incorporate a wider range of information about poverty than is included in the measurement of income poverty. UNDP states that "poverty can involve not only the lack of the necessities of material well-being, but the denial of opportunities for living a tolerable life" (UNDP 1997). By using a capabilities approach, poverty is not judged in terms of income, but by the capability to achieve some important human functioning (Sen 1992:125).

Table 1: Definitions of Poverty

Poverty (is) the inability to attain a minimal standard of living. (World Bank 1990: 29)
Poverty is basically the inability to achieve a politically acceptable potential living standard. (Mills and Pernia 1994: 3)
Poverty can mean more than a lack of what is necessary for material well-being. It can also mean the denial of opportunities and choices most basic to human development – to lead a long, healthy, creative life and to enjoy a decent standard of living, freedom, dignity, self-esteem and the respect of others. (UNDP 1997: 5)

The HPI relies on three dimensions of life which are already defined by the Human Development Index (HDI), namely, longevity, knowledge and living standard in its newest *Human Development Report* (2002: 180).[4] But whereas the HDI measures the average level of development in a population by using these dimensions, the HPI focuses on those sectors of the popula-

[4] In its recent report (2002: 180), UNDP distinguishes two Poverty Indexes. HPI 1 addresses developing countries and contains "a composite index measuring deprivations in the three basic dimensions captured in the HDI – longevity, knowledge and standard of living". HPI 2 addresses selected OECD countries and additionally includes "social exclusion" as a fourth dimension.

tion which are seriously deprived and which may therefore be defined as "poor" according to these three dimensions.

Vulnerability to death at a relatively early age is the first component of the HPI. It is measured by the percentage of people expected to die before the age of 40. The second component refers to denied opportunities and the capability for learning. It is defined by the percentage of illiterate adults. The third component is related to a decent standard of living, regarded basically as "overall economic provisioning" (UNDP 1997: 18). It is defined in the HPI by three variables: The percentage of people without access to safe water, the percentage of people without access to health services, and the percentage of malnourished children under 5. The HPI is calculated for 78 countries using a simple average of the three component percentages. A human poverty index of 20.8 per cent for Indonesia means that the average percentage dying before the age of 40, the percentage of illiterate adults and the percentage of people without a decent living standard is 20.8 per cent. The percent living below a decent standard of living is the simple arithmetic mean of the three percentages for the three variables. This means that if Indonesia has a score of 20.8 per cent, we do not know whether all three scores are closely clustered around the mean of 20.8 per cent or if they are widely divergent.

3.5 The Indonesian Poverty Line

In Indonesia, the official poverty estimates are made by BPS (Biro Pusat Statistic) using SUSENAS data. SUSENAS uses a consumption and expenditure approach to estimate poverty and deprivation. Poverty statistics in Indonesia have been collected for more than 20 years but the current system of operational definitions and data collection dates from 1993. The Poverty Line (PL) is defined in terms of a minimum standard of basic consumption needs, including both food and non-food items. As Sutanto et al. put it, the "... poverty line is defined as the expenditure value of the minimum standard for food and non-food needs per capita per month" (Sutanto/Irawan/Said 1999: 3, cited in Hayes 200: 21).

The poverty line for the food component is defined as the total expenditure needed to satisfy a 2,100 calories per capita per day energy requirement. To calculate the income needed to provide these 2,100 calories BPS refers to the consumption pattern of people living close to the poverty line. Since 1993 the BPS approach has been to select a "reference population" believed to live just above the poverty line. Their food consumption patterns are used as a norm, measured and tabulated, and a bundle of essential food items is established. Different consumption patterns of "reference popula-

tions" are selected for each province in Indonesia[5] taking into account the variation of diets and prices. Furthermore, different "reference populations" are selected for urban and rural areas.

The non-food poverty line is established based on what is considered essential among the reference population's non-food items, including clothing, housing, education, health, transportation etc. Items were selected together with their respective per capita costs per month. The poverty line was determined in this way in 1993 and 1996 using data from the SUSENAS Income and Expenditure Module, which is normally conducted every three years. But as a consequence of the economic crisis in 1997, BPS decided in 1998 to significantly revise the composition of the non-food basket and agreed on a new bundle of non-food items to be used to define the standard of living. Furthermore BPS changed the weightings of these items. It is apparent that the estimated incidence of poverty crucially depends on the monetary value given to the poverty line. The revised non-food bundle was first applied in December 1998 and again in 1999. Thus results of 1998 and 1999 cannot be compared with those from 1993 and 1996. This means that in order to interpret exactly what a published annual figure for the incidence of poverty really means, one needs to be clear about which poverty line was used.

4. Main Data Sources for Indonesia

In this chapter the main sources of data in the analysis of poverty and deprivation in Indonesia are reviewed.[6] The characteristics of the data such as geographical coverage, unit of analysis, the information content of the data, the sample size etc as well as the overall accuracy and reliability of the data are analysed.

We include only Data Sources which mainly rely on the collection of relevant data on poverty and deprivation and are carried out on a regular basis including the provinces of NTT and NTB.[7]

---

5 Poverty statistics in Indonesia have been disaggregated by province since 1993.

6 This chapter relies on information given in Surbakti (1997) and Hayes (2000).

7 Thus the 100 Village Survey which was conducted by BPS in collaboration with UNICEF in 1994 and 1997 (before the financial crisis), the Social Monitoring and Early Response Unit (SMERU), which was carried out by the World Bank in cooperation with AusAID and USAID in 1998 to review the impact of the financial crisis and the Indonesian Demographic and Health Survey (IDHS) of 1997 are not included in this study.

4.1 SUSENAS (National Socio-Economic Survey)

The main source of official data on poverty and welfare in Indonesia is the Survei Sosial Ekonomi Nasional or SUSENAS. This survey has been carried out by BPS (usually on an annual basis) since 1963. SUSENAS was introduced to provide the government with information needed to monitor social welfare and examine selected social issues, and has been expanded and upgraded over the years. Together with the intercensal population survey (SUPAS), and the labour force survey (SAKERNAS), the census provides the main data for the social characteristics of the Indonesian population (Surbakti 1997).

Consumption data have been collected since the inception of SUSENAS, to measure the variation in standards of living and, quite specifically, to measure poverty. Since 1981, the full set of consumption data have been collected only every three years, so as to allow more data on other aspects of welfare to be collected in the intervening years. By the early 1990s the current system was established whereby each year, normally in February, "core questions" are asked. These questions are mainly based on demographic and education variables. Furthermore, questions from one of three modules which rotate on a 3-year cycle are asked. Thus, in 1993 the Income and Expenditure Module (Module 1) was applied, in 1994 the Welfare, Socio-culture, Criminality and Tourism Module (Module 2) and in 1995 the Health, Nutrition, Education Cost and Home Environment Module (Module 3). Then, in 1996, Module 1 was used again, and so on.

Further changes were made in 1990 to establish the present SUSENAS system. First, the core questionnaire was expanded to include selected welfare questions every year. Second, in anticipation of decentralization, the sample size was increased in 1993 from 65.000 households to 202.000 households, so that statistically representative welfare indicators can now be calculated at the *kabupaten* level.

The core questionnaire includes questions which have been selected so as to allow compilation of indicators on 9 areas mandated by the People's Consultative Assembly (1993) as priorities for development: health; food; consumption; nutrition; education; demography; family welfare; women, children and youth; and housing and residential areas (Surbakti 1997: 8–9, 80). The module questionnaires provide more detailed information on these topics. Table 1 shows a range of welfare indicators which are routinely compiled from SUSENAS data. Information on poverty comes from both the core and the income and expenditure module (tables 3 and 4).

Table 2: Selected indicators on poverty issues generated from SUSENAS

Indicator	Source of important variable
Monetary	
1. Average per capita expenditure	C, M
2. Average food share in total expenditure	C, M
3. Percentage of expenditure in the lowest 40 % of population	C, M
4. Percentage of poor households	C, M
5. Gini Ratio of expenditure	C, M
6. Average calorie per capita consumption	M
7. Average protein per capita consumption	M
8. Average vitamin A per capita consumption	M
Non-monetary	
9. Average floor area per capita	C
10. Perc. of housing unit with good quality of wall	C
11. Perc. of housing unit with good quality of roof	C
12. Perc. of housing unit with good quality of floor	C
13. Perc. of housing unit with electricity	C
14. Perc. of housing unit with clean water	C
15. Perc. of housing unit with latrine facility	C
16. Perc. of housing unit with less than 10 sq.m. area per capita	C
17. Perc. of population employed in informal sector	C
18. Perc. of women-headed households	C
19. Perc. of under- and unemployed head of households	C
20. Perc. of illiterate head of households	C

Source: Surbakti 1997, Table 3. (C = core questionnaire; M = module questionnaire)

Table 3: Selected indicators on household welfare improvement generated from SUSENAS

Variable/Indicator
Primary Needs
1. Religious
2. Income
3. Food consumption
4. Living unit condition
5. Housing utilities
6. Clothing
7. Health
8. Access to medical services
9. Access to medicine
10. Access to primary school
11. Access to junior high school
12. Access to senior high school
13. Access to formal employment
Others
14. Pleasantness of religious holidays celebration
15. Access to family planning services
16. Access to transportation services
17. Security feeling from crime act
18. Access to radio
19. Access to television
20. Access to reading material
21. Access to sport facilities

Source: Surbakti 1997, Table 4.

Table 4: Selected indicators on child welfare generated from SUSENAS

Indicator	Source of important variable
Survival	
1. Infant mortality rates (IMR)	C
2. Under-five mortality rates (U5MR)	C
3. Life expectancy	C
4. Morbidity rates	C
5. Percentage of children breast-fed	C
6. Number of months of exclusive breast-feeding	C
7. Nutritional status of under-fives	M
8. Percentage of under-fives immunized	C
9. Perc. of under-fives having access to health services	C
10. Perc. of household having dirt floor	C
11. Perc. of household having access to clean water	C
12. Perc. of children who smoke	C
Development	
13. Net enrolment ratio	C
14. Perc. of children in labour force	C
15. Drop out rate	C
16. Perc. of children participating in sport activities	M
17. Perc. of children participating in cultural activities	M
18. Perc. of children having visited tourist object	C, M
19. Total fertility rate	C
20. Average no. of children ever born to women aged 45–49 years	C
21. Perc. of disabled children	M

Source: Surbakti 1997, Table 1. (C = core questionnaire ; M = module questionnaire)

In general SUSENAS is the best source of data for compiling poverty and deprivation indicators in Indonesia, though it has its drawbacks as it does not take into account variations in local customs and conditions (Betke and Ritonga 2002). It is the only source for the calculation of consumption-based poverty indices representative of the whole country. Since 1993 the sample size is large enough for desegregation by province, and even by *kabupaten*. In the latter case the sampling error can be large and the sample is generally not large enough to break down even further. SUSENAS collects a wealth of data on social characteristics in addition to consumption. So the data allow in-depth analysis of the correlates and causes of poverty. Some of the sectoral indicators allow poverty and deprivation to be analysed in relation to sectoral development; others measure development outcomes (e.g. child mortality rate, illiteracy, TFR). Some indicators can be regarded as policy instruments (e.g. accessibility to health services; percentage of births attended by health personnel; contraceptive prevalence rate). The data are collected annually and allow the monitoring of change through time.

4.2 Village Potential Survey (PODES)

PODES was first introduced in conjunction with the 1976 Indonesian Fertility Survey. It was intended to conduct PODES 3 times in a decade (in the years ending 0, 3 and 6) as an accompaniment the Population Census, Agricultural Census and Economic Census. In this survey data on conditions in each village are collected (BPS 1998). The questionnaire is filled out by the Village Head or Village Secretary. In 1993 the President introduced the IDT (Impres Desa Tertinggal) programme, whereby grants are given to poor villages. There was an urgent need for data in order to identify poor villages and since 1994 PODES-like surveys (so-called PODES-Inti) have been conducted annually in the intervening years to help the government target and monitor poor villages (Surbakti 1997: 27).

PODES collects information on:

1. general information regarding the respective village
2. population and environment
3. education
4. socio-cultural facilities and services
5. recreation
6. health
7. transport and communication

8. land utilization
9. economic facilities and services
10. local finance
11. characteristics of the village head

The quality of the data is uncertain and the data is not generally tabulated. In 1996 PODES contained 417 variables and it is very unlikely that the village official can provide reliable answers to many of the questions. In many cases local officials may simply repeat data reported in previous years if more recent data is not available. It is also very likely that the data reflects the village head's perception of the economic and social conditions in the village and therefore depend greatly on his commitment and knowledge about the socio-economic conditions of the village population. BPS officials, however, regard PODES 2000 as more reliable than previous ones as it was conducted along with the Population Census 2000. PODES data should therefore be used very selectively. Some of the variables are reliable, others are not. So far, no systematic reliability check is available.

4.3 Family Registration System of BKKBN

The family registration system was initially introduced to provide data at the local level in order to assist in the targeting of poor families and poor areas. Furthermore it was to have an educational function in making community members aware that specific dimensions of welfare had to be improved. Some of the BKKBN (Family Planning Board) data are included in the PODES data set.

The rationale for the national family welfare registration survey, which has been conducted by BKKBN in all provinces every year since 1994 (from January to March) is the Act No. 10, passed into law by the government of Indonesia in 1992. According to the act, a "prosperous family refers to family which is formed on the basis of legal marriage, able to provide adequate spiritual and material needs, obedience to God, able to maintain a harmonious, compatible and balanced relationship among the members of the society and the environment" (Government of Indonesia 1992: Art.1, para.11). The Act commits the Government to collect and analyse information in order to monitor efforts towards achieving the "prosperous family" status as defined above. The survey collects information on 23 indicators. Families are classified according to the results.

Table 5: BKKBN family welfare indicators and welfare stages

Indicators	Stage
1. All members of the family worship according to their religion 2. Consume minimal two meals per day 3. Has different clothing for home, work/school and recreation 4. Larger proportion of the floor is not earthen 5. Obtain professional health service or modern medicine	Pre-prosperous
6. Regularly perform religious duty according to their religion 7. Household consumes meal with meat/eggs/fish at least once a week 8. Have at least one pair of new clothes per year 9. Minimum floor space of 8 square meters per person 10. No sickness has occurred in the last three months 11. At least one member above 15 years has regular source of income 12. No member of the family between 10-60 years old is illiterate 13. All children between 7–15 years old are at school 14. Eligible couple has two children or more and is currently using contraceptive	Prosperous I
15. Pursuing deeper religious knowledge 16. Part of family income used as family savings 17. All family members eat together at least once a day 18. The family occasionally takes part in community activities 19. The family has recreation together at least once every 6 months 20. Have access to information/news from the media 21. Have access to local public transportation	Prosperous II
22. Contribute regularly and voluntarily to community social activities 23. Actively involved in the management of a community institution	Prosperous III
Families with capabilities to help other families in the community	Prosperous III+

Source: BKKBN 1999: 28–30

A family will fall into:

- Pre-prosperous stage if it fails to fulfil any of the indicators 1 to 5. It is then unable to fulfil its basic needs.
- Prosperous I stage if it satisfies each of the first 5 indicators, but fails to fulfil the indicators 6 to 14.
- Prosperous II stage if it satisfies all of the first 14 indicators, but not all of the indicators 15 to 21.
- Prosperous III stage if it satisfies all indicators 1 through 21, but fails to fulfil either indicator 22 or 23.
- Prosperous III+ stage if it can fulfil all indicators 1 to 23.
- BKKBN (1999:12–13)

Families which fall into the first two stages are considered "poor" and are further distinguished according to economic and non-economic criteria. In order to compare the BKKBN data with BPS data on poverty, questions about food and non-food expenditures were asked of families in the first two stages.

The BKKBN conception represents a quite different approach to the deficitism measurement of poverty than BPS. BKKBN adopts a more multidimensional approach as each indicator represents a different aspect of welfare. If reliable, the data would provide broad information about the level and geographical distribution of poverty in Indonesia.[8]

There are, however, several limitations of the BKKBN survey which have to be taken into consideration. One could for example point to the culturally motivated fact that in some parts of Eastern Indonesia earthen floors are preferred to wooden or concrete floors, but that a family would automatically fail to meet the target of the prosperous I level if they have an earthen floor for cultural reasons. Any program intervention must therefore take cultural considerations into account. Besides, the general quality of the BKKBN data is not very reliable, because the data are collected by cadres (volunteers) with minimal training in that kind of work and a low incentive scheme to motivate them. Much of the information is collected from informants without going to all the houses. But taking into consideration that the villagers' knowledge of who is poor or s not is relatively reliable, the result at least reflects the villagers interpretation and conception of poverty in the village. Since the BKKBN family registration system is the only national data source which (in principle) lists all poor families and identifies them by name, it is a great help targeting the poor and identifying poor areas.

[8] A short analysis of these BKKBN data is found in Evers/Gerke 2002.

5. Conclusions

To address poverty we need data to identify the poor and the areas where they live. Furthermore, information on the dimensions of poverty and its causes is needed in order to implement interventions and thus reduce poverty. At least we need data to monitor change and confirm that the results of intervention lead to a reduction in poverty.

Key indicators of poverty should thus meet the following criteria:

- They should provide reliable measures of the incidence and depth of poverty.
- They should be available at district level.
- They should provide information on the composition of the poor by age, sex and social characteristics.
- They should be relevant to policy interventions and amenable to change through program activities.
- They should be based on existing data systems which are regularly updated.

Because of its sample size, only SUSENAS allows a reliable breakdown of indicators to the district (*kabupaten*) level and is, despite certain drawbacks, the best source of data in compiling poverty and deprivation indicators in Indonesia. It is the only of the whole country. Since 1993 the sample size is large enough for desegregation by province, and even by *kabupaten*. Poverty data are based on the consumption module of SUSENAS to calculate the number and percentage of the population below the official poverty line with reference to a range of "basic needs".

SUSENAS has the following advantages:

- the data provide relatively reliable measures of the incidence and depth of expenditure poverty;
- the data provide a range of additional measures of deprivation by sector and they also measure the causes of poverty;

But to target the poor villages and identify and monitor changes in poverty additional, nationally representative surveys must be used.

To monitor poverty alleviation at the *kabupaten* level, several data sets should be used and compared.

Monitoring the 'Poverty Line', based on SUSENAS data

The regionally adjusted poverty line that is calculated by BPS on the basis of SUSENAS data can also be used to compute a poverty estimate for se-

lected districts. These data can be purchased from BPS and a respective contract has to be negotiated.

The readily available SUSENAS data on the national and provincial level can be used for bench-marking purposes, i.e. for evaluating, whether poverty alleviation progresses faster slower in a certain district than in the respective province.

Monitoring poverty levels, based on an Engels Curve (SUSENAS data)

The so-called Engels curve that measures the proportion of food expenditure as percentage of total household expenditure is a relatively simple, but nevertheless powerful tool to estimate poverty levels. The "District-level Engels Curve" can be constructed from data contained SUSENAS, collected each year.

Monitoring localised poverty levels on the basis of BKKBN/PODES data

For further local-level poverty monitoring we recommend the use of two national data sources, namely PODES and the BKKBN family registration survey. Reliability problems have been discussed above. The BKKBN conception represents a quite different approach to defining and measuring poverty from that of BPS. BKKBN adopts a more multidimensional approach as each indicator represents a different aspect of welfare. The data provide broad information about the level and geographical distribution of poverty in Indonesia. There are no sampling problems, as all villages (*desa*) in Indonesia are enumerated and the village is the unit of analysis. Using BKKBN data would require collaboration with the BKKBN at the *kabupaten* and *kecamatan* levels.

For data below the district (*kabupaten*) level (sub-district/*kecamatan* and *desa*/village), the BKKBN survey and PODES are the only data sources regularly available in Indonesia. Both surveys are based on a bottom-up rather than a top-down approach and will without doubt become more important in the future in view of the government's decentralization efforts (Hauschild 2002).

To supplement BKKBN family welfare data, which are already an aggregate measure in the form of a composite index of five categories (see discussion above), some PODES data could be carefully selected from the PODES survey (Evers and Gerke 2002). If, however, poverty alleviation is to be reliably measured on the local (*kabupaten*) level, additional qualitative data representing local preference, customs and social conditions, will have to be added.

References

Betke, Friedhelm (2002): *Assessing 'Social Resilience' among Regencies and Communities in Indonesia*. Draft Discussion Paper. Jakarta: Badan Pusat Statistik

Betke, Friedhelm / Hamanongan Ritonga (2002): *Managers of Megalithic Power: Towards an Understanding of Contemporary Political Economy in East Sumba*. Unpublished Report. Jakarta, Badan Pusat Statistik.

BPS (1998): *Statistik Potensi Desa (Village Potential Statistics) 1996*, Jakarta: Badan Pusat Statistik

– (no date): *Penyempurnaan Metodologi Penghitungan Penduduk Miskin dan Profil Kemiskinan*. Publikasi No. 04410.0002, Jakarta: Badan Pusat Statistik

Evers, Hans-Dieter (1980): Subsistence Production and the Jakarta "Floating Mass", *Prisma*, Vol. 17: 27–35

– (1989): Trends in Urban Poverty and Labour Supply Strategies in Jakarta. In Gerry Rodgers (ed.), *Urban Poverty and the Labour Market*, Geneva: International Labour Office, pp. 145–172

– (1995): Armut in Indonesien. Eine Wende in der Entwicklungspolitik?, *Internationales Asienforum* 26, 3–4: 327–342

Evers, Hans-Dieter / Mulyanto Sumardi, 1982, *Sumber Pendapatan Kebutuhan Pokok dan Perilaku Menyimpang*. Jakarta: CV Rajawali/Yayasan Ilmu-Ilmu Sosial

– (1985): *Kemiskinan dan Kebutuhan Pokok*. Second edition. Jakarta: CV Rajawali/Yayasan Ilmu-Ilmu Sosial, 1982

Evers, Hans-Dieter / Solvay Gerke (2002): *Economic Structure and Socio-Economic Development Potentials in East Lombok, Bima, Dompu, East Sumba, Alor (NTB/NTT). An Annotated Compendium of Official Statistical Data*. Denpasar: PRODA-NT/GTZ 2002

Hauschild, Alexander (2002): *Dezentralisierung in Indonesien: Gesetze, Implementierung und Nutzen für die Entwicklungszusammenarbeit*. Diplomarbeit, Südostasienwissenschaft, Universität Bonn

Hayes, Adrian C. (2000): *Poverty and Deprivation in Indonesia*. Canberra: ANU

Hill, Hal (ed.) (1991): *Unity and Diversity: Regional Economic Development in Indonesia since 1970*. Singapore: Oxford University Press

– (1996): *The Indonesian Economy since 1966*. Cambridge: Cambridge University Press

Irawan, Puguh B. (ed.) (2001): *Anti-Poverty Programs in Indonesia*. Jakarta: Badan Pusat Statistik

Irawan, Puguh B. / Uzair Suhaimi (1999): *Crisis, Poverty and Human Development in Indonesia, 1998*. Jakarta: Badan Pusat Statistik

Manning, Chris (1999): Poverty Decline and Labour Market Change in Indonesia: Lessons from the Suharto Era. *The Indonesian Quarterly*, Vol. XXVII (2): 122–145

Mills, Edwin S. / Ernesto M. Pernia (1994): "Introduction and Overview". In Pernia (ed.), *Urban Poverty in Asia: A Survey of Critical Issues*. Hong Kong: Oxford University Press, pp.1–51

Sen, Amartya (1992): *Inequality Re-examined*. Oxford: Clarendon Press

Sutanto, Agus / Puguh B. Irwan / Ali Said (1999): *Poverty Measurement: Problems and Development*. Paper presented at the International Conference on Methodologies of Poverty Calculations in Indonesia, Jakarta, 30 November

Sumarto, Sudarno / Anna Wetterberg / Lant Prichett (1999): *The Social Impact of the Crisis in Indonesia: Results from a Nationwide Kecamatan Survey*. Jakarta: SMERU

Surbakti, Pajung (1997): *Indonesia's National Socio-Economic Survey: A Continual Data Source for Analysis on Welfare Development*. Third edition. Jakarta: Badan Pusat Statistik

Tjondronegoro, Sediono M.P. et al. (1996): Indonesia. In M.G. Quibria (ed.), *Rural Poverty in Asia, Vol. 2: Indonesia, Republic of Korea, Philippines and Thailand*. Manila: Asian Development Bank, pp. 73–242

United Nations Development Programme (1997): *Human Development Report*. New York: Oxford University Press

– (2002): *Human Development Report*. New York: Oxford University Press

World Bank, (1990): *World Development Report 1990*. New York: Oxford University Press

– (2001): *World Development Report 2000/2001. Attacking Poverty*. New York: Oxford University Press

List of Abbreviations

BKKBN	Family Planning Board
BPS	Badan Pusat Statistik / National Bureau of Statistics
GTZ	Gesellschaft für Technische Zusammenarbeit
HPI	Human Poverty Index
IDHS	Indonesian Demographic and Health Survey

IDT	Inpres Desa Tertinggal / Presidential Decree on Poor Villages
Kecamatan	District
NTB	Nusa Tenggara Barat Province
NTT	Nusa Tenggara Timur Province
POKMAS	Farmers' Group
PODES	Potensi Desa Survey / Village Potential Survey
SAKERAS	National Labour Force Survey
SMERU	Social Monitoring and Early Response Unit
SUPAS	Intercensal Survey
SUSENAS	National Welfare Survey
UNDP	United Nations Development Programme