

Determining Comprehensive Criteria and Census Variables for the Protection of the Poor at the Local Level



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SMERU WORKING PAPER

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September 2016



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ACKNOWLEDGEMENTS

We would like to express our appreciation to the staff of the Directorate of Population Development of the Directorate-General of Population Administration, the Ministry of Home Affairs, who had shared their comments on our paper titled “Determining Comprehensive Criteria and Census Variables for the Protection of the Poor at the Local Level”. This paper was presented at the “Formulation of Government Draft Regulations on the Criteria and Methods to Protect the Poor” event, which took place in Jakarta on 20 April 2010. We would also like to extend our gratitude to Dr. L. Ega, coordinator of the Pro-poor Planning, Budgeting, and Monitoring (P3BM) program of Bappenas, who had given the authors the opportunity to present their paper titled “Community-Based Monitoring System” in the “Establishing a System for the Community-Based Monitoring” workshop in Bogor on 10–11 October 2013.

Although this paper has been revised based on comments from various parties, the remaining errors and weaknesses in this working paper are those of the authors.

ABSTRACT

Determining Comprehensive Criteria and Census Variables for the Protection of the Poor at the Local Level

Widjajanti Isdijoso, Asep Suryahadi, and Akhmadi

The development of targeting methods for government social programs has to date experienced favorable progress. However, since the issuance of Law No. 52/2009, there has been a shift from household-based targeting to family-based targeting. This paper offers an alternative method to determine a set of comprehensive criteria for family-based targeting. To establish the criteria, an analysis of locally-specific welfare indicators are undertaken. These indicators are used to determine levels of family welfare categories. The categories are set based on a number of variables which weigh the highest. These main variables may vary among regions.

The levels of family welfare are determined through descriptive analysis and Principal Component Analysis (PCA). The levels defined are used for program recipient targeting based on the budget allocation for a region. The result of the analysis can be used for better targeting based on program clusters, such as education or health, in a given area.

Keywords: family, welfare, criteria, targeting, welfare levels

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LIST OF ABBREVIATIONS

BKKBN	Badan Koordinasi Keluarga Berencana Nasional	National Coordinating Body for Family Planning
BLT	Bantuan Langsung Tunai	Direct Cash Transfer Program
BPS	Badan Pusat Statistik	Statistics Indonesia
CBMS		Community-Based Monitoring System
JPS	Jaring Pengaman Sosial	Social Safety Net
PCA		Principal Component Analysis
PKPS-BBM	Program Kompensasi Pengurangan Subsidi Bahan Bakar Minyak	Fuel Reduction Subsidy Compensation Program
PLKB	<i>penyuluh lapangan Keluarga Berencana</i>	family planning field advisors
PPKBD	<i>pembantu pembina keluarga berencana desa</i>	village family planning assistant
PPLS	Pendataan Program Perlindungan Sosial	Social Protection Program census
PSE05	Pendataan Sosial-Ekonomi Penduduk Tahun 2005	2005 Socioeconomic Census
RT	<i>rukun tetangga</i>	neighborhood unit
SLS	Satuan Lingkungan Setempat	Unit of Local Surroundings
Susenas	Survei Sosial-Ekonomi Nasional	National Socioeconomic Survey

I. INTRODUCTION

In 2009 the Government of Indonesia passed Law No. 52/2009 on Population Growth and Family Development. The aim of population growth is to create harmony, conformity, and balance between the quantity, quality, and distribution of people on the one hand and the environment on the other, whereas family development is aimed at improving the quality of families so that a feeling of safety, calmness, and hope for a better future in achieving material prosperity and inner happiness.¹ To achieve these aims, the government has the authority to undertake the management of population growth and family development in the long term to enable them to create new policies in the mid-term and implement them in their annual work plans.

Hierarchically speaking, responsibility for population growth and family development lays with the central government, followed by the provincial government and district or city local governments. The central government defines the national policy, direction, standards, procedures and the criteria for population growth and family development. The provincial government sets the regional policy and facilitates the implementation of the direction that has been determined by the central government, whereas the district and city local governments arrange the realization of population growth and family development in their own areas.

In formulating the national policy and the direction, standards, procedures and criteria for population growth and family development it is vitally important to recognize all of the factors involved in their formulation which include: control over the numbers of people, family planning, a reduction in mortality rates, the mobility of people, the improvement of the quality of the population, recognition of vulnerable groups of people, and population planning as well as population data and information.

As a result of the process of population growth and family development, there has been a change in the structure and composition of the population and this has had an effect on people who are vulnerable to change. The government has to protect and make change easier for these vulnerable groups of people by, at the very least, providing for their basic needs. However, who are they and what constitutes being a member of this vulnerable group? Are they poor or extremely poor? What are the criteria used to identify them?

Although the government has criteria for identifying poor people, the targeting of government programs with the use of these criteria until now has been misguided (Suryahadi dan Sumarto, 2001). Several of the criteria that have been used to define the poor to be targeted by government assistance programs have been adopted from among others, the National Coordinating Body for Family Planning (BKKBN), the Socioeconomic Census of the Population in 2005 (PSE 05) from Statistics Indonesia (BPS), and the Social Protection Program census in 2008 (PPLS 2008) also from Statistics Indonesia.² Several of the national assistance programs for the poor, that are run by the government as well as the private sector, that use this criteria are: the Prosperous Family Savings/Business Credit Program (Takesra/Kukesra), the National Movement for Foster Parents (GN-OTA) the Rice Market Operation (OPK), the Rice for the Poor Program (Raskin), the Social Safety Net (JPS), the Fuel Reduction Subsidy Compensation Program (PKPS-BBM), the Direct Cash Transfer Program (BLT), the Health Insurance for the Poor program (Jamkesmas) and the Family of Hope Program (PKH).

¹See Article 4, Section 3, Law No.52/2009 on Population Growth and Family Development.

²Further information on the criteria from the BKKBN and BPS are discussed in Section III of this paper.

As a result of this, the criteria for defining vulnerable (at risk) and poor people needs to be re-evaluated to reduce the misguided targeting of these government programs. To support the criteria that defines the poor, as contained in Article 41, Clause 2 of Law Number 52/2009 concerning Population Growth and Family Development, it is stated that the formulation of the criteria for defining the poor and the methods to assist them comes under government regulation. For this purpose, The SMERU Research Institute is suggesting a comprehensive formulation of the criteria and variables for data collection of the poor in the hope of protecting the poor living in *kabupaten/kota*.

II. THE POVERTY SITUATION IN INDONESIA

Poverty is a situation defined by a limited ability to fulfill normal daily needs due to limited income, skills, health, control of economic assets, or access to information. Approaches to the measurement of poverty can be material or monetary. Poverty measurement using the monetary approach can be done by using expenditure data as a means of calculating household income. In this case the expenditure data can be compared to the amount of money (rupiah) required to fulfill minimum daily needs. This minimum value is often referred to as the poverty line. The people whose expenditure is less than the amount of money determining this “line” are deemed to be poor. The government formulates the poverty line based on measurements from Statistics Indonesia which are derived from data contained in the National Socioeconomic Survey (Susenas).

Besides financial approaches, poverty can also be measured using other aspects, such as access to education, health, and public information, as well as ownership of valuable goods, and the opportunity to participate in society, freedom of opinion, and other similar aspects.

Government and nongovernmental organizations (e.g., NGOs, private organizations, and donor agencies) have in the past, are in the process of, and will continue to make efforts through various programs, both directly and indirectly, to overcome poverty. As an example, in current discourse are the concepts of pro-poor growth and pro-poor budgeting. The central government has several large-scale national programs, that have been, and are continuing to, provide a social security network, they are the School Operations Assistance (BOS), the Family Hope Program and the Direct Cash Transfer program.

Table 1 shows the growth of poverty in Indonesia. Before the economic crisis of 1997/1998, with an average economic growth of 7%–9%, the level of poverty dropped from 40.1% in 1976 to 11.3% in 1996. Non-consumption indicators of poverty like infant mortality, levels of school participation and life expectancy at birth all experienced an improvement. However, with the economic crisis in 1997/1998, the numbers of poor increased by more than 14 million people (6 percentage point of the population) in the period from 1996–99 (Table 2). In 1999, the amount of poor people experienced a significant rise with levels of poverty rising to become 23.43% or 47 million people.

Table 1. Poverty Line, Percentages, and Amount of Poor People, 1976–1996 (using the standard before 1998)

Year	Poverty Line (Rp/head/month)		Percentage of Poor People (%)			Number of Poor People (in millions)		
	Urban	Rural	Urban	Rural	U + R	Urban	Rural	U + R
1976	4.522	2.849	38,8	40,4	40,1	10,0	44,2	54,2
1978	4.969	2.981	30,8	33,4	33,3	8,3	38,9	47,2
1980	6.831	4.449	29,0	28,4	28,6	9,5	32,8	42,3
1981	9.777	5.877	28,1	26,5	26,9	9,3	31,3	40,6
1984	13.731	7.746	23,1	21,2	21,6	9,3	25,7	35,0
1987	17.381	10.294	20,1	16,1	17,4	9,7	20,3	30,0
1990	20.614	13.295	16,8	14,3	15,1	9,4	17,8	27,2
1993	27.905	18.244	13,4	13,8	13,7	8,7	17,2	25,9
1996	38.246	27.413	9,7	12,3	11,3	7,2	15,3	22,5

Source: Statistics Indonesia (BPS) 2004.

After dealing with the effects of the crisis through several government programs, the number and percentage of poor people showed a slow decrease. Even though, between 2004 and 2006 there was an increase in poverty from 16.66% in 2004 to 17.75% in 2005. This was caused by an increase in the price of rice and a jump in the price of fuel in March and October 2005, which at two times the normal price was very significant, as well as a rise in the price of other daily necessities. In October 2005 the government reduced the fuel subsidy thereby increasing the cost of regular fuel by 87.5%, diesel by 104.8%, and kerosene by 185.7% so that the average increase in the cost of fuel at that time reached 125%. Even though at that time the government implemented a Direct Cash Transfer program (BLT) and other compensation for the reduction of the fuel subsidy programs, an increase in the numbers of poor people occurred in 2005–06.

By using several programs to deal with poverty, in March 2007 there was a decrease in the level of poverty by 1.17 percentage points compared to the situation in 2006. The increase and decrease in the numbers of poor people showed the existence of groups in society who are vulnerable to sudden changes in the economy, especially those members of society who are already near the poverty line.

The Indonesian government continued efforts to tackle poverty and in 2007 there was an improvement from the previous year. In 2006 the number of poor people in Indonesia reached 39,300,000 people or 17.75%. In 2007 this number dropped 1.17 percentage points becoming 16.58% or 37,170,000 people.

The government's efforts to tackle poverty through programs in the areas of education, health, and infrastructure as well as the provision of foodstuffs produced results in the following years. This was reflected in the data from March 2009, when the number of poor people fell to 32,530,000 people (14.15%) or a reduction of 2,430,000 people compared with the figure from March 2008 which was 34,960,000 people (15.42%) (Statistics Indonesia, 2009).

Several of these efforts were not fully successful due to various obstacles, like the vastness of the area of Indonesia, the amount of poor people living in Indonesia, and the absence of an adequate social protection system. However, the main obstacle that the programs faced was the problem of

targeting; specifically the targeting of individuals and households, or in other words, the process of identifying and determining the recipients of poverty reduction programs. The targeting of individuals is important because it (i) ensures that there is budget allocation for those who need it, (ii) encourages savings of budgetary funds and makes the programs efficient. The decentralization of government in Indonesia assists in this process because *walikota* (head of the *kota*) and *bupati* (head of the *kabupaten*) are now chosen directly by their electorates so there is an incentive for them to implement more directed poverty reducing programs. One of the ways to make this happen is with accurate data, precise timing, and being locally specific.

**Table 2. Poverty Line, Percentages, and Amount of Poor People, 1996–2007
(using the 1998 method)**

Year	Poverty Line (Rp/capita/month)		Percent of Poor People (%)			Amount of Poor People (in millions)		
	Urban	Rural	Urban	Rural	U + R	Urban	Rural	U + R
1996	42.032	31.366	13,39	19,78	17,47	9,42	24,59	34,01
1999	92.409	74.272	19,41	26,03	23,43	15,64	32,33	47,97
2000 ^a	91.632	73.648	14,60	22,38	19,14	12,30	26,40	38,70
2001 ^b	100.011	80.382	9,76	24,84	18,41	8,60	29,30	37,90
2002 ^c	130.499	96.512	14,46	21,10	18,20	13,30	25,10	38,40
2003	138.803	105.888	13,57	20,23	17,42	12,20	25,10	37,30
2004	143.455	108.725	12,13	20,11	16,66	11,40	24,80	36,10
2005 ^d	150.799	117.259	11,68	19,98	15,97	12,40	22,70	35,10
2006 ^e	174.290	130.584	13,47	21,81	17,75	14,49	24,81	39,30
2007 ^f	187.942	146.837	12,52	20,37	16,58	13,56	23,61	37,17

Source: Statistics Indonesia (BPS).

Note:

^a Results of estimates include Nanggroe Aceh Darussalam dan Maluku.

^b Results of estimates include Nanggroe Aceh Darussalam.

^c Includes estimates of the four provinces (Nanggroe Aceh Darussalam, Maluku, North Maluku, and Papua) which were not included in the sample of the National Socioeconomic Survey, Consumption Module 2002.

^d National Socioeconomic Survey, Consumption Module 2002 for household panel (10,000 households), February 2005.

^e National Socioeconomic Survey, Consumption Module for household panel, March 2006. Includes the results of estimates from Nanggroe Aceh Darussalam.

^f National Socioeconomic Survey, Consumption Module for household panel, March 2007.

The SMERU study shows that with the rolling out of this government program, some people manage to move out of poverty. In Table 3 it is shown that 42.8% of poor people in 2005 moved out of poverty in 2006. Conversely, 25.4% of people who were not living in poverty (the near-poor and not poor) in 2005 became poor in 2006. This showed that there were changes in the welfare levels within Indonesian society, poor people became not poor, or conversely, people who were not poor became poor.

Table 3. Poverty Transition Matrix 2005–2006 (%)

		2006			Total
		Poor	Near-poor	Not Poor	
2005	Poor	57,2	29,6	13,1	100
		52,2	15,9	4,1	-
	Near-poor	21,3	49,3	29,4	100
		35,3	48,0	16,6	-
Not Poor	4,1	20,1	75,9	100	
	12,5	36,1	79,3	-	
Total	-	-	-	-	
	100	100	100		

Source: Based on SMERU's calculation of the National Socioeconomic Survey, Consumption Module for household panel, February 2005 and March 2006.

III. CRITERIA FOR MEASURING POVERTY

3.1 Criteria for Measuring Poverty according to the National Population Family Planning Coordination Agency (BKKBN)

Early in the New Order government, data used by the government, including family data was disseminated to each department according to its importance. The systems and procedures between departments was different making it difficult to collate the information to become a national dataset.

The National Family Planning Coordination Agency (BKKBN) then began recording and observing families in Indonesia and the results of this were compiled in one national data base. This census system was carried out consistently with monthly reports from community health centers (*puskesmas*) to the BKKBN center which included amongst other things data on the number of people using contraception. In 1985, the BKKBN developed a census system and carried out a national family planning survey. In 1994, the BKKBN added two sections to its survey, these being an indicator of family welfare and the demographic characteristics of families. The section on family welfare was used to target poor families and was divided into five welfare categories, they were pre-welfare families (pre-KS), welfare family 1 (KS1), welfare family 2 (KS2), welfare family 3 (KS3), and welfare family 3 plus (KS3 Plus).

In assigning the welfare level of families the BKKBN used 23 indicators, these being:

1. family members are unable to worship according to their religion
2. all family members do not eat at least two times a day
3. not all family members do not have different clothes for wearing at home, to work, to school and when travelling
4. the largest part of the floor of their house is bare earth
5. when their children are sick they are unable to take them to a health facility

6. family members do not regularly worship according to their faith
7. the family does not eat meat/fish/eggs at least once a week
8. each family member do not obtain at least one set of new clothes per year
9. there is not a minimum floor space of at least 8m² per person in their dwelling
10. there was a family member who was sick in the last three months
11. there are no family members fifteen years or older who have a permanent income
12. there are family members between 10 and 60 years old who cannot read or write
13. there are children aged between 5 to 15 years old who do not go to school
14. if the family has two or more children and does not use contraception
15. the family are able to increase their religious knowledge
16. a part of the family's income is saved
17. the family eats together at least once a day and communicates with each other
18. the family participates in community activities
19. the family leaves the house for recreation at least once a month
20. the family has access to news from newspapers, radio, television, and magazines
21. family members are able to use local public transport facilities
22. the family contributes regularly to social activities
23. at least one of the family members is active in the management of a local organization

A family is categorized as Pre-KS if it does not fulfill their minimum basic needs or cannot fulfill indicators one to five, a KS1 family if it can only fulfill indicators one to five, a KS2 family if it can only fulfill indicators one to fourteen, a KS3 family if it can only fulfill indicators one to twenty-one, and a family is categorized as KS3 Plus if it can fulfill all indicators from one to twenty-three.

A census based on these criteria was carried out in stages. The village cadres, the village family planning assistant (PPKBD) and sub-PPKBD collected data at the village level. Then the family planning field advisors (PLKB) summarize the results of this data for inclusion in the subdistrict (*kecamatan*) report. At the *kecamatan* level PLKB supervisors review and summarize the data from all villages in the area, then an official at the district or city level manages the data which has been obtained by the *kecamatan* personnel.

During the economic crisis of 1997/1998, the BKKBN grouped poor families into Pre-Welfare Plus Families (KPS Plus), these were families who fulfilled the criteria for KPS as well as an extra five criteria, these being: (i) the head of the family had lost their job (PHK), (ii) the children had dropped-out of school, (iii) they were not able to access medicine if ill, (iv) they were not able to eat at least two times a day, and (v) were not being able to consume side dishes high in protein.

The BKKBN data was used by both the government and private agencies to target their programs, such as the People's Welfare Savings Program, Business Credit for Prosperous Families and the National Movement for Foster Parents. Moreover, during the economic crisis of 1997/1998 BKKBN data was used for targeting JPS programs, for example, the Rice Specific Market Operation by the Food Logistics Agency (Bulog).

3.2 The BPS Criteria for Measuring Poverty as used in the 2005 Socioeconomic Census (PSE05)

In 2005 Statistics Indonesia carried out a census to enable targeting of the Direct Cash Transfer program (BLT) under the guidelines of Presidential Instruction No. 12/2005. The census was called the 2005 Socioeconomic Census, or as it was more commonly known, PSE05. The aim of PSE05 was to obtain a list of names and addresses of poor households, a ranking of poor households based on their level of severity in *kecamatan* and *kota*, and to group these poor households into very poor, poor, or almost poor categories.

The census was carried out using the smallest administrative unit in Indonesia, known as the Unit of Local Surroundings (SLS), as the basis of the data collection domain. Generally the smallest SLS in Indonesia is the neighborhood association known locally as RT (*rukun tetangga*) or *banjar* in Bali, *jurong* in West Sumatra, and *kampung* or *dusun* in areas which are yet to form a neighborhood association.

3.2.1 Poverty Variables

In defining poor households, the BPS used 14 variables to determine if a household was able to be categorized as poor. These fourteen variables are:

1. the size of their dwelling
2. the type of floor
3. the type of walls
4. the type of toilet facilities
5. the source of water
6. the source of light
7. the type of fuel that the occupants use for cooking
8. the frequency that they purchase meat, chicken and milk in a week
9. the amount of meals that they eat each day
10. the amount of sets of new clothes that they buy in a year
11. their access to community health clinics (*puskesmas/poliklinik*)
12. their access to employment opportunities
13. the highest education level attained by the head of the household
14. their ownership of assets

In the PSE05, a household would be defined as poor whenever:

1. the area of floor in the dwelling is less than 8m² per person
2. the floor of the dwelling is made from earth or bamboo or scrap wood
3. the walls of the dwelling are made from bamboo or palm fronds or low-quality wood or bricks without render
4. there are no proper toilet facilities or they join with their neighbors in using one toilet
5. the source of lighting in the dwelling does not use electricity
6. the drinking water comes from a well or water source which is not protected/river water/rain water
7. fuel for daily cooking is wood/charcoal/kerosene
8. the consumption of meat/chicken/milk is only once a week

9. they are only able to buy one set of new clothes in a year
10. they are only able to eat once/twice a day
11. they are cannot afford to pay for the cost of medical treatment in a community health center (*puskesmas/poliklinik*)
12. the source of income of the head of the household is from: farming with an acreage of less than 0.5 hectares, being a farm laborer, a fisher, a construction worker, a plantation worker or any other type of work that has an income of less than Rp600,000 per month
13. the education attained by the head of the household is that they never attended school or did not graduate from elementary school or had only attended elementary school
14. does not have any savings or goods which could be easily sold with a value of Rp500,000 such as a motorbike (credit or non-credit), gold, livestock, boat, or other investment goods

Using the abovementioned criteria, staff from the BPS visited pockets of poverty to obtain information from the heads of the SLS, such as the head of the RT or the head of the *dusun*, about households that were definitely considered poor. Based on this information the BPS staff came and interviewed the heads and members of those families in more detail.

The results of the census of these poor households were assigned a value of 1 or 0. A value of 1 indicated a variable identifying a poor household, a value of 0 indicated a variable identifying a household that was not poor. The more 1 values a household received, the more severe the situation of poverty was in that household. Even so, identifying poor households in one area was different than in other areas, so that a re-weighting of values was needed to determine the quantity of poor households. By re-weighting the index of values, the category of poverty in a given household could be obtained and used to differentiate between households that are identified as: very poor, poor, near-poor, and households that are not poor.

3.3 The BPS Criteria for Measuring Poverty as used in the 2008 Social Protection Program (PPLS) Census

The government is tireless in its efforts to reduce the amount and levels of poverty in Indonesia through its various welfare programs. In the matter of targeting its programs, the government updates the targets of its programs—for example the BLT Program—by renewing its dataset. In 2008, the government through the BPS updated the data for program recipients with a renewal of the PSE05 data and named it the 2008 Social Protection Program census (PPLS). The updating of the data took place in October of 2008 and was intended to assist the BLT Program in reaching a wider range of groups in society, specifically households that were burdened by the effect of the rise in fuel prices. AS a result of this the 2008 PPLS census not only captured households that were very poor and poor as in the PSE05 census, but also households that were identified as near-poor.

The updating of the PSE05 data as part of the 2008 PPLS census used a household characteristics approach with 14 qualitative variables to explain poverty, these were:

1. floor space per capita
2. type of floor
3. type of wall
4. provision of toilet facilities
5. source of drinking water
6. source of lighting

7. source of fuel
8. frequency of purchasing meat/chicken/milk
9. frequency of eating per day
10. frequency of purchasing new clothes
11. ability to obtain medical treatment
12. employment opportunities for the household head
13. highest education of the head of the household
14. assets that the household possesses

3.4 Regional Government Poverty Census

Several regional governments in Indonesia, like the Provincial Government of DKI Jakarta and the Provincial Government of East Kalimantan have already carried out a welfare/poverty census. In DKI Jakarta, there are seven variables which are used to determine poor households, which are: (i) the area of the dwelling per capita is less than 8m², (ii) the floor of the house is bare earth or bamboo in poor condition, (iii) the occupants do not have access to clean water facilities; (iv) the dwelling does not have a latrine/WC, (v) there is no variation in the consumption of food, and (vi) households are not able to purchase a new set of clothes for every household member during a year, and (vii) they do not own household assets which are productive. A household can be deemed poor when it fulfills three out of the seven abovementioned variables. Indicators or variables used by the BPS in the Province of DKI Jakarta are developed from variables determined by Statistics Indonesia.

Statistics Indonesia of the Province of DKI Jakarta previously carried out a census of poor households in 2002 and the results were recorded in the document “List of Names and Addresses of Poor Households in DKI Jakarta 2002”. On this list were recorded the names, ages, addresses, highest level of education, marital status, type of occupation, and type of identity card (KTP) of the household head, and the amount of children in the groups; 0–4 years old, 4–6 years old, 7–12 years old, 13–15 years old, and if they were still at school or not.

The Governor of DKI Jakarta instructed agencies and regional government work units (SKPD) within the area of the Province of DKI Jakarta to use data from the BPS to ensure the similarity of the data being used. Prior to this instruction from the Governor of DKI Jakarta, the data used was from the BKKBN. The Statistics Indonesia census and the BKKBN census provided different results because they used different approaches. Statistics Indonesia census used the household unit in their approach, whereas the BKKBN census used the family unit in their approach. The difference in the use of the household and family units resulted in a difference in calculation of the amount and percentage of poor households or families.

IV. RESULTS OF THE SMERU STUDY

4.1 Poverty Mapping and its Verification

The study and verification of poverty mapping is a merger of quantitative and qualitative studies. The quantitative analysis used Statistic Indonesia data to compare levels of inter-regional welfare. The results of this quantitative analysis were verified using the qualitative method of focus group

discussions (FGD) with stakeholders in the research area, at the provincial, *kabupaten/kota*, *kecamatan* and village/*kelurahan*³ levels.

The result of verification showed compatibility in the regional ranking at the provincial, *kabupaten* and *kecamatan* levels and the condition of people's welfare at the village level reflecting a reasonably consistent result in defining the poverty map. This was evident in the high level of correlation (0.69) at the provincial level (*kabupaten/kota* ranking). At the *kabupaten/kota* level (*kecamatan* ranking) the results of defining the poverty map were even higher showing a very high correlation. Meanwhile, at the *kecamatan* level (village/*kelurahan* ranking) the consistency in the correlation between the results of defining the poverty map and the income of people were far more inconclusive.

The characteristics or indicators used for measuring community welfare at the provincial, *kabupaten* and *kecamatan* level are similar, for example common factors like education, health, and income. This shows that local people themselves have perceptions or measurements that are relatively similar in seeing the welfare condition of people in their own area. In spite of this, there were specific characteristics found which distinguished one village from the other. For example, the ability of residents in a particular village to make the pilgrimage to Mecca could be one of the indicators of prosperity; however this may not be an indicator of prosperity in another village.

4.2 Moving out of Poverty

The SMERU study entitled Moving Out of Poverty (MOP) was carried out in three provinces: Jawa Timur (East Java), Maluku Utara (North Maluku), and Nusa Tenggara Timur (East Nusa Tenggara). The study was aimed at finding answers to the questions, why and how do rich families stay rich (always rich), rich families become poor (faller), poor families move out of poverty (mover) and poor families stay poor (chronically poor).

The methodology of this research was a combination of quantitative and qualitative approaches. In the quantitative approach the instrument used was a list of structured questions to produce data and information about the extent of the variety of experiences a person has in moving out of poverty and also identifying the factors which have a strong influence on those efforts to move out of poverty.

Qualitative approaches are carried out through interviews and focus group discussions with key informants and local residents from groups of both men and women. This approach is taken in order to obtain answers to questions of why and how a person can move out of poverty and also discover if the factors that have been identified are multidimensional in nature.

The results of the Moving Out of Poverty study showed the existence of a poverty dynamic influenced by social structure, agency and gender factors.

The influence of structural factors concerning the poverty dynamic is shown in the existence of an elite group—like a group of nobles—who continually gain preferential rights to hold positions of local leadership. The weak bargaining position of average citizens tends to influence their efforts to improve their welfare. The influence of an economic gap over efforts to improve welfare is reflected in, among other things, the chance to exploit economic opportunities, for example, access

³A *kelurahan* is a village-level administrative area located in an urban center.

to capital. Besides this, political participation is carried out incrementally and selectively and the actors are generally men who come from noble local families.

The influence of agency factors—the capacity to act, which is possessed by individuals and groups in society in order to achieve their goals/interests—towards the poverty dynamic are shown in the ownership of material assets, individual prosperity (like the state of their health and level of education) and social-political-psychological abilities.

The influence of gender factors on the poverty dynamic is shown by the existence of a power system within families that is normally dominated by males; and generally, females have a smaller role in the process of decision-making at the community level. The number of families deemed to be poor families which are headed by a woman are greater than the number of families with the same status that are headed by a man, even though families which are headed by either a man or a woman have relatively the same access to credit and information.

4.3 Community-Based Welfare Monitoring System

The SMERU Research Institute has twice carried out a community level census using a Community-Based Monitoring System (CBMS). The first census was carried out in villages in Kabupaten Cianjur and Kabupaten Demak, whereas the second census was carried out in Kota Pekalongan. CBMS is basically one of the ways of identifying the welfare of residents by involving local people, using a simple and time-saving design.

The CBMS census system can be very easily carried out by regional governments. In the census process, the regional government in conjunction with local residents carries out the census using a list of easily understood questions. Analysis of the data forms a ranking of family welfare which is produced after the census has been completed. The advantage of using data collectors chosen from among local residents is that they know the customs and habits of residents in the area more so than data collectors coming from outside the census area. The list of questions are designed to be easily understood by the data collectors so that the census work can be carried out by those members of the community with a relatively low level of education—junior high school graduates are considered sufficient. The final analysis is in the form of a ranking of family welfare levels which is completed after the census and which can minimize the potential for cheating during the data collection process.

The collection of CBMS data is carried out using two different sets of structured questions, these being a questionnaire for the families and a questionnaire for the heads of the RT⁴. Information and/or data collected for analysis using a descriptive and principal component analysis is known by the term Principal Component Analysis (PCA). A PCA is a statistical method for mitigating the multidimensionality of the dataset while continuing to control the variation in the data. With the use of PCA, a ranking of prosperity (or of poverty) among the families in an area can be derived from the data. Additionally, with the use of this method, variables which influence the levels of family welfare in a given area can also be identified more specifically because the size of prosperity or poverty factors can differ between one area and the next (tendency to be locally specific). Various indicators of prosperity are produced by a PCA and factors or variables which contribute to the levels of community welfare can be identified and become input in the creation of programs and the prioritizing of development in a region.

⁴RT, or neighborhood unit, is the smallest unit of local administration consisting of a number of households.

Data collection in four villages in Kabupaten Cianjur and Kabupten Demak produced family welfare indicators specific for each village which can then be used to rank families based on their level of prosperity to improve the application of programs to reduce poverty. The indicators were grouped into seven groups of variables with each group covering sixty-three individual variables. The seven groups of variables are: ownership of assets; ownership of livestock; the marital status of the head of the family; the sex of the head of the family, and; the highest level of education of the head of the family and their partner, their occupation and employment sector.

Questions on ownership of assets included those concerning the ownership of a fridge, a home phone, a fan, an air conditioner, a satellite dish, a DVD/VCD player, a color television, a motor vehicle, land, and/or a house. Ownership of livestock included chickens, goats, and/or cows. Marital status of the head of the family inquired if the head of the family was married. The question on the sex of the head of the family inquired if this person was male or female. The education level question asked about the highest level of education attained by the head of the family and their partner. The question concerning work inquired if the head of the family and their partner were working and in which sector; agriculture, industry, retail, service, or unemployed (and receiving money transfer transfers⁵).

Nevertheless, one variable in a village can have a different weighting in a different village. Moreover, the variables of welfare levels in one village can be different from the variables of welfare levels in a different village. The result of a pilot of the CBMS census data in Cianjur and Demak showed the difference in the variables and their weighting as can be seen in Table 4.

Table 4. The Variables and Weights for Determining Community Welfare

Village A		Village B	
Variable	Weight	Variable	Weight
Own a fan	0,27	Own a color TV	0,28
Own a color TV	0,26	Own a fan	0,26
Own a DVD/VCD player	0,26	Own a DVD/VCD player	0,25
Own a tape recorder	0,25	Female as head of household	-0,23
Own a motorbike	0,25	Own a motorbike	0,23
Own a fridge	0,23	Own a tape recorder	0,23
Own a mobile phone	0,22	Head of the family is married	0,22
Use a private toilet/bathroom	0,21	Own a bicycle or canoe	0,22
Own other electronic appliances	0,19	Use a private toilet/bathroom	0,21
Own a radio	0,19	Live in an earth-floor house	-0,21
Live in a earth-floor house	-0,19		
Village C		Village D	
Variable	Weight	Variable	Weight
Own a fridge	0,26	Own a fridge	0,26
Own a phone	0,25	Own a color TV	0,26
Have a savings account	0,24	Own a mobile phone	0,26
Own a fan	0,24	Own a DVD/VCD player	0,23
Own a satellite dish	0,24	On a fan	0,22
Own a DVD/VCD player	0,24	Have a savings account	0,22
Own a color TV	0,24	Own a tape recorder	0,20
Own a motorbike	0,21	Use a private toilet/bathroom	0,20
Education level of family head: elementary school	-0,20	Consume meat less than once a week	0,18
Own a tape recorder	0,19	Own a motorbike	0,18

⁵Receiving transfers from other family members.

V. CRITERIA FOR DETERMINING THE POOR

One of the consequences of Law No. 52/2009 concerning Population Growth and Family Development, notably Article 41, Clause 2 which states that further provisions concerning the criteria of defining the poor and the procedure for their protection will be regulated by the government. This means that determining who the poor are, the unit of data collection, the gatherers of the census, and the criteria for being poor becomes very important in efforts to obtain data that is accurate, valid, and accountable. As a result of this SMERU introduced a Community-based Welfare Monitoring System. In order to determine who the poor are two steps are required the first is defining the target area and the second is defining the poor.

5.1 Targeting Areas

The party responsible for population growth and family development is the government. The Indonesian central government sets out the national policy, guidelines, standards, procedures, and the criteria for population growth and family development. The provincial government sets regional policy and facilitates the implementation of the guideline which has been determined by the central government, whereas the *kabupaten/kota* local government determines the implementation of the population growth and family development in their respective areas.

Based on the Susenas data from Statistics Indonesia, the central government has identified several of its programs to be implemented from the provincial through to the *kabupaten/kota* level, whereas the actual targeting or determining of the poor becomes the responsibility of the *kabupaten/kota* government.

5.2 Determining the Poor

The program allocation determined by the central government in an area (*kabupaten/kota*) is implemented by the district/city government by taking the steps of defining the poor in their area. To determine the criteria of being poor, there are several requirements regarding the scope and definition of family, the collectors of the census data, the criteria of defining what poor means, and the tools of analysis for determining who the poor are. The *kabupaten/kota* government is responsible for collecting this data.

5.2.1 The Scope and Definition of Family in the Census

Indonesian Law No. 52/2009 concerning Population Development and Family Growth states that the units to be used for calculating poverty are residents and families, not households. In this law it is mentioned that a family is the smallest unit in Indonesian society which consists of a husband and wife, or a husband, wife and children, a father and his children, or a mother and her children.⁶ These definitions of a family need to be extended in relation to the reality of families found in society today, for example, a husband who has more than one wife, women who have children without being married, marriages that were carried out according to custom/religion/*sirri*, and other similar cases.

⁶Law No. 52/2009 on Population Growth and Family Development, Chapter 1, General Provisions, Article 1.

Using the definition of a family given above, it is possible that a household could consist of one or more families.

5.2.2 Implementing the Census

The implementers of the census have to have the same perception about the method, definition, and variables that are to be used in the data collection phase. For this it requires training or guidance of the collectors and coordinators of the census in every region.

To obtain data that is accurate and can be accounted for, the data collectors should be local residents who are communicative and able to read and write. Due to the fact that they are local residents themselves, the data collectors are expected to know the culture, customs, and habits of the people who will be recorded in the census, like the language that they use on a daily basis, the appropriate time to collect data, and other factors which will make it easy to update the census data at a later stage. The data collectors need to be communicative because it is expected that they will be able to communicate well with local residents so that the data which is obtained is real and actual. It is a requirement that the data collectors can read and write, although their level of education does not need to be high, for example, it is enough for them to be a junior or senior high school graduate.

In choosing data collectors who are local residents, that are communicative and can read and write, it is expected that the obtained data is clear and accurate. Data that is clear and accurate will become the primary asset in the analysis of determining who the poor are in that particular area.

5.2.3 Criteria for the Poor

From the various criteria for establishing what poverty is and who poor people are that are determined by various institutions and based on studies that have been undertaken by SMERU, it can be concluded that determining poverty in Indonesia needs local wisdom for those stakeholders, such as local governments, nongovernmental organizations, and other institutions. This is caused by the reality that the characteristics of poverty in one area are different from the characteristics of poverty in other areas.

Determining the criteria for the poor can be seen based on groups of variables and the individual variables within these groups. A group of variables covers wealth and assets, ownership of livestock, marital status, the sex of the head of the family, the highest level of education of the head of the family and their partner, employment status, usual employment sector, access to financial institutions, consumption of food and health indicators, other welfare indicators as well as political participation and access to information.

Variables that are included in the group of ownership of assets are ownership of: a fridge, telephone, fan, air conditioner, satellite dish, DVD/VCD player, color television, black and white television, radio, tape recorder, computer, sewing machine, mobile phone, other electronic devices, motorbike, car, bicycle, land and house.

The ownership of livestock by families includes the ownership of chickens, goats or cows. Marital status is married or not married. The sex of the head of the family is male or female.

Other variables in determining the poor are the highest level of education attained by the head of the family and their partner. In terms of employment, the indicator is if the head of the family is working, and/or their partner, and/or other members of the family are working. The employment sector indicator is the sector that the working members of the family are in; agriculture, industry,

sales, service or if the family receives monetary transfers from other family members (because they are unemployed).

In terms of family access to financial institutions, the indicator is whether the family has any savings. Meanwhile, in regard to food consumption the indicators are whether the family eats a minimum of two times a day and if the family eats meat/fish/eggs at least once a week. Health indicators are if the family seeks medical treatment at a modern health facility when sick, if their drinking water is taken from a protected well, does the family have a private bathroom/toilet facility, does their house have a minimum area of 8m² per family member, is the floor of their house is a earth floor, and have they had any children under the age of five years old who have died in the last three years.

In terms of political participation and access to information, the indicators are whether family members voted in the general election at the national or local level and whether family members access information from the TV or read a newspaper at least once a week

Other welfare indicators are the use of electrical lighting in the house, the existence of school-aged children in the family who have dropped-out (DO) of school, the amount of people who are the responsibility of the head of the family, and the incidences of family members becoming a victim of crime in the last year.

In addition to these variables, consideration of other local specific variables needs to be taken into account. As a result of this, in determining the criteria of the poor the use of similar nation-wide variables needs to be enhanced with variables which are specific to the particular region.

5.2.4 Tools of Analysis

To obtain variables and weightings in order to rank levels of welfare, data obtained from the census process needs to be analyzed using a descriptive analysis and basic component analysis called a Principal Component Analysis (PCA). By using the PCA a prosperity ranking (or poverty ranking) amongst families in and area, for example from within one RT or RW⁷, *dusun*⁸, village/*kelurahan*, *kecamatan* or even within one *kabupaten* or *kota*, can be created.

⁷RW is a unit of local administration consisting of several RT (neighborhood units) within a *kelurahan*.

⁸A *dusun* is an administrative area within a village, consisting of a number of RT.

LIST OF REFERENCES

- Law No. 23/2006 on Population Administration [Undang-Undang Nomor 23 Tahun 2006 tentang Administrasi Kependudukan].
- Law No. 52/2009 on Population Growth and Family Development [Undang-Undang Nomor 52 Tahun 2009 tentang Perkembangan Kependudukan dan Pembangunan Keluarga].
- Statistics Indonesia (BPS) (2009) 'Profil Kemiskinan di Indonesia, Maret 2009' [Poverty Profile of Indonesia, March 2009], in *Berita Resmi Statistik No. 43/07/Th.XII*, July 2009.
- — — (2005) *Pelaksanaan Pendataan Rumah Tangga Miskin 2005* (Implementation of a Census of Poor Households).
- Suryadarma, Daniel, Akhmadi, Hastuti, and Nina Toyamah (2005) 'Objective Measures of Family Welfare for Individual Targeting: Results from the Pilot Project on Community Based Monitoring System in Indonesia.' SMERU Research Report. Jakarta: SMERU Research Institute.
- Suryahadi, Asep dan Sudarno Sumarto (2001) 'The Chronic Poor, the Transient Poor, and Their Vulnerability in Indonesia Before and after the Crisis', Jakarta: SMERU Working Paper.
- Wrihatnolo, Randy R. (2008) 'Metodologi Penentuan Variabel Rumah Tangga Miskin', [Methodology for Determining the Variables of Poor Households] [online] <<http://wrihatnolo.blogspot.com/2008/08/metodologi-penentuan-variabel-rumah.html>> [10 March 2010].

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