



Field Report

Verifying the Accuracy of the Community Based Monitoring System in Targeting Poor Households

Verification Results in Two Sample Villages

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December 2006

Verifying the Accuracy of the Community Based Monitoring System in Targeting Poor Households: Verification Results in Two Sample Villages/Akhmadi et al. – Jakarta: SMERU Research Institute, 2006

v, 46 p. ; 31 cm. – (SMERU Field Report, December 2006)

ISBN 978-979-3872-31-5

1.	Community Based Monitoring System	I. SMERU
		II. Akhmadi

362.5/DDC 21

ABSTRACT

Targeting has been a recurring problem in implementing a program. The SMERU Research Institute has developed a data collection system based on the local community and the analysis is conducted objectively by utilizing the Principal Component Analysis method. The data collection system is known as the Community Based Monitoring System (CBMS). The system is acknowledged to have high accuracy and in fact, in the Philippines, it has been made a national policy. In Indonesia, the utilization of the system has been tried out in four villages in West Java and Central Java. The results of the CBMS tryout could identify the families in the villages based on the family welfare ranking, starting from the most prosperous family to the least prosperous or the poorest.

To test the accuracy of the results of the CBMS pilot test in Indonesia, SMERU conducted a verification utilizing the focused group discussion (FGD) method in two of the four tested CBMS villages. The verification results show that CBMS calculation results have quite high accuracy. CBMS is able to correctly rank the RW and hamlets based on the family welfare in each of the respective area. The accuracy of the results will sharpen the area targeting in conducting a program. Furthermore, CBMS is also able to predict the ranking of family welfare with quite high accuracy, so that in the end it is expected that subjectivity in the targeting of a program can be minimized.

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LIST OF ABBREVIATIONS AND ACRONYMS

Askeskin	: Asuransi Kesehatan untuk Rakyat Miskin/Health Insurance for the Poor
BBM	: Bahan Bakar Minyak/Petroleum Gas
BKD	: Badan Kredit Kecamatan/Subdistrict Credit Board
BKKBN	: Badan Koordinasi Keluarga Berencana Nasional/
	National Family Welfare Coordination Board
BPS	: Badan Pusat Statistik/Statistics Indonesia
FGD	: Focused Group Discussion
JPS	: Jaring Pengaman Sosial/Social Safety Net
KK	: Kepala Keluarga/Head of Family
KM/WC	: Kamar Mandi/Water Closet/Bathroom/Toilet
PBB	: Pajak Bumi dan Bangunan/Land and Building Tax
PCA	: Principal Component Analysis
PDAM	: Perusahaan Daerah Air Minum/Regional Drinking Water Company
PHK	: Pemutusan Hubungan Kerja/Lay-off
PKK	: Pembinaan Kesejahteraan Keluarga/Family Welfare Guidance
PLN	: Perusahaan Listrik Negara/State-owned Energy Company
PNS	: Pegawai Negeri Sipil/Civil Servants
PT	: Perusahaan Terbatas/Public Limited Company
Puskesmas	: Pusat Kesehatan Masyarakat/Community Healthcare Center
RT	: Rukun Tetangga/Neighborhood Association—the lowest administrative unit
RW	: Rukun Warga/Neighborhood Unit—consisting of several RT
SD	: Sekolah Dasar/Primary School
Sembako	: Sembilan Bahan Pokok/Nine Basic Needs
SKTM	: Surat Keterangan Tidak Mampu/Letter Stating Poverty Condition
SLTA	: Sekolah Lanjutan Tingkat Atas/Senior High School
SLTP	: Sekolah Lanjutan Tingkat Pertama/Junior High School
SPKM	: Sistem Pemantauan Kesejahteraan oleh Masyarakat/
	Community Based Monitoring System
TKI	: Tenaga Kerja Indonesia/Indonesian Migrant Workers
TKW	: Tenaga Kerja Wanita/Indonesian Female Migrant Workers
Wartel	: Warung Telekomunikasi/Telecommunication Kiosk

I. INTRODUCTION

1.1 Background

Many poverty reduction programs and projects have been conducted by the government, both central and local, and by private institutions. Over the years, a factor that has been a problem in implementing a program or a project is the identification of targets and the accuracy of the targeting. Therefore, it is not surprising that mistargeting is still found in the monitoring and evaluation activities conducted by a number of institutions. For example, the research conducted by the GTP-JPS Control Team (2000) on the Social Safety Net (JPS) for the Educational Sector finds that "the allocation for each district/municipality (*kabupaten/kota*) from the central administration is not supported with accurate statistical data and so it is likely that the targeting of the scholarship recipients is inaccurate" (21). When monitoring the JPS for the Health Sector, the team also concludes that

...the data from the BKKBN as the foundation to determine the target group cannot always be applied in every region, and thus, some mistargetings have occurred. This is because of the data that uses "owning a house that is only dirtfloored" as one indicator to determine pre-prosperous families, while actually, the family interviewed owns cows, goats, and a satellite dish, and therefore, cannot be categorized as pre-prosperous. However, based on the criteria determined by BKKBN, this family belongs to the pre-prosperous family group, hence they are provided with health facilities. This happened in Surabaya, East Java, and Simalungun, North Sumatra (GTP-JPS Control Team 2000:22).

The study conducted by Hastuti & Maxwell (2003) on *Raskin* (Rice for the Poor) Program finds that in one village group, all efforts to conduct the targeting on particular families had been abandoned, and *Raskin* rice was given in a relatively equal amount to all families in the village based on a "first come, first served" basis. This kind of targeting inaccuracy should be avoided, at least minimized, when conducting similar programs in the future.

In 2005, the SMERU Research Institute, in cooperation with BKKBN, conducted a pilot test on the implementation of the Community Based Monitoring System (CBMS) in two districts, Kabupaten Cianjur in West Java and Kabupaten Demak in Central Java. The system was aimed to objectively identify the welfare of a family in a region, so that if it is applied for a program or a project, it can reduce the targeting inaccuracy. In this system, data collection is done by the local community, and the data processing and its analysis are conducted by SMERU, utilizing the Principal Component Analysis (PCA) method.¹

The estimation results of the determination of the ranking of family welfare in a region that utilizes the PCA method need to be tested to see their accuracy by conducting field verification. Cibulakan Village in Cianjur and Kedondong Village in Demak are the CBMS test villages selected as the locations to conduct Focused Group Discussions (FGDs) in this CBMS verification activity.

¹See Suryadarma et al (2005) on the results of the Community Based Monitoring System.

1.2 Methodology

The CBMS verification is conducted by seeing how CBMS results match with the community evaluation. The CBMS results are taken from the data collected by the village community, the processing and analyzing of which utilize the PCA method, while the community evaluation towards the family welfare in the village is obtained through FGDs. The FGDs with the village community are done in two levels, the village level FGD and the RT level FGD.²

The village level FGD is conducted to gather information about the classifications of family welfare, along with its indicators and characteristics at the village level, and the ranking of inter-RW and inter-hamlet family welfares. FGD at the village level is attended by community figures, village religious figures, representatives of each RW, and local people with various professions who know much about the family welfare in the village, such as midwives and teachers who live in the respective villages, as well as village officials.

Meanwhile, the FGD at the RT level is conducted in two RT of each village. The selection of the RT uses the following criteria: (1) one RT should be far from the economic center or the village administration, while the other should be close to it; (2) one RT should have between 100 and 200 families and the other should have between 50 and 100 families; and (3) both RT should have families with quite diverse or heterogenic socioeconomic ranking so that the FGD participants can differenciate and rank the inter-family welfare. The FGD participants at the RT level are the residents of the RT, consisting of community figures, religious leaders, youth leaders, RT officials, and people with various professions who may know a lot about the family welfare in their respective RT, such as teachers, traders, motorcycle taxi (*ojek*) drivers, and housewives, so that the family welfare in the RT can be classified and ranked well.

CBMS verification is conducted in four stages. In the first stage, the FGD participants estimate the proportion of family welfare at the village level. The estimation results are also used as the foundation for calculating the proportion of family welfare at each RW based on the CBMS calculation. In the second stage, the FGD participants estimate the proportion of the family welfare at each RW, the result of which are compared with the family welfare proportion of each RW based on the CBMS calculation. In the third stage, the FGD participants rank the inter-RW and inter-hamlet welfares, which are then compared with the inter-RW and inter-hamlet welfares based on the CBMS calculation. In the fourth stage, the classification and/or ranking results of the family welfare of the chosen RT are compared with the ranking results of the family welfare based on the CBMS calculation in the respective RT.

The FGDs were conducted in July 2006 in Cibulakan Village (Cianjur) and in September 2006 in Kedondong Village (Demak). These FGDs were conducted by four SMERU researchers: Akhmadi, Daniel Suryadarma, Hastuti, and Rizki Fillaili.

²The administrative levels in Indonesia, starting from the largest to the smallest, are as follows: province (*provinsi*), district (*kabupaten*), subdistrict (*kecamatan*), village (*desa*), hamlet (*dusun*), RW, and RT. The word 'hamlet' used in Suryadarma et al (2005), meanwhile, refers to RT. Furthermore, there are many instances where a *dusun* is not available, so the administrative level goes straight from village to RW.

II. GENERAL DESCRIPTIONS OF THE FGD LOCATIONS

The two villages selected as the place for the FGDs to verify the CBMS were Cibulakan Village in Kabupaten Cianjur and Kedondong Village in Kabupaten Demak. The FGDs were conducted in July 2006 in Cibulakan Village and in September 2006 in Kedondong Village. In Cibulakan Village, RT 1 RW 2 and RT 1 RW 6 were chosen. RT 1 RW 2 represented the area that is close to the economic center and has many families, and RT 1 RW 6 represented the area that is far from the economic center and has few families. In Kedondong Village, RT 4 RW 1 and RT 6 RW 3 were chosen. RT 4 RW 1 represented the area that is close to the village administration or economic center and has a small number of families, while RT 6 RW 3 represented the area that is far from the center of the economic activities and administration and has many families.

2.1 The Cibulakan Village

Cibulakan Village is one of the 16 villages in Kecamatan Cugenang of Kabupaten Cianjur. Administratively, this village comprises of three hamlets, six RW, and 22 RT. Each hamlet comprises of two RW. Hamlet 1 (Panumbangan) comprises of RW 1 and RW 2. Hamlet 2 (Garogol) comprises of RW 3 and RW 4, and Hamlet 3 (Ranca Picung) comprises of RW 5 and RW 6. RW 1 through RW 5 are located along the village main road while RW 6 is two kilometers far inwards the main road and is surrounded by paddy fields.

Cibulakan Village is located about 6 km from the capital of Kabupaten Cianjur and four kilometers from the capital of Kecamatan Cugenang. Even though it is not close to the intercity roads, the village can be reached from two main roads, the Cianjur-Jakarta Road and the Cianjur-Sukabumi Road. These two roads can be reached within a 20-minute drive from Cibulakan Village. Meanwhile, the roads that connect Cibulakan Village and the two main roads are asphalted and relatively well-maintained, although they are quite narrow. The roads have made it possible for minibus public transportation to serve intervillage routes through the main roads of Cibulakan Village. This condition has helped the village residents in conducting their daily activities.

Another public transportation in this village is the motorcycle taxi (*ojek*) that serves shortdistance transportation. This *ojek* service is especially used by the people of RW 5 and RW 6 who are not served by the minibuses because these RW are not located along the village main road and the road of the RW is narrow. Besides, only motorcycle is able to pass the road to RW 6 during the rainy season.

According to the latest data from BPS,³ the size of Cibulakan Village is 200 hectares, the largest part of which, 138.3 hectares, is used to cultivate paddy throughout the year. Meanwhile, the part of the area that is used for residential area is 34.5 hectares in size. The rest is used for fishponds and public facilities.

³BPS (Statistics Indonesia) is the government's statistical agency.

Most of the residents work as farmers. Some of them have their own paddy field, although they do not necessarily work on it themselves, some of them work on their own paddy field, and some others are farm hands because they do not have their own paddy field. Most farmers plant paddy, while only a few plant vegetables or farm fish. Besides working as farmers, other occupations of the residents in Cibulakan Village are traders, workers of private companies, civil servants, and drivers of village public transport or motorcycle taxi. There are many residents who work as TKI (Indonesian workers working in foreign countries), working mostly in the Middle East Countries. The families of the TKIs are generally more prosperous than other families.

Generally, the people in Cibulakan Village still use pumps and the spring as their main sources of drinking water, even though PDAM⁴ has provided its service in this place, which means that most houses have had access to piped water, especially those living by the village main road. The residents who do not have access to PDAM can get it from PDAM watertaps in the local mosque for free.

For source of light, almost all houses have access to electric lighting, even though there are some residents who still use *petromaks* (oil-based) lamps.

Many residents already have separate bathrooms and toilets. Most houses have a bathroom, though only consisting of a bathtub which also functions as fishponds, and a private toilet facility. Only a few families still use public toilets and even fewer still use the river for bathing, washing, and as lavatory.

Meanwhile, the educational facilities in the village are limited. There are four public primary schools and one private junior secondary school. Nevertheless, other schools are relatively close. There is a public junior secondary school in a neighboring subdistrict and a senior secondary school and a college in the capital city of Cianjur. Moreover, locally managed Islamic schools are also available in the village.

There are no health facilities in the village. The only facility that once existed is no longer in use. Nevertheless, there are two nurses who hold a private practice in their houses and there is also a midwife and a traditional midwife.

Telecommunication facilities are generally available in the village. Permanent telephone access is available from the state telecommunication company (PT Telkom), even though the number of customers is very small. There is also a *wartel* (telecommunication kiosk) available for the residents. In the last few years, cellular phones have been very popular among the residents of Cibulakan Village. This is supported by several factors, among others, the decreasing price of cellular handsets, strong cellular signal, and the decreasing airtime tariffs.

Other larger infrastructures, like markets, post offices, police stations, and banks, are not yet available in the village. The residents have to go to the capital of Kabupaten Cianjur for these services. For credit purposes, the residents usually go to the bank located outside the village, to pawnshops, or to the micro financial unit of the Kecamatan Development Program (KDP).

⁴PDAM is the general name of a water company owned by the district government.

2.2 RT 1 RW 2 of Cibulakan Village

RT 1 RW 2 is an area in Hamlet 1 (Panumbangan). Part of the area of RT 1 faces the village main road, so the RT 1 RW 2 residents have easy access to the main road and have relatively high mobility. The location of RT 1 RW 2 is close to the center of the village economic activities; this makes the area of high density. Other than the houses that face the village main road, other houses can be accessed through a winding narrow road. Since the residential area is not well planned, the houses are not arranged in an orderly manner. Generally, the landparcels are narrow and some of the residents' houses are multistoried.

The number of residents in RT 1 RW 2 has increased quite significantly since 2005. When the CBMS data collection was conducted in 2005, there had been 102 families, and when the verification was conducted in 2006, the number of families had increased to 112 families. The occupation of the residents in RT 1 RW 2 is generally farming, while others work in civil service, private employment, trading, and religious-related activities.

2.3 RT 1 RW 6 of Cibulakan Village

RT 1 RW 6 is located around 2 km from the village main road, hence far from the center of the village economic activities. In addition, this RT is also separated by a paddy field from the other RT in RW 6 and the other RW in Cibulakan Village. Nevertheless, RT 1 is more scenic because it is surrounded by paddy fields and is geographically at a higher elevation than the other RT in the village. Meanwhile, the relatively small number of residents compared with that of the other RT in the village results in more spacious houses. In addition, there is a *pesantren* (Islamic boarding school), which is located next to the residents' houses. The road to this RT can be passed by cars. However, the main means of transportation for the residents from and to the village center is motorcycle, both private and public, or the residents can travel on foot.

The nuance of village life is most apparent in RT 1 RW 6. Its distance from the center of activities, its small area, and its small number of residents, as well as its many open spaces, make every activity in the RT known to most of the residents.

The number of the residents in RT 1 RW 6 has not changed much in the past one year. There were 60 families when the verification was conducted in 2006, compared with the 57 families when the data collection was undertaken the previous year. One of the causes for the small number of families is its distant location from the center of the village economic activities. Thus, the migration of the RT residents, both immigration and emigration, is relatively rare. Finally, most of the residents work as farmers.

2.4 Kedondong Village

Administratively, Kedondong Village is one of the 19 villages existing in Kecamatan Demak. It comprises of three RW and 20 RT. To get to Kedondong Village, which is around 10 km from the capital city of Demak, people can either take minibus public transportation or the Demak-Kudus/Pati intercity bus to the village border and then continue by taking *ojek* or walking.

5

The educational facilities in the village only consist of four primary schools and one kindergarten. There are no secondary schools in the village. The closest junior secondary school is 3 km away, while the closest senior secondary school is 5 km away. In addition, the closest tertiary level education institution is located 8 km away, near the Demak city center.

Even though there are no permanent health facilities in this village, private or public, there are three village midwives and two nurses who often visit the village at least once a week. Over-the-counter drugs are also widely available in the small kiosks in the village.

The people's access to and from the village is quite sufficient. The longest road is the type called the *makadam* road, which is a road that has been layered with rocks and ready to be asphalted and is passable throughout the year. Public transportation, such as minibuses and *ojek*, is available every day, at least for eight hours.

In terms of sanitation, most residents make use of the river running on the west part of the village to bathe. A resident told the SMERU researchers that only very wealthy people own a bathroom, while most families, including those who can afford to build one, prefer to use the river because they can socially interact with the neighbors when bathing. In contrast, most of the residents consume drinking water from the PDAM.

For the source of energy, most residents use firewood to cook; kerosene and gas stoves come next. Moreover, every house has an electricity connection from the state electricity company (PLN), and although there are some houses that do not get direct electricity connection, they obtain it from other houses.

Even though there is only around 1% of the residents who own telephone facilities and less than that own cellular phones, the village has several *wartel*. However, the village has no post office, and the nearest one is located 6 km from the village.

The official banks available in this village are owned by the government: BKK,⁵ which is owned by the provincial government and specializes in providing credit to small and micro enterprises, and BKD,⁶ a smaller version of BKK operating at village level. There are no other formal financial institutions in this village, even though there is a mobile bank and loan sharks that regularly visit the village.⁷

2.5 RT 4 RW 1 of Kedondong Village

RT 4 RW 1 is one of the seven RT in RW 1 in Kedondong Village. The number of families in RT 4 increased from 51 families in 2005 (during the CBMS data collection) to 67 families in 2006 (during the verification). The change in the number of families is due to, among others, families moving out of the village and the new families as the result of marriages. RT 4 is located in a flat rectangular area, with 165 meters in length and 45 meters in width. Most residents' houses face the village main road; some are in the inner part of the village

⁵See www.gdrc.org/icm/bkk.html for a short explanation about BKK.

⁶See www.gdrc.org/icm/country/id-mfi/idmfi-bkd.pdf for a short explanation about BKD.

⁷Mobile banks and loan sharks give unofficial credit with very high interest. Their customers are usually farmers needing money at the beginning of the planting season.

and can be accessed through the alleys between houses. In the west, RT 4 is separated from RT 2 RW 1 and RT 5 RW 1 by the village road; in the east, it is separated from RT 4 RW 2 by the village road; in the south, it is separated from RT 7 RW 1 and RT 5 RW 2 by the village road; and in the north, it is separated from RT 3 RW 1 by the village road. The village road surrounding the area of RT 4 is a *makadam* road and it gets dusty when vehicles pass through in the dry season.

RT 4 RW 1 is located not far from the village office and mosque. In fact, the village head lives in this RT. The residents' occupations in this RT are mostly farmers; other occupations include village officials, traders, or other occupations in the service sector such as public transportation drivers.

The community's access to education for primary school level is easy since there is a primary school in the village and it is not far from RT 4. However, if the primary school students are to continue to a higher level, they have to go to schools located outside the village.

2.6 RT 6 RW 3 of Kedondong Village

RT 6 RW 3 is one of the six RT in RW 3 of Kedondong Village. The number of families in RT 6 increased from 116 families in 2005 (during the CBMS data collection) to 122 families in 2006 (at the time of verification). RT 6 is covering a rectangular area of 165 meters in length by 80 meters in width, with a village road that halves the rectangular area. The road is a 5-meter wide *makadam* road that was built in 1988. In the west, RT 6 is separated from RT 2 RW 3 by the village road; in the east, it is adjacent to the paddy fields; in the south, it is separated from RT 5 RW 3 by the village road and a primary school; and in the north, it is separated from RT 2 RW 3 and the paddy field by the village road.

The community's access to basic education (primary school level) is very easy due to the existence of two public primary schools which are located between RT 6 and RT 5 of RW 3. However, just like the other community members in Kedondong Village, primary school students in RT 6 RW 3 who wish to continue their study to a higher level must seek the education outside of the village.

The occupation of the residents of RT 6 RW 3 is generally farming, with most choosing onion farming. Other than becoming farmers, some residents work as village officials, teachers, religious teachers, or traders. In addition, there are six families opening stalls that sell basic necessities at their houses.

III. WELFARE CONDITIONS AT THE VILLAGE AND RT LEVELS ACCORDING TO FGD RESULTS

3.1 Family Welfare Indicators in Cibulakan Village

The FGD at the village level was followed by 16 people, consisting of nine men and seven women. The FGD participants at the village level were the residents and the village officials who knew the family welfare condition in Cibulakan Village. They are midwives, teachers, religious leaders, public figures, several managers of the Village Representative Board (BPD), and village officials.

In the FGD at village level in Cibulakan Village, the participants agreed upon four classifications of family welfare: (1) rich or *beunghar*, (2) middle class or *sedeng*, (3) poor, and (4) very poor or *miskin pisan*. The FGD participants rank the family welfare into four classifications based on the seven indicators of family welfare in Cibulakan Village including income level, employment, asset ownership, housing conditions, child education, health, and food consumption pattern among the families in Cibulakan Village.

Seen from the income indicator, a rich family in Cibulakan Village at least can earn Rp2 million/month, while the income of a middle class family is between Rp1-2 million/month. The income of a poor family is between Rp500 thousand-Rp1 million/month, and the income of a very poor family is less than Rp500 thousand/month. However, income is not the only measurement to classify the family welfare. An FGD participant argued that although a motorcycle taxi driver could get Rp50,000 in one day, he still could not be classified into the middle class family because his daily income is fluctuating.

The second indicator, employment, is still related to the first indicator (income). The head of a rich family in Cibulakan Village generally has both steady jobs (with steady income) and side jobs (with side income). Among them are those who are permanent employees, are running an enterprise, or even own a factory or a rice mill. Meanwhile, the head of a middle class family generally has one steady income source, such as from being a civil servant, while the head of a poor family generally works as farm hands or construction workers, public transport drivers, and sometimes street vendors. The head of a family classified as a very poor family generally does not have a steady job, and sometimes works as a laborer, paddy field coolie, or seasonal laborer.

Seen from the asset ownership indicator, some of the rich families own a car, at least a halfhectare paddy field, a motorcycle (which is paid in cash), at least a hectare of land, a television, and a refrigerator. Meanwhile, the middle class families generally own at most a half-hectare paddy field. In addition, some of them own a car and a motorcycle, which was bought on credit, at most one hectare of land, and a television set. On the contrary, the poor and the very poor families do not have anything mentioned in the possession of the rich and middle class families.

The housing indicator among these groups of families is also different. The rich families generally live in permanent houses with brick walls and ceramic tiles covering the floor, and some of the houses are even multistoried, having private toilet and bathroom facilities. They

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own the house, the size of which is around 100 square meters. Meanwhile, the middle class families live in a permanent, albeit not luxurious, house with ceramic tiles covering the floor; there is also a private toilet facility in their house. Moreover, they own the house, the size of which is around 24 square meters ($6 \text{ m} \times 4 \text{ m}$). In contrast, the poor families' houses are generally semi permanent, are raised on a platform, are made of boards or bamboo (stilt houses), and have no private toilet facility, hence they use the public toilet facility. Finally, the very poor families do not have any house. They live in a rented house or with their parents.

Seen from the education of children indicator, the rich families generally have their children study up to college; the middle class families generally have their children study up to junior or senior secondary school; the poor families have their children study up to primary school or junior secondary school; and the very poor families have their children study up to primary school.

Seen from the health indicator, the rich families go to a general practitioner or a hospital in Cianjur, while the middle class families go to the *puskesmas* (Community Healthcare Center), the village doctor or midwife to check their health. The poor and very poor families consume over-the-counter drugs, or if they go to the *puskesmas*, they use Askeskin (Health Insurance for the Poor) so that they could check their health for free. The last two family classifications generally have a letter called the SKTM, which is issued by the village administration and states the families' financial incapacity, to make them eligible for free medical help.

Seen from the food consumption pattern indicator, the rich families generally eat three times a day with different menus, and they could choose between fish and chicken. The middle class families eat twice to thrice a day, eating chicken once a week at the most. The poor and the very poor families, meanwhile, have a similar eating pattern and differ only in the frequency, twice to thrice a day for the poor family and once to twice a day for the very poor family. Lastly they eat meat only on the Eid-al Fitri.

3.2 Family Welfare Indicators in RT 1 RW 2 Cibulakan Village

The FGD in RT 1 RW 2 was attended by 14 people, consisting of seven men and seven women. The attendants were local people and RT officials who know the family welfare conditions in RT 1 RW 2. Their occupations are, among others, religious teachers, members of women's group (PKK), RT officials, teachers, and housewives.

From the FGD results in RT 1 RW 2, there are four family welfare classifications: (1) rich or *beunghar*, (2) middle class or *sedeng*, (3) poor, and (4) very poor. The four classifications are based on the seven indicators of family welfare, which are asset ownership, housing conditions, income, employment (work), education of the children, health, and food consumption patterns.

Seen from the asset ownership indicator, in the rich family category, there are families who own a car, have at least a half-hectare paddy field, have a motorcycle (which was paid in cash), and generally wear fine clothes. The middle class families, meanwhile, generally own at most one hectare of paddy field, and do not own a car but own a motorcycle (bought on

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credit). In contrast, the poor and the very poor families own none of the things mentioned in the possession of the rich and the middle class families. In addition, the clothes of the poor families are usually used clothes.

Seen from the house condition indicator, the rich families generally own more than two houses, large (around 80 squared meters) and multistoried. Furthermore, they use a gas stove to cook. The middle class families, on the other hand, own a permanent house, whose size is around 35-40 square meters, with ceramic-tiled floor. They use a kerosene stove or firewood for cooking. In contrast, the poor families generally rent a house on platform made of bamboo or wood, and cook using firewood. The very poor families also do not have a house and use firewood as the cooking fuel.

Seen from the income indicator, the rich families in RT 1 RW 2 have an income of more than Rp2 million per month, coming from more than one source. In comparison, the middle class families earn between Rp750 thousand and Rp2 million per month. In contrast, the poor families' monthly income is only between Rp300-750 thousand, while the very poor families' income is not fixed, but is generally not more than Rp300 thousand.

Seen from the employment indicator, the rich families in RT 1 RW 2 generally rent out their houses; work as civil servants, farmers or traders; or have a car rental business—they are sometimes also called *juragan* (local business owner). The middle class families generally have steady jobs or work as a low-ranking civil servant. The families belonging to the poor class, meanwhile, work on others' paddy field (sharing the harvest with the owner) as coolies, laborers, public transport drivers, farm hands or casual workers, and some others work as farmers. In contrast, the very poor families generally work as a seasonal farm hand, earning a daily wage of Rp10 thousand, some others work as casual workers or construction helpers/laborers/assistants.

Seen from the education level of the children, children from the rich families usually study up to junior secondary school or higher (up to college), while those from the middle class families only study until they graduate from junior secondary school. Only some finish senior secondary school. Among the poor families, meanwhile, the children usually study until they finish primary school, with a small number able to finish junior secondary school. Finally, children from the very poor families only study until they finish primary school. None of them continue to junior secondary school.

Seen from the health indicator, the rich families usually receive medical treatment from general practitioners, at the hospital, or simply consume over-the-counter drugs. The middle class families, on the other hand, undergo medical treatment at the *puskesmas*; get help from private doctors, medical assistants, and hospitals; or take over-the counter drugs. In contrast, the poor and very poor families take over-the-counter drugs or go to the *puskesmas* using Askeskin so that they do not have to pay for the treatment. The very poor families have to show the SKTM in order to get free medical treatment.

Finally, in terms of food consumption pattern, the rich families generally eat three times a day with different menus. In addition, meat is always available. The middle class families, meanwhile, eat twice to thrice a day, and eat chicken or beef once a month or once a week at the most. The poor and the very poor families, in contrast, have similar food

consumption pattern, and the only difference is in the meal frequency. The poor families generally eat twice a day, sometimes three times a day, while the very poor families usually eat only once a day, sometimes twice a day. Furthermore, the poor and very poor only eat meat on Eid al-Fitri.

3.3 Family Welfare Indicators in RT 1 RW 6 Cibulakan Village

The FGD in RT 1 RW 6 was followed by 19 people, consisting of 15 men and four women. The participants were comprised of teachers, religious teachers, RT officials, *ojek* drivers, and housewives.

From the FGD results in RT 1 RW 6, there are four classifications of family welfare: (1) rich or *beunghar*, (2) middle class or *sedeng*, (3) poor, and (4) very poor. These classifications are based on the six indicators of family welfare, which are income, employment (work), asset ownership, education of children, clothing, and food consumption pattern.

Seen from the income indicator, the rich families in RT 1 RW 6 earn an income of at least Rp1 million per month, while the middle class families' monthly income is between Rp500 thousand and Rp1 million. Meanwhile, the poor's income is between Rp200 to Rp500 thousand per month, and the very poor families' monthly income is below Rp200 thousand.

In terms of employment, the rich families in RT 1 RW 6 are generally entrepreneurs, such as owners of rice mills, work as farmers, or are civil servants. The middle class families generally work as farmers and traders, and some work as civil servants. Meanwhile, the families belonging to the poor families work as laborers or coolies. In contrast, the families that belong to the very poor (destitute) families are generally unemployed, and only work if there is work available.

In terms of asset ownership, the rich families could at least have a paddy field of one hectare, a permanent house in a good condition and access to electricity; own a television, a car, a gas stove and a motorcycle for personal use or a motorcycle used as an *ojek*. They also often go to the market to shop. The middle class families, in comparison, generally own no more than one hectare of paddy field, a permanent house, have electricity, and own a kerosene stove and a motorcycle used for business. In contrast, the poor families do not own any paddy field, live in a house built on a platform made of boards, have electricity connection from the neighbors, and if they have their own electricity connection, they can afford it because they get financial help from their children who have jobs. Furthermore, they own a motorcycle bought on credit, and when they cook they use firewood. Finally, the very poor families do not have a paddy field, own a house built on a platform or unpainted boards, have no electricity connection, and cook using firewood.

Seen from the education of children indicator, the children from the rich and the middle class families study until they finish junior or senior secondary school, while the children in the poor and very poor families only study until primary school.

Seen from the clothes indicator, the rich families frequently buy clothes in a year. The middle class families, on the other hand, buy clothes once a year. The poor families, in

contrast, sometimes change their clothes, but sometimes they do not, depending on other people giving them clothing. Very poor families acquire clothing from other people.

Finally, in terms of food consumption pattern, the rich families generally eat chicken or beef twice a month, the middle class families eat beef or chicken once a month, while the poor and very poor families eat beef or chicken only on Eid al-Fitri.

3.4 Family Welfare Indicators in Kedondong Village

The FGD in Kedondong Village was attended by eleven men and five women, whose occupation and role in the RT include teachers, religious teachers, RW officials, village officials, BPD members, midwives, and women's group cadres.

From the FGD results at the village level, there are three classifications of family welfare: (1) rich or *sugih*, (2) middle class (moderate) or *sedheng*, and (3) poor. These classifications are based on seven indicators of family welfare: housing conditions, asset ownership, ability to put children to school, employment (work), income, health, and food consumption pattern.

Seen from the housing condition indicator, generally, the rich families own a big house (6m \times 8m) with brick walls, ceramic-tiled floor, "Mantili" roof tile, a private bathroom inside, and a 900-watt electric capacity. The middle class families own a simple house with plastered or black-tiled floor, a bathroom outside, and have a 450-watt electric capacity. Among the poor families, some own a house and others live in other people's houses. For those owning a house, it is usually made of bamboo (*gedhek*) and has dirt floor. Furthermore, these families take a bath in the river and use electricity for lighting by connecting to their neighbor's electric line.

Seen from the asset ownership indicator, the rich families own a car, a motorcycle, a refrigerator, a computer, a VCD player, telephone and cellular phone, a 21-inch television, a gas stove to cook with, and jewelry, and own at least one hectare of paddy field. The moderate families own a motorcycle, a pick-up used for business, a kerosene stove (rarely does one have a gas stove), little jewelry, and less than one hectare of paddy field. In contrast, the poor families own a bicycle (*onthel*), own no television but a radio, have only earrings for jewelry, and have no paddy field.

From the education indicator, it is actually not the education of the head of the family of the rich, moderate, and poor families that can be used to classify, but the education level of the children. In the rich families, the children usually have a higher education than those in the moderate or poor families, such as tertiary level of education. In the moderate family group, the education of the children ranges from primary school to college. Among the poor families, the children only study until primary school, though some study to junior secondary school.

Seen from the employment indicator, the FGD participants identified the rich families as having good jobs (*apik*), with a big income (*gedhe*) and a good position. The jobs include midwives, principals (elementary or junior secondary school), and village officials. Meanwhile, the jobs of the moderate families are identified as teachers, farmers, and traders.

The very poor families, on the contrary, generally work as coolies, laborers, or trash collectors (*mayeng*).

Seen from the income indicator, the rich families generally get Rp2 million or more per month; the moderate families earn between Rp350 thousand and Rp2 million per month; and the poor families' income is below Rp350 thousand per month.

Seen from the health indicator, the rich families usually go to the specialists, the *puskesmas*, hospital, or midwives, while only a few of the moderate families also go to the specialists; most of them go to a medical assistant, the *puskesmas*, and the midwife. In contrast, the poor families consume traditional herbs or go to the *puskesmas*. Apparently, all groups of families go to the *puskesmas* because the medical treatment at the *puskesmas* in Kabupaten Demak has been made free for everybody since five years ago.

Seen from the food consumption pattern indicator, the rich families can generally fulfill their nutritional needs (*empat sehat, lima sempurna*), while the moderate families eat fish, eggs, and vegetables. As for the poor families, they generally eat with vegetables, sometimes with tofu or tempeh (fermented soy bean). If they eat fish, they will choose the cheap type.

3.5 Family Welfare Indicators in RT 4 RW 1 Kedondong Village

The FGD in RT 4 RW 1 Kedondong Village was attended by ten men and six women. It was followed by the local people and the RT officials who know the family welfare conditions in RT 4 RW 1. The participants' occupations are midwives, village officials, religious teachers, RT officials, officials/members of the women's group (PKK), village cadres, and housewives.

From the FGD results in RT 4 RW 1, there are three classifications of family welfare: (1) rich or *sugih*, (2) moderate or *sedheng*, and (3) poor. These classifications are based on the eight indicators of family welfare: asset ownership, housing conditions, income, employment (work), food consumption pattern, clothing, education of children, and health.

Seen from the asset ownership indicator, the rich families in RT 4 generally own a car or a motorcycle (paid in cash), one up to three houses, at least one hectare of paddy field, and between ten and 50 grams of gold jewelry. The moderate families, in the meantime, own a motorcycle, either paid in cash or bought on credit, own two up to eight goats, raise chickens, own less than one hectare of paddy field or rent a plot of land for farming, and own at the most ten grams of gold jewelry, usually earrings. In contrast, the poor families only own a bicycle, are unable to rent a plot of land for farming, and do not own jewelry.

Seen from the housing condition indicator, generally, the rich families own a permanent house which has brick walls, ceilings covered by plaster boards, ceramic-tiled floor and a fence in front of the yard. Usually, the size of the rich families' house is 90 square meters. The moderate families, on the contrary, own a simple house with walls from wood or boards, plastered/cemented or black-tiled floor, and the size of the house is between 48 and 72 square meters. What is quite different is that the poor families have a house that is usually small, badly shaped, with dirt floor, walls made of bamboo, and no ceiling boards.

Seen from the income indicator, the rich families earn a minimum of Rp2 million or more per month; the moderate families earn between Rp600 thousand and Rp2 million per month; and the poor families' income is below Rp600 thousand per month.

Seen from the employment indicator, the FGD participants identified that the rich families are grocery store owners, farmers working on their own paddy field, traders, village officials, and drivers of their own pick-ups. The moderate families generally work as farmers or small traders selling things around. The poor families, in comparison, generally work as farm hands, animal farmers (*maro kebo*),⁸ trash collectors, construction laborers, factory workers, and fish sellers, while some others are even unemployed.

Seen from the food consumption pattern indicator, the rich families generally eat three times a day with rice from their own field, with fish or meat twice a week, and also with tofu and tempeh. The moderate families also eat three times a day with rice from their own field, eat fish, vegetables, tofu and tempeh, and eat meat once a month. In contrast, though the poor families eat three times a day, they do not consume rice from their own field. They eat salted fish, tempeh, and garlic chili sauce. They eat meat once a year, given to them on Eid al-Adha.

Seen from the clothing indicator, the rich families generally wear branded clothes and buy them at supermarkets. As for the moderate families, though they wear simple clothes, they buy them with their own money. In contrast, the poor families generally wear used clothes.

Seen from the education attainment of the children, children from rich families usually finish secondary school or college. Among the moderate families, the children only finish junior or senior secondary school, and in the poor families, the children only finish primary school.

Seen from the health indicator, the rich families generally see specialists, go to the *puskesmas* or hospitals, or see midwives. The moderate families, meanwhile, get medical treatment from the village midwives or in *puskesmas* and if their sickness is serious, they seek medical treatment at the hospital. In contrast, the poor families generally go to traditional healers or the *puskesmas*. It appears that all groups of families go to *puskesmas* for treatment, both the rich and the moderate, as well as the poor.

3.6 Family Welfare Indicators in RT 6 RW 3 Kedondong Village

Six men and five women participated in the FGD in this RT. They are local community members and RT officials who know the family welfare conditions in RT 6 RW 3. Their occupations are kindergarten teachers, religious teachers, RT officials, BPD members, PKK members, village officials, and housewives.

From the FGD results there are three family welfare classifications in RT 6 RW 3: (1) well-to-do (*mampu*), (2) moderate, and (3) poor (*kurang mampu*). The three family welfare classifications are based on the seven family welfare indicators: asset ownership, housing

⁸M*aro kebo* is the taking care of others' farm animals and these animals' offsprings are divided between the owner and the farmer.

conditions, health, education, employment (work), income or savings, and food consumption pattern. According to the FGD participants, most of the poor family heads are widows.

In terms of asset ownership, the well-to-do families in RT 6 generally have fine furniture, like cupboards, 21-inch televisions, plate shelves made of aluminum, a rice cooker, a fan, and one up to two motorcycles, which were paid in cash. Additionally, the well-to-do families cook with gas stoves. The moderate families, on the contrary, generally have fewer assets than the well-to-do families do in terms of quantity, quality, and size. In the moderate families, the size of the TV is 14 inches; the shelves for plates are made of wood; only few have a rice cooker or a fan; some have a motorcycle, but some others own a bicycle; and when they cook, they use kerosene stoves. The poor families generally have no assets, though some have a television, but only black and white. The shelves for plates are made of bamboo. Because they do not have any vehicles, the poor families mostly travel on foot. Finally, they use firewood from their farms for the cooking fuel.

Examined from the housing condition, the well-to-do families generally own luxurious houses with brick walls, ceramic-tiled floor, and ceramic-tiled bathrooms. Generally, the well-to-do families' house is 64 square meters wide. In comparison, the moderate families generally own a simple house with wooden walls, plastered or black-tiled floor, and the house's size is around 54 square meters. In contrast, only some of the poor families own a house. Among those owning a house, the house is generally not in a good condition, with walls made of bamboo (*gedhek*), dirt floor, and the size is 48 square meters (6m by 8m).

Seen from the health indicator, generally the well-to-do families go to hospitals, *puskesmas*, midwives (often), and doctors (rarely). The moderate families generally go to midwives, *puskesmas*, and hospitals. The poor families, on the contrary, go to the *puskesmas* or traditional healers. It appears that going to the *puskesmas* to seek medical treatment is the one common ground among all the family groups. This is caused by the fact that there is a regional regulation which makes it possible for the community to get free medical treatment in any *puskesmas* in Kabupaten Demak.

Seen from the education indicator, children from the well-to-do families generally study up to junior secondary school or senior secondary school at the most, while children from the moderate families study up to junior secondary school at the most. Among the poor families, the children only finish primary school.

Seen from the employment indicator, the well-to-do families are identified as farmers and traders. Farmers belonging to this group at least own between half of a *bahu*⁹ and one hectare of paddy fields, while the traders usually sell fish or basic necessities at their own stalls. The moderate families generally work as farmers, construction coolies (rock or wood), drivers (driving a car owned by someone else), or teachers. Farmers in the moderate family group are usually farmers who rent fields once a year, with the cost of rent between Rp3-4 million a year for a paddy field of one *bahu*, or those who have a quarter of *bahu* of paddy field. The poor families usually do many different casual jobs, such as becoming farm hands and trash collectors, or even unemployed at times.

[°]In *Kabupaten* Demak, including in Kedondong Village, the size of the paddy field usually uses the term *bahu*. One *bahu* is equal to 6,500 square meters.

As for the income and savings indicators, it was difficult for the FGD participants to identify the well-to-do families' income, although they can estimate that the annual savings of these families are between Rp4-8 million. The moderate families' income is around Rp350 thousand per month or they can set aside an amount of Rp1.5-4 million for annual savings. In contrast, the poor families sometime have no income; if they do, it is no more than Rp100 thousand per month (gross). The poor families who have no income usually pay the goods they get from the village stalls on credit to fulfill the basic needs.

Seen from the daily food consumption pattern, the well-to-do families can eat three times a day with chicken or beef at least once a month. The moderate families also eat three times a day, albeit with no chicken or beef. In contrast, the poor only eats twice a day and the food is inexpensive; sometimes salted fish or *kangkung* (water cress). They only eat beef or chicken given by others on Eid al-Fitri.

IV. FAMILY WELFARE PROPORTION AND RANKING ACCORDING TO FGD RESULTS

The ranking of family welfare was designed both at the FGD at village and RT levels. In the FGD at village level, the determination of the ranking of family welfare began with the classification of the family welfare at the village level, followed by the estimation of the proportion of each welfare class at the village level and in each RW. Afterwards, the ranking of RT and/or hamlet based on their welfare was created.

In the FGD at RT level, meanwhile, determination of the ranking of family welfare started with designing the classifications of family welfare, the indicators, and characteristics existing in every RT. These were then followed by categorizing the families into the family welfare classifications, and, if possible, the ranking of each family in the RT based on its welfare compared to other families.

4.1 The Proportion of Family Welfare Classifications at RW Level

Cibulakan Village

At the village level, the process of the FGD in Cibulakan Village was undertaken as described above. The classifications, indicators and characteristics of family welfare in Cibulakan Village have been explained in Chapter 3.

The estimation of the proportion of the family welfare classifications was conducted gradually from the village level to each RW in Cibulakan Village. It was carried out by the FGD participants by using a 'handful of clothes buttons' distributed to every welfare class at village level. The distributed buttons were then counted and the result was discussed with the FGD participants until they reached an agreement.

At village level, the proportion of the family welfare classifications is as follows: 10% of the families in Cibulakan Village are categorized as rich; 30% are middle class; 35% are poor; and 25% are very poor (see Table 4.1). In essence, this is the community poverty line. The proportion is then used by the CBMS to calculate the share of each class at the RW level. This is done because CBMS results are in the form of a ranking of the poorest to the richest families (or vice-versa) in Cibulakan Village.

The process of estimating the proportion of family welfare classifications at the village level was then followed by estimating the proportion of family welfare classifications in every RW in Cibulakan village. The village level FGD participants coming from a particular RW estimated the proportion of family welfare classifications of their own RW and so did the other participants coming from other RW. The estimation results were discussed with the other FGD participants until they reached the estimation of the proportion of family welfare classifications in every RW as presented in Table 4.1.

The table shows that the percentage of the rich group in every RW is at the most 6% (in RW 2), which is far below that of the village level (10%). The percentage of middle class group in every RW is similar to that of the village level. On the contrary, the table shows that on average the percentage of the poor group in every RW shows higher proportion than that of the village level. While this is quantitatively impossible, the participants defended the results.

	Proportion of Family Welfare Classifications (%)			
Level	Rich	Middle Class	Poor	Very Poor
Village	10	30	35	25
RW 1	5	48	37	10
RW 2	6	30	40	24
RW 3	4	37	34	25
RW 4	3	31	46	20
RW 5	3	25	47	25
RW 6	3	40	47	10

Table 4.1 The Proportion of Family Welfare Classifications in Cibulakan VillageAccording to the Village Level FGD Participants

Source: Results of CBMS Verification FGD in Cibulakan Village, 2006.

Kedondong Village

The FGD in Kedondong village was conducted in the same way as it was in Cibulakan Village. The proportion of family welfare classifications at village level and in each RW was also estimated. The classifications, indicators, and the characteristics of the family welfare in Kedondong Village have been described earlier in Chapter 3.

As to the estimation of the proportion of family welfare classifications, it was conducted gradually from the village level to each RW in Kedondong Village. The process of estimating the proportion of family welfare classifications was exactly the same as the one conducted in Cibulakan Village.

At village level, the proportion of family welfare classifications is as follows: 15% of the families in Kedondong Village are categorized as rich; 50% are middle class; and 35% are poor (see Table 4.2).

The process of estimating the proportion of family welfare classifications at village level was followed by estimating the proportion of family welfare classifications in every RW. The FGD participants coming from a certain RW estimated the proportion of family welfare classifications in their own RW, and so did the other participants from other RW. The

estimation results were discussed with the other FGD participants until they reached the estimation of the proportion of family welfare classifications in every RW as presented in Table 4.2.

	Proportion of Family Welfare Classifications (%)			
Level	Rich	Middle Class	Poor	
Village	15	50	35	
RW 1	15	50	35	
RW 2	9	33	58	
RW 3	12	48	40	

Table 4.2 The Proportion of Family Welfare Classifications in Kedondong VillageAccording to the Village Level FGD Participants

Source: Results of CBMS Verification in Kedondong Village, 2006.

The table shows that the biggest share of the rich group in every RW is 15%, which is exactly the same as that of the village level. The percentages of the poor and the middle class groups in RW 1 are the same as those of the village level. The FGD participants estimated that only 9% of the families in RW 2 are rich; 33% are middle class; and 58% are poor. The proportion of family welfare classifications in RW 3 is as follows: 12% are rich, 48% are middle class and 40% are poor.

4.2 The Ranking of Inter-RW Family Welfare

Cibulakan Village

Based on the knowledge gained when designing the classifications and the indicators, as well as the characteristics of family welfare, the FGD participants ranked the inter-RW family welfare in Cibulakan Village. The results show that RW 2 is the most prosperous in Cibulakan Village, followed by RW 3, RW 1, RW 4, RW 6, and RW 5 (see Table 4.3). The FGD participants thought that RW 2 was more prosperous than RW 3 because many families in RW 2 have cars and paddy fields, while the families in RW 3 in general only have the fields.

RW	Ranking of Family Welfare According to the FGD Participants	Reasons
1	3	
2	1	Many of the people own cars and paddy fields.
3	2	Most of the people own paddy fields only.
4	4	
5	6	
6	5	

Table 4.3 The Ranking of Inter-RW Family Welfare in Cibulakan Village According to the FGD Participants

Kedondong Village

The FGD participants in Kedondong also ranked the inter-RW family welfare. The results show that RW 1 is the richest in Kedondong Village, followed by RW 3 and then RW 2 (see Table 4.4). The FGD participants thought that RW 1 was more prosperous than the other RW because many families in RW 1 are high-ranking government officials, have cars, pay considerable house and land taxes, and have bigger and better houses and lands than those in the other RW. Meanwhile, RW 3 is in the second rank because its residents have fairly low education, and there is no significant number of high-ranking officials in the RW. RW 2 is in the lowest rank because the people have lower level of education than the people in the other RW and their houses are not in good condition as those in the other RW.

 Table 4.4 The Ranking of Inter-RW Family Welfare in Kedondong Village

 According to the FGD Participants

RW	Ranking of Family Welfare According to the FGD Participants	Reasons
1	1	Many of the people are high-ranking officials, have cars, nice houses, and big plots of land, and pay higher house and land taxes.
2	3	Low education, houses not in good condition
3	2	Low education and not many high-ranking officials

4.3 The Ranking of Inter-hamlet Family Welfare

The ranking of inter-hamlet family welfare was only conducted in Cibulakan Village that comprises of three hamlets. This ranking was not conducted in Kedondong Village (Demak) because administratively this village is not divided into hamlets, but into a number of RW.

The ranking of inter-hamlet family welfare in Cibulakan Village was conducted after the FGD participants finished ranking the inter-RW family welfare. As described earlier in Chapter 2, the Cibulakan Village comprises of three hamlets, namely Hamlet 1 (*Dusun* Panumbangan), Hamlet 2 (*Dusun* Garogol), and Hamlet 3 (*Dusun* Ranca Picung). Hamlet 1 consists of RW 1 and RW 2; Hamlet 2 consists of RW 3 and RW 4; and Hamlet 3 consists of RW 5 and RW 6.

Table 4.5 The Ranking of Inter-hamlet Family Welfare in Cibulakan Village
According to the FGD Participants

Hamlet	Ranking of Family Welfare According to the FGD Participants	Remarks
1	1	Dusun 1 consists of RW 1 and RW 2.
2	2	Dusun 2 consists of RW 3 and RW 4.
3	3	Dusun 3 consists of RW 5 and RW 6.

Based on a plain observation and their knowledge, the village level FGD participants agreed that Hamlet 1 is the most prosperous village seen from the ranking of family welfare, followed by Hamlet 2; and the least prosperous one is Hamlet 3 (see Table 4.5).

4.4 The Ranking of Family Welfare in RT 1 RW 2 of Cibulakan Village

The FGD activities in RT 1 RW 2 were conducted to gather information about the family welfare classifications in the RT, the indicators, and the characteristics of each family welfare classification. Moreover, it was conducted to estimate the proportion of the family welfare classifications, as well as to rank the family welfare in the RT. The classifications, indicators, and characteristics of family welfare in the RT have been explained earlier. As to the estimation of the proportion of family welfare conducted by the FGD participants in RT 1 RW 2 using the buttons, it shows that 10% of the families in the RT are categorized as rich, 14% middle class, 46% poor, and 30% very poor.

In identifying the number of family in RT 1 RW 2, the FGD participants found that there are 112 families presently living in the RT. The 112 families were then individually listed and grouped into family welfare classifications. The results show that 14 families or 12.5% are categorized as rich, 46 families (41%) middle class, 47 families (42%) poor, and five families (4.5%) very poor. These results were then confirmed with the participants as they were different from their estimation of family welfare proportion made earlier using the buttons. The participants believed that the percentage of the identification results were more accurate than that of the estimation of the family welfare proportion. They thought that the results of the identification were closer to the reality because every family in the RT was identified one by one.

Family Welfare Classifications	The Number of Family	Remarks
Rich	14	Families in the rich group could only be grouped, but their family welfare could not be ranked.
Middle Class	46	The middle class families could only be grouped, but their family welfare could not be ranked.
Poor	47	This group could be classified into smaller groups, but their family welfare cannot be ranked.
Very Poor	5	The family welfare of this group could be ranked.
Total	112	

Table 4.6 The Grouping of Family Welfare in RT 1 RW 2 of Cibulakan VillageAccording to the FGD Participants

Of the identified families (rich, middle class, poor and very poor), the FGD participants could only rank the very poor family group (five families), while the poor family group (47 families), middle class family group (46 families) and rich family group (14 families) could not be ranked. The approach the FGD participants used to rank the family welfare of the poor family group was by grouping them into two sub-groups, "upper-poor" and "lower-poor". It is also difficult to rank the family welfare of the families belonging to the sub-group "upper-poor". The family welfare of those belonging to the sub-group "lower-poor" can be ranked based on occupations; the retirees are more prosperous than the others, followed by traders, drivers, and laborers. Those who do not work are the least prosperous in the sub-group "lower-poor".

4.5 The Ranking of Family Welfare in RT 1 RW 6 of Cibulakan Village

The estimation of the proportion of family welfare conducted by the FGD participants in RT 1 RW 6 using the buttons shows that 4% of the families in that RT are categorized as rich, 11% middle class, 38% poor, and 47% very poor.

In identifying the number of families in RT 1 RW 6, the FGD participants found that there are 60 families presently living in the RT. Each of the 60 families were then grouped into family welfare classifications and the results showed that four families (7%) were categorized as rich, 14 families (23%) as middle class, 26 families (43%) as poor, and 16 families (27%) as very poor. The results or these percentages were then confirmed with the participants because they were different from the FGD participants' estimation made earlier. Again, the participants believed that the percentage of the identification results were more accurate than that of the estimation of the family welfare proportion.

Of the families that had been identified into four family welfare groups (rich, middle class, poor, and very poor), the FGD participants could rank the family welfare of every family welfare group. Therefore, the 60 families in RT 1 RW 6 could be ranked from the most prosperous to the poorest.

Family Welfare Classifications	The Number of Family	Remarks	
Rich	4	Their family welfare could be ranked.	
Middle Class	14	Their family welfare could be ranked.	
Poor	26	Their family welfare could be ranked.	
Very Poor	16	Their family welfare could be ranked.	
Total	60		

Table 4.7 The Grouping of Family Welfare in RT 1 RW 6 of Cibulakan VillageAccording to the FGD Participants

4.6 The Ranking of Family Welfare in RT 4 RW 1 of Kedondong Village

The estimation of proportion of family welfare conducted by the FGD participants in RT 4 RW 1 shows that 5% of the families in that RT are categorized as rich, 35% middle class and 60% poor.

In naming each family in RT 4 RW 1, the FGD participants found that there are 67 families presently living in that RT. The 67 families were then individually grouped into family welfare classifications and the results showed that four families (6%) were categorized as rich, 18 families (27%) middle class, and 45 families (67%) poor. The results of these percentages were then confirmed with the participants because they were different from the FGD participants' estimation made earlier. Similar to the two earlier FGDs, the participants believed that the percentage of the identification results were more accurate than that of the estimation of the family welfare proportion.

Of the families that had been identified into three family welfare groups (rich, middle class, and poor), the FGD participants could rank the family welfare of every family welfare group. Therefore, the 67 families in RT 4 RW 1 could be ranked from the most prosperous to the poorest.

Family Welfare Classifications	The Number of Family	Remarks	
Rich	4	Their family welfare could be ranked.	
Middle Class	18	Their family welfare could be ranked.	
Poor	45	Their family welfare could be ranked.	
Total	67		

Table 4.8 The Grouping of Family Welfare in RT 4 RW 1 of Kedondong VillageAccording to the FGD Participants

4.7 The Ranking of Family Welfare in RT 6 RW 3 of Kedondong Village

Finally, FGD participants in RT 6 RW 3 stated that 12% of the families in that RT are rich, 60% are middle class, and 28% are poor.

When individually identifying and grouping the families, the FGD participants found that there are 122 families in that RT. The families were then grouped into family welfare classifications and the results showed that 17 families (14%) were categorized as rich, 56 families (46%) middle class, and 49 families (40%) poor. Similar to what happened in the other three FGDs, the FGD participants in this RT believed that the percentage of the identification results were more accurate than the estimated results.

Table 4.9 The Grouping of Family Welfare in RT 6 RW 3 of Kedondong VillageAccording to the FGD Participants

Family Welfare Classifications	The Number of Family	Remarks	
Rich	17	Their family welfare could not be ranked.	
Middle Class	56	Their family welfare could not be ranked.	
Poor	49	Their family welfare could not be ranked.	
Total	122		

Of the families that had been identified into three family welfare groups (rich, middle class, and poor), the FGD participants could not rank the family welfare of every family welfare group.

V. THE COMPARISON OF THE FGD AND CBMS RESULTS

The CBMS results are verified by comparing between the results of CBMS and those of the FGDs. The CBMS verification includes the inter-RW family welfare proportion, the ranking of inter-RW family welfare, the ranking of inter-hamlet family welfare (only in Cibulakan Village), and the ranking of family welfare in RT 1 RW 2 and RT 1 RW 6 of Cibulakan Village and in RT 4 RW 1 and RT 6 RW 3 of Kedondong Village.

5.1 Inter-RW Family Welfare Proportion

In Cibulakan Village, in general there seems to be differences between the proportion of family welfare in all RW resulting from the CBMS and that of the FGD participants' estimations. Of the 24 percentage rates compared, there is not even one that is the same. The percentage point differences are between one percentage point and 23 percentage points. However, both have the same distribution. This can be seen in Table 5.1.

According to the FGD participants' estimation in RW 1, 5% of the families belong to the rich group, 48% the middle class, 37% the poor, and 10% the very poor. Meanwhile, according to CBMS, there are 14% rich families, 40% middle class families, 30% poor families, and 16% very poor families in RW 1. This shows that although the percentage rates of the proportion of family welfare classifications based on the FGD participants' estimations and the CBMS are different, both have the same distribution patterns. This applies to the other RW as well.

		Family Welfare Classifications (%)			
RW	Results	Rich	Middle Class	Poor	Very Poor
1	FGD	5	48	37	10
	CBMS	14	40	30	16
2	FGD	6	30	40	24
	CBMS	19	34	34	12
3	FGD	4	37	34	25
	CBMS	13	31	37	19
4	FGD	3	31	46	20
	CBMS	5	44	33	19
5	FGD	3	25	47	25
	CBMS	2	15	40	43
6	FGD	3	40	47	10
	CBMS	2	17	36	45

Table 5.1 The Proportion of Family Welfare in RW 1–6 of Cibulakan VillageAccording to the FGD Participants and the CBMS (%)

Meanwhile, there are also disparities between the CBMS and FGD results in terms of welfare at the RW level. There is only one that is the same as that of the CBMS. The difference ranges from two percentage points to 19 percentage points. Similar to Cibulakan, however, both percentage rates have the same distribution patterns, as shown in Table 5.2. This also applies to RW 2 and RW 3.

RW		Family Welfare Classifications (%)			
	Results	Rich	Middle Class	Poor	Total
1	FGD	15	50	35	100
	CBMS	13	52	35	100
2	FGD	9	33	58	100
	CBMS	15	45	39	100
3	FGD	12	48	40	100
	CBMS	17	53	30	100

Table 5.2 The Proportion of Family Welfare in RW 1–3 of Kedondong Village According to the FGD Participants and to the CBMS (%)

The Proportion of Family Welfare in Every RW in Cibulakan Village

As explained above, the percentage rate or the proportion of family welfare classifications in every RW according to FGDs is different from that of CBMS. The details will be explained below.

In RW 1, the FGD participants' estimation on the proportion of family welfare classifications showed that the rich group is 5% of the population, the middle class 48%, the poor 37%, and the very poor 10%. These rates are different from those of CBMS' that shows 14% rich families, 40% middle class families, 30% poor families, and 16% very poor families (see Figure 5.1). The FGD participants tend to put the families into the "middle group" that is the middle class and the poor. While the two extremes, the rich and the very poor, tend to be slightly lower than that of CBMS'.



Figure 5.1 The Proportion of Family Welfare in RW 1 of Cibulakan Village According to the FGD Participants and to the CBMS (%)

The distribution pattern in RW 2, meanwhile, is different from that in RW 1. Even though the results of FGD and those of CBMS have the same distribution patterns, the result of estimation of family welfare in RW 2 appears to be less, in which the number of the upper group (the rich and the middle class) according to the FGD participants is lower than the number calculated based on the CBMS. Furthermore, the estimation result of the lower groups (the poor and the very poor) based on the FGD shows higher percentage rate than that of CBMS (see Figure 5.2). According to the FGD participants this is due to the fuel price hike in October 2005, resulting in the drop of the community's welfare.



Figure 5.2 The Proportion of Family Welfare in RW 2 of Cibulakan Village According to the FGD Participants and to the CBMS (%)

In the meantime, the FGD estimation on the proportion of family welfare in RW 3 tends to be the same as that of the CBMS. However, the distribution pattern is somewhat different (see Figure 5.3). The proportion of the rich based on the CBMS is larger than that of the FGD estimation; however, the proportion of the middle class based on the FGD estimation is

bigger than that of the CBMS. Lastly, the welfare proportion of the poor based on the CBMS is bigger than that of the FGD estimation.



Figure 5.3 The Proportion of Family Welfare in RW 3 of Cibulakan Village According to the FGD Participants and to the CBMS (%)

In RW 4, the proportion of the family welfare has a similarity with that of RW 2. This is shown by the fact that Figure 5.4 and Figure 5.3 have the same pattern.





In RW 5, the proportion of the family welfare has a different pattern from that of the other RW. Here, the proportion of family welfare based on the FGD participants' estimation is higher than that of the CBMS, and only the proportion of the very poor group based on the FGD estimation is lower than that based on the CBMS. This shows that the FGD participants believe that families in RW 5 are more prosperous than what the CBMS found. An argument supporting this is that the residents in RW 5 living slightly far from the village economic center can cater for their own basic needs. For instance, they can get vegetables and fruits from their own gardens. As described earlier, RW 5 and RW 6 are located separately from the other RW.



Figure 5.5 The Proportion of Family Welfare in RW 5 of Cibulakan Village According to the FGD Participants and to the CBMS (%)

In RW 6, the proportions of the family welfare, both based on the FGD and CBMS, have the same distribution patterns (see Figure 5.6). The proportion of the rich, middle class, and poor based on the FGD is higher than that of the CBMS, and only the percentage rate of the very poor is lower than that of the CBMS. This means that the FGD participants believe that the residents of RW 6 are more prosperous than what the CBMS found. The argument supporting this is that according the village level FGD participants the average income of the rich group is at least Rp2 million per month; while based on FGD in RT 1 RW 6, it is stated that the residents with average income of at least Rp1 million are categorized into the rich group. This means that a person considered as rich in this RW is actually not as rich when compared to other RW in the village.

Figure 5.6 The Proportion of Family Welfare in RW 6 of Cibulakan Village According to the FGD Participants and to the CBMS (%)


The Proportion of Family Welfare in Every RW in Kedondong Village

In RW 1 in Kedondong Village, the proportion of the rich based on FGD results is two percentage points higher than that based on CBMS. On the contrary, the proportion of the middle class families based on the FGD results is two percentage points lower than that based on the CBMS. This slight difference shows that the CBMS results generally agree with those of the FGD. The proportion of the poor, in addition, is the same from both FGD and CBMS results.



Figure 5.7 The Proportion of Family Welfare in RW 1 of Kedondong Village According to the FGD Participants and to the CBMS (%)

In RW 2 and RW 3, meanwhile, the proportions of the rich and the middle class families according to FGD are higher than the CBMS finding, and vice versa for the poor. In RW 2, the difference between the proportions of the rich is six percentage points, those of the middle class 12 percentage points, and those of the poor 19 percentage points. In the meantime, in RW 3 the differences between the rich group based on the FGD results and that based on the CBMS is five points, the same difference goes for the middle class, and 10 percentage points for the poor.





Figure 5.9 The Proportion of Family Welfare in RW 3 of Kedondong Village According to the FGD Participants and to the CBMS (%)



5.2 The Ranking of Inter-RW Family Welfare

Cibulakan Village

The ranking of inter-RW family welfare based on the FGD in Cibulakan Village is gathered from the village level FGD participants, while the ranking according to the CBMS was based on the village poverty level obtained by matching the family ranking from the PCA method with the village poverty line. Both results of the ranking are then compared. Table 5.3 shows that the CBMS results can rank the RW based on the family welfare precisely, matching the findings of the FGD participants in Cibulakan Village.

RW	The Ranking Based on the FGD	The Ranking Based on the CBMS
1	3	3
2	1	1
3	2	2
4	4	4
5	6	6
6	5	5

Table 5.3 The Ranking of Inter-RW Family Welfare of Cibulakan Village Based on the FGD and CBMS

Kedondong Village

Table 5.4 shows that the ranking of RW 1 and RW 3 in Kedondong Village based on the opinions of the FGD participants are different from those based on the CBMS results, while RW 2 is put in the same ranking.

RW	The Ranking Based on the FGD	The Ranking Based on the CBMS
1	1	2
2	3	3
3	2	1

Table 5.4 The Ranking of Inter-RW Family Welfare of Kedondong Village	
Based on the FGD and CBMS	

The FGD participants believe that the family welfare in RW 1 is better than that in RW 3. There are several things supporting this argument. The FGD participants think that RW 1 is the most prosperous since there are many high-ranking government officials living in the area, and furthermore there are many residents who own cars, good houses, and many plots of lands. While this argument has its merits, the FGD participants failed to acknowledge that RW 1 has higher population compared to RW 3. Thus, although the number of rich families in RW 1 is higher than that in RW 3, it is also the case that there is many more poor families in RW 1 compared to RW 3.

5.3 The Ranking of Inter-hamlet Family Welfare in Cibulakan Village

Using the similar method as in the previous section, the ranking of inter-hamlet family welfare in Cibulakan Village is then compared as shown in Table 5.5. The same ranking of the inter-hamlet family welfare of FGD and CBMS shows that the CBMS results can rank the hamlets based on the family welfare precisely, matching the findings of the FGD participants in Cibulakan Village.

Table 5.5 The Ranking of Inter-hamlet Family Welfare of Cibulakan VillageBased on the FGD and CBMS

HamletThe Ranking Based on the FGD		The Ranking Based on the CBMS
1	1	1
2	2	2
3	3	3

5.4 The Ranking of Family Welfare in RT 1 RW 2 of Cibulakan Village

It was previously mentioned that the classifications of family welfare in RT 1 RW 2 comprises of rich, middle class, poor and very poor groups. The FGD participants in RT 1 RW 2 were able to classifiy the family within the RT into the respective classifications. Unfortunately, the participants had problem ranking the families due to the large number of population in this RT. The ranking is as follows: five families classified as very poor; 47 families are considered poor; 46 families are classified into the middle class group; and 14 families belong to the rich group. The poor group can be further classified into other subgroups, namely upper-poor group, as many as 21 families, and the rest are included in the lower-poor group.

5.5 The Ranking of Family Welfare in RT 1 RW 6 of Cibulakan Village

The limited numbers of families (there are 60 families according to the community identification in 2006 and 2007 and 57 families from the CBMS census in 2005) helped the FGD participants to specify, compare, and rank the family welfare of each family in RT 1 RW 6. Therefore, the FGD results concerning the ranking of the family welfare in RT 1 RW 2 and CBMS can be compared. A simple way to compare both results of the ranking between the FGD outcome and those obtained from the CBMS calculation is by using Spearman's rank correlation coefficient.

The rank correlation coefficient, which is 0.76, shows that both the CBMS and FGD have identified the same family as very poor. This fact shows that CBMS is able to predict the ranking of family welfare accurately.

5.6 The Ranking of Family Welfare in RT 4 RW 1 of Kedondong Village

The limited numbers of families (There are 67 families according to the community identification in 2006 and 51 families from the CBMS census in 2005) helped the FGD participants to specify, compare, and rank the family welfare of each family in RT 4 RW 1. To compare FGD and CBMS results, Spearman's rank correlation coefficient, which in this case results in a coefficient of 0.42, was used.

Besides using the rank correlation, the FGD and CBMS family ranking results can be compared only regarding the poor families in RT 4 RW 1. The results show that the FGD participants classified 79% of the families as poor and they were also identified by CBMS as poor. It shows that CBMS is able to predict the ranking of family welfare accurately.

5.7 The Ranking of Family Welfare in RT 6 RW 3 of Kedondong Village

Given the relatively large number of residents in this RT, the FGD results and CBMS can only be compared based on their poverty status. The results show that 72% of the families identified by CBMS as poor are also considered as poor by the FGD participants.

VI. CONCLUSIONS AND RECOMMENDATION

In closing, by using Principal Component Analysis as a method to calculate the ranking of family welfare in each area, the CBMS can accurately arrange the order of inter-RW and inter-hamlet family welfares. The accuracy of the calculation is demonstrated in Cibulakan Village, which has exactly the same as the inter-RW ranking order obtained by both the calculation of CBMS and from FGDs.

In addition, the proportions of family welfare in each RW of both villages show similar distribution patterns. On top of that, CBMS is also able to predict the ranking of family welfare with a high degree of precision. The high precision is also demonstrated from the high score of correlation rank between FGD participants and CBMS results which identify the same poor category for a family.

Because of the high precision between the CBMS and the people's perception, it is proven that the CBMS result can improve targeting of beneficiaries in a poverty reduction program. Moreover, using CBMS means that subjectivity is not involved during targeting. Therefore, the activities conducted in each village would be more accountable and be able to reduce social protests.

Based on the explanation and conclusions previously mentioned, CBMS will provide great help for the stakeholders, especially the local government, to conduct the census and identify the welfare level of each family in their respective areas. In addition to being a targeting tool, the result can also be used to design various plans for programs. Finally, the data and identification obtained can be very useful to implement different kinds of poverty alleviation activities.

LIST OF REFERENCES

- Barcelona Field Studies Centre (2006) Spearman's Rank Correlation Coefficient [online] http://geographyfieldwork.com [11 August 2006]
- GTP-JPS (Social Safety Net Important Task Force) Control Team (2000) Hasil Studi Jaring Pengaman Sosial [Study Results of the Social Safety Net: Report for the Fiscal Year 1999-2000]. Jakarta: GTP-JPS Control Team
- Hastuti dan John Maxwell (2003) 'Beras untuk Keluarga Miskin (Raskin): Apakah Program Tahun 2002 Berjalan Efektif? Bukti-Bukti dari Bengkulu dan Karawang' [Rice for the Poor: Was the 2002 Program Effective? Evidence from Bengkulu and Karawang]. SMERU Research Report. Jakarta: SMERU Research Institute
- Mubyarto dan Suratno (1981) Metodologi Penelitian Ekonomi [Economic Research Methodology]. Jakarta: Yayasan Agro Ekonomika
- Suryadarma, Daniel et al. (2005) 'Ukuran Objektif Kesejahteraan Keluarga untuk Penargetan Kemiskinan: Hasil-Hasil dari Uji Coba Sistem Pemantauan Kesejahteraan oleh Masyarakat di Indonesia' [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

APPENDICES

Appendix 1. Classifications and Indicators of Family Welfare in Cibulakan Village (Based on Village Level FGD)

No.	Indicators		The Classifications	of Family Welfare	
110.	Indicators	Rich	Middle Class	Poor	Very Poor
1	Salary per month	> Rp2 million	Rp1–2 million	 Temporary Insufficient Rp500,000– Rp1 million 	< R _P 500,000
2	Work	 Salary Business Side jobs Own paddy fields Permanent job Own a milling factory 	 Full-time job with a regular salary, such as civil servants 	 Farm hands Construction laborers Angkot (public transportation) drivers (owners) Have side jobs Peddlers 	 Occasional Laborers Paddy field coolies Seasonal jobs (twice a year)
3	Asset ownership	 Own a car Own a paddy field (over ½ ha) Own a motor bike Own land (>1 ha) Own a television Own a refrigerator 	 Own a paddy field, at least ½ ha Own a car (paid in installments) Own a motor bike (paid in installments) Own land (< 1 ha) Own a television Do not own a washing machine 	• None	• None
4	Housing	 Permanent Brick walls Ceramic-tiled floor A multistoried house A toilet inside A bathroom inside Own the house Size of the house is 100 m² (8m x 10m or 9m x 12m) 	 Own a medium- sized house (6m x 4m) Permanent but simple Own the house Ceramic-tiled floor A toilet inside 	1	 Do not own a house Rented house Live with parents
5	Education	Children: go to university	Children: go to junior and senior secondary schools	Children: go to primary and junior secondary schools	Children: go to primary school only

No.	Indicators		The Classifications	of Family Welfare	
1140.	mulcators	Rich	Middle Class	Poor	Very Poor
6	Health	 Go to doctors who hold a private practice Go to Flamboyan Hospital 	 Do not require a village recommendation to seek medical treatment Seek medical treatment at the <i>puskesmas</i> (community healthcare center) Go to doctors who hold a private practice Use the services of midwives 	counter medicine • Seek medical treatment at the <i>puskesmas</i>	 Have health insurance (Askes Gakin) Use over-the- counter medicine Seek medical treatment at the <i>puskesmas</i> using the poor family insurance (Askeskin) Have a letter confirming one's poor status (SKTM)
7	Food consumption pattern	 Eat 3 times a day The poor and the rich have different menus Eat the complete menu (including milk and meat) 	 Eat twice-three times a day Eat meat or chicken at least once a month and at the most once a week. 	 Eat twice a day, sometimes three times a day Eat meat only on Eid al-Fitri 	Eat once a day or sometimes twice a day

Notes:

- The CBMS data collection records people's perception (individual statements, for example when asked whether they owned a paddy field, the answer given was a "yes", but no exact measurement was given).
- The difference between 2005 and 2006: (1) the increase in fuel price in October 2005 decreased the people's purchasing power; (2) There were businesses that went bankrupt and layoffs; (3) Very poor people migrated to Saudi Arabia to work as migrant workers. This resulted in the decline of the proportion of this group.

No.	Indicators		The Classification	s of Family Welfare	
11 10.	marcatoris	Rich	Middle Class	Poor	Very Poor
1	Asset ownership	 Field > 1 ha Own a car Own a motorbike (paid in cash) Own clothes 	 Field < 1 ha Do not own a car Own a motorbike (paid in installments) 	 Do not own a paddy field Own a bicycle Own clothes (Bought at <i>cimol</i>, a secondhand clothes store) 	 Do not own a paddy field Do not own a house Do not own anything
2	Housing	 Own more than two houses Own a big multistoried house, 80 m² Own a gas stove 	 Permanent housing, 35-40 m² wide, with ceramics Kerosin stove, fire wood 	 Rent a stilt house, made of bamboo or wood Cook using firewood 	 Do not own a house Cook using firewood
3	Salary per month	 More than one source of income > Rp2 million 	• Rp750,000– Rp2 million	• Rp300,000– Rp750,000	<rp300,000< li="">No fixed income</rp300,000<>
4	Work	 Have a house up for rent Civil servants Farmers Traders Own a car rental service Land lords 	 Own a permanent business Low-ranking civil servants 	 Farmers (profit sharing) Coolies Laborers Angkot drivers Farm hands; the casual ones Farmers 	 Farm hands (Rp 10,000 /day, seasonal) Do casual jobs Construction laborers
5	Education	Children: go to junior secondary school and university	Children: finished junior secondary school (some senior secondary school)	Unable to send children to school; on average children go to primary and junior secondary school	Only up to primary school

Appendix 2. Classifications and Indicators of Family Welfare in RT 1 RW 2 of Cibulakan Village (Based on the RT level FGD)

No.	Indicators		The Classification	s of Family Welfare	
1140+	mulcators	Rich	Middle Class	Poor	Very Poor
6	Health	 Seek medical treatment at a specialist's clinic Seek medical treatment at the hospital Use over-the-counter medicine 	 Seek medical treatment at community healthcare centers Seek medical treatment from doctors Seek medical treatment from a medical assistant (<i>mantri</i>) Seek medical treatment at the hospital 	 Seek medical treatment at the <i>puskesmas</i> Use health insurance for the poor Use over-the-counter medicine 	 Use over-the-counter medicine Seek medical treatment at the <i>puskesmas</i> (using health insurance) Use a letter of recommendation from the village
7	Food consumption pattern	 Three times a day; poor and rich families have different menus. Eat the complete menu (including milk) Eat meat 	 Eat twice-three times a day Eat meat or chicken at least once a month; at the most once a week. 	sometimes three times a day • Eat meat only	Eat once a day or sometimes twice a day

Notes: The rich and middle class groups can still pay their debts, while the poor and very poor groups who borrow money from their neighbors have problems paying back.

No	Indicators	T	The Classifications of Family Welfare				
1140.	maicators	Rich	Middle Class	Poor	Very Poor		
1	Salary per month	>Rp1 million	Rp500,000– Rp1 million	Rp200,000– Rp500,000	<rp200,000< td=""></rp200,000<>		
2	Work	Business of milling factoryFarmers	FarmersTradersCivil servants	LaborersCoolies	Unemployed		
3	Asset ownership	 Own a minimum of one ha of paddy field Own a good permanent house Have access to the electricity Own a TV Own a Car Own a gas stove Own a motorbike or rent it out Frequent market visitors 	 Own a paddy field of 0-1 ha Own a permanent house Have access to the electricity Own a kerosin stove Use their motorbike for business 	 Do not own a paddy field Own a stilt house made of plank Have access to electricity from other households or have their own connection due to their children's financial contribution Own a motorbike (paid in installments) Use firewood for cooking 	 house; not painted Have no access to electricity Use 		
4	Education	Children: go to junior and senior secondary schools	Children: go to junior and senior secondary schools	Children: finished primary school only	Children: finished primary school only		
5	Clothing	Buy clothing more than once in a year	Buy clothing once a year	Only sometimes change clothes, or are given clothes by other people	Get clothes from other people		
6	Food con- sumption pattern	Eat chicken twice a month	Eat chicken once a month	Eat beef/chicken on Eid al-Fitri	Eat beef/chicken on Eid al-Fitri		

Appendix 3. Classifications and Indicators of Family Welfare in RT 1 RW 6 of Cibulakan Village (Based on the RT level FGD)

No.	Indicators	The Clas	sifi	cations of Family V	Velfare	
11 100	mulcators	Rich	Middle Class		Poor	
1	Housing	 Big house (6m x 8m) Brick walls Ceramic-tiled floor "Mantili" roofing Bathrooms and toilets inside Electricity is 900 W 	•	Simple house (6m x 8m) Plastered/tiled floor Use public bathroom and toilet Electricity is 450 W	 Some have a house, while others live in other people's houses Description of houses: Made of bamboo/gedhek Dirt floor No bathroom; bathe in the river Electricity connected through a neighbor's house 	
2	Asset ownership	 Own a car Own a motorbike Own a refrigerator Own a computer Own a VCD player Own a telephone and cell phone Own a 21-inch TV Own a gas stove Own a complete set of jewelry Own land and paddy fields, 1 ha 	•	Own a motorbike Own a car for public transport business Own a kerosin stove (gas is scarce) Own a TV smaller than 21 inch Own a small amount of jewelry Own or rent a paddy field < 1 ha	 Own a bicycle Use firewood for cooking Own a radio Do not own a TV Jewelry: earings only Do not own land/paddy field; work as coolies 	
3	Education	 Children have higher education: D2 (two-year diploma degree), D3 (three year), and S1 (bachelor's degree). Primary school – S1 	•	Children have a bachelor's degree. Primary school – S1	 Mostly primary school Some go to junior secondary school 	
4	Work	 Good job with high salary and good position: Midwives Principals of primary and junior secondary schools Village head Village clerk 	•	Teachers Farmers Traders	 Coolies Laborers Trash collectors 	

Appendix 4. Classifications and Indicators of Family Welfare in Kedondong Village (Based on Village level FGD)

No.	Indicators	The Class	sifications of Family V	fications of Family Welfare		
11 100	mulcators	Rich	Middle Class	Poor		
6	Salary per month Health		 Rp350,000– Rp2 million (not a hajji yet; sufficient salary) Seek medical treatment from doctors (specialists) (only a few) Seek medical treatment from medical assistants (mantri kesehatan) Seek medical treatment from midical assistants 	 < Rp350,000 Use traditional medicine Seek medical treatment at the <i>puskesmas</i> (the <i>puskesmas</i> in Kabupaten Demak provides free services.) 		
			• Seek medical treatment at the <i>puskesmas</i>			
7	Food consumption pattern	Eat the complete menu (including milk)	Eat vegetables, fish and egg	Eat vegetables, tempeh, bean curd, and cheap fish.		

No.	Indicators	The	Classifications of Famil	y Welfare
	marcutors	Rich	Middle Class	Poor
1	Asset ownership	 Own a car Own a motorbike (paid in cash) Own 1-3 houses Own a paddy field, 1 ha Own gold jewelry as much as 10-50 gr 		 Own a bicycle Do not own a paddy field; unable to rent Have no gold
2	Housing	 Permanent house Brick walls Ceramic-tiled floor Ceiling Fence House size of 9m x 10m 	No ceiling nor fence	 Small and plain house of 4m x 5m or 4m x 6m Dirt floor Bamboo wall No ceiling nor fence
3	Salary per month	More income; have savings • • Rp2 million		Not fixed; Rp20,000 per day • < Rp600,000
4	Work	 Open a foodstall Own a paddy field Traders Village officials Drivers (own a pick up) 	• Peddlers	 Farm hands Rent cows/bulls Trash collectors Construction workers Factory laborers Fish traders Unemployed
5	Food consumption pattern	 Eat three times a day; food grown on their own garden Seafood Eat meat twice a week Tempeh, tofu 	day; food grown on their own garden • Seafood • Vegetables	 Eat three times a day (rice is bought, not grown.) Salted fish Tempeh Garlic chillies Eat meat once a year every Eid al-Adha
6	Clothing	 Branded Bought in supermarket 	• Bought (simple ones)	Given by other peopleSecond-hand clothes

Appendix 5. Classifications and Indicators of Family Welfare in RT 4 RW 1 of Kedondong Village (Based on the RT level FGD)

No.	Indicators	The Classifications of Family Welfare			
		Rich	Middle Class	Poor	
7	Education	Children: go to senior secondary school and university	Children: go to junior and senior secondary schools	Children: go to primary school	
8	Health	 Seek medical treatment from doctors (specialists) Seek medical treatment at the hospital Seek medical treatment from village midwives Seek medical treatment at the <i>puskesmas</i> 	 Seek medical treatment from village midwives Seek medical treatment at the <i>puskesmas</i>; in cases of a serious illness, the patient goes to the hospital 	 Seek treatment from traditional healers Seek medical treatment at the <i>puskesmas</i> (free-of- charge since 5 years ago) 	

No.	Indicators	The Classifications of Family Welfare			
1140.	malcators	Rich	Middle Class	Poor	
1	Asset ownership	 Own good furniture Own a cupboard Own a 21-inch TV Own aluminum plate shelves Use gas/kerosin stove Own a magic jar Own a fan Own 1-2 motorbikes (paid in cash) 	• Own a magic jar (not	 Own a black and white TV or have no TV Own bamboo plate shelves Use firewood for cooking Do not own private bathroom and toilet Own a bicycle or travel on foot Mostly widows 	
2	Housing	 Own a luxurious house Brick walls Ceramic-tiled floor Private bathroom and toilet with ceramics House size is 8m x 8m 	 Own a simple house Walls made of wood Cemented/tiled floor Private bathroom and toilet made up of bricks and cement House size is 6m x 9m 	 Own a plain house or do not own a house Bamboo walls Dirt floor House size is 6m x 8m 	
3	Health	 Seek medical treatment at the hospital Seek medical treatment at the <i>puskesmas</i> Seek medical treatment from midwives (mostly) Seek medical treatment from doctors (not too many) 	 Seek medical treatment from midwives Seek medical treatment at the <i>puskesmas</i> Seek medical treatment at the hospital 	 Use free-of-charge services provided by the <i>puskesmas</i> (health insurance for the poor family) Seek medical treatment from traditional healers 	
4	Education	 Able to send children to school Up to senior secondary school (the highest education level) Mostly junior secondary school 	 Up to junior secondary school (the highest education level) Able to send children to school Literate 	 Primary school (the highest education level) Unable to send children to school 	

Appendix 6. Classifications and Indicators of Family Welfare in RT 6 RW 3 of Kedondong Village (Based on the RT level FGD)

No.	Indicators	The Classifications of Family Welfare			
		Rich	Middle Class	Poor	
5	Work	 Farmers owning ¹/₂ bahu – 1 ha (2,500m²) Staple food traders and own a shop Fish traders 	 Farmers renting a paddy field once a year; price for renting 1 <i>bahu</i> (6,500 m²) is Rp3-4 million/year Farmers owning ¼ <i>bahu</i> of paddy field Construction coolies (rock/wood) (Rp35,000 /day for assistant laborer, Rp37,500/day for laborer) Drivers; renting others' car Teachers 	j j	
6	Salary (Rp/ month) or savings (Rp/year)	 Savings ranging from Rp4-Rp8 million per year 	 Savings around Rp1.5- Rp4 million per year Wage as a coolie is Rp35,000 x 10 = Rp350,000/month 	 Cannot save Rp0-Rp100,000 per month Buy food on credit at foodstalls 	
7	Food consumption pattern	 Eat three times a day Eat meat or chicken once a month 	 Eat three times a day Eat meat or chicken once a month 	 Eat whatever food available Twice a day; no breakfast Salted fish <i>Kangkung</i> (water cress) Eat meat or chicken from other people on Eid al-Fitri 	