# FAMILY-COPING STRATEGIES IN MAINTAINING WELFARE DURING THE ECONOMIC CRISIS IN INDONESIA: A case study in rural and urban areas in Bogor, West Java, Indonesia<sup>1</sup>

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#### **ABSTRAK**

Lima tahun setelah krisis ekonomi yang akut melanda Indonesia (1997), proses pemulihan kehidupan berjalan sangat lambat. Masih dibutuhkan upaya untuk mengidentifikasi cara meningkatkan kesejahteraan keluarga. Tulisan ini merupakan bagian dari penelitian dengan judul yang sama, dengan tujuan (1) mengidentifikasi kesejahteraan keluarga di perkotaan dan pedesaan sebelum dan selama krisis ekonomi, (2) mengidentifikasi dampak krisis ekonomi terhadap penghasilan dan pengeluaran keluarga di daerah pedesaan dan perkotaan, (3) menganalisis upaya yang dipilih keluarga dalam menyikapi dampak krisis dan tingkat keberhasilan dan kepuasannya, dan (4) mengevaluasi peran pemerintah dan kelembagaan lokal dalam mendukung upaya keluarga menanggulangi dampak krisis. Dari penelitian ini terlihat bahwa proporsi masyarakat yang berada di bawah garis kemiskinan di pedesaan dan perkotaan meningkat selama tahun 1997-2001. Pendapatan riil keluarga di pedesaan sebelum dan sesudah krisis tahun 1998 menurun sebesar 26,7 persen dan diperkotaan 48,7 persen, akibat meningkatnya harga-harga barang kebutuhan pokok. Selama tahun 2000-2001 ada perbaikan dalam pendapatan keluarga. Sebagai dampak dari penurunan pendapatan riil, keluarga mengurangi konsumsi ikan,daging dan makanan jadi. Pada sisi lain ada peningkatan konsumsi makanan dengan bahan baku kedelai, seperti tahu dan tempe. Pengeluaran untuk non-makanan juga menurun secara nyata di daerah pedesaan dan perkotaan. Diantara 31 strategi yang dipilih keluarga dalam menyikapi dampak krisis, strategi yang paling efektif adalah mengurangi pengeluaran untuk makanan dan nonmakanan dan meningkatkan produktivitas usaha. Dengan menggunakan structural equation model, factor yang secara nyata berpengaruh terhadap strategi yang dipilih keluarga dalam menyikapi dampak krisis adalah jumlah anggota keluarga dan tingkat pendapatan. Dukungan pemerintah dan masyarakat melalui berbagai program seperti Jaringan Pengamanan Sosial (JPS) memberikan dampak nyata pada upaya keluarga menyikapi krisis, namun untuk wilayah perkotaan upaya ini belum berfungsi efektif.

Kata kunci : krisis ekonomi, kesejahteraan, strategi, pendapatan keluarga

#### **ABSTRACT**

Indonesia's economic crisis has not been over five years afterward. This research was aimed (1) to assess the welfare of the people located in rural and urban areas before and after the economic crisis, (2) to identify the impact of economic crisis on households' income and expenditure in rural and urban areas, (3) to analyze the coping

<sup>&</sup>lt;sup>1</sup> This paper is a condensed version of the author's MS thesis at Bogor Agriculture University.

strategies chosen by households in the rural and urban areas and assess their effectiveness, and (4) to evaluate the role of government and local institutions in supporting these family-coping strategies. This research revealed that the proportion of population below the poverty line both in urban and rural areas increased for the period of 1997-2001. The level of income before and after the crisis in 1998 revealed that 48.7 percent of families in the urban areas and 26.7 percent in the rural areas had declined. However, during the period of 2000-2001 their households' income improved. An assessment of the impact on family expenditures showed that consumption of fish, meat, and prepared food declined. In contrast, consumption of soybean-based food products such as tofu and tempe increased. Nonfood expenditures also decreased in the urban and rural areas. Among the 31 strategies used to cope with the economic crisis, the most effective ones were reduction of expenditures for food and non-food items and increasing productivity. Using the structural equation model analysis, the significant factors that positively affected family-coping strategies were family size and level of income. The government and society support services such as social safety net programs had positive impact, even though in urban areas its impact was not optimal.

Key words: economic crisis, welfare, coping strategis, households' income

#### INTRODUCTION

#### **Background**

Indonesia faced an economic crisis in July 1997 and since then rural and urban families have not yet fully recovered from it. The main problem in the recovery process has been blamed on poor government performance in terms of providing safety nets to cushion the negative impact of the crisis. The majority of the Indonesian people have lost hope that the present government could help alleviate the acute poverty problem of the country. During the crisis years (1996–98), the proportion of poor people in Indonesia increased by around 60 percent. In late 1998, the total number of the poor reached around 49.5 million or 24.23 percent of the total population. Based on data from the Central Bereau of Statistics (CBS), the impact of the crisis is greater in the urban than in the rural areas. In the same time period, the number of poor people increased by 83.3 percent in the urban areas and by 28.1 percent in the rural areas.

The main impact of the crisis is felt in the increase of prices of nine essential foods. This condition is related to high inflation during the economic crisis and the decline of purchasing power of the households. The impact depended mainly on the level of household income (Soemarjan, 1998). The impact on the family finances is also reflected in their social lives. The impact was greater as the duration of the crisis increased.

To alleviate the negative impact of this crisis, the government established programs such as the social safety net program (JPS). However, there were some problems in the implementation of this program, especially in

identifying the target group (Nurmanaf, 2000; CASER, 2000). Not all of the poor people were reach the program.

#### **Objectives of the Study**

This study aimed to

- a) assess the welfare of the people located in rural and urban areas before and after the economic crisis,
- b) identify the impact of economic crisis on household income and expenditure in rural and urban areas,
- analyze the coping strategies chosen by households in rural and urban areas and assess their effectiveness, and
- d) evaluate the role of government and local institutions in supporting these family-coping strategies.

#### **Conceptual Framework**

In system theory, family is a part of the society system and have interaction each others (Whitchurch and Constantine, 1993). Family system sustain the society equilibrium state by interacted with others system. The decision-making process of a household maybe influenced by factors related to the family system (Deacon and Firebaugh 1988). These factors can be categorized by family activities.

Throughput is the process of activity, whose effectiveness depends on the family-coping strategies. Family activities maybe influenced by external factors such as government policy, local institutions, and extended families. Based on structural and functional theory, family has flexibility to respond some disturbance in their family system. Output is the goal of all family activities, such as improved welfare. The behavior of family is related to disturbance in the family (Figure 1).

#### **RESEARCH METHODOLOGY**

#### **Location, Time and Sampling Framework**

This study used a survey technique to obtain descriptive statistics. Research was conducted from April to June 2001 in Bogor municipality (Panaragan village, Bogor Tengah submunicipality) and Bogor district (Karacak village, Leuwiliang subdistrict), West Java, Indonesia. Bogor was chosen as the study site because it is near Jakarta (≈ 50 km from Jakarta), and the hypothesis in this research is Jakarta and the area around Jakarta influenced directly by the economic crisis.

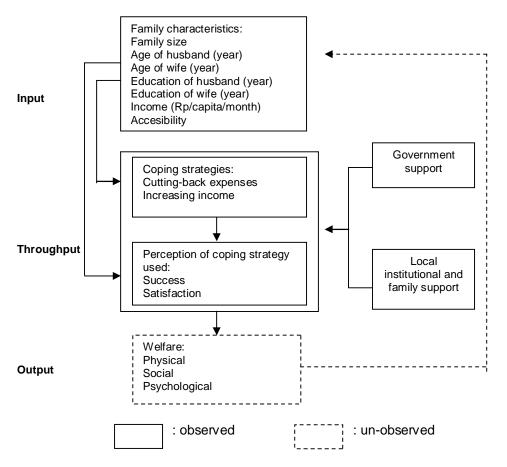


Figure 1. The Operational Framework of Family Coping Strategy During the Economic Crisis

The respondents were chosen by purposive method based on household activity and number of poor people (NCAFP, 2002). We chose 45 households from total 191 household in in Karacak village and 39 household from total 162 household in Panaragan. Simple random sampling was used to obtain a sampling frame based on families registered under NCAFP (National Coordination Agency of Family Planning).

#### **Data Collection and Analysis**

Two kinds of data, secondary (CBS and NCAFP) and primary were gathered. Primary data were collected through interviews, key informant

interviews and focus group discussions. Structured questionnaires were used in the interviews. To validate the data, the Pearson correlation test and Cronbach alpha test were used. In this study, quantitative and qualitative analysis with proportion estimates, scoring and structural equation model (SEM) approaches were used. Data processing was done using Statistical Analysis System (SAS) software R8.2. In the SEM analysis, latent variable was used for unmeasured variable. This is a new approach for social research. Relation inter latent variable is called a *structural equation or causal model* (Bollen, 1989):

 $\eta = \beta \eta + \Gamma \xi + \zeta$ 

where :  $\eta$  = latent endogenous variables

ξ = latent exogenous variables

 $\beta$  = coefficient latent endogenous variables

 $\Gamma$  = coefficient latent exogenous variables

 $\zeta$  = latent errors

There, the equation used to measure the model:

 $x = \Lambda_x \xi + \delta$ 

y = Λ<sub>v</sub> η + ε

where:  $y = observation indicators from \eta$ , there are:

 $\eta_1$  for  $y_1$ = cutting back expenses strategies (11 items)

 $y_2$  = income-generating strategies (14 items)

 $\eta_2$  for  $v_1$ = the success level of cutting back expenses strategies

v<sub>2</sub> = the success level of income generating strategies

 $z_1$  = the satisfaction level of cutting back expenses strategies

z<sub>2</sub> = the satisfaction level of income generating strategies

 $\eta_3$  for  $x_1$  = family size

 $\eta_4$  for  $x_2$ = age of husband (year)

 $x_3$  = age of wife (year)

 $x_4$  = education of husband (year)

 $x_5$  = education of wife (year)

 $\eta_5$  for  $x_6$ = income (Rp/capita/month)

d = observered indicators from  $\xi$ , there are:

 $d_1$  = government support

d<sub>2</sub> = society/family support

 $\Lambda_y$  = relation coefficient from y to  $\eta$  $\Lambda_d$  = relation coefficient from d to  $\xi$ 

ε = measurement errors yδ = measurement errors d

#### **RESULTS AND DISCUSSION**

#### Society Welfare Level Before and After the Crisis

In the 1996-99 periods, the poverty line in Bogor municipality and Bogor district increased respectively by 142.74 percent and 147.72 percent (Table 1). The increase in poverty level was caused by the decreased in household real incomes due to high inflation rate during the beginning of economic crisis. From February 1996 to December 1998, inflation rate in staple food was 148 percent. The same result with CASER and The World Bank research (2000), around 35 percent of all households in the sample experienced a decline in per capita income from 1995 to 1999. The poverty level (in US dollars) had decreased, however.

Table 1. Poverty Level in Bogor Municipality and Bogor District (1996-1999)

	F	Poverty leve	vel % of poor people				
Location	1996	1999	% of change	1996 1999 c 15 5.68 15.18 5 12 6.44 13.09 0 19 11.06 19.78	% of change		
Bogor District							
Rp/capita/month	36,007	87,406	142.75	5.68	15.18	9.50	
US\$/capita/month	15.37	12.15	-20.95	-	-	-	
Bogor Municipality							
Rp/capita/month	35,734	88,520	147.72	6.44	13.09	6.65	
US\$/capita/month	15.26	12.30	-19.40	-	-	-	
West Java Province							
Rp/capita/month	34,694	82,707	138.39	11.06	19.78	8.72	
US\$/capita/month	14.81	11.50	-22.35	-	-	-	

Notes : 1996: 1 US\$ = Rp 2,342; 1999: 1 US\$ = Rp 7,195

Sources: CBS, 1996, 1999 and 2000b.

The percentage of poor people in Bogor Municipality and Bogor District increased approximately from 6.65 to 9.50 percent because the increase in income was less than the increase in price. On the other hand, before the crisis, many people were near the poverty threshold, and with small changes more people were included. Based on NCAFP data for the 1997–2001 period, the poor people in Bogor Municipality and Bogor District increased. The NCAFP made five different category for the poor people. The very poor people belong to

"Keluarga Pra-Sejahtera (Pra-KS)", the family can not fulfil their minimum basic need, and those better off belong to "Keluarga Sejahtera Tahap III plus (KS-III Plus)", who can fulfil all their basic need and sustain their condition for long time. These categories were based on household income, expenditure, and ability to gain access to some facilities.

#### **Household Characteristics**

The average household size was 5.64 persons per household in the urban areas and 4.98 persons per household in the rural areas. Based on the CBS categories of households those with five or more members have a tendency to be very poor. Therefore, the population in urban areas was relatively poorer than that in the rural areas. Dependency ratios in the urban and rural areas were 1.8 and 1.7, respectively. The husband and wife in the urban areas attended school for 7.8 and 8.5 years, respectively. Meanwhile, the corresponding values in the rural areas were 6.9 and 8.1 years.

## The Impact of Economic Crisis on Family Welfare Changes in Household Income

During 1997-98, the peak of the economic crisis, more respondents, especially those in the urban area (48.7%) perceived that their income decreased. This decline was attributed to the decrease in purchasing power of the households. In 1998-99, income of part of the household, namely 11.1 percent in the urban and 17.9 percent in the rural areas increased, especially those of government officials with permanent income (Table 2). In the urban areas, the income decline was caused by the decrease in demand for urban products. In the rural areas, the decline was caused by the increase in production inputs for crops such as fertilizer and wage rates. Sandee (1999) reported the impact of crisis on rural Java is diverse, landowners appear to be doing better than others.

Table 2. Respondents' Perception About Income Change in Rural and Urban Areas Before and After the Crisis (1997 – 2002).<sup>a</sup>

Vaar		Rural			Urban	
Year	Increase	Decrease	No change	Increase	Decrease	No change
1997-1998	-	12 (26.7)	33 (73.3)	-	19 (48.7)	20 (51.3)
1998-1999	5 (11.1)	9 (20.0)	31 (68.9)	7 (17.9)	4 (10.3)	28 (71.8)
1999-2000	5 (11.1)	9 (20.0)	31 (68.9)	5 (12.8)	3 (7.8)	31 (79.4)
2000-2001	1 (2.2)	10 (22.2)	34 (75.6)	3 (7.8)	2 (5.1)	34 (87.1)
2001-2002	1 (2.2)	5 (11.1)	39 (86.7)	2 (5.1)	1 (2.6)	36 (92.3)

<sup>&</sup>lt;sup>a</sup>Number in parentheses represents the total for each period.

#### Changes in Household Expenditure

The price of rice was reported to rise like a sky rocket, namely by 150 percent during the economic crisis. However, this did not influence rice consumption. The same result with study by Ilagan (1999) in Philippines, the consumption of rice relatively stable after crisis. In the rural areas, households reduced the consumption of instant food products (instant noodle), poultry (egg, chicken), and meat. In the urban areas, most of respondents reduced the frequency of consumption, especially of nonrice food. Some of the households switched from quality food to cheaper food such as soybean-based product "tempe", tofu, and dried fish (Table 3). Households in urban areas reduced their expenditure on housing, clothing, transportation, education, and social events. Households reduced their health expenditures by opting to avail of cheaper health facilities. More household members went to public health clinics rather than to private doctors.

Table 3. The Percentage of Family Based on Their Frequency of Food Consumption Before and After Crisis in Rural and Urban Area (2002)

Type of food	Frequ	ency o	f consu	umption	before	e crisis	Freq	uency	of cons	umptio	on after crisis						
Type of food	1	2	3	4	5	6	1	2	3	4	5	6					
1. Rural Rice Instant noodle Fish Dried fish Egg Chicken Meat Tempe Tofu	100 35.6 2.2 68.9 14.4 2.2 - 42.2 40.0	24.4 13.3 13.3 8.9 11.1 2.2 2.2 6.7	37.8 42.3 15.6 37.8 35.6 15.6 53.4 48.9	2.2 20.0 2.2 6.7 28.9 26.7 2.2 4.4	6.3 - 2.2 8.9 4.4	15.9 - - 13.3 51.1	100 28.9 - 75.6 40.0 2.2 - 42.2 40.0	15.6 2.2 4.4 6.7 - - 2.2 4.4	40.0 44.4 17.8 42.2 33.3 6.7 53.3 31.2	13.3 28.9 2.2 8.9 35.6 33.3 2.2 4.4	6.7 - 2.2 8.9 2.2	2.2 33.3 - 20.0 57.8					
2. Urban  Rice Instant noodle Fish Dry fish Egg Chicken Meat Tempe Tofu	100 53.8 2.6 10.3 25.6 10.3 2.6 17.9 20.5	23.1 2.6 15.4 23.1 15.4 - 30.8 23.1	17.9 33.3 59.0 43.6 35.9 23.1 41.0 51.3	10.3 10.3 5.1 25.6 25.5 5.1 2.6	2.6 - 2.6 15.4	5.2 48.6 5.0 2.6 10.2 33.3 5.2 2.5	100 25.6 2.6 15.4 46.2 12.8 5.1 28.2 30.8	15.4 2.6 30.8 15.4 17.9 25.6 20.5	41.0 15.4 38.5 33.3 23.1 10.3 38.5 43.6	12.8 23.1 10.3 30.8 28.2 2.6 2.6	5.1 - - 5.1 7.7	5.2 51.2 5.0 5.1 10.3 41.3 5.1 2.5					

Note: 1 = every day

2 = 4-6 day/week

3 = 1-3 day/week

4 = 1-3 day/month

5 = more than 1 month 6 = never/incidental

#### Changes in the Use of Food and Nonfood Products

Another coping strategy of the household was changing the consumption of high-quality food. Around 4.4 percent of households in rural areas and 7.7 percent in urban areas switched from high-quality to low-quality cooking oil. Around 6.7 percent and 12,8 percent of households in rural and urban areas, respectively, switched to cheaper brands of soy sauce. Households switched to low-quality and cheaper products such as instant noodle, coffee and spices. As to nonfood products such as soap, toothpaste, and shampoo, the households bought the cheaper brands. For cigarettes, the situation was unique. Before the crisis, more households used expensive products; after the crisis, only a few switched to a medium-price product.

## Coping Strategies to Maintain Socioeconomic Welfare Coping Strategies Chosen by Families

Around 25 types of coping strategies were adopted during the economic crisis. These were categorized into two: cutting back expenses (11 types) and income generation (14 types). The effectiveness of the coping strategy depends on the success and satisfaction level. Majority of the respondents expressed their success in the use of coping strategies (Table 4). First, if they can cut back expenses (hold expenses constant, 81.0% of respondent), and second, if they can maintain their children's education (children not dropping out from school, 28.6% of respondent).

Table 4. Success and Satisfaction Criteria Used to Assess Coping Strategies to Maintain Socioeconomic Welfare in Rural and Urban Areas (2001)

	Rui	ral	Urb	an	Tot	tal
Criterion	No. of	%	No. of	%	No. of	%
	answers <sup>70</sup> ai		answers	answers 70		/0
Successful						
Increase the income	4	8.9	12	30.8	16	19.0
Hold expenses constant	39	86.7	29	74.4	68	81.0
No reduction in food consumption	4	8.9	18	46.2	22	26.2
Children not dropping out from school	13	28.9	11	28.2	24	28.6
No health problems	7	15.6	1	2.6	8	9.5
Can save some money	2	4.4	2	5.1	4	4.8
Still have contribution for social activity	-	-	1	2.6	1	1.2
Total	45	100.0	39	100.0	84	100.0
Satisfactory						
Increase the income	1	2.2	4	10.3	5	6.0
Hold expenses constant	19	42.2	14	35.9	33	39.3
No reduction in food consumption	25	55.6	19	48.7	44	52.4
Children not dropping out from school	17	37.8	11	28.2	28	33.3
No health problems	2	4.4	-	-	2	2.4
Can save some money	4	8.9	3	7.7	7	8.3
Still have contribution for social activity	20	44.4	14	35.9	34	40.5
Total	45	100.0	39	100.0	84	100.0

The satisfaction criteria are met if the household does not reduce food consumption (52.4% of respondent) and members still share in social activities (40.5%) and hold expenses constant (39.3%). Based on the total of success and satisfactory rates, we can measure the effectiveness of the coping strategy (Table 5). Most of the coping strategies being high in effectiveness involve efforts to decrease expenditure, by switching food and nonfood expenditure. In education and health facilities, the household cut back on expenses, but this was not very effective. Coping strategies such as increasing income generation by developing a business were highly effective. In the rural areas, more households chose the coping strategy that increases income. There were some alternatives for increasing the income: renting land from landlord, or being part of a laborer, doing agricultural activity, or switching to trading of agricultural product. In the urban areas, some housewives had engaged in small-scale trade for food and cosmetics.

### Factors That Influence the Perception That the Family Coping Strategy was Successful and Satisfactory

Figure 2 shows the factors which influence the perception that the family coping strategy is successful. Figure 3 shows corresponding factors in terms of the strategy being satisfactory. In general, variables were statistically significant (SE < 0.05) and correlated with their latent variables. If the family characteristics are related to successful and satisfactory strategies, latent variable on number of families and economic household performance were significant and had a positive sign. These conditions tell about the impact of family number on efforts to increase income. If the number of family members increases the efforts will also increase. In the end, it will be more successful and satisfactory to the family.

The effect for increase the income that more real (t-value= 11.26) in impact to maintain the welfare and the household have been done by adding other sources of income such as working over time, selling assets, borrowing from others, or decreasing the savings. This model does not differentiate rural and urban areas, because the t test showed that the family coping strategies were not significantly different from zero (p < 0.0001).

#### Government, Family, and Local Institutional Support

The government launched many programs to help the poor people. Some of these are the Social Safety Net ("Jaring Pengaman Sosial"), financial support with low rent ("Program Peningkatan Ketahanan Pangan"), low-cost health facilities (family planning), educational support for elementary students, and specifying low prices of food (rice) or "raskin". This research found that not all the poor people benefited from those programs because of lack of proper identification. Based on Caser and The World Bank study (2000),only 38 percent

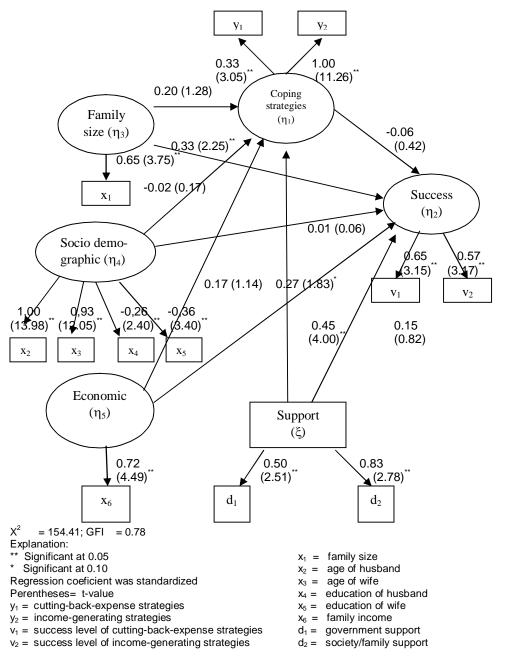


Figure 2. Factors That Influence the Perception That Family Coping Strategies Chosen During Economic Crisis were Successful

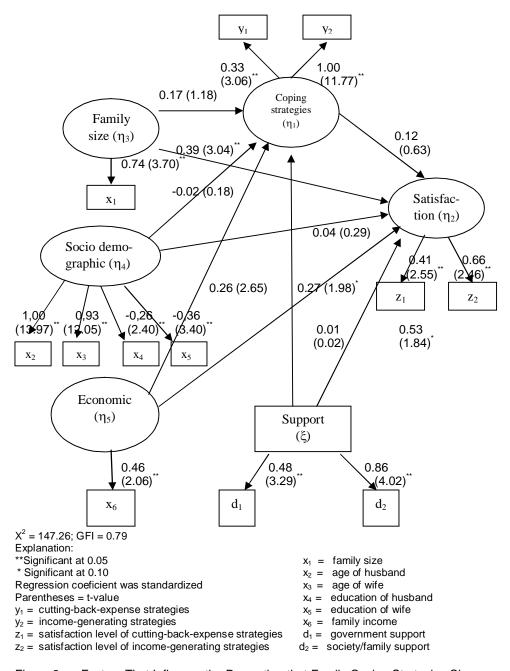


Figure 3. Factors That Influence the Perception that Family Coping Strategies Chosen During Economic Crisis were Satisfactory

of the poor received benefit from this program. Another problem with "raskin" program was the amount of rice that can to buy is not really the same for every recipient. In the rural areas, there were more households supported by the extended family and local institutions than in the urban areas. During the economic crisis, local institutional support for the poor people was provided through "perelek beras", an activity where some people contribute rice or whatever they can give to those who need.

#### **CONCLUSIONS AND IMPLICATIONS**

#### Conclusion

Since the economic crisis, the proportion of poor people in Bogor District and Bogor Municipality has increased significantly. The economic crisis led to a decline in income and household expenditures.

The main coping strategies adopted by households were those that decreased consumption expenditures. Households diminish their food consumption by decreasing the frequency (quantity) of consumption or by buying a cheaper brand (quality). In rural areas, households reduced their consumption of egg, meat, chicken, and instant food. In urban areas, households consumed less of the non-rice food, vegetables and fruits.

The factor that significantly influenced family coping strategy is family size. Satisfaction with the choice of coping strategy depends on total income and external support. Based on effectiveness scores using success and satisfaction criteria, efforts to stabilize food consumption and increase income (by engaging in other productive activities) are highly effective. Efforts to decrease health cost and maintain education costs have low and medium effectiveness respectively. Selling assets and borrowing from others gave low and medium effectiveness.

Government support through cheaper rice ("Raskin"), family planning program, and scholarships gave some benefits to respondents. However, some respondents said these programs excluded other poor families because they were not properly identified. Support coming from extended family and local institutions had a significant impact in the rural areas.

#### **Implications**

This research shows that households decrease their food and nonfood consumption and look for new income-earning activities to cope with the economic crisis. Therefore, the government should continue to regulate the prices of essential food such as rice, egg, sugar and cooking oil for the poor people. In urban areas, most of the household decrease their real income due to high inflation rate. The government should continue to maintain and strengthen

their sources of income by provide livelihood or job opportunities especially for the poor people.

A coping strategy refers to efforts automatically being done by families to sustain their welfare under an economic crisis situation. Based on this research, there are other variables that influence the household's choice of a coping strategy that can not be explained by this research. Further studies should identify these variables and measure them accordingly.

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#### **REFERENCES**

- Adnyana, M. O., Sumaryanto, M. Rachmat, R. Kustiari, S.H. Susilowati, Supriyati, E. Suryani, Suprapto. 2000. Assessing the Rural Development Impact of the Crisis in Indonesia. Center for Agro-Socioeconomic Research, Bogor, Indonesia and The World Bank, Washington, D.C. USA.
- Agresti, A. and B. Finlay. 1986. Statistical Methods for the Social Sciences. San Francisco: Dellen.
- Central Bereau Statistics (CBS) and United National Development Program (UNDP). 1999. Crisis, Poverty and Human Development in Indonesia. 1998. BPS Catalogue: 1115. Jakarta.
- Bollen, K. A. 1989. Structural Equations With Latent Variables. A Wiley-Interscience Publication.
- Cameron, L. A. 2001. The Impact of the Indonesian financial Crisis on Children: An Analysis Using the 100 Villages Data. Bull. Indonesian Econ. Stud. 37 (1).
- Deacon, R.E. and F.M. Firebaugh. 1988. Family Resource Management: Principles and Application. Alliyn and Bacon, Inc., Boston.
- Frankenberg, E., K. Beegle, B. Sikoki and D. Thomas. 1998. Health, Family Planning and Well-being in Indonesia during an Economic Crisis: Early Results from the Indonesian Family Life Survey. DRU-2013-FGI/NICHD/UNFPA. RAND. (p.90-95).
- Ilagan, V. M. 1999. The Asian Financial Crisis and the Sector of Persons With Disabilities: Effects and Coping Strategies from Two Case Studies in The Philippines. Asia and Pacific Journal on Disability. Vol.2, No. 1, May 1999.

- Kingsbury, N. and J. Scanzoni. 1993. Structural Functionalism <u>in</u> Sourcebook of Family Theories and Methods. A Contextual Approach. Plenum Press, New York and London.
- Klein, D. M. and J. M. White. 1996. Family Theories, An Introduction. Undestanding Families. Sage Publications, Thousand Oaks, London. New Delhi.
- Knowles, J. C., E. M.Pernia and M. Racelis. 1999. Social Consequences of the Financial Crisis in Asia the Deeper Crisis. Economic and Development Resource Center. Asian Development Bank.
- Lown, J. M. 1986. Family Financial Well-Being: Guidance from research. Journal of Home Economics, 78 (4), 5-8.
- Mc.Cubbin, H. and A. I. Thompson. 1987. Family Assessment Inventories for Research and Practice. The University of Wisconsin-Madison.
- NCAFP. 2002. Hasil Pendataan Keluarga dan Pendataan Keluarga Miskin di Kabupaten dan Kota Bogor (Household activity and number of poor people in Bogor Municipality and Bogor District. Bogor, Jawa Barat.
- Puspitawati, H. 1998. Poverty Level and Conflicts Over Money within Family. Tesis yang tidak dipublikasikan. MS thesis, Iowa State University, Ames, Iowa.
- Sandee, H. 1999. Workshop Report : The Impact of the Crisis on Village Development in Java. BIES Vol. 35 No. 1, April 1999. pp 141-2
- Skoufias, E., A. Suryahadi and S. Sumarto. 2000. Changes in Household Welfare, Poverty and Inequality during the Crisis. Bull. Indonesian Econ. Stud. 36 (2).
- Soemardjan, S. 1998. The Impact of Household Crisis. LIPI. Jakarta.
- Sumarwan, U and T. K. Hira 1993. The Effects of Perceived Locus of Control and Perceived Income Adequacy on Satisfaction with Financial Status of Rural Household. Family Econ. Issues 14(4).
- The Center for Agro-Socioeconomic Research (CASER) and The World Bank. 2000. The Effects of the Indonesian Economic Crisis on Agricultural Households: Evidence from the National Farmers Household Panel Survey (PATANAS). CASER and World Bank, Bogor.
- Touliatos, J. and N. H. Compton. 1992. Research Methods in Human Ecology/Home Economics. Iowa State University Press, Ames, Iowa.
- Whitchurch, G. G. and L. L. Constantine. 1993. Systems Theory in Sourcebook of Family Theories and Methods: A Contextual Approach. Edited by P.G. Boss, et.al (eds.) Plenum Press, New York.

Table 5. Effectiveness of Coping Strategies Chosen by Households in Urban and Rural Areas to Maintain Their Welfare on the Basic of Success and Satisfaction Scores

			Rural				U	rban		
I. Cutting back expense strategies		Score Effecti-				Efekti-				
(11 types)	n	Success	Satis- faction	Total	veness	n	Success	Satis- faction	Total	veness
A. Decrease expenditure on										
Food consumption										
a. Decrease quantity	37 (82.2)	80	64	144	Н	33 (84.6)	83	61	144	Н
b. Decrease quality	40 (88.9)	82	93	175	Н	20 (51.3)	51	43	94	Н
c. Decrease variability	13 (28.9)	26	23	49	M	11 (28.2)	24	26	50	M
2. Non-food consumption										
a. Decrease frequency of buying	36 (80.0)	91	81	172	Н	28 (71.8)	70	52	122	Н
b. Reduce quality	36 (80.0)	85	78	163	Н	27 (69.2)	71	59	130	Н
c. Reduce quantity	3 (6.7)	8	7	15	L	1 (2.6)	3	2	5	L
3. Health cost										
a. Reduce source of services	16 (35.6)	41	31	72	М	14 (35.9)	39	27	66	M
b. Reduce quality of medicine	11 (24.4)	23	21	44	М	13 (33.3)	39	25	64	M
4. Education cost	` ,					, ,				
a. Withdraw children from school	7 (15.6)	15	8	23	L	9 (23.1)	23	12	35	M
b. Reduce children's stipend	10 (22.2)	19	15	34	L	10 (25.6)	22	17	39	M
5. Decrease savings	` -	-	-	-	-	10 (23.1)	30	16	46	M

Numbers perenthes are % from n total.

Urban:  $\overline{x} = 66.8$ ; std = 56.7; effectiveness intervals: low (L): < 38; medium (M): 38-95; high (H): > 95.

Rural:  $\overline{x} = 52.8$ ; std = 39.4; effectiveness intervals: low (L): < 33; medium (M): 33-73; high (H): > 73.

Table 5. Continued....

			Rural				Į	Jrban		
II. Increasing the income strategies			Score		Efecti-		Score			_ Efecti-
(14 types)	n	Success	Satis- faction	Total	veness	n	Success	Satis- faction	Total	veness
B. Working for increased income										
Working over time	1 (2.2)	3	3	6	L	4 (10.3)	11	10	21	R
<ol><li>Working another job</li></ol>	8 (17.8)	23	23	45	M	7 (17.9)	15	16	31	L
Engaging in a new productive activity	31 (68.9)	80	80	158	Н	19 (48.7)	51	42	93	Н
4. Giving a children chance to work	10 (22.2)	25	25	50	М	10 (20.5)	27	25	52	M
C. Selling assets	` ,					, ,				
1. Sell land	-	-	-	-	-	1 (2.6)	3	2	5	L
<ol><li>Sell livestock</li></ol>	4 (8.9)	11	11	22	L		-	-	-	-
<ol><li>Sell valuables</li></ol>	11 (24.4)	24	26	50	М	12 (30.8)	32	18	50	M
4. Pawn valuables	1 (2.2)	2	2	4	L	2 (5.1)	6	2	8	L
D. Borrow from others	` ,					` ,				
<ol> <li>Borrow from formal institutions</li> </ol>	4 (8.9)	9	6	15	L	11 (28.2)	29	23	52	M
2. Borrow from nonformal institutions	7 (15.6)	18	15	33	L	6 (15.4)	18	11	29	L
3. Borrow from grocery stores	15 (33.3)	28	26	54	М	8 (20.5)	24	15	39	М
E. Others	- (,					- ( /				
Withdraw savings	5 (11.1)	14	13	27	L	13 (33.3)	37	32	69	M
2. Get something from nature	17 (37.8)	47	46	93	M	2 (5.1)	4	4	48	L
Get some charity from another person	7 (15.6)	16	10	26	L	3 (7.7)	8	8	16	L

Number in perentheses is % from n total.

Urban:  $\overline{x} = 66.8$ ; std = 56.7; effectiveness intervals: low (L): < 38; medium (M): 38-95; high (H): > 95.

Rural:  $\overline{x} = 52.8$ ; std = 39.4; effectiveness intervals: low (L): < 33; medium (M): 33-73; high (H): > 73.