The Social Impact of the Crisis in Indonesia:

Results from a Nationwide *Kecamatan* Survey

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Abstract: This paper is based on a qualitative survey of three expert respondents in every *kecamatan* (sub-district) in Indonesia, designed to obtain a quick indication of overall impacts of the Indonesian crisis. Questions cover the degree of different types of impacts (migration, access to health and education, food availability), the frequency of different types of coping strategies (selling assets, reducing frequency of meals, etc), and the most severe impacts in each area. Indices were constructed to measure crisis impact along five dimensions.

There are three main findings. *First*, urban areas have been harder hit by the crisis than rural areas. *Second*, the impact of the crisis is very heterogeneous, with some regions experiencing great difficulties and others doing relatively well. Both rural and urban areas on Java have been hard hit by the crisis. Some of the other islands, particularly large parts of Sumatra, Sulawesi, and Maluku, have experienced minimal negative crisis impact. Other areas show negative impact, but it is unclear whether problems are economic crisis-related or result from drought (East Timor, NTT, NTB) and fires (East Kalimantan). *Third*, there is little connection between initial poverty levels and the extent to which an area has been hit by the crisis, with some relatively poor areas are not hard hit while some relatively well off areas have been quite hard hit. This implies *crisis impact* targeting and *poverty program* targeting are two, quite different exercises.

The consistency of the results with other quantitative surveys also show that this type of quick turnaround, largely qualitative instrument can give a good overview of degrees of crisis impact in different areas and trends in overall changes. Although results require further validation and cross checking for use in the design of crisis response programs, this kind of survey can point response efforts in the right direction. Because of its low cost and quick turnaround, a similar survey could also be repeated after six months in an effort to provide on-going monitoring of crisis impacts.

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I. Background

As the economic and political crisis in Indonesia has worsened over the past year, there has been increasing recognition of the need to identify and track emerging problems, with a view to designing appropriate responses. Efforts to monitor social impacts have concentrated on improving or accelerating existing tools, such as the national expenditure survey (SUSENAS) and the village potential survey (PODES). Although these efforts are crucial for medium-term planning, the time necessary to design instruments, gather, and process data is too long for these instruments to be a useful guide for immediate action. By the time data are processed and analyzed, quickly changing crisis conditions will have rendered them obsolete.

Other surveys have focused on measuring impact in specific sectors, such as health and education, and have produced good detailed information for a small number of locations and an indication of trends in these sectors. However, they have not been designed to compare crisis impacts across all of Indonesia and identify areas where overall effects have been most severe.

To get a snapshot of changes in overall welfare and emerging problems across Indonesia, the Ford Foundation and the World Bank designed a quick turnaround survey to be implemented in every *kecamatan* (sub-district). The purpose of this tool was to give a first indication of overall crisis impacts, the relative severity of various problems in different parts of Indonesia, and an idea of how to target crisis responses most effectively.

II. Survey and methods

The *Kecamatan* Rapid Poverty Assessment was a subjective, expert respondent survey of three government officials in each of Indonesia's 4025 *kecamatans*. In each sub-district three respondents with kecamatan-wide responsibilities were chosen: the agriculture officer (*mantri tani*) in rural areas or the development officer (*kepala seksi PMD)* in urban areas; the *kecamatan* school supervisor (*penilik sekolah*); and the health officer (*doctor puskesmas).* Each respondent was asked a standard set of

questions about changes taking place in the *kecamatan* as a whole, as well as a set of questions about their professional specialty. [1]

The questions asked about the degree of different kinds of impacts (migration, access to health and education, food availability, etc.), the frequency of different types of coping strategies, and the most severe impacts in each area. All questions were designed to measure proportional change in indicators relative to the same time in 1997, to eliminate seasonal changes. The questions asked of all three respondents were qualitative and asked respondents to rate each indicator's severity on a five-point scale: 1) somewhat improved; 2) about the same; 3) somewhat worse; 4) much worse; and 5) very much worse[2]. The common questions also included a ranking of problems and three questions on existing crisis response programs. The respondent-specific questions were also primarily qualitative, but included a small number of quantitative questions (which duplicated the topics covered qualitatively).

There are limitations to every approach and the use of subjective qualitative questions is no exception. With the decision to use this type of instrument, the loss of quantitative precision and relying on a very small number of respondents in each location were the price paid for a rapid and nationally comprehensive survey. For this survey, national coverage was necessary in order to identify crisis-hit areas for program targeting. A quantitative survey using representative sampling approach was ruled out as demanding *kecamatan* sample sizes that are simply too large. By asking for qualitative assessments we hoped to get universal coverage with complete response (the use of quantitative questions did dramatically raise the non-response rate in this survey). It was also necessary to limit the number of respondents in each *kecamatan* to minimize the time between survey distribution and return of questionnaires.

Inter-respondent reliability. One concern about using the expert respondent qualitative approach is the inter-respondent reliability. Simply put, do two people

[1] In addition to the three respondents in each *kecamatan*, the local representative for the Central Bureau of Statistics (BPS) completed a separate questionnaire, including some quantitative questions regarding changes since the start of the crisis. See Appendix 1 for more details on survey design and data collection.

[2] A typical question is "Relative to the same period last year how many families are switching from stable foods to lower quality substitutes" answered on the scale indicated.

asked the same question about the same *kecamatan* tend to give the same answer? Since 21 questions of this survey were general questions that all three respondents answered, we can assess this inter-respondent reliability of the responses by comparing responses. Appendix 2 details the outcome of three different measures: the correlation across different respondents; within versus across *kecamatan* analysis of variance; and the average absolute deviation.

All three approaches show an acceptable degree of consistency in response patterns within *kecamatan* but also show that there is a significant level of disagreement between respondents. The correlations across kecamatans of the responses of any two of the coders from the same kecamatan seldom rise above 0.3 and some cases are closer to 0.2. The average absolute disagreement between two respondents in the same *kecamatan* (on a scale from 1 to 5) is between 0.6 and 0.8. While this disagreement is relatively small in an absolute sense, the total variation of the responses is also quite small (standard deviations vary between 0.9 and 1.2). The "within" *kecamatan* sums of squares (that part of the variation in the data that arises from disagreements amongst the respondents in the same area) is generally on the order of one-third to one-half of the total variance[3].

This degree of uncertainty serves as a warning to confine analysis to comparisons where we can realistically hope that "signal" will overshadow "noise." This means either using aggregates of *kecamatan* (e.g. provinces or *kabupaten* and *kotamadya*) and aggregates of variables. Also, between *kecamatan* gross distinctions are fairly reliable but fine distinctions (e.g. between "about the same" and "slightly worse") should be made with extreme caution. It should be noted that these limitations imply that, while the broad patterns indicated by this data are useful in targeting of crisis response, used on their own these data alone cannot target program locations at the *kecamatan* level.

Index construction. There are too many questions in the survey to do a detailed analysis of each. Instead, summary indices were constructed from a combination of indicators in each of five dimensions. The construction of each impact index involves several steps:

[3] Because the respondent-specific questions involve only one respondent per *kecamatan* we cannot do similar tests to those above. However, one can expect that these qualitative responses are subject to similar imprecision.

a) choosing variables with sufficient internal reliability and creating a single kacamatan response;[4]

b) dividing the reliable variables into five categories: 1) use of coping strategies in response to crisis impacts; 2) food security; 3) employment; 4) education; 5) health; and

c) assigning appropriate weights to chosen variables within each category.

Using the chosen variables in each category, we applied the principal components technique to summarize the "signal" contained in a set of variables dealing with a common topic. The first principal component of the set of variables for each category, which is that linear combination of all the variables which captures the most common variation in all the variables, was used as the impact index for each category.

The variables included in the principal components analysis for each index were[5]:

* **Coping**: There were ten questions about coping strategies and reduced involvement in community activities, such as the change in selling animals or consumer durables and change in the participation and contributions to *arisan* and ceremony activities.

* **Food Security:** This index combined nine questions on food security, including population reducing the quantity and quality of food consumption, population unable to afford the staple food, and indications of malnutrition.

* **Employment:** This combined seven individual variables about the fraction of people working more hours, the number of family members working, migration movements of males and females, and local business conditions.

4 For the twenty-one questions with three respondents, the responses for each *kecamatan* were combined into a single value. We adopted the following rules to create single variables for each *kecamatan*: a) if all three of the respondents had the same response, we used that response/number; b) if two of the respondents had the same response, we used that response/number; and c) if all three respondents differed, we used the median value of the three responses.

5 For specific questions used and their factor loadings, see Tables 8a-e.

* **Education:** The education index combined nine questions from the school official about enrollments and drop-outs at the primary level, and about parental contributions and teacher attendance.

* **Health:** Seven questions from the *doctor puskesmas* about patient visits, purchasing power for medicines, availability of medicines and contraceptives and quality of services were used for the health index. This health index was the most disappointing as the common component of the responses was too small to make the index of much value added over the individual questions. For this reason we do not include the maps for health below.

III. Provincial and *Kabupaten* Analysis: Regional Heterogeneity and Urban-Rural Differences

The indices were used for two stages of analysis; one at the provincial level, distinguishing rural from urban areas, and another at the district level that distinguishes between rural *kabupaten* (districts) versus *kotamadya* (municipalities). There are three results that come through very clearly from the analysis at both levels:

1) urban areas have been much harder hit than rural areas by the crisis;
2) there is enormous heterogeneity in the impact of the crisis with some areas suffering enormously while others appear to be absolutely better off. Three prominent patterns emerge:
    - Java is hard hit, even in rural areas, most likely because of a high degree of integration between urban and rural areas;
    - Some of the other islands, particularly large parts of Sumatra, Sulawesi, and Maluku, have experienced minimal negative crisis impact;
    - Other areas show negative impact, but it is unclear whether problems are economic crisis-related or result from drought (East Timor, NTT, NTB) and fires (East Kalimantan).
3) There is little connection between initial poverty and the magnitude of the shock, with many of the areas hardest hit were the relatively well-off areas that had booming modern economy sectors pre-crisis.

A. Provincial analysis

Within each province the values for urban and rural *kecamatan* are aggregated separately. This produces 51 regions (two for each of 25 provinces[6] and one for DKI Jakarta, which has no rural *kecamatan*). These are then sorted by level of impact (see Table 1).

The rankings for each of the five indices are shown in Table 1, for urban and rural areas by province using standard area abbreviations (e.g. "Kaltim" in boldface type is urban East Kalimantan, while the rural area of the same province is shown in italics). The same areas are also sorted by an overall impact index based on the average of the rankings of three indices (food security, employment, and coping).

According to the average crisis impact index, the single hardest hit region is urban East Kalimantan while urban Bengkulu is the least hit. Comparing the 40% hardest hit provinces and 40% least hit provinces reveals very clearly that urban areas are, on average, much harder hit than rural areas. Of the 20 hardest hit areas, 14 are urban, while of the 20 least hit areas, 13 are rural. Notably, all areas of Java are included in the 20 hardest hit areas, regardless of urban/rural status. The only other rural areas included in the 20 most affected areas are East Kalimantan and Aceh.

The urban areas that fall into the least hard hit 40% are those in provinces where rural areas are also relatively unaffected, such as Jambi, South Sumatra, Bali, North Sulawesi, Central Sulawesi, Maluku, and Bengkulu.

These results imply that the crisis impacts are concentrated in urban areas and on Java. Also, some of the eastern provinces have experienced substantial negative impact in both urban and rural areas. Important exceptions are urban areas in provinces that produce export crops or other foreign exchange earning activities (such as tourism). Likely explanations for this regional pattern include the higher integration of rural and urban areas on Java so that a modern sector crisis (e.g. originating in the banking and corporate sector) would spillover more, the recent drought in Eastern Indonesia, and the higher rupiah incomes (due to the currency depreciation) earned from export crops in regions that escaped the recent drought.

[6] Irian Jaya is not included in the analysis because of insufficient response from *kecamatan* in the province.

Rank	Overall Impact*	Food Security	Coping Strategy	Employment	Education	Health
1	**Kaltim**	**Timtim**	**DI Aceh**	**NTB**	**Kalbar**	**DI Yogya**
2	**NTT**	**NTT**	**Kaltim**	**Lampung**	**Timtim**	**Bali**
3	**DI Aceh**	*Timtim*	**Kalsel**	**Sumut**	**NTT**	**Kalbar**
4	**NTB**	*NTT*	*Jabar*	**Kaltim**	*DI Aceh*	**Lampung**
5	**Kalsel**	**NTB**	**Lampung**	**Sumsel**	*Kalbar*	**Timtim**
6	*Jabar*	**DI Yogya**	**NTT**	**Jateng**	**Sumut**	**Jambi**
7	**DI Yogya**	**DI Aceh**	**Jabar**	*Jabar*	*Timtim*	*DI Yogya*
8	**Lampung**	**Kaltim**	**Kalbar**	*Jateng*	**DI Aceh**	*Lampung*
9	**Kalbar**	*DI Yogya*	**NTB**	**DI Yogya**	*Sumut*	**NTB**
10	**Jabar**	**Kalbar**	**Kalteng**	**Kalsel**	*Kaltim*	*Bali*
11	**Timtim**	**Jatim**	**Sumbar**	**Jabar**	*Sultra*	*Jabar*
12	*Jateng*	*Jateng*	*DI Aceh*	**NTT**	*NTT*	*DI Aceh*
13	**Sumut**	*Kaltim*	**DKI Jakarta**	*NTB*	**Riau**	*Jateng*
14	**Jateng**	*Jatim*	**Sumut**	**DI Aceh**	**DKI Jakarta**	**Sultra**
15	**Jatim**	**Kalsel**	**DI Yogya**	*DI Yogya*	*Kalteng*	**Kaltim**
16	*Kaltim*	*Jabar*	*Kaltim*	**Jatim**	*DI Yogya*	**Sumut**
17	*DI Yogya*	**Jateng**	*Jateng*	*DI Aceh*	*Kalsel*	**Jabar**
18	*DI Aceh*	**Jabar**	**Jateng**	*Jatim*	**Jabar**	**Jatim**
19	**DKI Jakarta**	**Lampung**	**Timtim**	*Lampung*	*Riau*	*Kalbar*
20	*Jatim*	*NTB*	*Kalteng*	**Kalteng**	*Jateng*	*NTB*
21	**Sumbar**	**Sulsel**	*Kalsel*	**Riau**	*Bengkulu*	*Sumut*
22	*NTT*	**Sumut**	**Jatim**	*Sumut*	*Bali*	*Kalteng*
23	*NTB*	*Lampung*	**Riau**	**DKI Jakarta**	**Sumbar**	*Maluku*
24	*Timtim*	**DKI Jakarta**	**Sultra**	**Sulsel**	**Jateng**	**Riau**
25	**Kalteng**	*DI Aceh*	**Jambi**	*Sumsel*	**Jambi**	**Sulut**
26	**Sulsel**	**Sultra**	*NTB*	**Sumbar**	*NTB*	*Sumbar*
27	*Kalteng*	*Sultra*	*Jatim*	**Timtim**	*Lampung*	*Sulteng*
28	*Lampung*	*Bali*	*DI Yogya*	**Kalbar**	*Sumsel*	*Sumsel*
29	*Kalsel*	*Kalteng*	*Sumbar*	**Bali**	**Sumsel**	**DKI Jakarta**
30	**Sultra**	**Sumbar**	**Sulsel**	*Sumbar*	*Jabar*	*Sulsel*
31	**Riau**	*Maluku*	**Sulteng**	*Kalteng*	*Sumbar*	*Kalsel*
32	**Jambi**	*Kalsel*	*NTT*	*Bali*	*Jambi*	*Jatim*
33	**Sumsel**	**Bali**	**Sumsel**	*Kalsel*	**Jatim**	**Sulteng**
34	*Sultra*	*Kalbar*	*Lampung*	*Kaltim*	**Sulut**	*Bengkulu*
35	*Kalbar*	**Sulut**	*Kalbar*	**Jambi**	**Kalsel**	*Sultra*
36	*Sumbar*	**Jambi**	*Timtim*	*Kalbar*	**DI Yogya**	**DI Aceh**
37	*Sumut*	**Riau**	*Sumut*	*Sulsel*	*Sulsel*	**Sulsel**
38	*Bali*	*Sulsel*	*Sulsel*	*Sulut*	**Lampung**	**Jateng**
39	**Bali**	**Kalteng**	*Sultra*	*Bengkulu*	**Sulteng**	**Maluku**
40	*Sulsel*	*Sumut*	**Sulut**	*Sultra*	**Kalteng**	**Bengkulu**
41	**Sulut**	**Sumsel**	*Sumsel*	*NTT*	**Sultra**	*Kaltim*
42	**Sulteng**	*Sulteng*	*Riau*	**Sultra**	*Sulteng*	**Sumbar**
43	*Maluku*	*Bengkulu*	*Sulteng*	**Bengkulu**	**Sulsel**	*Sulut*
44	*Sumsel*	**Sulteng**	*Jambi*	*Riau*	*Maluku*	*NTT*
45	*Sulteng*	*Sumbar*	**Bali**	*Timtim*	*Jatim*	*Riau*
46	*Bengkulu*	*Sumsel*	*Bengkulu*	*Sulteng*	**NTB**	*Jambi*
47	*Riau*	**Maluku**	*Bali*	*Jambi*	**Kaltim**	**NTT**
48	*Jambi*	*Riau*	*Maluku*	*Maluku*	*Sulut*	**Sumsel**
49	*Sulut*	*Jambi*	*Sulut*	**Sulut**	**Bali**	**Kalsel**
50	**Maluku**	*Sulut*	**Bengkulu**	**Sulteng**	**Bengkulu**	*Timtim*
51	**Bengkulu**	**Bengkulu**	**Maluku**	**Maluku**	**Maluku**	**Kalteng**

*)Based on average of three indices (food security, employment,and coping mechanism)

Note: Urban areas are shown in bold while rural areas are indicated in italics.

Since the principal components analysis produces index numbers that are both rescaled (to have a mean of zero) and are a complicated aggregate of a variety of indicators it is difficult to make statements about the absolute magnitude of changes. While we can say which are the "least hit" areas it is difficult to say whether this means they are absolutely better off than a year ago or whether their absolute living standards had deteriorated, but just by less than other areas. However, looking at the cross tabulation on specific questions does suggest some areas are absolutely better off than a year ago.

Table 2 chooses just one question about the "change in the population selling household goods to meet basic needs" broken down into provinces, and by rural and urban. This table shows the fraction of kecamatans in these areas that reported that, by this indicator, things were worse (any one of the three possible responses for severity). For hard hit area in table 1 by the "coping" index, the fraction reporting "worse" on this question is very high, such as 93% in urban Aceh, 87.5% in urban West Java, 82.5% in rural west Java. In contrast, of the areas reported as least hard hit by the "coping" index only a small fraction reported things were "worse". For instance in rural Bengkulu in only 16.7% of kecamatans were asset sales "worse" while in rural Maluku only 26.1% of kecamatan reported things were "worse". In fact, less than half the kecamatan reported asset sales were "worse" in the rural areas of 12 provinces: North Sumatra, West Sumatra, Riau, Jambi, South Sumatra, Bengkulu, Lampung, East Timor, West Kalimantan, West, Central and South Sulawesi.

Table 2: Fraction of Kecamatan in each area (province, urban, rural) reporting “people selling assets to meet basic needs” as a coping mechanism was “worse” (of severity 3,4 or 5)

	Total Worse	**Urban Worse**	**Rural Worse**
Di Aceh	65.6	93.3	62.0
Sumatra Utara	49.2	68.6	43.8
Sumatra Barat	52.7	75.0	43.9
Riau	37.2	61.1	30.9
Jambi	32.2	53.9	25.5
Sumatra Selatan	28.4	50.0	26.6
Bengkulu	25.8	57.1	16.7
Lampung	43.9	75.0	36.3
Average	41.9	66.8	35.7
Jakarta	88.4	88.4	
Java Barat	83.2	87.5	82.5
Java Tengah	73.8	81.6	72.4
Di Yogya	65.4	84.2	59.0
Java Timor	76.7	86.0	75.4
Average	77.5	85.5	72.3
Bali	56.9	66.6	53.9
NTB	72.1	77.8	71.2
NTT	54.0	73.3	51.4
Timtim	40.3	46.2	38.7
Kal Barat	33.6	100.0	26.7
Kal Tengah	55.2	87.5	50.0
Kal Selatan	70.2	84.6	68.4
Kal Timor	71.4	85.7	66.6
Average	56.7	77.7	53.4
Sulawesi Utara	28.0	35.3	26.4
Sulawesi Tengah	29.0	44.4	26.6
Sulawesi Selatan	38.6	58.9	33.1
Sulawesi Southeast	51.6	55.5	51.0
Maluku	30.0	42.9	26.1
Average	35.4	47.4	32.6

B. Kabupaten Level Analysis

In this analysis we distinguish between rural and urban areas on the basis of *kabupaten* and *kotamadya*. *Kabupaten* and *kotamadya* were ranked according to the impact indices and divided into quintiles. We do two types of analysis, a visual analysis of the maps and a statistical comparison of the proportions of various areas falling into the various quintiles of severity.

Maps of crisis impact. Quintiles were then mapped to show the spatial distribution of crisis impact. Figure 1 shows maps for four indicators:
1a. Coping, 1b. Food security, 1c. Employment , and 1d. Education.

Figure 1. *Kabupaten* level crisis impacts on food, coping strategies, employment and education

These maps tell a very clear story, most striking in the index of "coping" (which is an index driven mainly by asset sales and reduced participation in community activities). On the nationwide map there are five areas that are in the bottom quintile:

- West Java and parts of Central Java,
- Urban areas (the kotamadya appear as dark spots on all islands, even more clearly on the insert Java-Bali Map)
- NTT and parts of Tim-Tim
- Scattered areas of West and North Sumatra (Aceh)
- A huge (but sparsely populated) area of Kalimantan

In contrast the unshaded areas, which are the top quintile, shows

- Wide parts of Sumatra, Sulawesi, Maluku, and Bali are among the least hard hit.
- No part of Java is in the top fifth, or "least hit" category.

These same broad patterns show up in the other general crisis indicators. The employment index shows that in employment terms is an even more "island of Java" (and with more rural kabupaten hit hard) and urban crisis, with a few exceptions in Sumatra. Interestingly, an important element of the employment impact index is people "returning to their village." This means that "unempoyment" *per se* is not measured and that some areas from which people are migrating are equally hard hit as the nearby receiving areas.

Figure 1a: Index of *changes* in use of "coping strategies"
(e.g. selling assets, reduced participation in *arisan*)

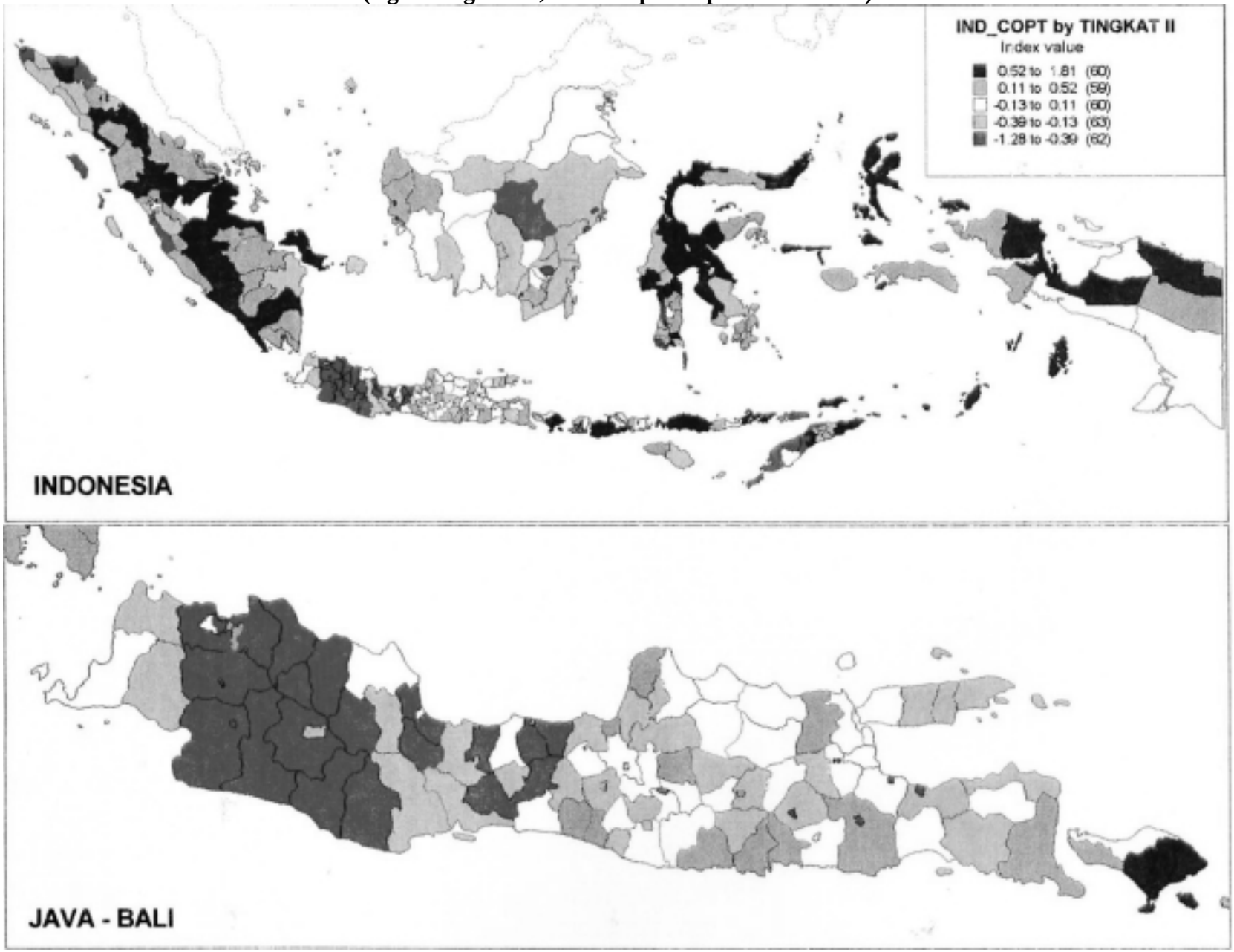


Figure 1b: Index of *changes* in food insecurity
(e.g. eating less frequently, eating lower quality foods)

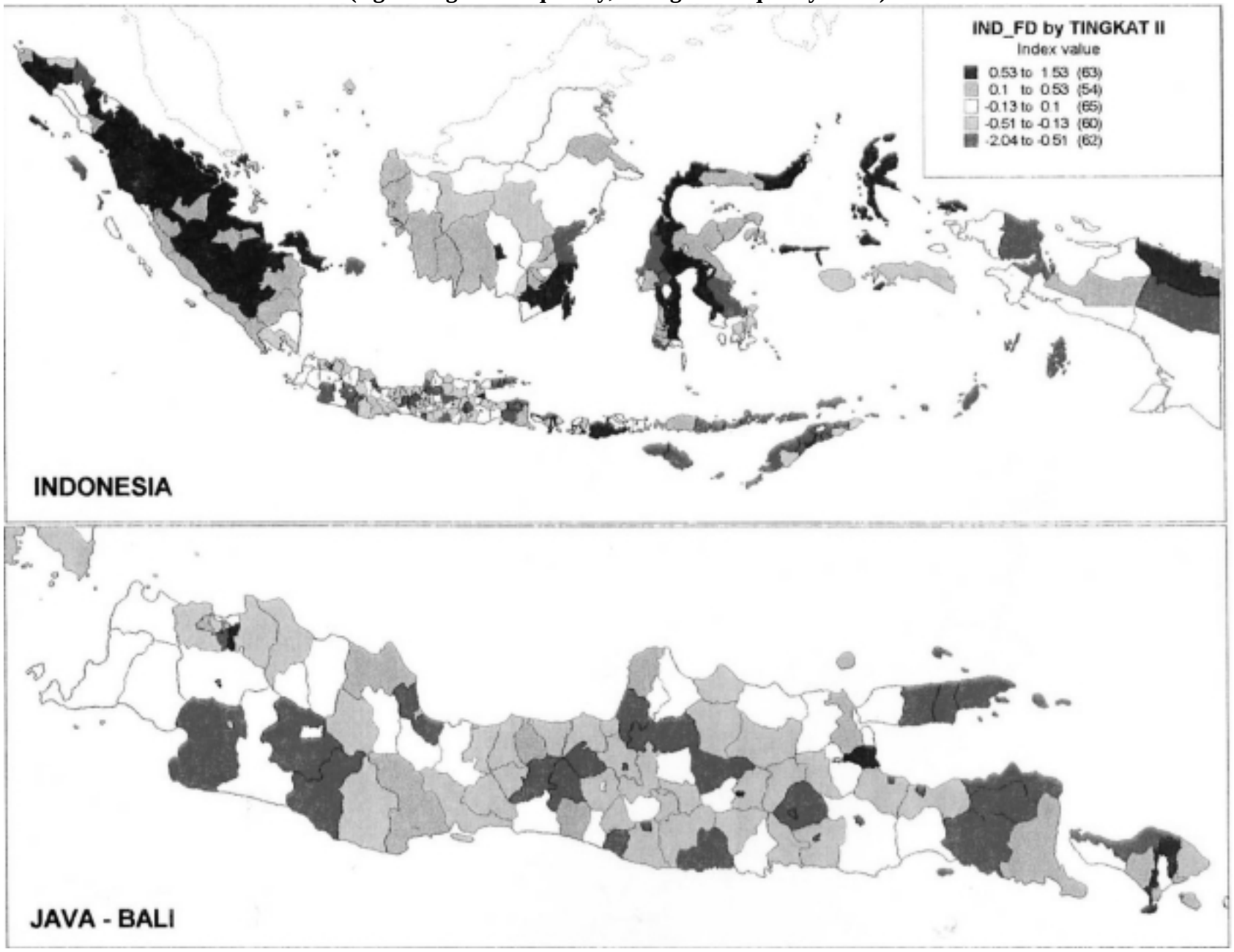


Figure 1c: Index of *changes* in employment conditions
(e.g. return migration, more family members working)

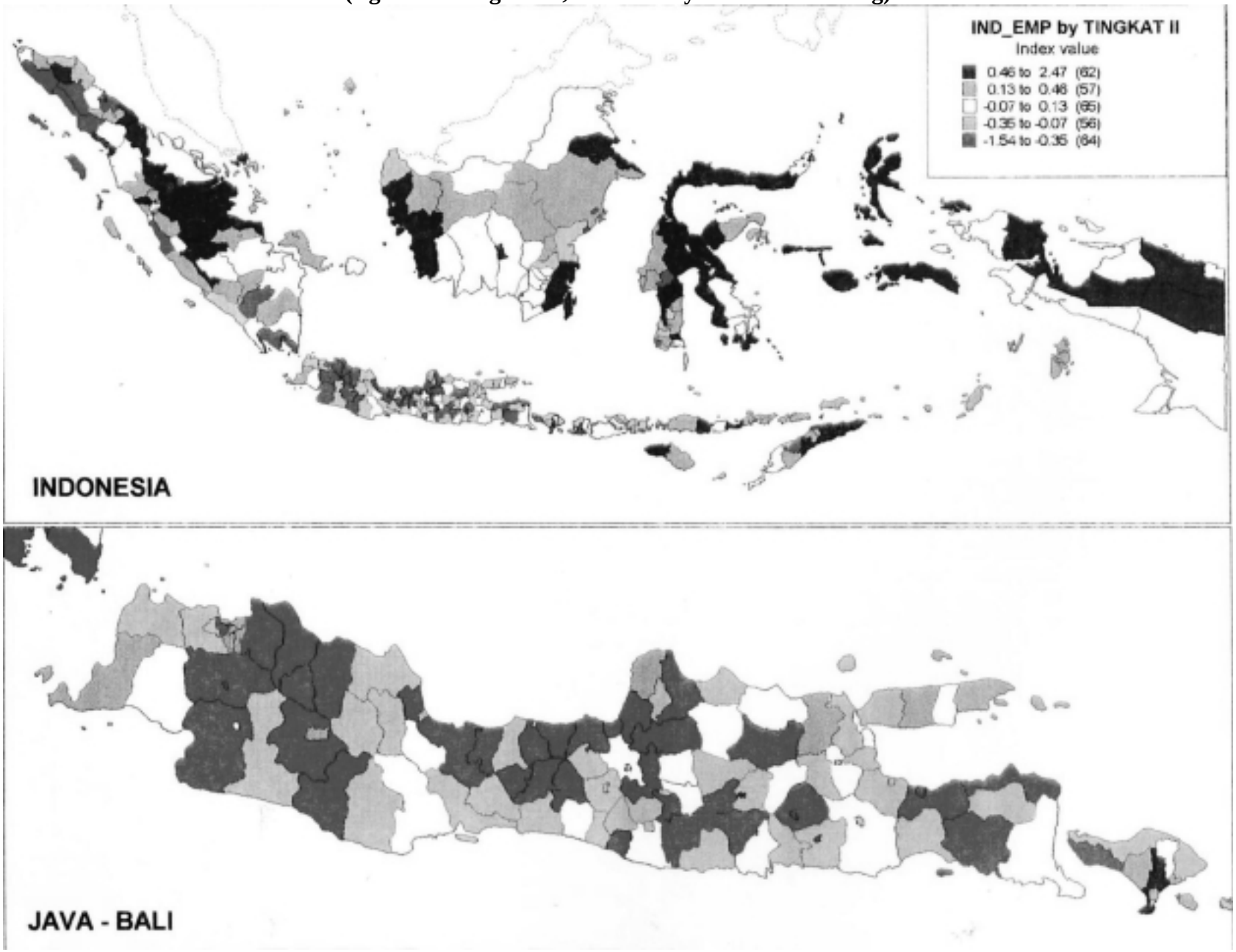
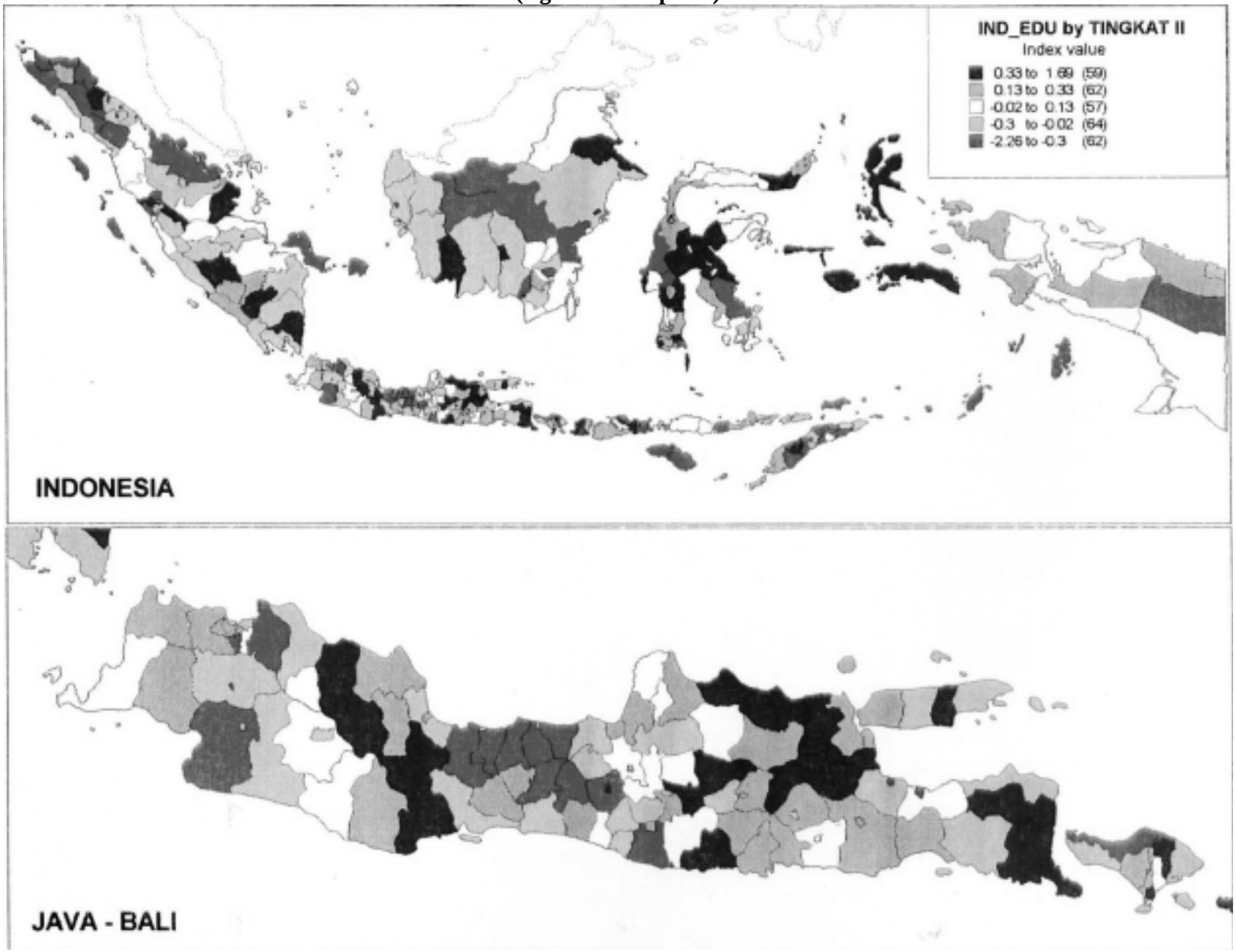


Figure 1d: Index of *changes* in primary education enrollment (e.g. 3 to 4 drop-out)



This is perhaps why more rural parts of Java and Bali appear hard hit on employment, as a spill over from Java.

The food security map, which is driven by indicators of eating fewer and lower quality meals, tells again a "Java and urban story" but with a couple of twists. First, on this index NTT and TimTim show up as much worse hit than by "coping" or "employment" this is an indication of the natural environment dimensions of the problem. Second, parts of West Java and especially the Jabotabek area appear much less hard hit on this dimension, which is likely due to the fact that initial incomes were much higher and hence selling assets would take prominence over reducing food intake as a coping mechanism. That is, since the "food security" index captures not just food production but also lowering food intake, the crisis in richer areas (like Jabotabek) will show up more clearly in selling assets, which is a first resort for those that have them, and only later in food intake declines.

Statistical analysis. Examining the hardest hit 40% of *tingkat II* (district level) clearly reinforces the provincial level results. *Kotamadyas* have generally been more severely hit than rural *kabupatens*. For both coping and employment indices, 60% of *kotamadyas* are in the hardest hit 40% of *tingkat* II, compared to only 38% of rural *kabupatens*. For the food index, similar proportions of *kotamadyas* and *kabupatens* are ranked in the hardest hit 40% (41% of *kabupaten* versus 45% of *kotamadya*).

Again, as with the provincial results, areas on Java show a different pattern. Both *kabupatens* and *kotamadyas* are classified in the two hardest hit quintiles (see map where most of areas on Java falls into the categories of hardest hit (black), especially for coping and employment. Moreover, the coping index for West Java shows that 65% of the *tingkat* II in the province fall in the worst hit quintile, while an additional 20% are in the second quintile. Five of the six *kotamadyas* in the province are in those two quintiles, as well as 85% of the rural *kabupatens*.[7] East and Central Java, as well as DI Yogyakarta, are also experiencing similar patterns.

[7] A similar pattern is seen for the employment index.

C. Has the crisis hit the poorest areas?

It is important to remember that the kecamatan survey measures only *changes* in welfare (and that qualitatively). The results of the survey indicate relative shifts since the crisis began, but are not able to show current absolute welfare or standard of living levels. A question as yet unanswered is whether the crisis hit hardest in areas that were already poor, making them even worse off, or whether the impact has been more severe in relatively well-off areas. A simple correlation test between various indices and pre-crisis levels of the incidence of poverty based on SUSENAS 1993-1996 across *kecamatans* reveals very little correlation, statistically insignificant even with 3,900 observations.

The same lack of association between pre-crisis poverty and the magnitude of the crisis impact can be seen by comparing the figures which show changes due to the crisis to the pre-crisis poverty levels. Figure 2 which shows the proportion below the standard poverty line in each *kabupaten*, using SUSENAS data averaged from 1993 and 1996. While most of West Java, and especially the area around Jakarta, have very low poverty rates, the crisis has been enormous in those areas. In contrast, Maluku, with very high poverty rates, has perhaps even benefited from the crisis.

Figure 2. Pre-crisis poverty levels (SUSENAS 1993-1996)

The fact that severity of crisis impact does not correlate with pre-crisis conditions makes the design of poverty and crisis response instruments extremely complicated because pre-crisis poverty data can not be relied upon for target responses to the crisis. First, some areas which were not poor have been hit relatively hard and may now be poorer than other areas. Second, what is even more complicated is that many previously well off regions (e.g. Jabotabek) have been hit very hard, but almost certainly have not reached the level of absolute poverty of traditionally poor areas. In this case, targeting the *crisis impact* is not the same as targeting *absolute poverty*. Needless to say, this creates considerable tensions between the long-term development programs, which have traditionally been aimed at bringing mainly remote and rural areas into the mainstream of growth, and crisis and emergency programs, which will be targeted to urban and rural areas which were, until the crisis, relatively better off and booming.

Figure 2: Proportion of *kabupaten* population in absolute poverty (average of 1993 and 1996 SUSENAS)

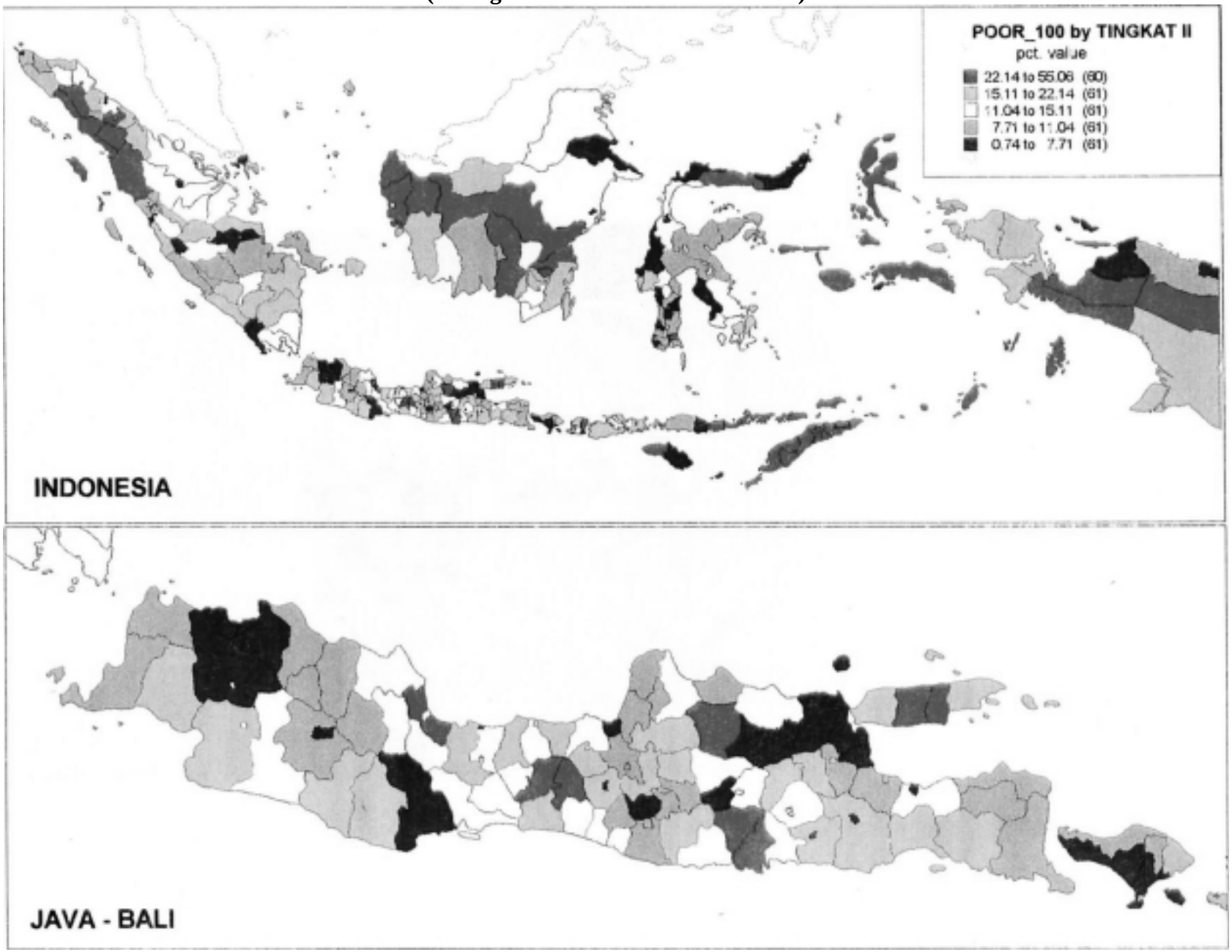


Table 3 illustrates various mixes of crisis effects and pre-crisis poverty levels: relatively well-off and hard hit (e.g. Jabotabek), relatively poor and hard-hit (e.g. NTT), relatively poor and not hard hit (e.g. Maluku), and relatively well-off and not hard hit (Bali).

Table 3. Examples of differential impact of crisis

	Relatively well-off pre-crisis	Relatively poor pre-crisis
Hard-Hit	Jabotabek, West Java	NTT, East Kalimantan
Not Hard Hit	Central Sulawesi, Bali	Maluku, Jambi

IV. Specific crisis impacts

Beyond the regional heterogeneity of the overall crisis impact there are also regional differences in the various dimensions of the crisis. For some areas the crisis is mainly an economic crisis feeding through labor markets, while in other areas there is a food security crisis driven by natural conditions.

Moreover, people who begin from different absolute levels of income will have different responses to the crisis. For instance, middle class families will respond to a shock by working more, reducing consumption, drawing down savings, and selling assets, but are unlikely to pull children from primary school or suffer malnutrition. In contrast, people near absolute poverty may not have the luxury of these coping strategies so an equally large shock will force them into more drastic measures, such as primary school drop-out and reduced food intake.

An examination of how the various indices differ across locations gives some clues to these effects. Result of different indices across locations is presented in Table 3.

Table 4. Comparison between indices

Index	Five Hardest hit area	Five Least hard hit area	# of urban in 20 hardest hit areas	# of urban in 20 least hit areas
Overall impact	E. Kalimantan (U)	Bengkulu (U)	14	7
Food security	E. Timor (U)	Bengkulu (U)	12	9
Coping strategies	DI Aceh (U)	Maluku (U)	15	5
Employment	NTB (U)	Maluku (U)	13	6
Education	W. Kalimantan (U)	Maluku (U)	8	14
Health	DI Yogya (U)	C. Kalimantan (U)	12	11

A. Food security

As Table 3 shows, the impact of the crisis on food availability has been more severe in urban areas. Further, the hardest hit rural areas are either on Java or in Eastern Indonesia. These findings are consistent with preliminary data reported by IFLS2+[8]. Real per capita expenditures in rural areas have risen in both mean and median. Meanwhile, in urban areas the *mean* real per capita household expenditures has fallen by around 40 percent (although median incomes fall by much less, suggesting a larger proportionate compression in expenditures mainly in the richer half of the distribution). Combined with higher food prices, urban dwellers are therefore suffering from sharply reduced purchasing power.

In Eastern Indonesia, food security problems are the results of last year's drought. Other data also project severe food shortages in Eastern Indonesia, especially for maize, cassava, sweet potato, and taro. [see Garcia Garcia and Sean Foley, Nov 1997]

In addition, individual variables from the survey reveal the following:

Increased price of rice – Not surprisingly, half of the respondents indicated that the price of rice has increased by more than 50%. This result is in line with price reports from around the country. The general CPI from May to September 1998 has increased more than 50% and increases in the rice price have outpaced general CPI.

[8] This data are very preliminary, as this survey attempts to track the same households. At this stage the analysis is based on the 80 percent of the households that have been identified, almost certainly the other 20 percent, which the survey team is in the process of tracking, are atypical and hence the sample of those who were located is not representative.

Reduced availability of basic food stuffs – The mean response to the question of changes in availability and accessibility of staples has changed since last year indicates that there has been a more dramatic worsening in food security, a combination of availability and affordability compared to other indicators. Reasons behind scarcity of staples include breakdowns in distribution systems and decreased output in drought-struck areas.

B. Employment and wages

The impact of the crisis on labor markets and access to economic activity has been more severe in urban areas and in Java (Table 1). Four of the seven provinces in the hardest hit rural areas are on Java. The finding that NTB is hardest hit in terms of employment impact is also consistent with preliminary results from IFLS2+, that show that almost 15% of males working in 1997 had lost their jobs in August 1998 (Rand: Measuring Change in Indonesia, 1998, p. 9). Individual survey variables show the following:

Return migration of males – Both urban and rural *kecamatan*s reported a greater than normal in-flow of males, returning because they lost their jobs elsewhere. This result indicates that there is not necessarily a consistent flow of unemployed urban dwellers to rural areas or vice versa. In contrast, there has been a smaller increase in the number of women that have returned to the *kecamatan* compared to the previous year. The data showed less out migration.

Increase in nominal agricultural wages and output prices – More than 85% of the *mantri tani* reported that wages had increased for hoeing. Responses also indicate that there has been a less dramatic increase in harvesting wages[9]. These imply that while assumption of no change in nominal income are far off the mark[10], given of the data about price changes suggest there have been substantial real wages declines in many

[9] Data from BPS indicate that agricultural wages have increased 30-35% on average for different tasks, with increases ranging from 10 to 50% in different provinces.

[10] One recent publication for instance, placed the numbers in poverty in Indonesia at nearing 100 million in 1998, which essentially assumed that nominal incomes would remain unchanged while prices climbed 80 percent. This is obviously both analytically unsound and empirically false.

areas. However, on the revenue side, there has been an intermediate increase in non-rice output prices. *Mantri tani* responses also point to some increase in farm profitability (more than 50% answered that farm profits had increased compared to last year, although the mean response was no change), indicating that increases in output prices have outweighed rising labor costs in some areas.

C. Education

As discussed above, analysis of survey results indicate that urban areas have been harder hit than rural areas, according to the indices constructed. The exception is the education index, for which 12 of the twenty hardest hit areas are rural. In terms of the least hit twenty areas, only six are rural. Although the individual responses showed that dropout rates have been low, the index points to some problems in rural areas. One possibility is that the increase in agricultural wages raises the opportunity cost of schooling in rural areas, making it more attractive to pull children out of school. Another possibility is that rural families are "nearer the margin" so that an equi proportionate shock to incomes will cause more rural than urban families to withdraw children from school.

For the individual variables, all respondents indicated that taking children out of *primary* school was not a common response to crisis impacts.[11] This result is further reinforced by the responses given by the school supervisors to the sector specific questions – almost 85% indicated that there had been no change or a reduction in the number of students that dropped out between Kelas 3 and 4.[12] On average, school supervisors also indicated no change in the overall level of dropouts during the last school year (compared to the preceding year) or in the numbers of girls and boys that entered Kelas 1 this school year (compared to last year). However, for the latter, the distribution of answers is skewed towards a decrease in first-year enrollment rates, indicating that parents may be delaying school starts for younger children while letting older children continue.

[11] The common question did not differentiate between primary or secondary school students.

[12] Historically, dropout rates at the primary level are highest between these two grades. There was no difference in responses for girls or boys. Other data sources indicate the problem with drop out is at the junior secondary level and hence our data has little to contribute on this issue.

C. Health

As shown in Table 3, the impact of the crisis on health is more equally distributed between rural and urban areas. Twelve of the twenty hardest hit areas are urban, and 11 of least hit provinces are also urban. However, the health index is consistent with the other indices in that Java has been severely affected. Except for DKI Jakarta, the four other provinces on Java are in the 20 hardest hit provinces.

The responses by the *dokter puskesmas* show that magnitudes of increases in prices and reduced availability of contraceptives are greater than most of the other impacts included in the survey. The distribution of answers indicates that higher prices may be a bigger problem than availability.

D. Ranking of problems

Respondents were asked most to least severe crisis impacts from a list of eight potential problems. From these we identified as "priority" these ranked in the top 3 of the 8. Response patterns suggest some fairly strong and consistent opinions about what crisis impacts have been most severe. For example, the relatively high ranking of "unemployment" (particularly in urban areas), "finding staple food" and "loss of income" can be compared with the relatively low ranking of education or health impacts (see Table 5). Overall the loss of the real purchasing power of incomes, which is a combination of less employment and rising prices of staples, is the predominant concern.

Table 5. Ranking of priority problems in kecamatan

Problem	% respondents ranking as priority problem		
	Urban	Rural	Total
Unemployment	6.5	20.1	27
Finding staple food	3.5	17	21
Loss of income	4.5	20	25
Children dropping out of school	.3	1.5	2
Reduction in health service	.3	1.4	2

E. Comparison with Other Studies

These are three other surveys which are producing preliminary results comparing pre and post crisis levels of impact. The Indonesia Family Life Surveys (IFLS) 2+, the "100 villages" surveys and a recent survey of schools. None of these have nationwide coverage so the comparison of the results is difficult. But the main

result of the kecamatan survey are largely consistent with preliminary data from other surveys.

Estimates of mean expenditures for rural and urban areas from the IFLS2+ show that mean per capita household expenditures in rural areas have increased in the past year, while those in urban areas have fallen by almost 40%. UNICEF's 100 Village survey also shows that ownership of durables has increased in rural areas, which reinforces the conclusion that urban areas have been more severely affected across the board.

The IFLS2+ survey shows that primary enrolment has increased for both girls and boys in urban and rural areas, which is consistent with the result that dropout rates have remained the same or dropped slightly. Result from a very recent survey of school carried out by the World Bank and Ministry of Education and Culture also reveals that overall enrollments at the primary level do not appear to be deviating from their past trend and fell by only 1.5% in 1998/99, about average from previous four years. The survey also shows that urban Central Java, urban Maluku, and Jakarta experienced significant declines of junior secondary level, while rural South Sulawesi saw an 8% increase.

V. Conclusions and Recommendations

Of course this survey reconfirms the obvious, that Indonesia's population is experiencing enormous social impacts from a severe economic and financial crisis. But what is new is empirical evidence at a national level that suggests the crisis impact is very heterogeneous both between urban and rural areas and across regions. Some regions have been hard hit, others are relatively less affected and some are even booming.

Ranking of urban and rural areas according to indices of crisis impacts shows that, in general, **crisis impacts have been more severe in urban areas**. For four of the five indices, the concentration of urban areas in the twenty hardest hit is considerably higher than the concentration of rural locations (12-15 out of 20). Likewise, the number of rural areas in the twenty least affected areas is higher for the food security, coping strategy, and employment indices (11-15 out of twenty).

Second pattern is that **both urban and rural areas on Java have been hard hit** by the crisis. *All* areas of Java rank within the top twenty (of 51) most hard hit regions for the overall impact index (and within or close to the twenty worst affected for the other indices). Other areas that consistently turn up close to the top of the ranking are **urban areas in East Kalimantan, West Kalimantan, North Sumatra, DI Aceh, Lampung, NTB, NTT, and East Timor**.

At the other end of the scale, some provinces seem to have felt relatively little impact of the financial crisis in both urban and rural areas. Notably, North Sumatra, Bengkulu, Central Sulawesi, and Maluku fit into this category. In addition, rural areas in South Sulawesi, Jambi, and Riau also consistently rank among the twenty least affected.

Designing specific programs that respond to the crisis is complicated and must balance several objectives, but this data at least suggest that crisis response efforts should therefore target urban centers, in general, and particularly those that have had the relatively largest drops in welfare levels, such as urban areas in East and West Kalimantan, North Sumatra, DI Aceh, Lampung, NTB, NTT, and East Timor. Both rural and urban areas on Java should be included in crisis programs.

It is important to note that **the magnitude of crisis impacts does not correlate with pre-crisis levels of poverty**. This result points to the need to reassess data and assumptions about poverty distributions. While difficult to draw in practice, there is a analytical distinction between targeting for the critical targeting long term poverty programs. In designing longer term poverty interventions there is a deeper, and resolved, question of whether the crisis has changed fundamental dynamics and hence calls for a rethinking of long-term poverty programs or is merely a temporary shock.

In terms of the kinds of interventions that should be designed for the crisis this requires more detailed analysis of the cost-effectiveness *in practice* of various types of interventions. But there appears a need for continued efforts to channel rice and other basic foods to needy areas, workfare programs in urban areas, efforts to maintain health services, provision of free or subsidized contraceptives, and continuation of the scholarship program.

The consistency of the results with other surveys also show that this type of quick turnaround, largely qualitative instrument can give a good overview of degrees of crisis impact in different areas and trends in overall changes. Although results

require further investigation for design of crisis response programs, this kind of survey can point response efforts in the right direction. Because of its low cost and quick turnaround, a similar survey could also be repeated after six months in an effort to provide on-going monitoring of crisis impacts across Indonesia.

Appendix 1: Survey design and implementation

The survey was distributed through the Central Bureau of Statistics' (BPS) existing network of *mantri statistik*, who represent BPS at the *kecamatan* level. The *mantri statistik* are present in almost every *kecamatan* and their regular responsibilities include maintaining and updating population, education, and other local data bases. The survey was sent to the BPS office at the *kabupaten* level, where *mantri statistik* from each *kecamatan* picked them up along with instructions to implement the survey and return it to the *kabupaten* office within a week. Completed surveys were mailed back to BPS headquarters for data entry and processing. Total turnaround (including administering the survey and processing the data) was approximately one month. Analysis took place over a three week period.

In rural areas, the three respondents were:

- ***mantri tani*** -- As the *kecamatan* representative for the Ministry of Agriculture, the mantri tani supervises all agricultural extension workers and, through them, gets regular reports on agricultural production, areas planted, and farm technologies used throughout the *kecamatan*.
- ***dokter puskesmas*** -- The *dokter puskesmas* is the head of the *kecamatan* health center and sees patients from different parts of the *kecamatan*. Some *dokter puskesmas* also pay regular visits to the smaller supporting health centers in the sub-district.
- ***penilik sekolah*** -- The *penilik sekolah* , or school supervisor, meets regularly with principals and teachers from across the *kecamatan*.

In urban areas, the *mantri tani* was replaced by the *Kepala Seksi PMD*, who is in charge of coordinating development activities for the *kecamatan*. In the instructions accompanying the questionnaire, the respondents were asked to consult with their colleagues (i.e., agricultural extension worker, nurses and midwives, and principals/teachers) before completing the questionnaire to ensure that answers were representative of the *kecamatan* as a whole.

Appendix 2: Inter-coder reliability

Although responses from different respondents in the same *kecamatan* will never completely coincide, a large amount of within-*kecamatan* variation relative to that found to exist between *kecamatan* will indicate a level of noise (as opposed to signal) in the response patterns that calls for caution in interpreting summary indicators at the *kecamatan* level.

To be able to compare values of the phenomena being measured, we should determine the degree to which responses from the three groups of respondents are the same. This internal reliability testing was carried out in the following ways:

a) testing the degree of correlation between each of the three respondents on each of the common questions;

b) decomposing the total variance into that across coders (respondents) and across *kecamatan*; and

c) an analysis of systematic differences in central tendency across the three type of respondents.

Results of various measures of internal reliability test are presented in **Table 6, Table 7** and **Table 8**. **Table 6** shows correlation coefficients between each of the three respondents on each of the common questions (except for Question 15). **Table 7** applies one-way ANOVA to break down between- and within-*kecamatan* contributions to variance. **Table 8** shows average response deviations within *kecamatan*, the sum of the absolute differences of responses within each *kecamatan* divided by the total number of *kecamatan*.

Appendix 3: Principal components analysis

Appendix 4 lists all variables included in the survey and Tables 8a-e indicates those that contributed to the construction of each index. Note that, due to relatively high levels of non-response on many of the quantitative questions, we exclude those variables for index construction.

Five indices were constructed: an index of food availability/accessibility (IND_FD); an index of employment impact (IND_EMP); an index of education impact (IND_EDU); an index of health impact (IND_HLT); and an index of community impact and coping mechanisms (IND_COPT).

Tables 9a-9e show results of the principal component analysis, and Table 10 shows correlation matrix among the five indices. As can be seen from the tables, the first three best indices were IND_FD and IND_COPT, followed by IND_EMP. Variables in food availability/accessibility are strongly weighted toward those reflecting difficulties in purchasing an adequate diet of staple foods. Variables in coping reflect community and individual level adjustments (such as reduction in participation of community activities and selling of households assets).

REPUBLIC OF INDONESIA
STATISTIC CENTER BUREAU

QUESTIONS LIST
ECONOMIC CRISIS IMPACT SURVEY
ON KECAMATAN LEVEL

QUESTIONNAIRE FOR PUSKESMAS DOCTORS

CONFIDENTIAL

I. IDENTITY OF RESPONDENT		
101.	Province	☐☐
102.	Regency/City	☐☐
103.	Kecamatan	☐☐☐
104.	Name of Respondent: …… Title : ……	
105.	**SIGNATURE/INSTITUTION STAMP**	
106.	Telephone : …….……..	☐☐☐☐☐☐☐
107.	Sample Number : …….……..	☐

II. INFORMATION ON OFFICIAL			
	Description	**Census Taker**	**Corrector**
201.	Name of Official		
202.	NIP		
203.	Date of Census		
204.	Signature		
205.	Signature/Stamp		

GUIDE FOR QUESTIONNAIRE COMPLETION
CRISIS IMPACT MONITORING SURVEY
ON KECAMATAN LEVEL

1. Aims

This survey aims to recognize the respondent's perception about various crisis impacts occurred in the kecamatan area. Therefore, respondents are expected to understand the situation. Specifically, this survey is expected to produce information about crisis impact on health and birth control problem, education, migration and unemployment, agriculture, and social problems.

2. Discussion with Associates

Each respondent should have working scope in one kecamatan so that he has sufficient knowledge about general condition in the area. Nevertheless, to have a good description about the condition in the kecamatan, before completing this questionnaire, respondents should discuss with their associates. For instance, a doctor of Public Medical Center should have a discussion with PPLKB, PLKB, and nurses. The answers given then will represent the collective answers of several people in the institution. In addition to that, the answers should be based on changes caused by economic crisis and not frequent changes, which happen all year.

3. Guide for Questionnaire Completion

Questions given in this questionnaire are dedicated to institutions that have a kecamatan level working scope. The answers given in the questionnaire should to be able to describe respondent's perception about general condition occurred in the kecamatan as a result of the crisis.
Although alternatives of answers given are qualitative, hereby we present an answer scale to some questions given, as a guide for respondents in answering the questions. Answer scale presented in this questionnaire constitutes levels of respondent's perception towards a comparison between the situation today and situation in the previous year (1997), by a range of percentage fluctuation. The questions with answer scale are:

QUESTIONS LIST
ECONOMIC CRISIS IMPACT SURVEY
ON KECAMATAN LEVEL

Mark with a Cross (X) for the Answers of Questions about Current General Condition in Kecamatan According to Your Perception

		1	2	3	4	5
1.	Number of *male* inhabitant returned to the kecamatan in January-August `98 for the reason of losing jobs elsewhere (compare with January-August `97 period)	Very much more numerous	much more numerous	more numerous	no effect	Less
2.	Number of *female* inhabitant returned to the kecamatan in January-August `98 for the reason of losing jobs elsewhere (compare with January-August `97 period)	Very much more numerous	much more numerous	more numerous	no effect	less
3.	Number of *male* inhabitant went to other kecamatan in January-August `98 for the reason of seeking jobs (compare with January-August `97 period)	very much more numerous	much more numerous	more numerous	no effect	less
4.	Number of *female* inhabitant went to other kecamatan in January-August `98 for the reason of seeking jobs (compare with January-August `97 period)	very much more numerous	much more numerous	more numerous	no effect	less
5.	Number of inhabitant changing principal food with other low quality food (gadung, cattle food, etc.) in January-August `98 compared with January-August `97 period)	very much more numerous	much more numerous	more numerous	no effect	less
6.	Number of inhabitant doing more fields of work and or work longer at the moment compared with those in August 1997	very much more numerous	much more numerous	more numerous	no effect	less
7.	Number of inhabitant selling their valuable possessions (jewelry, cattle, TV) to support daily basically needs in January-August `98 compared with those in January-August `97 period	very much more numerous	much more numerous	more numerous	no effect	less
8.	Number of inhabitant quitting saving-clubs for the reason of unaffordabillity in January-August `98 compared with January-August `97 period	very much more numerous	much more numerous	more numerous	no effect	less
9.	Amount of saving-club collection at the moment compared with that of August `97	very much decrease	much decrease	decrease	no effect	more
10.	Level of traditional/religious ceremony such as selamatan/party/kenduri in January-August 1998	very much decrease	much decrease	decrease	no effect	more
11.	Working contribution (gotong royong) for ceremonies of selamatan/kenduri/parties in January-August 1998 compared with January-August 1997 period	very much decrease	much decrease	decrease	no effect	more

No.	Range		Note
1 to 8	Increase more than 50% Increase between 25% - 50% Increase between 5% - 25% Increase or decrease less than 5% Decrease more than 5%	very much more numerous much more numerous more numerous no effect less	Clear
9.	Decrease more than 50% Decrease between 25% - 50% Decrease between 5% - 25% Decrease or increase less than 5% Increase more than 5%	very much decrease much decrease decrease no effect increase (more)	The nominal value of money each should be collected for the saving-club
10.	same with question #9		Frequency of the ceremonies
11.	same with question #9		For instance, working together for reconstructing mosques, roads, etc.
12.	Decrease more than 50% Decrease between 25% - 50% Decrease between 5% - 25% Increase more than 5%		Clear
13.	-		Clear
14.	-		Frequency of theft
15.	*Example of Completion I (Kecamatan A)* Unemployment Rareness of principal food Drop-out students Income decrease Increase of Theft Harvest failure Worse medical service Starvation Unrest's *Example of Completion II (Kecamatan B)* Unemployment Rareness of principal food Drop-out students Income decrease Increase of Theft Harvest failure Worse medical service Starvation	 4 1 7 2 2 9 6 5 3 1 7 5 2 4 8 3 6	In this kecamatan, food shortage is the most serious problem that should be given #1. Income Decrease should be given #2. Social unrest's should be given #3…etc. In this kecamatan, unemployment is the most serious problem that should be given #1…etc.

12.	Principal food (rice, corn) stock in stores compared with that in August `97	very much decrease	much decrease	decrease	no effect	more
13.	Number of inhabitant that can no longer afford purchasing principal food (rice, corn) in January-August `98 compared with January-August `97 period	very much increase	much increase	increase	no effect	less
14.	Number of theft in January-August `98 compared with January-August `97	very much increase	much increase	increase	no effect	less
15.	Indicate level of seriousness of questions 1 to 8 by writing down numbers in brackets provided (1 = the most Serious, 2 = secondly serious, 3= thirdly serious, etc.) - Unemployment ( ) - Difficulty of having principal food ( ) - Drop-out students ( ) - Income decrease ( ) -Theft/crime ( ) - Harvest failure ( ) - Worse medical care ( ) - Starvation ( ) Others (if any) - ……. ( ) - ……. ( )					
16.	Here is some possibilities of ways people use to deal with today's economic crisis. Mark with a cross (X) on the most appropriate answer regarding to peoples custom in the kecamatan.					
	1. Changing principal food with lower quality one	most likely to do	usually do	not usually do	seldom do it	never do it
	2. Reducing frequency of eating	most likely to do	usually do	not usually do	seldom do it	never do it
	3. Lowering quality of food	most likely to do	usually do	not usually do	seldom do it	never do it
	4. Selling cattle's	most likely to do	usually do	not usually do	seldom do it	never do it
	5. Selling valuable possessions	most likely to do	usually do	not usually do	seldom do it	never do it
	6. Stop joining saving-clubs	most likely to do	usually do	not usually do	seldom do it	never do it

No.	Range		Note
16-19.	-		Clear
20.	Increase more than 50% Increase between 25% - 50% Increase between 5% - 25% Increase or decrease less than 5% Decrease less than 5%	very much more expensive much more expensive more expensive no effect Cheaper	Clear
21.	Increase more than 50% Increase between 25% - 50% Increase between 5% - 25% Increase or decrease less than 5% Increase more than 5%	very much more numerous much more numerous more numerous no effect Less	Clear
22.	Increase more than 50% Increase between 25% - 50% Increase between 5% - 25% Increase or decrease less than 5% Increase more than 5%	very much more numerous much more numerous more numerous no effect Less	Number of visits to Public Medical Center and private medical service
23.	Decrease more than 50% Decrease between 25% - 50% Decrease between 5% - 25% Increase or decrease less than 5% Increase more than 5%	very much decrease much decrease Decrease no effect Increase (more)	Number of visits to Public Medical Center and private medical service
24.	Increase more than 50% Increase between 25% - 50% Increase between 5% - 25% Increase or decrease less than 5% Decrease less than 5%	very much more expensive much more expensive more expensive no effect Cheaper	Average price of birth control device sold on the market
25.	-		Clear
26.	-		Children under 12 years old whose nutrition level is below Ministry of Health’s standard
27.	-		Birth control service, hospital rest service, medical treatment, roentgen, etc.
28-29.	-		Clear
30-35.	-		Clear

	7. Telling their children to quit school	most likely to do	usually do	not usually do	Seldom done	never done
	8. Asking more member of the family to work	most likely to do	usually do	not usually do	Seldom done	never done
	9. Reducing frequency of traditional/ religious ceremony	most likely to do	usually do	not usually do	Seldom done	never done
	10. Reducing the amount contributed for traditional/religious ceremony	most likely to do	usually do	not usually do	Seldom done	never done
17.	In the last year, is a special program, for instance the one which is able to employ many, and also low-priced bazaars being held to help people?				Yes	No
18.	If the answer of the previous question was "Yes", name one of the widely known programs?	….….				
19.	Does the program bring advantages to people?	very advantageous		Advantageous		less advantageous
20.	The price of middle quality rice at the moment, compared with that in August `97:	very much more expensive	much more expensive	more expensive	no effect	Cheaper
21.	Number of stores closed down at the moment, compared with the previous year:	very much more numerous	much more numerous	more numerous	no effect	less numerous
22.	Number of visits to Public Medical Center in June-August `98 period compared with June-August `97 period:	very much more numerous	much more numerous	more numerous	no effect	less numerous
23.	Number of visits to one of the biggest private hospitals/clinics in June-August `98 period compared with June-August `97 period:	very much more decrease	much more decrease	more decrease	no effect	increase
24.	Average price of birth control device at the moment compared with that in August `97:	very much more expensive	much more expensive	more expensive	no effect	cheaper
25.	Availability of birth control device at Public Medical Center at the moment compared with that in August `97:	very much insufficient	very insufficient	insufficient	no effect	more sufficient
26.	Number of children (<12 years old) which suffer from malnutrition at the moment compared with that in August `97:	very much more numerous	much more numerous	more numerous	no effect	less numerous
27.	Variety of medical care by Public Medical Service compared with that in August `97:	very much more decrease	much more decrease	more decrease	no effect	better

28.	Availability of medication and other health device at Public Medical center at the moment compared with that in August `97	Very much more insufficient	very much insufficient	Very insufficient	no effect	better
29.	Ability to pay for medication at the moment compared with that in August `97"	Very much more insufficient	very much insufficient	Very insufficient	no effect	better
30.	Number of patients went to Public Medical center in the kecamatan in June-August 1998 and June-August 1997	June-August `98 ☐☐☐☐ June-August '97 ☐☐☐☐				
31.	Number of patients went to one of the biggest private hospitals/clinics in the kecamatan in June-August 1998 and June-August 1997	June-August `98 ☐☐☐☐ June-August '97 ☐☐☐☐				
32.	Number of children under 12 years old who suffered from malnutrition on January-August `98 period and on January-August `97 period	January-August `98 ☐☐☐☐ January-August '97 ☐☐☐☐				
33.	Number of birth control program participants who switched to other birth control method for the reason of funding on January-August `98 and January-August `97 period	January-August `98 ☐☐☐☐ January-August'97 ☐☐☐☐				
34.	Price of birth control device which is most often used in the kecamatan on August `98 and `97 (Rp./unit)	August `98 ☐☐☐☐ August '97 ☐☐☐☐				
35.	Price of generic medication (paracetamol) in the kecamatan on August `98 and `97) (Rp./unit)	August `98 ☐☐☐ August '97 ☐☐☐				

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Signature and Institution Stamp Date, Month, Year