This paper is about the Indonesian experience with the 2008/2009 global economic crisis. It has three main parts. The first part describes briefly the Indonesia’s economy during the crisis period. The second part reviews findings of all existing studies on the impact of the crisis on Indonesia’s economy, focusing on different aspects such as poverty. The third part is a gap analysis, i.e. identifying limitations or important aspects not covered by those existing studies. As compared to the 1997/98 Asian financial crisis, this time, the Indonesian economy has been less affected by the 2008/09 global economic crisis for a number of reasons. Two among important reasons discussed in this paper are the following. First, from a regional perspective, the Indonesian economy was performed well after the 1997/98 up to 2008, Second, the banking sector remained in good health (which was not in years before the 1997/98 Asian economic crisis).

Keywords: global economic crisis, Indonesia, transmission channels

1. Introduction

During the period 2008-2009, most, if not all, Asian countries were affected by the global economic crisis, which considered by many as the world's most serious recession since the 1930s. As a result, it was expected that economic growth in the region as a whole would drop to 1.4 per cent in 2009, down sharply from 5.1 per cent in 2008 and from the very rapid growth of 8 per cent achieved in 2007 (IMF, 2009). The global economic crisis has impacted the region through various channels, including exports, foreign direct investments (FDIs), and remittances. Consequently, the impact on Asia’s labour markets, workers and their families has been widespread. Retrenchments mounted in many export-oriented manufacturing industries across the region, while working time fell along with increased downward pressure on wages. In response, millions of workers migrated back to rural areas and shifted to informal and vulnerable employment.

A primary concern was also the impact on household poverty. Unlike the 1997/1998 Asian financial crisis, this global recession may have less of an impact on the extreme poor (i.e. those living under the US$1.25 international poverty line) and a greater effect on those vulnerable to poverty. In particular, this was the case for the workers and households who have risen just barely above the poverty line in recent years before the crisis due to sustained economic growth, enhanced market integration and new formal employment.
opportunities and were very vulnerable to falling back into poverty as a result of the 2008/2009 global economic crisis. This crisis context has significant implications for labour market and social protection policies.

Furthermore, the export industries in Asia, such as the textile and furniture industries in Indonesia, were also hit by the crisis, as those industries are closely connected in regional and global value chains and through trade and production systems in countries like Japan and the United States (US) and key European countries like Germany, France and United Kingdom (UK). Within Asia, many of these export industries are subcontracting production to small and medium enterprises (SMEs). In addition, workers in these industries are served by many informal and formal establishments such as transportation and food and catering, among others.

In their efforts to cope with those negative effects of the crisis on their economies, policymakers in many Asian countries, or even in many other non-Asian countries, have opted for trade restrictions, often taking advantage of the flexibility on the use of contingent measures in the multilateral trading rules.

This paper is about the Indonesian experience with the 2008/2009 global economic crisis. It has three main parts. The first part describes briefly the Indonesia’s economy during the crisis period. The second part reviews findings of all existing studies on the impact of the crisis on Indonesia’s economy, focusing on different aspects such as poverty. The third part is a gap analysis, i.e. identifying limitations or important aspects not covered by those existing studies.

2. The Indonesian Economy during the Crisis

The 2008/2009 global economic crisis, started in 2007 as a financial crisis in the US and spread worldwide, has been called by many economists as the most serious economic or financial crisis since the great depression in the 1930s with its global effects characterized by the failure of key businesses, declines in consumer wealth estimated in the trillions of U.S. dollars, substantial financial commitments incurred by governments, and a significant decline in economic activity. The crisis rapidly developed and spread into a global economic shock, resulting in a number of bank failures, declines in various stock indexes, and large reductions in the market value of equities and commodities. Many countries, including in Asia, have been proposed, with varying weight assigned by experts, both market-based and regulatory solutions in order to mitigate the negative impacts of the crisis on their economies.

Up to September 2008, Indonesia’s economy was still showing some resilience towards the crisis. However, during the October-December 2008 period, the country’s economy experienced deteriorating economic performance at an unprecedented speed (Figure 1). Overall growth rate for 2008 was 6.2 per cent, a slightly decline from 6.3 per cent in 2007. By the end of 2008, the Coordinating Ministry for Economic
Affairs predicted that Indonesian economy will grow only 5 per cent in 2009. But, recently, the prediction has been downward revised to 4.5-5.5 per cent with a base case at 5 per cent (Figure 2). In 2010, economic growth is expected to recover to the 5.5 per cent -6.0 per cent range. However, Table 1 shows that the economic growth projections by a range of international institutions and investment banks do not differ widely from the government forecast.

It was very different during the 1997/98 Asian financial crisis. When the crisis hit Indonesia, the country’s economy plunged into deep recession in 1998 with overall growth at minus 13.7 per cent, which was very serious compared with less than 5 per cent contraction during the difficult times in the 1960s. The worst declines have been in the construction sector (-39.8 per cent), financial sector (-26.7 per cent), trade, and hotel and restaurant (-18.9 per cent). Other sectors, which had large contractions, were manufacturing (-12.9 per cent) and transport and communication (-12.8 per cent). Mining and other services sectors experienced a contraction of about 4.5 per cent. The agricultural and utility sectors still experienced positive growth at about 0.2 per cent and 3.7 per cent respectively (Feridhanusetyawan, et al., 2000). The crisis has led the income per capita to drop significantly (Figure 3).

**Figure 1: Economic Quarterly Growth Rate Around the 2008-2009 Global Financial Crisis in Selected Asian Countries (%)**

Sources: for Indonesia: Coordinating Ministry for Economic Affairs, and BPS; for other countries: UN-ESCAP Secretariat, Bangkok, 2009

During this global financial crisis, the Indonesian government launched a fiscal stimulus package to maintain private consumption levels to cushion the impact of the 2008/2009 crisis, as domestic consumption has contributed a significant share (65 per cent) of Indonesia’s gross domestic product (GDP). Policies to keep financial market stability are also being launched, particularly to keep inflationary pressures down and prevent depleted domestic purchasing power. In the trade side, the deterioration occurred earlier as both exports and
imports started to decline already in the first month of the second half of 2008. Export growth was at only around 1.82 per cent, the slowest since 1986. However, in recent months, export as well as import started to recover, and export grew faster than the growth rate of import (Figure 4).

**Figure 2: Indonesian Annual Economic Growth Around the 2008-2009 Global Financial Crisis (%)**

![Graph showing annual economic growth](image)

Source: Coordinating Ministry for Economic Affairs, 2009.

<table>
<thead>
<tr>
<th>Institution</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADB</td>
<td>6.0</td>
<td>4.4</td>
</tr>
<tr>
<td>World Bank</td>
<td>6.0</td>
<td>4.5</td>
</tr>
<tr>
<td>IMF</td>
<td>6.0</td>
<td>4.5</td>
</tr>
<tr>
<td>The Economist</td>
<td>6.0</td>
<td>3.3</td>
</tr>
<tr>
<td>Deutsche Bank</td>
<td>6.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Danamon</td>
<td>6.2</td>
<td>5.0</td>
</tr>
<tr>
<td>Danareksa Investment</td>
<td>6.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Bank Indonesia</td>
<td>6.2</td>
<td>4.9</td>
</tr>
<tr>
<td>The Indonesian government</td>
<td>6.2</td>
<td>4.5-5.5</td>
</tr>
</tbody>
</table>

Source: Coordinating Ministry for Economic Affairs, 2009

In June 2009, the World Bank issued a report on the current situation of the Indonesian economy in relation to the current global financial crisis (World Bank, 2009). The report comes with the following important conclusions:

1. The global economic downturn has impacted Indonesia’s growth, but later and by less than elsewhere.
2. Indonesia’s financial markets were affected by the global financial turmoil, but have lately staged a strong recovery.
3. The banking sector remains in good health, but new lending has been cut.
4. Lower global commodity prices and global demand compression have hit Indonesia’s export and imports, as well as firms’ profitability, leading to cuts in investment, employment, and consumer demand.
5. Consumer prices have stabilized, allowing Bank Indonesia to loosen monetary policy.
6. Despite the global downturn, Indonesia’s external position remains sound, the country’s significant external financing obligations are being met, and reserves have risen slightly.
(7) Indonesia’s public finances are strong, allowing policy makers to quickly move to offset the global downturn’s effects on Indonesia.

(8) The global downturn will continue to slow Indonesia’s growth and limit gains on social indicators, particularly poverty reduction.

**Figure 3: Indonesian GDP growth Rate and GDP per capita Around the 1997/1998 Asian Financial Crisis**

![Graph showing Indonesian GDP growth rate and GDP per capita around the 1997/1998 Asian Financial Crisis.]

Source: BPS

**Figure 4: Export and Imports in million US$, based on official data, 2008-2009**

![Graph showing export and imports in million US$ from 2008 to 2009.]

Source: Coordinating Ministry for Economic Affairs, R.I., 2009

Further, preliminary figures on growth rate of GDP quarterly to quarterly by origin of sector show that in 2009 output from manufacturing industry will experience a negative growth at 0.4 per cent, and within the sector, output from non-oil and gas manufacturing industry is expected to decline by 0.2 per cent. In this
subsector, within groups of industry, output from wood and wood products industries is expected also to experience a negative growth at 3.5 per cent (Table 2). This prediction is in line with the Minister of Industry has stated recently that many exported oriented sub-sector of the manufacturing industry such as vegetable oils and fats, spinning, textiles, refined petroleum, paper and paper products, chemical and chemical products, rubber and plastics products, non-iron metal products, machinery and equipment, and furniture are among the industries which are most vulnerable to external shock. Indeed many reports of recent labor’s lay-off are coming mainly from those manufacturing sub-sectors (Djaja, 2009).

<table>
<thead>
<tr>
<th>Sector</th>
<th>Growth rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, livestock, forestry and fishery</td>
<td>19.3</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>-0.5</td>
</tr>
<tr>
<td>Manufacturing industry</td>
<td>-0.4</td>
</tr>
<tr>
<td>a) Oil and gas</td>
<td>-1.7</td>
</tr>
<tr>
<td>b) Non-oil and gas</td>
<td>-0.2</td>
</tr>
<tr>
<td>-Food, Beverages and Tobacco Industries</td>
<td>1.2</td>
</tr>
<tr>
<td>-Textile, Leather Products and Footwear Industries</td>
<td>3.5</td>
</tr>
<tr>
<td>-Wood and Other Products Industries</td>
<td>-3.5</td>
</tr>
<tr>
<td>-Paper and Printing Products Industries</td>
<td>10.2</td>
</tr>
<tr>
<td>-Fertilizers, Chemical and Rubber Products Industries</td>
<td>0.0</td>
</tr>
<tr>
<td>-Cement, and Non-Metalic Quarr Products Industries</td>
<td>-5.1</td>
</tr>
<tr>
<td>-Iron and Steel Basic Metal Industries</td>
<td>2.9</td>
</tr>
<tr>
<td>-Transport Equip., Machinery &amp; Apparatus Industries</td>
<td>-3.4</td>
</tr>
<tr>
<td>-Other Manufacturing Products</td>
<td>2.3</td>
</tr>
<tr>
<td>Electricity, gas and water supply</td>
<td>3.6</td>
</tr>
<tr>
<td>Construction</td>
<td>-1.2</td>
</tr>
<tr>
<td>Trade, hotel and restaurants</td>
<td>-4.8</td>
</tr>
<tr>
<td>Transport and communication</td>
<td>2.1</td>
</tr>
<tr>
<td>Finance, real estate and business services</td>
<td>0.8</td>
</tr>
<tr>
<td>Services</td>
<td>1.3</td>
</tr>
<tr>
<td>GDP</td>
<td>1.6</td>
</tr>
<tr>
<td>Non-oil and gas GDP</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Source: BPS, 2009 (Selected tables, www.BPS.go.id)

There are some reasons why the Indonesian economy so far has been less affected by the current crisis. First, from a regional perspective, the Indonesian economy is performing well; it has charted one of the best growth rates in Asia after the 1997/98 Asian financial crisis up to 2008, particularly during the period 2005-2008. Second, the banking sector remains in good health (which was not in years before the 1997/98 Asian

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1 The official data from the Department of Manpower and Transmigration show that per 12 December 2008 the number of labor that has already been laid-off was 17,488 and the number of labor that has planned to be laid-off was 23,927, therefore all together were 41,415. While the number of labor that has already been home was 6,597 and the number of labor has been planned to be home was 19,091, all together were 25,688. Jakarta recorded the highest with 14,268 laid-off’s labor and 9,757 labors that has been planned to be laid off; and coming from about 60 companies in the field of manufacturing industry, such as textile and garments, wood industry, and metal and steel industry. Then followed by Riau province with 837 laid-off’s labor and 8,720 labors that has been planned to be laid-off, mainly coming from pulp and paper industry. The provinces in Kalimantan has also had a high record for labor that has already been home, and mainly were coming from estate plantation, wood and wood industries. There is strong indication recently that massive return of workers to Java as a result of falling commodity prices which then forcing plantation companies in Kalimantan and Sumatra to scale down their work force. The other source of labor’s lay-off were coming food and beverages, electronics, and construction industries (Djaya, 2009). Of course, one cannot be quite sure whether the lay-off was executed due to the current crisis (short order, slow in demand, etc) or the plan to lay-off the labor was long before the crisis hit Indonesia, but the execution is just now.
economic crisis). Third, compared with some Asian countries, Indonesia is relatively a “closed economy”. The share of Indonesia’s exports to GDP was 29.4 per cent in 2007. The figure in the next three quarters of 2008 was 30.0 per cent on the average. Using the Input-Output Table 2005 however it is evidence that about 85 per cent of goods and services produced by Indonesian economy were used domestically, while only about 15 per cent went to foreign buyers. This indicates that Indonesia is not so strongly integrated with the rest of the world, at least from export point of view. With such low export, a sudden drop in world income and hence in world demand for Indonesian exports will not affect significantly domestic production (Djaja, 2009).

3. Review of Existing Studies

3.1 Economic Crises, Transmission Channels and Impacts: A Theoretical Consideration

In the economy, different crises or different sources of crisis may have different impacts, different transmitted indicators/channels, different outcomes, and different affected sectors or households or vulnerable groups. The 1997/98 Asian financial crisis in Indonesia was originated from a sudden or an overnight capital flight in a huge amount which led to Indonesian currency crisis (depreciation) and ended as a financial/economic crisis. Therefore, the 1997/98 crisis hit more middle and high income groups rather than low income group or the poor. The formal sector was more severely affected than the informal sector by that crisis. Even the informal sector or many economic activities of the poor had benefited from the crisis as many laid off employees from the collapsed formal firms including several banks moved to the informal sector looking for alternatives jobs or changed their consumption habit towards cheaper goods, including cheaper foods.

The 2008-2009 global economic crisis, on the other hand, for many countries (except the US as the country origin of the crisis), including Indonesia, is merely regarded as a world demand crisis (especially from the US), which led to the decline of many Indonesian exported commodities. Depending on the exported commodities and their backward linkages with the rest of the Indonesian economy, the impact or outcome of the 2008/09 crisis on the Indonesian economy or poverty can be large or relatively small. Therefore, in this respect, in analysing the impact of the crisis on Indonesia’s economy or vulnerable groups, the main important question that should be taken into consideration is: what exported commodities which hit by the crisis and hence what location, which workers and their households were mostly affected?

By sources, an economic crisis can be originated from outside or inside the country. From inside the country, the the crisis can be originated as a production crisis caused by a sudden drop in output in a huge amount (e.g. harvest failure due to a natural disaster), or as a banking crisis caused by a financial mismanagement (as happened in Indonesia during the 1997/98 Asian financial crisis), or a currency crisis caused by a huge depreciation of national currency (as also happened in Indonesia during the 1997/98 crisis when foreign capital leaved the country suddenly in a huge amount). Depending on the nature and the extent
of domestic linkages with the rest of domestic economy, those different crises of origine may have different transmission processes and different final impacts. With respect to the production crisis, for instance, a sudden drop in production of an agricultural commodity, the direct impact will be the drop in income of farmers (or poverty increases in agriculture). If the commodity is used as the main raw material by other sectors, then productions in these sectors will drop too with the following consequences: employment or income declines (and poverty increases) in those sectors and inflation occurs reflecting an excess demand for outputs from those sectors. If the agricultural commodity is also directly consumed as food by households, then lack of its supply will generate higher inflation (Figure 5). In this case, the transmission indicators are price (inflation) and employment, and the most vulnerable group are the farmers/farm households.

Figure 5: Domestic Production Crisis and Its Impact on Poverty

With respect to the banking crisis, the direct impact or the first phase of the impact will be the income drop or employment decline in the banking sector. The second phase of the impact will take place on two sides: the collapse of companies (in all sectors), depending on bank credits for running their operations on one side and households on the other side. On the companies side, their collapse can happen because there are no credits available any more or it may caused by high borrowing interest rate (R) due to excess demand in the money/credit market. On the household side, there are two types of impacts on households and two types of affected households: (1) wealthy households: their saving will be lost, and (2) non-wealthy households: their expenditure will decline because they cannot longer receive consumer credits from banks, or the borrowing interest rate is too high. Especially, the collapse of companies will generate a huge unemployment, or even, depending on the linkages of those companies with the rest of domestic economy, the total increase in unemployment and hence poverty will be significant (Figure 6). In this case, the transmitted indicators are credit flows and/or interest rate, and employment. The most vulnerable group is not the poor as in the case of
agricultural commodity crisis explained above, but the middle to upper income classes, namely bank owners and their employees. Depending on what sectors are mostly dependent on bank for financing, the next vulnerable group can be the poor (especially if agriculture depends much on bank credit), or middle class or non-poor such as employees in automotive, electronics, and other sophisticated goods industries.

With respect to the currency crisis, i.e. depreciation of a national currency, the direct impact will be on export and import activities (Figure 7). By assuming other factors constant, export, and hence, production and employment or income in the exporting firms/sectors and backward linked firms or sectors will increase. On the import side, the price in national currency of imported goods (i.e. raw materials/inputs and consumption/ final goods) will increase. As a response to the price increases, two possibilities can happen: (1) import declines with a further consequence domestic production decreases (for imported raw materials/inputs) and as the final result: unemployment goes up and poverty increases, or (2) imports may stay constant which means, in case of imported inputs for domestic industries/sectors, that domestic production cost will go up and will be finally resulted in higher domestic inflation. The net result on poverty will depend on whether the total export (positive) effects are larger, equal to or smaller than the total import (negative) effects of the crisis. The transmitted indicators in this case are changes in export, import and employment/income, and inflation. The most vulnerable group is on the import side. But, whether it is the poor or not, depending on what sectors are mostly affected by higher import costs (in national currency) and what are their response to the increased import costs: keeping the import volume the same as before depreciation and without any labor adjustment (e.g. lay off or less working hour) or reducing the amount of imports.

With respect to economic crises originated from outside, there are two main channels, namely trade and investment, and in trade there are two sub-channels, i.e. export and import. Regarding the export channel, a crisis can happen either because of a significant world price decline or a large drop in world demand. With respect to the first cause, suppose that the world prices for Indonesian key exports of agricultural commodities
decline, then farm/agricultural incomes in Indonesia will decrease (Figure 8). This process however will not stop here. As with other cases discussed before, there is a multiplier effect: declined farm incomes will reduce consumption as well as intermediate demands within the rural areas, and as a result, rural poverty will increase. In this case, the transmitted indicators are export revenues, consumption and intermediate demands, and employment. The most vulnerable groups are farmers and exporting companies, including their employees.

**Figure 7: National Currency Crisis and Its Impact on Poverty**

![Diagram of National Currency Crisis]

**Figure 8: Export Price Crisis and Its Impact on Domestic Poverty in Exporting Countries**

![Diagram of Export Price Crisis]

With respect to import, a significant increase in world price or a sudden and huge drop in world stock for a worldwide tradable commodity can become a crisis for importing countries if it is a crucial commodity.
for the countries, for instance rice or oil. For instance, in 1974, the sudden decision made by the organisation of petroleum exporting countries (OPEC) to increase the price of their produced oil as a response to the Arab-Israel conflict was a big crisis for oil importing countries. With no change in total oil import, this ‘first oil crisis’ had led energy cost and hence domestic production costs in the oil importing countries to increase and resulted in hyper inflation in the world (Figure 9). At least, theoretically, in such a crisis, the impact can be relatively moderate if the oil importing countries make an adjustment by subsidizing imported oil with alternative energies or by improving efficiency in the use of oil as energy for their domestic production, as happened in the second ‘oil crisis’ in end of 1970s/early 1980s. The worldwide impact of this second oil crisis was much smaller than that of the first one. In this case, the transmitted indicators are cost of imported oil, inflation and employment. The most vulnerable group are, first, the importing companies and their employees, and, second, through domestic production linkages, other related companies or sectors, including their employees.

**Figure 9: Oil Price Crisis and Its Impact on Domestic Poverty in Importing Countries**

Finally, a decline of foreign investment or a sudden ‘capital flight’ in a huge amount of foreign investment may also cause a crisis for the host country. The process is simple: less foreign investment,
especially foreign direct investment (FDI), less domestic production, less employment and more poverty (Figure 10). In this case, the transmitted indicators are domestic production and employment. The most vulnerable group can be the poor and non-poor, depending on the destined sector/industry of the foreign investments or their domestic linkages. If foreign investments are mainly in domestic capital intensive industries or in mining extraction activities using few local employees and have no linkages with other domestic labor intensive industries (i.e. the foreign investment-based domestic industries depend much on imported inputs), then the impact on the poor will be insignificant. More skilled or middle to high income rather than unskilled or low income employees will be affected. On the contrary, if foreign investments are in the agricultural sector such as in crude palm oil (CPO) or in food industries using locally agricultural commodities as their main raw materials, then the effect on the poor (e.g. farm incomes and incomes of agricultural labourers) will be significant.

**Figure 10: Foreign Investment Crisis and Its Impact on Poverty**

3.2 Summary of Findings

In order to assess the impact of the 2008/09 global economic crisis, or any other crises, on Indonesia’s economy, especially the poor, various Indonesian government agencies, research institutes and development partners, including BPS, the World Bank, SMERU Research Institute, OXFAM, JICA, GTZ, WFP/UNICEF/ILO, and CSIS have conducted data collection and analysis activities. Some of the activities have already published their preliminary or first round findings, while others were still ongoing when this paper was written. The available findings so far of their analyses/data collections are summarised below.

A) Global Crisis Monitoring Survey (BPS/WORLD BANK)

With the support from the AusAID, the World Bank has assisted the Indonesian government to develop a
framework for analyzing the impact of the global economic crisis on the poor. Key indicators and potential data sources have been identified to assess how the crisis is being transmitted and its impact on households. With respect to transmission channels, three possible changes are being monitored and analysed: employment by sector, region (urban-rural; kabupaten/kota, provinces), and channel (i.e. wages, working hours); prices of staple foods and other commodities, and government spending in ministries and by types. With respect to the impact, three issues are being addressed: the response of households to the crisis, coping mechanisms, and the development outcomes of the crisis.

A total of 31 indicators addressing the transmission mechanisms, coping strategies, readiness for response, and outcomes have been recommended/developed. Data for these 31 indicators can be gathered from existing sources, with remaining indicators are being collected via a quarterly, nationwide, district-level household survey. Both the data from existing sources and the household survey are being collected at the district level over three rounds on a quarterly basis: August 2009 (alongside the National Labour Survey (Sakernas), November 2009, and February 2010 (alongside Sakernas). Per round it covers 471 districts (i.e. Kabupaten/Kota) in 33 provinces. Per district it covers 30 households, thus total there are 14,130 households in the sample plus 2,826 government health care institutes (471 at district level/Dinas Kesehatan, and 2,355 at subdistrict level/Puskesmas). Each round with the same households (panel sampling).

The sample frame is based on SAKERNAS August 2009. In every district, and the 30 households per district are selected using Lot Quality Assurance Sampling (LQAS). This is a sampling method which can only be used for a very small sample sizes (World Bank, 2009a,b; BPS, 2009). However, to use this method, there are required steps to follow. The most important one, as the first step, is to set up first acceptable and unacceptable thresholds for each indicator, and, as the second step, to determine desire accuracy. From experiences in determining the right beneficiaries of poverty alleviation programs such as BLT and Raskin, setting up thresholds are however not an easy task, and as with poverty line, they should be adjusted regularly.

Main important findings are the followings. With respect to national picture, in the last quarter: (a) labour market outcomes have shown slight deterioration; (b) households are reporting lower incomes and increased difficulty meeting consumption needs; (c) key coping mechanisms are food substitution and reliance on friends and relatives; and (d) available health and social outcomes are unchanged. With respect to provincial picture, in the last quarter: (a) national average for 7 provinces: labour market deterioration similar to national average, and increased hardship similar to national average; (b) more affected for 11 provinces: labour market deterioration worse than national average, and increased hardships similar to or greater than national average; (c) bearing up for 6 provinces: labour market deterioration and little increased hardship; and (d) less affected for 9 provinces: little labour market deterioration, and average to or no increase in hardships.
B) JICA/ICASEPS

Japan International Cooperation Agency Indonesian office (JICA-RI) is conducting quarterly surveys for sample rural villages in several provinces between June 2009 and December 2010 in collaboration with the Indonesian Center for Agriculture Socio Economic and Policy Studies, Ministry of Agriculture (ICASEPS). The main aim of the surveys is to monitor and analyse the impact of the global economic crisis on rural households in Indonesia. The survey mainly focuses on labor, child schooling, income, and consumption expenditure of the households (see attached matrix). The same sample of households will be revisited every three months during that period (JICA-RI & ICASEPS, 2009).

The sample for this survey was derived from the survey ‘Effects of Physical Infrastructure Development on Poverty Alleviation and Human Capital Outcomes in Indonesia’ conducted in 2007 by JICA-RI in collaboration with IFPRI and ICASEPS. The 2007 survey covered more than 200 households in 98 villages in 7 provinces (Lampung, Central Java, East Java, South Kalimantan, West Nusa Tenggara, North Sulawesi, and South Sulawesi). This 2007 survey was designed to overlap with villages in the 1994-5 National Farmer’s Panel (PATANAS) survey conducted by ICASEPS to build household panel data.

The survey covers 300 households in 30 villages in 4 provinces (Central Java, South Sulawesi, West Nusa Tenggara, and Lampung). The selected provinces and villages should have the following features: (i) rural economy characteristics (i.e. overall agrarian and produce/export agricultural commodities); (ii) infrastructure conditions (sufficient vs. insufficient); and (iii) spatial mobility (migration) of the people (high vs. low).

The indicators are household roster (e.g. number of household members, marital status, etc.), health status of household members, child schooling, employment (by type/status and sector) in the last 3 months, income (by sector: agriculture and non-agriculture) in the last 3 months, consumption/household expenditure, and household assets and liabilities in the last 3 months. The indicators give a quick signal of the impact of a shock/crisis on the rural economy, or rural households in particular. Usually, a shock which has a severe impact on rural households is in the form of a significant decline in prices of agricultural commodities (with the assumption that farmers are net producers/exporters, not net consumers of agricultural commodities), or in the form of a significant increase in prices of agricultural inputs such as fertilizer and energy. Thus, what ever

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2 The analysis of this first round survey will be complete shortly which will include district-level analysis of regions at risk. The second round preliminary results are expected by the end of February 2010, and the third round results will be available in late May 2010. The findings will be reported via a Geographical Information System (GIS). This system will be able to present information at different levels by producing mappings of each indicator at the district or provincial levels or providing a summary of all indicators for specific districts and provinces, and for a nation as a whole (World Bank, 2009a,b; BPS, 2009).
the form of the shock is, the direct impact will be a decline in farmers’ income, followed by a decline in employment in agriculture (less demand for agricultural workers and many farmers stop their production), a decline in farmers’ consumption/household expenditure, and so on. The geographical coverage also include villages where fishery activities are an important agricultural activity, such as in Lampung and some sample villages in South Sulawesi.

To refine the survey design and implementation plan of the quarterly surveys during that period, and also to conduct a quick survey on the effect of the crisis, JICA-RI together with ICASEPS has conducted a pre-test in June-August 2009. Although this activity is technically a pre-test, it constitutes an integral part of the monitoring of the effects of the crisis against poverty reduction. In this pre-test, provinces chosen were Central Java and South Sulawesi with 5 villages per province with a total of 100 sample households (50 households per province).

Main important findings (quick/pre-test survey) are the followings: (a) among the 100 sample households, 39 experienced a decrease of their total income per capita, while 61 households experienced an increase of their total income per-capita between 2007-2009. The change in income per capita, however, varies by regions; (b) non-agricultural employment income increased slightly between 2007 and 2009. But the number of households engaged in this activity decreased. This suggests that non-agricultural employment activities were negatively affected by the crisis; (c) self-employment income and the number of households engaged in this activity increased sharply and slightly, respectively, between 2007-2009. This suggests that self-employment income may have played a large role in increasing total income as a part of coping strategy; although the importance of this activity as a coping strategy varies by region; (d) on average, the amount of remittances (mainly from domestic migrants) per capita increased between 2007-2009; (e) in Central Java, the more educated and the less experienced were likely to lose an urban job and return to the rural household (compared to continuing migrants). However, in South Sulawesi, the education and the experience level of returning and continuing migrants do not differ much; and (f) the job status (full time/part time, etc.) seems to be a strong determinant distinguishing between returning and continuing migrants. New migrants are less educated and younger in both provinces, but job choices differ. Those from Central Java engage in part time work, those from South Sulawesi engage in housework of full time job (Muto and Shimokoshi, 2009a,b).

C) Indonesian Food and Nutrition Security Monitoring System (FNSMS) (WFP/UNICEF)

To fill the information gap at the village and household level on the impact of high food prices on food security and the nutrition situation and at the request of the Indonesian government the UN Task Force on High Food Prices was set up in May 2008. World Food Program (WFP) Indonesia has been developing a monitoring system to periodically collect data and analyse the impact of high food prices at the household
level. For this end, WFP in cooperation with UNICEF initiated a 4-month pilot (August-December 2008) on monitoring the impact of high food prices on households in vulnerable areas in Nusa Tenggara Timur, Nusa Tenggara Barat, East Java and Greater Jakarta where WFP currently operates. The main aim of this pilot survey was to develop and test a model for monitoring changes in household food security in relation to high food prices (WFP & UNICEF, 2008). Then, based on the findings of the pilot survey, WFP in collaboration with UNICEF and ILO is conducting a survey to monitor food and nutrition security at the household level over four rounds. The first round survey was conducted in June-July 2009, the second one was carried out in October 2009, and the last two rounds will be conducted in January 2010 and August 2010. The main aim of these surveys (FNSMS) is to assess food security at household level.

Primarily, this pilot project which included 960 households, 320 traders (retailers) and 80 village health posts in 80 selected villages (31 in big cities, 21 in provincial and district towns and 28 in rural areas) aimed to develop and test a model for periodic monitoring changes in household food security in relation to high food prices, and is expected to be replicated by the government and other partners in future.

This pilot project used two sources of data: primary and secondary data. Three data collection rounds were carried out in August, October and November 2008. Key variables of household demography, livelihood strategies, sources of income and food, food and non-food expenditures, dietary diversity and frequency, coping strategies, market availability and function, food and non-food prices, and secondary data on underweight and mortality among under-five children available at the village health posts were monitored and reported. For the collection of primary data at household level, WFP’s structured Generic Household Questionnaires for high food price assessment was customized and used, and at market level, WFP’s structured Generic Household Questionnaires for high food price assessment. Whereas, for secondary data collection, a simple sheet was used, created by the Vulnerability Analysis and Mapping (VAM) Unit of WFP Indonesia. Data was disaggregated for cities, towns and rural, rather than for each geographical region (WFP & UNICEF, 2008).

The first round survey covers four selected provinces, i.e. East Java, NTT, West Kalimantan, and Central Sulawesi. A total of 1,000 households (rural; 500; urban; 500) were randomly selected and interviewed. The indicators are: household composition, education of school age children, child labor, type of housing, access to safe water, electricity and to fuel, food crops, ownership of land, livestock and of assets, cash income sources, joblessness and migration, food consumption in the last 7 days, expenditures (food and non-food during the last 3 last month), difficulties and coping strategies and formal assistance (last 3 months).

Because the FNSMS aims to assess food security at household level, the analysis is focused on food access, food utilization and coping strategy. Based on many indicators, FNSMS constructed a number of indeces. For instance with respect to household food consumption, it is calculated using a proxy indicator,
called the Food Consumption Score (FCS). FCS is a composite score based on dietary frequency, food frequency and relative nutrition importance of different food groups. While, with respect to coping strategy to a food crisis, FNSMS uses “Reduced” Coping Strategy Index (CSI). CSI is often used as a proxy indicator of household food insecurity, which is based on a list of behaviors (coping strategies).

In addition, in collaboration with the Indonesian government, WFP has published a Food Insecurity Atlas of Indonesia and a Nutrition Map of Indonesia. The main objective of publishing this Atlas to provide information for decision making in targeting and responding to food and nutrition insecurity at provincial and district level. The Atlas covers 346 rural districts in 32 provinces. The 346 districts are ranked according to Composite Food Insecurity (CFI) Index, using the Principal Component Analysis (PCA). From these districts, 100 highest vulnerable districts are categorized to highlight food insecurity and priority attention.

The Atlas is based on the following indicators: (1) per capita normative consumption of net rice + maize + cassava + sweet potato to cereal availability ratio; (2) percentage of people below poverty line; (3) percentage of villages with inadequate connectivity to 4-wheel vehicles; (4) percentage of people without access to electricity; (5) life expectancy at birth; (6) under-five children underweight; (7) female illiteracy; (8) households without access to improved drinking water; (9) percent of people living more than 5 km away from health facilities; (10) deforestation area; (11) percentage of damaged paddy area; (12) natural disaster; and (12) rainfall fluctuation. Secondary data are used from various sources to measure those indicators. The majority of the indicators use 2004-2007 data.

Main important findings of the pilot survey are the followings: (a) high food prices, high fuel/transport, debt payment and employment loss were four major difficulties experienced by the sampled households during January-November 2008. High food price, fuel/transport and debt payments gradually reduced from August 2008. But employment loss increased during October-November 2008 in cities (by 7%) and rural areas (by 6%); (b) it is a challenge to differentiate the impact of high food prices with other factors because chronic food insecurity was already widely prevalent. Thus, high food prices are better to be regarded as just an additional shock; (c) in the piloted vulnerable areas, the highest proportion of food insecure households was found in less developed areas, i.e. NTT and NTB than in more developed areas, i.e. Jabotabek and East Java, and, higher proportion of food insecure households were found in rural than in provincial/district towns and cities; (d) across areas, food insecurity was reported more among sellers of agricultural products, unskilled and skilled agricultural wage laborers, unskilled non-agricultural wage laborers and farmers having less than 0.5 ha land, and households without access to improved water sources; (e) higher food insecurity in rural was likely to be due to their chronically limited food access as a result of: (i) lack or limited agricultural land, with a very low staple production, (ii) largely engaged in casual wage labor, hence, strongly dependent on food purchase from market; (iii) mainly engaged in irregular, unstable, low remuneration cash income
jobs; and (iv) reliance on one or two cash income sources; (f) eating less quality and less expensive foods was adopted as a coping strategy by a majority of the sampled households in all areas surveyed; (g) the government’s safety net programmes including subsidized rice (RASKIN), cash transfer (BLT) and free health care (JPS) were a major assistance to the sampled households; and (h) food insecurity seems to be lower among RASKIN beneficiaries as compared to non-beneficiaries and this difference was only seen in rural areas.

Whereas, main important findings of the first round survey are the followings: (a) overall, 14% of all surveyed households were food insecure, 30% vulnerable and 56%, food secure. More food insecure households were found in rural (20%) than urban area (8%). The highest proportion of food insecure households was observed in NTT (19%) while the lowest was in East Java (2%); (b) In general, more food insecure and vulnerable households were found among households without regular earnings. As a matter of fact, higher proportions of households depending on remittances, non-agricultural unskilled and skills wage laborers, sellers of cash or food crop produce and agricultural wage laborers; food insecurity in rural and urban areas was mainly attributed to limited food access due to irregular and low remuneration cash income but also to limited ownership of assets and livestocks, to low access to land and staple food. As compared to food secure households, a high proportion of food insecure had poor housing conditions and access to improved water sources as well as to cooking fuels other than wood; (c) unemployment rate was observed in 7% of households. It was higher in urban (10%) than in rural area (4%). School absenteeism was found among 21% of households with at least one school age children (SAC), and it was higher in rural (26%) than in urban area (16%). Around 1% of households engaged school age children in income earning activities, mostly in household chores. Outmigration and inmigration were revealed among 1% of households; (d) on total, 56% of all households (rural: 52%, urban: 60%) experienced difficulties and problems in the last three months, which were mostly due to the lack or limited cash, high food prices, sickness/health expenditure, agriculture/fishing related difficulties, debt payment and increased cost for social events. The highest proportion of households claimed for experienced problems were found in West Kalimantan (70%) while it was the lowest in Central Sulawesi (38%); (e) because food insecurity was associated with underlying factors such as irregular and low remuneration cash income, low livestock and, assets, the situation was likely to be chronic rather than transitory; (f) the households mostly adopted temporary, short term coping strategies which were at an acceptance and non-depleted level, to acquire food while seeking to protect their livelihoods. They mainly sought additional jobs, changed consumption pattern, and relied on credit to get food; and (g) subsidized Rice for the Poor program (RASKIN) benefited 55% of the households (rural: 65%, urban: 44%), and Cash Transfer program (BLT) benefited 42% of all households (rural: 51%, urban:34%).
There were no or negligible long term programs such as supplementary feeding for nutritionally vulnerable groups and long term livelihood support interventions.

**D). Impact of the Crisis on Value Chains in the Furniture Industry (GTZ)**

The crisis affected the region through various channels, including exports, foreign direct investments (FDIs), and remittances. Consequently, the impact on Asia’s labour markets, workers and their families was widespread. Retrenchments mounted in many export-oriented manufacturing industries across the region, while working time fell along with increased downward pressure on wages. In response, millions of workers migrated back to rural areas and shifted to informal and vulnerable forms of employment.

The main aim of this study was to shed light on the implications of the crisis for value chains in the furniture industry and their forward and backward linkages to suppliers in the furniture value chain. It analysed the impact of the crisis on labour markets in this industry and in key geographical areas where the crisis has had a strong impact. It assessed not only the impact of the crisis on enterprises, workers and households but also their coping mechanisms (Tambunan and Sugarda, 2009).

The study was carried out with the following methods in the following stages: (i) desk study: a survey of relevant key literature (e.g. academic papers, articles and reports); (ii) analysis of secondary data (e.g. Ministry of Industry, Ministry of Trade, BPS); (iii) focus group discussion (FGD) attended by key resource individuals, e.g. association of furniture producers, officials from the Ministry of Industry and the Ministry of Trade. The FGD was conducted parallel to the first stage (desk study) and the second stage (data analysis); (iv) field surveys, and (v) in-depth interviews were also carried out in these locations with several relevant local government officials and other key stakeholders, including the Association of Furniture Producers. Three types of surveys were conducted using structured questionnaires: (i) the enterprise survey covering 39 enterprises; manufacturers and suppliers; (ii) the worker survey conducted on a total of 79 workers, including 18 workers who have been laid off and 20 workers who are still working but are vulnerable to being laid off; and (iii) the household/community survey covering 50 households of workers in furniture companies. These three surveys were conducted during June-August 2009 in furniture industrial parks in the West Java and Central Java provinces, namely Cirebon, Jepara and Solo.

Indicators of this study are firm’s revenues, labor adjustments, and household expenditures adjustment. These indicators can be applied to all firms from all sizes, laborers and their households in other industries/sectors. The firm’s revenue indicator shows the magnitude and the direction (positive or negative) of revenue changes in a crisis. The labor-adjustment indicator shows the magnitude and the direction (positive or negative) of employment changes, and types of labor-adjustment in crisis-affected firms. It also give information what types of employment (e.g. women, low-educated workers,
temporary/contract/permanent employees) are the most affected by the labor-adjustment measures (Tambunan and Sugarda, 2009).

Main important findings are the followings: (a) the majority of the enterprises surveyed have experienced a decline in revenue due to the current crisis; (b) although some have experienced an increase, more have experienced a decline in both domestic and export orders; (c) the majority are optimistic that the crisis will be over soon and thus demand for their products will soon increase;(d) seeking out new customers or markets proved to be the most important strategy pursued by the enterprises surveyed for coping with the crisis; (e) the most important forms of labour adjustment are reduced working hours, followed by alternative work arrangements and worker lay-offs; (f) the percentage of female workers affected varies by type of measure and enterprise; (g) in the majority of enterprises surveyed, the average working time of permanent employees did not change; (h) unskilled production workers are the most affected type of employees; (i) many of the enterprises surveyed do not provide any support and, of those who do, the largest percentage is the form of counseling/assistance finding new jobs; (j) the majority of the workers surveyed said that the labour adjustment strategy adopted in their enterprises consisted of fewer average weekly working hours, fewer benefits, reduced bonuses and a reduction in average monthly earnings. However, the extent of the reduction varies not only by enterprise but also by region; (k) in the case of layoffs, severance pay is the most important type of support from their enterprises in the case of those who have been laid off followed by loans. The amount varies, however, by enterprise and region; (l) the majority of the respondents said that the labour adjustment in their enterprises has reduced their incomes by an average of 50.86 per cent. However, the rate varies by enterprise and region with the greatest decline in Solo; (m) not all of the workers surveyed have adjusted their expenditures in response to a fall in incomes. Among those who have adjusted their expenditures, the rate varies by type of expenditure and region. Overall, the findings of this particular survey suggest that female, temporary workers and unskilled production employees have felt the greatest effects of the decline in production; (n) income of the majority of the households surveyed has dropped in the last one year; many of them experienced a drop of up to 50 per cent. On average, income has declined by 52.05 per cent, and by region, Jepara has experienced the greatest drop; and (o) the ratio of complete to partial reduction as well as the ratio of those who have reduced their expenditures to those who have not varies by type of expenditure and region. From the category of those who did not reduce their expenditure, the largest percentage goes to education, whereas the largest complete expenditure reduction is for entertainment and the largest partial expenditure reduction is for utilities/transport/communication (Tambunan and Sugarda, 2009).
E) The Impact of the Food, Fuel and Financial Crises on Poor Developing Countries (SMERU/IDS)

In January 2009, the UK Department for International Development (DFiD) commissioned the Institute of Development Studies (Sussex University) to conduct a rapid/pilot study of the impacts of the food, fuel and financial crises on poor developing countries. This approach was qualitative and participatory, and research took place in rural and urban communities in Bangladesh, Indonesia, Jamaica, Kenya and Zambia (IDS, 2009). For research in Indonesia, SMERU Research Institute was given the task (Fillaili, et al., 2009).

This pilot study aims to provide a qualitative assessment on how the crisis has affected the people’s lives, particularly the poor, and how people are coping with the crisis. Specifically, the study aims to (i) provide a rapid report on the situation that can communicate to policymakers and a global audience the urgency of the impact of the crisis on poor communities in developing countries, and (ii) develop and a test a methodological approach and tools that can be used to extend qualitative monitoring later in 2009.

The impacts and responses assessed in this study include: (i) livelihoods and employment (migration and remittances, formal and informal sector employment, prices of production, inputs, and travel), (ii) household consumption, productive and human capital investment (health and education spending); (iii) inter- and intra-household relations and dynamics, social cohesion, and impacts on gender and inter-generational relations; (iv) official state, civil society or informal institutional social protection mechanisms (state safety nets, church or mosque charity, NGO loans or grants, neighborhood, kin group or community support networks); and (v) perceptions and experiences of insecurity, including concerns about crime and social and political unrest.

The study was based on one week of field study in February 2009. The field study was carried out simultaneously in two villages, i.e. one rural village in South Kalimantan and one urban village in West Java, which were selected on the basis that they were likely to be affected by the crisis.

In general, data/information collected include: (i) changes in prices of consumables and products as well as in social and economic activities in the last year, and the magnitude of the changes compared to conditions during the 1997/98 crisis; (ii) household responses and coping strategies; (iii) responses by the government, non-government organizations (NGO), and the community; and (iv) perceived impacts on social life, security, and intra-household relations.

The data was collected through a series of in-depth interviews with village head, village officials, local leaders, NGOs, local economic players, government officials, and households; FGDs at two levels: village level with village elites, dusun representatives, village officials, community leaders, and community level with crisis affected groups; and direct observations.

Some important findings can be discussed briefly here, especially with respect to the impact of the crisis on the local economy and household responses and coping strategies: (1) Crisis impact on the local economy:
the impact of the crisis was first felt in October 2008 and became more severe in December 2008. The pressure on the local economy has worsened an already difficult economic situation following increases in the prices of food, agricultural inputs, and transport due to the increase in fuel prices over the last two years; (b) in rural areas where the local community depends on rubber plantations and coal exploration to make a living, the fall in the prices of these commodities, as well as the decrease in the demand for these commodities, have caused a decline in the income of farmers, laborers, drivers, and workers in other supporting sectors; (c) in urban areas adjacent to the industrial park, the decrease in the demand for automotive, electronic, and consumer goods has led to a reduction in working hours at the factories, reduction of additional benefits, temporary lay off of permanent workers and terminations of jobs for contracted workers; and (d) the communities in both villages stated that the crisis is more severe than the 1997/98 crisis; (2) Household responses and coping strategies: (a) the decline in household incomes has not caused a reduction in the number of meats eaten per day. However, households have tended to reduce the quality of food eaten; (b) the general health situation has not been affected, but it is apparent that some people have changed their health service seeking behavior, i.e. instead of going to a medical doctor they go to a health center (puskesmas) that provides cheaper medication; (c) there have been no incidents of drop outs from primary, junior, and senior high schools; (d) there is no indication of increases in child labor or domestic violence; and (e) there is no indication of an increase in women’s participation in economic activities due to the crisis.

**F) SMERU/BAPPENAS**

Indonesian economy has been affected by the 2008/09 global economic crisis, although the impact this time is not as worst as during the 1997/98 Asian financial crisis. Nevertheless, in order to mitigate the impact of the crisis, the Indonesian government has launched some fiscal and monetary policies. Also all existing social protection programs are still ongoing. In order to formulate effective policies, it needs a quick monitoring. For this reason, with the support from the AusAID, SMERU research institute in collaboration with BAPPENAS since July 2009 have been monitoring the social-economic impact of the crisis.

The monitoring is being conducted through four activities: 1) media monitoring, (2) community study; (3) quantitative analysis; and (4) case study. Media monitoring has 2 rounds. The first round was conducted during Juli-September 2009 covered Bandung, West Lombok, Kampar, Bekasi, Jepara, Malang and Bitung and a number of sectors, including textile and garments (Bandung), fishery (Bitung), and industrial park (Bekasi). The second round was conducted during November-December 2009 in the same locations, except Bekasi.

The case study is carried out in every 4 months. The main aim of the case study is to get a general picture about the impact, implementation and the role of arilllexisting social protection programs and other
policies to mitigate the impact and to support the daily life of the affected households. The case study is conducted by using a qualitative method through interviews with all key resource persons/institutes and selected households. The first case study was conducted during August-November 2009 to assess the role of existing social protection programs to mitigate the impact. The second case study is planned to be conducted in January-April 2010 to assess the effectiveness of fiscal stimulus, especially labour-intensive programs.

Main important findings are the followings. With respect to sectors affected by the crisis: (a) the most affected sectors but already show some signs of recovery: (i) plantation and manufacturing industries, especially rubber and palm oil (CPO), (ii) mining, especially coal, iron, steel, nickel, bauxite, copper, aluminium, marble; and electronic and automotive industries; (b) the most affected sectors and no sign yet of recovery: (i) textile and garment industries, (ii) handicrafts; and (iii) wood and wood products (e.g. furniture) industries; (c) less or temporary affected sectors: plantation, i.e. cacao, coffee, copra, corn, cassava; fish manufacturing industry, tourism, and migrant workers. With respect to households affected by the crisis: (a) the most affected households are the poor and those live in industrializing regions or regions with high intensity of land conversion (palm oil plantation areas); (b) competitions in the formal as well as informal sectors have become stiff and real wage/income tends to decline; (c) employment opportunities, especially for women, adult and children in handicrafts declined; (d) consumption on basic foods did not change; (e) consumption on protein and ready-made food declined; (f) as a coping mechanism, consumption behavior changed towards small packages and cheaper foods and bought foods on credit; (g) no evidence on drop outs from primary school. It was only found for schools outside villages mainly because high living and transportation costs. Upper level high school (SMA) was found to be more vulnerable for drop outs; and (h) health condition was more or less constant.

G) The Impact of the Crisis – Indonesia Case Study (ODI/CSIS)
This study conducted by the Center for Strategic and International Studies (CSIS; Indonesia) for the Overseas Development Institute (ODI; UK). It aims to assess the impact of the crisis on Indonesia at macro/national level. This study identifies components of the shock at national level, such as export performance, financial contagion that will greatly influence capital flows and financial intermediaries and workers’ remittances, discusses the impact of the crisis on economic growth, employment and poverty. It also explains government responses, both actual and possible, to ward off the impact of the crisis (Titiheruw, et al., 2009).

The study was fully based on analysis of secondary data on macroeconomic variables. The main sources of data are from BPS and Bank Indonesia (BI)

Main important findings are the followings. It shows that up to September 2008, Indonesia’s economy was still showing some resilience towards the crisis. However, during October-December 2008, the country’s
economy experienced deteriorating economic performance at an unprecedented speed; quarterly economic growth fell from 6.1% to 5.2% on a yearly basis and export growth was at only 1.82%, the slowest since 1986. With downward revision to the country’s economic growth in 2009 to 4-4.7% (previously 5% in 2008), the government planned a fiscal stimulus package to maintain private consumption levels to cushion the impact of the global financial crisis, as domestic consumption has contributed a significant share (65%) of Indonesia’s gross domestic product (GDP). Policies to keep financial market stability were also being launched, particularly to keep inflationary pressures down and prevent depleted domestic purchasing power. Unemployment and poverty reduction were also affected, but not as severely as during the 1997/1998 Asian financial crisis, owing to the existence of favorable factors such as relatively low fuel and commodity prices and a good rainy season so far.

4. Gap Analysis

All those reviewed surveys/studies have attempted to examine the impact of the 2008/09 global economic crisis and other crisis such as a food price crisis (done by the World Food Program) on poverty in Indonesia focusing on a variety of issues such as agricultural and non-agricultural incomes, remittances/migrants, rural-urban households, food security, child labor, formal/informal employment, and small producers. In overall, these survey covers almost all provinces.

Regarding the World Bank survey, there are, however, some limitations with respect to indicators proposed. First, with respect to employment, the indicator framework does not give attention to the vulnerability of female workers. A study on the impact of the crisis on furniture enterprises in some regions in West and Central Java conducted by GTZ (Tambunan and Ardha, 2009) has found that female employees were the first victims of labor-adjustment mechanism adopted by the enterprises in coping with the crisis. More female than male workers were laid off. The framework should also analyze the impact of the crisis on employment by gender. The National Labour Survey (SAKERNAS) provides data on employment/unemployment by formal education, which show that the annual percentage increase in employment/unemployment varies by level of formal education. Therefore, the framework should also analyse the impact of the crisis on firm employment by level of education.

Moreover, the existing Labor Law in Indonesia gives more incentive to firms to hire new workers on a short-term contract base. Short-term based employment is therefore expected to increase faster than the permanent based employment. The above mentioned GTZ study found that ‘temporary’ or ‘contract’ workers tend to be the first victim of firms’ labour-adjustment affected by a crisis than ‘permanent’ employees. Thus, it can be expected that in a crisis situation like the current one, lay off of contract employees will increase
faster than that of permanent employees. Therefore, the framework should also disaggregate the employment impact of the crisis by status, i.e. permanent vs. temporary/contract-based employment.

With respect to changes in firm employment as one of the framework’s transmission indicators, it focuses only on formal enterprises, i.e. medium and large firms, using BPS quarterly data. No attention has been given to informal enterprises, i.e. micro and small enterprises, despite the fact that this category of enterprises is the majority (99%) of enterprises in Indonesia. The main reason is that data on micro and small enterprises are limited. Although BPS does have data on wages in the informal sector (e.g. self-employed, workers in construction and domestic workers). Given the fact that there are more micro and small enterprises than medium and large companies in Indonesia, any effort to assess the impact of a shock/crisis on firm and/or firm employment should be included in the sample of analysis.

With respect to employment by sector, the framework also covers agriculture. However, it is not clear whether in analysing the impact of the crisis, the employment in the sector is disaggregated by subsector. Disaggregating agriculture by sub-sector is crucial for a number of reasons. First, some subsectors are open to the global economy through international trade and investment, while others are more domestic oriented/isolated from the global economy. Consequently, the outcome of the impact may differ by subsector. Second, the poorest section of the population by sector in Indonesia is fishery. Although there is no evidence so far on how is the impact of the global economic crisis on this subsector of agriculture, and especially on fishery households, there is some evidence on the negative effect of the increase in fuel price in the past few years on real income of fishermen.

In overall, in order to produce more simple but quick signal about the impact of a crisis on households, in addition to those proposed indicators, at least two key composite indeces should be developed. One key index for the coping mechanisms, and one key index for outcomes, which can be constructed through a certain calculation method of related indicators. These two indeces should act as ‘early warning signal’.

With respect to JICA’s survey, it has made an effort to examine the impact of a crisis on rural economy or rural households in particular. The survey attempted to examine the impact not only on agricultural incomes (by subsectors, including crops, plantation, livestock, and fishery), but also on non-agricultural incomes by subsector/activity. To improve the quality of this survey, however, at least two more issues should be taken into consideration. First, more isolated rural economy from urban areas may have different outcomes of the impact of a crisis than more ‘open’ rural economy which are closely located with urban areas or big cities like Jakarta, Surabaya, Makassar and Medan. Second, agricultural commodities to be included in the survey should be distinguished between ‘tradable’ and non-tradable’ commodities, because export and import are two main important channels of a crisis transmission.
In the WFP’s monitoring survey, in order to improve this attempt to provide information for decision making in targeting and responding to food and nutrition insecurity at provincial and district level, some improvements should be done in the following areas/issues: (1) focus should not only be on those who are living under the current poverty line (or on the number of poor people), but also on the condition of the poor, i.e. poverty gap and poverty depth; (2) since many poor villages in Indonesia, especially those in coastal areas are not paddy-based economies, but the majority of people in those villages are fishermen, percentage of damaged fishing areas caused by e.g. polluted sea should also be used as an indicator.

Two other shortages of all the studies/surveys reviewed are the followings. First, they do not include outlaying regions such as many inhabited small islands or villages in the borderlines with Malaysia in Kalimantan or in Papua with PNG, or in North Sulawesi with the Philippines. These are less developed/isolated/poor regions. Theoretically, it is possible that, because of their isolation (at least from the Indonesian side), the regions were not so affected by the global financial crisis (there was also no evidence that the regions were severely affected by the 1998 Asian financial crisis).

Second, although the surveys/studies examined the impact of the global financial crisis on employment, no classification of employment has been given explicitly according to education/skill, type (temporary vs. permanent), and gender. While, low educated, temporary and female workers are the most vulnerable to an economic crisis. They are usually the first to be laid off by firms affected by the crisis. Also no special attention has been given on such as households headed by female, elder people and physical disable people.

Despite these shortages, the surveys/studies at least provide some fact suggesting what would happen if there is a crisis, and, also the surveys/studies offer a number of indicators and methodologies which can be applied (with or without any modification) to other regions.

**5. Further Research**

Based on the gap analysis, further research is needed on the following issues.

1) The poorest section of the population by sector in Indonesia is fishery. Although SMERU research institute has also included fish manufacturing industry in its crisis monitoring activities (as discussed before), less focus has been given to fishermen and their families. Thus fishery community should be a new study area. The question is not more on the impact of the global crisis since it has been already disappeared, but as a vulnerable group given their very poor financial condition, the question is on how they cope with a shock.
2) Isolated rural economy from urban areas may have different experiences with a crisis than more ‘open’ rural economy, closely located with urban areas or big cities like Jakarta, Surabaya, Makassar and Medan. Therefore, further research on vulnerable groups in isolated/backward rural areas is needed.

3) All the reviewed surveys/studies activities do not include villages in outlying regions such as many inhabited small islands or in the borderlines with Malaysia in Kalimantan or in Papua with PNG, or in North Sulawesi with the Philippines. These are less developed/isolated/poor regions. Theoretically, it is possible that, because of their isolation (at least from the Indonesian side), the regions were not so affected by the global financial crisis (there was also no evidence that the regions were severely affected by the 1998 Asian financial crisis). Therefore, research on vulnerable groups in those outlaying regions is needed.

Methodologically, the purposed studies can be carried out with the following activities: (a) secondary data analysis in order to have basic/general information on the issues to be studied; (b) survey or indepth interviews using a semi-structured questionnaire; (3) a series of focus group discussion with all key stakeholders (e.g. local government officials, association, NGOs, local universities, related Ministry); media monitoring; and direct observations.

References

Andadari, Roos Kities (2008), Local Clusters in Global Value Chains. A case study of wood furniture clusters in Central Java (Indonesia), the Tinbergen Institute Research Series no. 421, Amsterdam: Tinbergen Institute & Vrije Universiteit.


