POVERTY AND THE ECONOMY June 2012

SUMMING UP

The macroeconomic situation was mixed for the poor in May:

1. In the first quarter of 2012 economic growth in Indonesia was 6.3 percent, which is slightly lower than the last quarter of 2011.
2. In February 2012 formal employment in Indonesia was up slightly compared to February 2011. Employment fell in the low-productivity and low-paid sectors of the economy (agriculture) and this should have a positive impact on incomes and poverty.
3. During the first quarter of 2012 growth in the production of small and micro manufacturing increased by 7.2 percent over the first quarter of 2011. This is likely to have a positive impact on poverty because many of the urban poor work for small and micro manufacturing firms.
4. Indonesia's trade balance recorded a US$641.1 million deficit in April 2012, the first such deficit since July 2010. This was caused by a decline in both the value and volume of Indonesian exports.
5. Inflation in Indonesia for May 2012 was 4.45 percent year on year. The highest rate of inflation occurred in the prepared food group (0.4 percent), which may have future negative repercussions on the poor because they spend such a large share of their income on food.

The review of infrastructure and poverty in Indonesia has five key findings:

1. In Indonesia investment in roads helps to reduce poverty. A 1 percent increase in road investment is associated with a 0.3 percent decline in poverty over five years.
2. About 80 percent of all roads in Indonesia now fall under the responsibility of district governments and these district governments seem to be incapable of maintaining the road system. A large proportion of roads are now classified as "damaged," and more funds need to be channeled to district governments to maintain and improve roads, especially in rural areas.
3. In Indonesia investment in irrigation also helps to reduce poverty. About 65 percent of all poor household heads in Indonesia work in agriculture, and so public investment in irrigation is critical for raising the productivity and incomes of poor farmers.
4. Since 2000 there has been a systematic underfunding of the irrigation system in Indonesia, resulting in a situation where an estimated 40 to 50 percent of all irrigation systems are now in disrepair. This state of affairs is reducing yields for the main crop grown by poor farmers: rice.
5. To increase the productivity and incomes of poor farmers, the Government of Indonesia needs to dramatically increase its expenditures on the maintenance of the irrigation system.

Economic Growth in Indonesia

In the first quarter of 2012 economic growth in Indonesia was 6.3 percent, which is slightly lower than the last quarter of 2011. Slowing growth in 2012 is consistent with the predictions of the World Bank (6.1 percent), J.P. Morgan (5.2 percent) and SEADI Model (5.8 percent).

Indonesian GDP for the first quarter of 2012 reached Rp. 632.8 trillion in 2000 constant prices, with a growth rate of 1.4 percent compared to the fourth quarter of 2011. On a year on year basis, growth occurred in all sectors of the economy, with the transportation and communication sector recording the highest rate of growth (10.3 percent) and agriculture recording one of the lowest (3.9 percent). Two sectors of the economy—trade, hotel and restaurant and manufacturing— were the largest contributors to economic growth (1.5 and 1.4 percent respectively, while other sectors contributed less than 1 percent.

Employment Growth in Indonesia

Formal employment in Indonesia in February 2012 was up slightly compared to February 2011 (from 111.3 million to 112.8 million). At a detailed level there was a decline of 1.52 million workers in the agricultural sector. Employment in the informal agriculture and unpaid labor sectors also fell by 0.22 and 0.48 million, respectively, while employment in the informal non-agriculture and formal sectors increased by 0.81 and 3.62 million, respectively.

These changes in employment reflect the general shift of workers from agriculture to non-agricultural sectors of the economy, as well as from informal to formal sectors. As workers move from the low-productivity and low-paid sectors of the economy—like agriculture and the informal sector—this should have a positive impact on both incomes and poverty.

During the first quarter of 2012, growth in the production of large and medium manufacturing as well as that of small and micro manufacturing increased compared to the first quarter of 2011 (4.88 percent and 7.22 percent, respectively). The strong rate of growth in the small and micro manufacturing sector is likely to have a positive impact on poverty because many of the urban poor work in this sector.

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SEADI SUPPORT FOR ECONOMIC ANALYSIS DEVELOPMENT IN INDONESIA

Indonesia's Trade Balance

Indonesia's trade balance recorded a US$641.1 million deficit in April 2012, the first such deficit since July 2010. In April 2012 exports declined by 7.36 percent compared to March 2012, and they declined by 3.46 percent compared to April 2011. These developments were caused by a decline in both the value and volume of Indonesian exports. Indonesian exports suffered as a result of the economic slowdown in Europe as well as the gradual slowdown of the Chinese economy. In other words, the fall in Indonesian exports was quite consistent with current trends in world demand.

The increase in Indonesian imports in April 2012 can be regarded as a positive sign since the imports of capital and intermediate goods grew. In particular, growth in capital goods imports represents a positive sign suggesting that some parts of the Indonesian economy regard future growth prospects as being favorable.

Inflation in Indonesia

Inflation in Indonesia for May 2012 was 0.07 percent month to month and 4.45 percent year on year. The highest rate of inflation occurred in the prepared food and other group (0.4 percent), while the prices of food and clothing declined by 0.15 and 0.22 percent, respectively. The high rate of inflation in prepared foods is a reflection of the uncertainty of government policy regarding fuel prices, which caused an increase in transportation costs which are part of the category of "prepared food and other" prices. Anticipating the removal of the fuel price subsidy in April 2012, prices of prepared foods have increased steadily since the middle of March. Although the government canceled the subsidy removal, the price of prepared foods still remains high.

This situation is a bit worrisome for the poor. Rising prices, especially rising food prices, tend to have a particularly negative impact on the poor. For this reason, SEADI commissioned a recent study to analyze the effect of inflation, and especially food price inflation, on the poor in Indonesia.[1] This study estimates two new consumer price indices—a CPI for the urban poor and a CPI for the rural poor—to better track the impact of inflation on the poor. These new price indices are needed because the poor spend a much larger share of their income on food than the general population. While the urban and rural poor spend 48 and 55 percent, respectively, on food, the general urban and rural population spends only 36 and 50 percent, respectively, on food. Since the poor spend much more on food, any increase in food prices will have a more negative impact on them than on the general population. The rising rate of inflation in prepared foods therefore deserves attention, in order to monitor its future effect on the urban and rural poor.

Infrastructure and Poverty in Indonesia

Physical infrastructure plays an important role in poverty reduction in Indonesia. According to the World Bank (2006), after controlling for other factors, having access to an asphalt road in Indonesia is associated with a 8 percent increase in household expenditure in urban areas, and a 3 percent increase in household expenditure in rural areas.[2] Physical infrastructure – such as roads, irrigation, electricity and sanitation – raises income and reduces poverty by connecting households to better jobs, schooling and health facilities.

This section focuses on the impact of two types of infrastructure—roads and irrigation—on poverty in Indonesia. Since about 60 percent of the poor in Indonesia live in rural areas, the emphasis is on rural infrastructure development. In rural areas infrastructure development reduces poverty in two ways. First, a road or irrigation investment can lead to an increase in agricultural and nonfarm productivity, thereby directly raising the income and employment opportunities of the poor. This is the direct income effect of infrastructure. Second, higher productivity and expanded employment can lead to increased overall economic growth, which also benefits the poor. This is the indirect income effect of infrastructure development.

Roads and Poverty in Indonesia

A number of studies in Indonesia and elsewhere point to the positive effect that roads have on poverty reduction. Using provincial-level data in Indonesia, Kwon (2000) finds that a 1 percent increase in road investment is associated with a 0.3 percent decline in poverty over five years.[3] A similar study in the Philippines finds that a 1 percent increase in road investment, coupled with more schooling, leads to a 0.11 percent increase in the income of the poor.[4] In both of these studies the authors find that investment in roads benefits the poor because it links them to new wage, employment and educational opportunities.

Over the past 30 years the Indonesian Government has made great advances in extending the road infrastructure in the country. However, while progress has been outstanding in some areas (e.g. Java and Bali), in other areas—especially poorer, remote areas—it has tended to lag. For example, the share of villages connected by a concrete or asphalt road is only 46 percent in Central Kalimantan and 53 percent in East

1 USAID, 2012, "Consumer Price Indices for the Poor in Indonesia," Jakarta, Indonesia. Publication produced by SEADI for review by USAID.

2 World Bank, 2006, *Making the New Indonesia Work for the Poor*, Washington, DC, p. 49.

3 Kwon, E., 2000, "Infrastructure, Growth and Poverty Reduction in Indonesia," Asian Development Bank, Manila, processed manuscript.

4 Baliscan, A. and Pernia, E, 2002, "Probing Beneath Cross-National Averages: Poverty, Inequality and Growth, *ERD Working Paper No. 7*, Asian Development Bank, Manila.

Nusa Tenggara (World Bank, 2006). Moreover, the process of government decentralization that began in 2001 has complicated things. Now about 80 percent of all roads in the country fall under the responsibility of district governments, and these district governments seem to be incapable of maintaining the road system in Indonesia. In 2003 fully 37 percent of all district-level roads were classified as being "damaged" or "seriously damaged" (World Bank, 2006), and the share of "damaged" roads was highest in the poorer areas of Indonesia.

The key problem here is that the district governments are not spending enough on road maintenance. At the start of the 1990s, road maintenance accounted for about 47 percent of central government grants to districts for roads. By 2003, this figure had declined to 4.5 percent (Parikesit, 2006).[5] In 2003 estimates for the total amount needed to maintain district roads were about 17 times as high as the amount actually being spent on maintaining district roads.

In Indonesia public expenditure on roads strongly favors new road construction rather than routine maintenance. Around 95 percent of all road expenditure goes into new road construction and the upgrading of existing roads. According to the World Bank (2006: 112), the reasons for this relate to the fact that:

> … road construction is a major source of corruption in Indonesia. …Anecdotal evidence suggests that road contractors are major contributors towards the election campaigns of district heads, who, in turn, may influence key local officials to award construction contracts to the same contractors. …(Since more money is involved in building new roads) corruption is thus a factor in the preference for expenditure on road construction (especially asphalt) rather than (road) maintenance."

Irrigation and Poverty in Indonesia

Since about 2/3 of all poor household heads in Indonesia work in agriculture, public investment in agricultural infrastructure is essential for boosting farmer productivity and for reducing poverty. Work in a number of Asian countries shows that public investment in irrigation is especially important for poor farmers. A study in China found that a 1 percent increase in irrigation investment is associated with a 1.13 percent decline in poverty (Fan et al, 2002).[6] A similar study in the Philippines found that a 1 percent increase in irrigation leads to a 0.3 percent rise in the income of the poor (Baliscan and Pernia, 2002).

However, at present agriculture is not doing well in Indonesia and this is having a negative impact on the poor. While growth in total agricultural productivity in Indonesia was high during the period 1969 to 1992, since that time gains in total agricultural productivity have been low and erratic. Part of the problem here lies in the declining rate of investment in irrigation. Since 2000 there has been a systematic underfunding of the maintenance and repair of irrigation systems in Indonesia, resulting in a situation where an estimated 40 to 50 percent of all irrigation systems are now in disrepair (USDA, 2012).[7] This state of affairs is reducing growth in crop yields, especially for the all-important rice crop. Between 1960 and 1989 crop yield growth in rice averaged nearly 4 percent per year, but has since slowed to about 0.5 percent per year between 1990 and 2010. This is having a deleterious effect on the poor, since most of the rice grown in Indonesia is produced on farms of less than 1 hectare in size.

Policy Interventions for Roads and Irrigation in Indonesia

Three types of policy interventions are needed to improve the road and irrigation infrastructure in Indonesia.

First, since district governments are now in charge of 80 percent of all roads in Indonesia, efforts must be made to provide more public funds to poorer districts for road improvement and, especially, for road maintenance. These efforts should be coupled with reforms to ensure that: (a) the increased expenditure of funds is on roads rather than employee salaries; (b) the increased expenditure of funds is on maintaining and improving roads that have been designated as "damaged" or "seriously damaged;" and (c) contracts for road construction are transparently put out for competitive bid. Investing more in district and sub-district roads can yield high rates of return, especially to the poor who are now denied access to better jobs and schooling by poorly maintained roads.

Second, maintenance of district and village roads can be financed through community-driven approaches like the Government of Indonesia program, Rural PNPM Mandiri (Rural PNPM). Beginning with its predecessor organization KDP in 1998,[8] Rural PNPM has done a good job of building and maintaining large amounts of simple but productive infrastructure using mechanisms that mobilize the capacities of rural communities. For example, under Rural PNPM labor-intensive road construction projects have provided much-needed income and employment for the poor. Building and

5 Parakesit, D., 2006, Unpublished paper for Indonesia Rural Investment Climate Assessment, World Bank, Jakarta, Indonesia.

6 Fan, S., Zhang, L. and Zhang, X., 2002, "Growth, Inequality and Poverty in Rural China," *Research Report 125*, International Food Policy Research Institute, Washington, DC.

7 United States Department of Agriculture, Commodity Intelligence Report, "Indonesia: Stagnating Rice Production Ensures Continued Need for Imports," March 12, 2012

8 Begun in 1998, KDP was a community-empowerment organization funded by the World Bank. Since 2007 all KDP mechanisms and procedures have been incorporated into the Rural PNPM Mandiri Program, run by the Indonesian Government, Ministry of Home Affairs.

maintaining rural roads under the Rural PNPM model represents a win-win situation for the poor by first providing them with new employment opportunities and then by providing them with improved physical links to the outside world.

Third, the agricultural sector needs to be revitalized by increased public expenditures on irrigation. Investment in irrigation and drainage infrastructure was a major component of the government's successful pro-poor agricultural development strategy from 1969 to 1992. To recapture the momentum from that period, the Government of Indonesia needs to dramatically increase its expenditures on the maintenance of the irrigation infrastructure in the country. Since rice is both the main irrigated crop in Indonesia, and also the principal crop grown by poor farmers in Java and Bali, such a strategy of increased expenditures on irrigation can only help to improve food security and reduce rural poverty. According to the International Rice Research Institute (IRRI), Indonesia will need 38 percent more rice in the next 25 years to achieve rice self-sufficiency, and this will require raising average yields from 4.6 tons per hectare to more than 6.0 tons in 2035. Reaching this goal will require much more public investment in irrigation maintenance, development and repair.

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