Coordinating Ministry for Economic Affairs
Republic of Indonesia

International Labour Organization

SAMASAMA: Social Accounting Matrix Advisory Support And Monitoring Assistance

IN BRIEF

Introduction to the SamaSama project

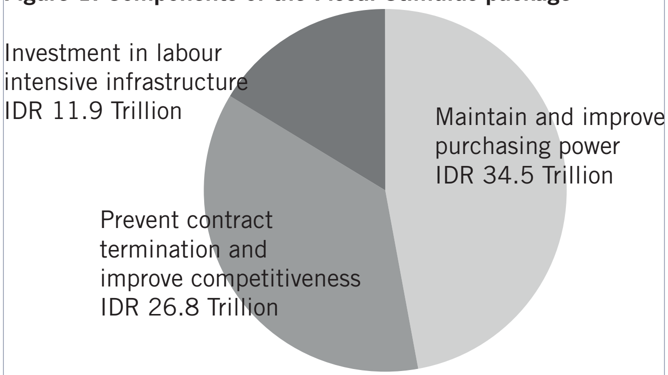
In the latter half of 2008 Indonesia's macroeconomic indicators began to show signs of a downturn associated with the global financial crisis. The manufacturing sector began to decline as exports deterorated. Increases in oil prices saw food commodity prices to rise much faster than usual.

Given the potential impact of a recession on Indonesia's economy and its labour market, the Indonesian Government responded rapidly, announcing a stimulus package of IDR 73.2 trillion (USD 7.6 billion) or 1.4 per cent of GDP in January 2009.

The package included tax-cuts, tax-subsidies and job creation measures to maintain purchasing power, prevent employment loss and stimulate job creation (see graph).

It was important for Indonesia to use the stimulus to not only respond to the current shock, but to increase the resilience of the overall economy and to ensure that the package supported development objectives.

Figure 1: Components of the Fiscal Stimulus package



Source: Coordinating Ministry for Economic Affairs, 2009

The stimulus therefore included IDR 11.9 trillion for infrastructure development and this investment was projected to create approximately 1 million short-term work opportunities through use of labour-intensive approaches. The package channeled investment into infrastructure projects including:

1. Public works infrastructure development;
2. Communications infrastructure development;
3. Energy infrastructure development;
4. Housing infrastructure development;
5. Market infrastructure development;
6. Construction and rehabilitation of farming community road and irrigation infrastructure;
7. Improvements to vocational training; and
8. Rehabilitation of warehouses for storage of staple goods.

Available data indicates that the crisis was associated with a fall in exports and growth in the informal economy. Estimates from Statisitcs Indonesia indicate that the number of workers in the informal economy increased by 2 million between February 2008 and 2009. However, in comparison to other countries in South-East Asia, the crisis had a moderate impact on the economy. The general election and improvement in the consumer confidence index contributed domestic consumption, which is nearly 60 per cent of GDP.

The Government made a laudable effort in implementing the stimulus package, achieving 84 per cent of the target and the economy is now achieving precrisis growth levels.

The fiscal stimulus also identified a need to enhance policy advisory capacities to ensure that policy options optimise development outcomes.

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The SAMASAMA Project

The 2009 Fiscal Stimulus Package included additional investment in infrastructure, in order to stimulate economic demand and job creation in communities throughout Indonesia. This investment, which was worth IDR 11.9 trillion, identified a need to better understand the impact and effectiveness of government investments.

At the request of the Indonesian Government, a project known as "The SAMASAMA Project" was conceived, in order to develop capacity for analyzing the impact of government investments. The strategic objective of this project relates to increasing the overall effectiveness of public investment policies, thereby enhancing the Government's capacity to design and implement public investment policies that enhance employment creation and poverty reduction in Indonesia.

To achieve this objective the project is supporting development of national diagnostic and policy advisory capacities through development of a 'dynamic social accounting matrix' or DySAM.

The DySAM is a tool that can be used to strengthen capacity for understanding the possible impacts of various public investment options on Indonesia's labour market. Policy makers can use this tool to identify how government strategies and public spending can effectively increase employment and productivity, while also reducing poverty.

The project's main components include:

- development of a "dynamic social sccounting matrix" (DySAM), which includes an employment satellite account and expanded information for exploring technology choice;
- provision of training to build the capacity of end users, including a "training of the trainers" programme;
- production of policy-oriented studies that look at employment and economic growth.

The partners of the SAMASAMA project include the Coordinating Ministry for Economic Affairs, Statistics Indonesia, the Ministry of Public Works, the Ministry of Finance, the Ministry of Manpower and Transmigration, the National Development Planning Agency and the Bank of Indonesia. The training programme also partners with the University of Indonesia for a 'training of the trainers' programme, to ensure that there is capacity to sustain the initiative and support future capacity building activities.

Ongoing activities include updating and validating the DySAM and broadening the number of users through additional training activities. Support is also being extended to stakeholders for application of the model for policy analysis. It is planned to use the model to look into the economic impact of financial shocks, the employment implications of climate change, investment options for achieving employment targets, and the implications of free trade agreements, among others.

IN SEARCH OF TOOLS TO PROMOTE EMPLOYMENT CENTRED DEVELOPMENT

Employment generation is an effective strategy for reducing poverty and progressing development in many developing nations. The strategy is based on the recognition that a wage income is a primary source of income for poor household groups. Therefore, creating additional employment opportunities and/or raising the income of the existing employed population is a central theme in most poverty reduction strategies.

A typical poverty reduction strategy will often promote investment projects that are geared to achieve an agreed level of poverty reduction by increasing (or enhancing) returns to labour. Since investment is a key element for employment generation, a natural question in the mind of development planners relates to the efficiency of such investments to total employment generation over short, medium and long term time horizons.

Various types of analytical tools may be adopted to assess the impact of investment on employment. However, since investment is a component of the national aggregate demand, a 'Keynesian' type of demand driven (multiplier) approach is a suitable choice for understanding such questions. A social accounting matrix incorporates input-output tables and social transfers of the main actors in a national economy and therefore reflects the full socio-economic circle of a country.

A social accounting matrix (SAM) brings together data on income creation and production as national accounts and input-output tables do, but also includes information on incomes received by different institutions and related spending. A SAM can be used to support and strengthen development of coherent national strategies by, among others, analysing the effects of investment planning and other public policies (e.g., tax cuts, subsidies) on the economy and on households. It can be used, for example, to explore the relationship between intensive employment strategies, job creation and poverty reduction.

Social accounting matrices

A social accounting matrix (SAM) is a money-metric, double-entry economic accounting system, which records all economic transactions between agents, institutions and production occurring in an economy within a specific time period. It brings together information on inputs and outputs, household consumption, subsidies given by government for production and institutions, workers' remittances, exports and imports, among others (see table below). A SAM provides a framework for documenting and analyzing the socio-economic structure of an economy. A SAM is an important analytical tool as it can simulate the potential impact of future economic policies and the effectivness of past policies on employment and income distribution through multiplier analysis. A "dynamic SAM" is based on an existing 'static' SAM and the available up-to-date time series of national accounts (SNA) - this makes the model dynamic across time.

A SAM framework can be categorized into "endogenous" and "exogenous" accounts as shown in the table below. For any given injection into the exogenous accounts, influence is transmitted through the interdependent SAM system among the endogenous accounts.

Table: Social accounting matrix schema

Income	Expenditure	Endogenous				Exogenous			
		Commodities	Production	Factors of Production	Households	Corporate	Government	Capital Account	Rest of World
Endogenous	Commodities		Input		HH consumption		Govt. consumption	Capital formation	Exports
	Production	Output					Production subsidy		
	Factors of Production		Wages / profit						ROW Wages / profit
	Households (HH)			Wages / profit transfer	HH to HH	Corp. To HH.	HH Subsidy		Remittances
Exogenous	Corporate			Profit transfer	HH to Corp.	Corp. To Corp.	Govt. subsidy		ROW to Corp.
	Government	Custom/ import tax			HH tax	Corp. tax	Govt. to Govt.		ROW to Govt.
	Capital account				HH Savings	Corp. capital	Deficit / surplus		Foreign savings/ debt
	Rest of World (ROW)	Imports		Wage / profit to ROW	HH to ROW	Corp. To ROW	Interest payments	Import reserves	

The Indonesian SAM framework can be used to estimate the potential impact of an injection across urban and rural, as well as low, medium and high income households. Similarly, it can be used to indicate the specific economic sectors that would benefit from additional investment and estimate how this would impact on transfers to labour. Labour by economic sector can be used to build a bridge between the money-metric dynamic SAM and employment statistics. Labour multipliers can then show how an injection impacts on the level of employment.

Impact documented from SAM multiplier analysis can be decomposed into: 1) intra-account effects and 2) induced effects. The intra-account effects refers to the effect of an injection on one account, plus the effects within the account group. For example, if a subsidy is given for oil production activities, the intra-account multiplier would document the impact of the subsidy on oil production activities and on all other production activities. The induced effect measures the impact of an injection on other accounts (such as households, commodities and factors of production when the production account is manipulated), as well as subsequent impacts that arise in the original account from the injection once it has circulated throughout the rest of the economy.

Infrastructure and regional development at the Coordinating Ministry for Economic Affairs

The Government of Indonesia (GOI) recognizes that the coordination of fiscal and monetary policy is important for macroeconomic stability and acknowledges that support is needed to foster synergies that harmonize and optimize developmental efforts. The Coordinating Ministry for Economic Affairs (CMEA) is the GOI's agency tasked with coordinating the framing of economic policies and their implementation.

CMEA supports coordination across key themes, including macroeconomics and finance, agriculture and aquiculture, natural resource management, industry and trade, international cooperation, and infrastructure development.

CMEA recognizes that a coordinated approach to the development of infrastructure through government investments, development assistance and public-private partnerships can make a substantial contribution towards the betterment of the national investment climate and economic competitiveness in the international market. The Directorate for Infrastructure and Regional Development is responsible for overseeing infrastructure and regional development planning and policy coordination. It supports the monitoring, analysis, evaluation, and reporting of Indonesia's infrastructure investments. The Directorate contributes to Indonesia's broader developmental objectives by supporting coordination and promotion of employment generation for activities related to infrastructure and regional development across government.

The ILO's employment intensive investment programme

The Employment-Intensive Investment Programme (EIIP) is a global programme of the International Labour Organization, which leads work on the development and implementation of employment-intensive approaches to infrastructure investment. The EIIP supports governments, employers' and workers' organizations, the private sector and community associations in enhancing the employment content of infrastructure investments and in improving access of the poor to basic goods and services.

The EIIP provides advice and tools that facilitate policy-making and standard setting in favour of employment generation, develops entrepreneurship and build capacity, and enhances social dialogue through infrastructure works. This is carried out in both urban and rural areas, during times of crisis and also as part of a longer-term strategy for local development that makes contributes towards the creation of sustainable institutional and economic environments.

In Indonesia the EIIP is supporting the capacity building of district governments, local contractors and communities in the undertaking of employment-intensive local resourced-based approaches for the development of rural road networks in Aceh and North Sumatra. These activities seek to improve rural access and create additional decent local employment opportunities for the rural poor. The activities have introduced environmentally friendly technologies, such as bitumen emulsion, and promoted the involvement of women in road works.

At the national level the EIIP is supporting planning and evaluation of infrastructure related job creation programmes through its SAMASAMA initiative. EIIP is also supporting the establishment of practical monitoring systems to support improvements in the quality of employment generated through public works and community empowerment investments.

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