

Short Article

Can Agriculture be the Last Resort for Financial Crisis in Developing Countries?

The current global financial crisis triggered by the collapse of the mortgage-based securities sector in US has had a serious impact on the real economy, including the agricultural sector. The most serious impacts have been observed in the estate crop production which heavily depends on the international market. For example, prices of crude palm oil (CPO) plunged by more than 60 per cent from about US\$1,200 per ton in March 2008, to about US\$400 per ton in December 2008. The crash of the CPO prices mostly affected the small-scale oil palm producers, who produce 31 per cent of the total CPO production in Indonesia (Rifin, 2008). Some small farmers were forced to sell their farmland and 30 per cent of the plantation workers were laid off in South Sumatra, one of the production centres of CPO in Indonesia (Kompas, 2008).

During the last Asian economic crisis in 1997-1998, agriculture served as the last resort for those affected by the crisis. After the last crisis the share of agriculture in the national economy of Indonesia increased due to the devaluation of local currency, deregulation, and the transfer of labour from industry to agriculture (Hondai, 2004). Can we expect agriculture to play a similar role in the current crisis and to contribute to an easing of the agony of people in other sectors?

It is difficult to give a positive answer to this question. Since the 1997 Asian economic crisis, the local economy has become more integrated with global economy. The current crisis has shown that a theory of decoupling (a negative growth in some regions can be compensated by the positive growth in the other regions) is just a myth. The sharp decline of commodity prices indicates that the agricultural sector cannot serve as a quick remedy for the economic turmoil. The demand for commodities will stay weak until the world recovers from the depression.

Let us see the positive side of the crisis. First of all, the food crisis, triggered by various factors such as a rising use of biofuel, export bans, changing diets, climate change and skyrocketing oil prices, has eased, at least temporarily. The lower price of oil, due to the decrease in demand, will have a positive impact on agriculture by reducing production cost. Speculation, which was assumed to be one of the major reasons for the soaring commodity price, lost steam. Now farmers cannot dream of the speculators who buy their crops at incredibly high prices. The price will again reflect the actual balance of demand and supply. This is definitely a healthy situation if people want to avoid the exploitation of natural resource.

In addition, farmers can still keep hope to develop their farms in spite of the decreasing importance of agriculture in their household economy. An attitude survey among farmers in a rainfed rice-vegetable-based farming village in West Java, Indonesia, where non-farm income forms 69 per cent of the household income, suggests that the farmers still hope to develop their current agricultural production and to earn more income from agriculture, although some of their neighbours, who rely on non-farm income, enjoy better economic conditions. These farmers also showed interest in technological improvements like the application of new crop varieties as the measurements for farm development (Sugino *et al.*, 2008).

Even in a normal situation, it is difficult to identify policy options that can effectively solve the current problems in agricultural production. Although we observed a decline in crop prices, population pressure, scarcity of natural resource (especially land and water) and unstable climate conditions will not ease the growing demand for agriculture commodities on a long-term basis. The recession has given policy planners precious time to stop and think about the best way to develop agriculture in each country.

Considering the limited land resources and lack of irrigation water, which are the most commonly observed restraints in the marginal area of Asia and the Pacific, sustainable production compatible with productivity increases, will remain the traditional, but still major focus of agricultural policy implementation. As the above survey showed, farmers are eager to apply new technologies.

To mitigate the damage done by the current crisis, many governments are proposing economic stimulus measures. It is anticipated that these policy packages will cover the agricultural sector as well as the financial and industrial sectors. The theory of economics says that there are no depressions that last forever. It will be a difficult decision for policy planners to allocate more resource to agriculture in these difficult times, but the decisions made during bad times will determine the winners during the recovery of the world economy. ■

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(Reference available upon request)

Breaking News

A Call for Action for Sustainability and Productivity

A call to action on agriculture and food policy was presented at the United Nations Commission on Sustainable Development (UN-CSD 17). 'Farming First' was developed by three of the major groups within the CSD - farmers, scientists, business and industry to enhance sustainable development and food security through agriculture, in particular in developing countries. Recognizing that farming policies have tended to neglect the critical role which farmers play in making sustainable development a reality, Farming First calls on policymakers and practitioners to increase agricultural output by developing locally sustainable value chains, knowledge networks, and policies centred on helping farmers, in particular subsistence farmers, become small-scale entrepreneurs. Governments, businesses, scientists, farmers' organizations and other civil society groups must focus on the source of the food security and work together to enable the many millions of farm families, especially smallholders, to grow more crops sustainably through effective markets, more collaborative research and committed knowledge sharing.

Croplife, 2009. Farmers, Scientists, Business and Industry Release a Call for Action for Sustainability and Productivity at the UN. Press Release, <http://www.croplife.org/> (24 February 2009).

Poor Communities Get Help with Climate Adaptation

The Global Initiative on Community Based Adaptation to Climate Change was announced at an international conference in Dhaka, Bangladesh. This new global initiative will generate and share know-how on strategies to help the world's poorest and most vulnerable communities adapt to the impacts of climate change. The initiative will support an online platform, Community Based Adaptation Exchange, where stakeholders can share experiences and information about the kind of adaptation strategies that work best – and could be replicated and scaled-up elsewhere. Delegates of the conference stressed, among other measures, the need to use simple, low-cost technologies to enable poor communities to cope with climate change. Potential adaptation techniques include crop varieties that can tolerate drought, floods and high salinity; drip and other irrigation techniques to conserve scarce water; building storm and cyclone shelters; changing crop growing cycles; and diversifying from crops to fish, shrimp, crab and livestock farming.

Padma, T.V., 2009. Poor Communities Get Help with Climate Adaptation. Science and Development Network, <http://www.scidev.net/> (25 February 2009).

Events

Global Conference on Global Warming 2009 (GCGW-09)

5-9 July 2009

Istanbul, Turkey

<http://www.gcgw.org/>

Agriculture Outlook Asia 2009 - Asia's Inaugural Conference on Agribusinesses

14-16 September 2009

Grand Hyatt, Singapore

<http://www.terrapinn.com/>

The 3rd International Conference on Integrated Approaches to Improve Crop Production Under Drought Prone Environments

11-16 October 2009

Shanghai, China

<http://www.interdrought.org/>

Improving Agricultural Productivity, Markets, and Social Protection

The drastic rise in world food prices in 2007-2008 and the ongoing global financial crisis pushed millions of vulnerable people deeper into poverty and hunger. To ease the burden on poor people, build resilience to new challenges, and address risks, the international community must act comprehensively and collectively, and take action now. Ultimately, progress in achieving global food security should not be measured by declines in food prices, but by significant reductions in the number of poor, hungry, and malnourished people. Policymakers, development practitioners, donors, and private sector actors need to take three broad, but complementary policy actions to realize this common goal: (1) Increase investment in agricultural productivity; (2) Facilitate trade and regional and global grain reserves; and (3) Invest in social protection and child nutrition. With sound national policies and international co-operation and commitment, the global community can win the war against poverty and hunger.

Von Braun, J., 2009. Improving Agricultural Productivity, Markets, and Social Protection: The Key to Global Food and Nutrition Security. IFPRI, <http://www.ifpri.org/> (3 March 2009).

Family Farmers Critical to Achieving Sustainable Development

During the Intergovernmental Preparatory Meeting for the Commission on Sustainable Development (CSD IPM) at the United Nations Headquarters on 23-27 February, a delegation of farmer leaders from the International Federation of Agricultural Producers (IFAP), presented the Farmers' Priorities for Action, a five-point integrated approach towards building a new agricultural model: (1) Recognize agriculture as an engine for economic growth, rural development and thus poverty reduction; (2) Establish conducive policy frameworks and allocate sufficient budgetary resources to attract investments into agriculture; (3) Take an integrated approach towards rural development strategies, in particular emphasizing basic rural infrastructure and recognizing women farmers as a driving force for any strategy; (4) Develop secure land tenure arrangements, especially for women farmers; and (5) Combat desertification by turning dry lands into economic assets and give farmers effective risk management tools. The implementation of these priorities is a prerequisite for achieving a sustainable future through agricultural development.

IFAP, 2009. Family Farmers Critical to Achieving Sustainable Development, <http://www.ifap.org/> (5 March 2009).

15th Triennial Symposium of the International Society for Tropical Root Crop

Tropical Roots and Tubers in a Changing Climate: A Convenient Opportunity for the World

2-6 November 2009

International Potato Center, Lima, Peru

<http://www.cipotato.info/>

International Conference on the Integration of Sustainable Agriculture and Rural Development in the Context of Climate Change, the Energy Crisis and Food Insecurity

12-14 November 2009

Agadir, Morocco

<http://2009-international-conference.synthasite.com/>

Drivers and Characteristics of Wastewater Agriculture in Developing Countries

In urban and peri-urban areas of many cities of developing and middle-income countries, untreated wastewater and polluted water are used for agriculture. Though such practices are a threat to the health of users and consumers, urban agriculture provides important livelihood benefits and perishable food to cities. The key underlying factor is poverty which limits the 'coping capacity' of cities to respond to the infrastructure needs of urbanization, e.g., with comprehensive wastewater treatment. Based on information compiled from various sources, the total number of farmers irrigating worldwide with treated, partially treated and untreated wastewater is estimated at 200 million; they farm on at least 20 million ha. These figures include areas where irrigation water is heavily polluted. Farmers are aware of the potential risks to themselves and to consumers, but a clear understanding of cause and effect are missing. A feasible method of minimizing health risks for consumers in the short term would be to encourage effective washing of vegetables. The International Water Management Institute developed some policy recommendations: (1) The WHO (2006) guidelines for the safe use of wastewater should be extensively applied as it is more realistic and cost-effective than stressing the need to achieve certain water quality values; (2) Implementation of the Millennium Development Goals should be more closely linked to policies and investment for improvements in the water supply sector; and (3) Countries must address the need to develop policies and locally viable practices for safer wastewater use to maintain its benefits for food supply and livelihoods, while reducing health and environmental risks.

Based on Raschid-Sally, L. and Jayakody, P., 2009. Drivers and Characteristics of Wastewater Agriculture in Developing Countries: Results from a Global Assessment. IWMI, <http://www.iwmi.cgiar.org/> (27 November 2008).

The Environment's Role in Averting Future Food Crises

The surge in food prices over the last years has driven 110 million people into poverty and added 44 million more to the undernourished. The demand for food will continue to increase until 2050 as a result of population growth by an additional 2.7 billion people, increased incomes and growing consumption of meat. Due to a lack of investments in agricultural development, it is uncertain whether yield increases can be achieved to keep pace with the growing food demand. Rather than focusing solely on increasing production, food security can be increased by enhancing supply through optimizing food energy efficiency. Increasing food energy efficiency provides a critical path for significant growth in food supply without compromising environmental sustainability. Seven options are proposed for the short-, mid- and long-term improvement in food security. Option with short-term effects: (i) Regulate food prices and provide safety nets for the impoverished; and (ii) Promote environmentally sustainable higher-generation biofuels that do not compete for cropland and water resources. Option for mid-term effects: (iii) Reallocate cereals used in animal feed to human consumption by developing alternative feeds based on new technology, waste and discards; (iv) Support small-scale farmers by a global fund for micro-finance in developing diversified and resilient eco-agriculture and intercropping systems; and (v) Increase trade and market access by improving infrastructure, reducing trade barriers, enhancing government subsidies and safety nets, as well as reducing armed conflict and corruption. Option for long-term effects: (vi) Limit global warming; and (vii) Raise awareness of the pressures of population growth and consumption patterns on ecosystems.

Based on Nellemann, C. *et al.*, 2009. The Environmental Food Crisis: The Environment's Role in Averting Future Food Crises. A UNEP Rapid Response Assessment. GRID Arendal, <http://www.grida.no/> (February 2009).

Implementing Physical and Virtual Food Reserves to Protect the Poor and Prevent Market Failure

The steep rise in food prices in 2007-2008 led to economic difficulties for the poor and generated political turmoil in many countries. While a set of guiding principles for regulating agricultural and commodity futures markets should be drafted and inappropriate trade policy instruments such as export bans should be reviewed, these actions are not sufficient to avoid extreme price spikes and to ensure that the world can respond to emergency needs for food. IFPRI proposes two global collective actions to meet these goals. First, a small physical food reserve should be established to facilitate a smooth response to food emergencies. Second, an innovative virtual reserve should be set up to help prevent market price spikes and to keep prices closer to levels suggested by long-run market fundamentals like supply and demand. The major goal of the proposed virtual reserve is to establish a mechanism that will minimize any speculative attack on food commodities to avoid price spikes in the future. A virtual reserve system would also help prevent the kinds of harmful ad hoc trade policy interventions, such as export bans, high export tariffs, and high import subsidies, which have been both a cause and an effect of the recent price crisis. Neither the poor nor governments can afford excessive speculation in food commodities. The virtual reserve concept is a viable innovative option that could prevent speculators from unduly affecting the price of food, which is so central for the livelihood of the poorest 2 billion people.

Based on Von Braun, J. and Torero M., 2009. Implementing Physical and Virtual Food Reserves to Protect the Poor and Prevent Market Failure. Policy Brief No. 010, IFPRI, <http://www.ifpri.org/> (February 2009).

Agricultural Impact of Climate Change

Climate change is an increasingly significant global challenge and its negative impacts have already been felt in some regions of the world. Agriculture is one of the most vulnerable sectors to the anticipated climate change. Agriculture plays an important role in South-East Asia, contributing to more than 10 per cent of gross domestic product (GDP) in most regional economies, and providing jobs for over one third of the working population in the region. This paper used a dynamic computable general equilibrium (CGE) model of the global economy to investigate the potential impacts of climate change on agriculture and the world economy, with a special focus on South-East Asia. The results suggest that the aggregate impacts of agricultural damages caused by climate change on the global economy are moderate, but the impacts are not evenly distributed across the world. Developing countries would bear disproportionately large losses arising from climate change. Some significant adjustments in global agricultural production and trade, and consequently the distribution of income, may accompany the changes of climate. South-East Asia is an important agricultural producer and consumer and plays a major role in the world market for several agricultural products. Due to declining of GDP share, the aggregate output losses would be modest for South-East Asia in the coming decades. However, because of the growing exposure to world agricultural markets South-East Asian economies could suffer welfare losses through the deterioration of terms of trade. Due to differences in the country's economic structure, the negative effects are expected to be less for Singapore and Malaysia, but greater for Philippines, Indonesia, Thailand, and Viet Nam. To cope with the potential agricultural damage arising from the expected changes in climate, the region must concentrate on reversing its current trend of declining agricultural productivity.

Based on Zhai, F. and Zhung, J., 2009. Agricultural Impact of Climate Change: A General Equilibrium Analysis with Special Reference to Southeast Asia. ADBI Working Paper Series No. 131, ADBI Institute, www.adbi.org/ (23 February 2009).

Public Expenditures, Growth, and Poverty: Lessons from Developing Countries

Shenggen Fan (ed.), International Food Policy Research Institute (IFPRI), Washington, DC and The John Hopkins University Press, Baltimore, USA, 2008. ISBN 13: 978-0-8018-8859-5.

Despite the recent success in accelerating economic growth in many emerging economies, more than one billion people still live on less than one dollar a day and more than 800 million people still suffer from hunger. Public expenditures can play a crucial role in promoting pro-poor economic growth, in providing public services and in transferring income directly to the poor. To support public spending that maximizes pro-poor impact, this book presents a synthesis of the issues, state-of-the-art methods, and major findings related to public expenditures, growth, and poverty.

The book consists of five main chapters: (a) Public spending in developing countries: trends, determinant, and impact; (b) Public investment, growth, and rural poverty; (c) Human capital expenditure for the poor; (d) Social safety net; and (e) The application of a dynamic general-equilibrium analysis. The book ends with conclusions and policy implications, focusing on major challenges and alternative strategies for sectoral public spending as a lesson learned for future policy directions.

The total government expenditures for the 44 developing countries included in the study increased overtime. For almost all regions, macroeconomic adjustment programmes reduced the share of spending on agriculture and infrastructure. Agricultural spending strongly contributed to agricultural growth, in which agricultural research spending had a larger productivity-enhancing impact than non-research spending. Research spending not only yields a high return to agricultural production but also has a large impact on poverty reduction.

With regard to public investment, growth and rural poverty in four countries (India, China, Thailand and Uganda) with different economic systems, natural resource endowments, socio-economic conditions, and sizes, the study offers some important findings: (a) There is a great potential for more growth and poverty reduction if public resources can be allocated optimally; (b) Agricultural research, education, and rural infrastructure are the three most effective types of public spending to promote agricultural growth and poverty reduction; (c) The low-cost type of infrastructure and rural road investment used in China will contribute to growth and poverty reduction, both in rural and urban area; (d) The trade-off between agricultural growth and poverty reduction is generally small among different types of investments and between regions; (e) Government spending on anti-poverty programmes generally has a small impact on poverty reduction, mainly due to inefficient targeting and misuse of funds.

Improving the health status requires the provision of quality care. Public health expenditure were found not to be very progressive in practice. Improving the distributional impact of health

expenditures requires both reallocation of resources towards primary health care and increasing the access of the poor to quality health services. With regard to education, targeted education subsidies are a relatively cost-effective way of making education more accessible to children from the poorest households. Better targeting of expenditures in primary and secondary school and to poorer households will improve the distributional impact and aggregate education outcomes.

There are some interesting findings in relation to social safety net programmes. Universal food subsidies are not a very effective way of transferring resources to the poor. The performance of targeted food subsidies has not always been great due to high leakages to the non-poor, high costs associated with distributing food, and corruption. Targeted human capital transfer is a promising approach to address the issue of structural poverty. Targeted human capital subsidies have a substantial impact on nutrition, health and educational outcomes. The fact that human capital programmes have been successful in some poor countries suggests that they have the potential to be successful elsewhere.

The application of a dynamic general-equilibrium analysis related to public spending, growth, and poverty alleviation in Sub-Saharan Africa indicate that economic performance can be significantly improved when government resources are reallocated from unproductive areas to the different target areas, with the most positive overall effects when agriculture is targeted. In order to enhance long-run growth, it is important to focus on government investments that induce the private sector to invest. If additional foreign grants are sufficient to cover government financing needs, the scope for growth in domestic absorption is widened, with a positive impact on household welfare and poverty reduction.

In conclusion, the book offers important lessons learned for future policy directions in developing countries, including: (a) spending on agriculture is crucial for economic growth and poverty reduction; (b) broader types of investment in rural areas are needed such as education and health; and (c) social safety nets must be targeted to the poorest of the poor.

In general, the book is well organized and easy to digest. The book provides researchers, policymakers and practitioners with important, up-to-date knowledge on how government spending can greatly benefit poor people while accelerating economic growth. ■

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