

Securing Food Security in the Asia-Pacific Region: A Partial Analysis¹

By

Amitava Mukherjee Ph.D.
Senior Economic Affairs Officer and Officer-in-Charge,
United Nations - Asian and Pacific Centre for
Agricultural Engineering and Machinery,
Beijing, China

Tel: (+ 86-10) 8225-3579 (Direct), 3581

Fax: (+ 86-10) 8225-3584



E-mail: mukherjeea@unapcaem.org, amimuk2004@yahoo.com

I. Introduction

Food insecurity has been a problem in the region for most of the past century, and increases in food prices have occurred in the past, some of them even worse than the present one. Granted that why is food security in the Asia-Pacific Region (A-P Region) so important now? The answer lies in the fact that the food security challenge for the Asia-Pacific is not merely about how to attenuate the impact of the spike in crises on the most vulnerable groups seen in the recent past, especially 2007 and 2008; the challenge is how to continue making progress in guaranteeing food security in a context where the production of food will be increasingly stressed in the face of decreasing resources pitched against continually expanding demand. That is, (what we call for want of a better word!) the challenge is to transform the food systems in A-P Region for greater resilience, to fully meet the emerging challenges. The need to build the 'resilience' of countries to future shocks and risks that could plunge the A-P region in food insecurity of the kind experienced in 2007-2008, and even worse, can not be over-emphasized.

¹ Views expressed in this article are the views of the author only and in no way reflect the views of the organization to which he belongs.

II. Long Term Challenges

The longer-term challenges that plague food availability remain as valid today as ever before, with land and water constraints remaining for the most part unaddressed; investments in agricultural infrastructure and agricultural research largely low; costs of agricultural inputs high relative to farm-gate prices; environmental degradation leading to loss in natural resources available for growing food and the marching deserts worrisome; and the need to adapt to climate change more urgent now than ever before. It is therefore important now to reflect on how to avoid future food crises by addressing the longer-term challenges. Without trying to provide a complete account of them, some of the most important challenges to which we presently turn are as follows.

Firstly, the population (in ESCAP Region) is projected to grow from 4.7 billion in 2005 to 5.1 billion by 2050. To feed a population of 5.1 billion, regional food production must increase dramatically by 2050. [Globally, food production must increase through yield increase by at least 43% to meet growing food demand by 2030, assuming all other factors remain unchanged²]. The entire population growth will mostly be in developing countries and more worrisomely occur entirely in urban areas, which will swell to 3.41 billion people (up from 1.68 billion in 2007) as rural population contract (from 2.39 billion in 2007) to 1.75 billion by 2050 in the Region. That means that a reduced rural work force will have to feed a much bigger population. By implication, rural work force will have to be much more efficient to deliver more food with fewer resources and increasing challenges posed by climate change. Higher productivity requires more investment in agriculture, more technological innovations and inventions, newer and more implements, tractors, irrigation equipment, combine harvesters and so on. To use these innovations, inventions, machineries and tools in agriculture needs, a “growing army of skilled and better-trained farmers, and better functioning supply chains”³.

² FAO (2003). **World Agriculture: towards 2015/2030**, Rome, FAO.

³ FAO (2008). **Food Outlook**, November 2008, www.fao.org/docrep/011/ai474e/ai474e13.htm, accessed 6 April 2008.

Secondly, because fewer farmers will have to feed a more people with increasingly dwindling resources, one is tempted to suggest that agriculture land could be expanded by bringing more land under agricultural use. The area currently in use for agriculture would be 0.73 billion hectares for ESCAP region compared to the 1.5 billions worldwide. But that seems unlikely to happen, because the opportunity cost of diverting land to agriculture from alternative use is high and because more land under agriculture would mean further environmental damage and increased greenhouse gas emissions, both of which are neither desirable nor acceptable, especially in view of the threats posed by climate change, which we shall also visit in the next paragraph. Only alternative is to tap into “yet-unused yield-enhancing resources”, which could increase agricultural productivity in the A-P Region. Harnessing this potential implies that farmers will have better access to more and improved inputs, efficient credit, robust extension services; the farmers apply scientifically better fertilizers in greater abundance; make greater use of better seeds; the farmers improve their farming and management skills (of agricultural resources) and expand land under irrigation⁴. This is a tall order and warrants huge investments.

Finally, in addition, Asian agriculture will have to cope with dangers from climate change. For instance, yields could decline by 20-40 per cent and its 2001 IPCC Third Assessment Report concluded that the poorest countries would be hardest hit, with reductions in crop yields in most tropical and sub-tropical regions due to decreased water availability, and new or changed insect pest incidence. Also, agricultural productivity will be depressed by increased climate variability and increased intensity and frequency of extreme events such a drought and floods, with such factors likely to intensify and cause greater crop and livestock losses.

As to the current conundrum of the food crisis, it is true that food prices have started a decline after peaks in 2007 and much of 2008, but that is no cause for cheer. The recent drops in food prices actually reflect the deepening economic and financial crisis globally that has even galvanized the G-20 countries to act decisively at their London

⁴ FAO (2008). *loc. cit.*

Summit in early April 2009. Due to the convergence of financial, food and fuel crises, a tragedy is afflicting Asia in which millions of people in the Asia-Pacific Region would be without access to food. In real terms, food prices are projected to be higher by 10-35% than in the past decade in 2017⁵. There are some, like the World Bank, who suggest that the decline may continue till 2030 at 0.7% per annum. Whatever the case, a long run view of the factors underlying the high prices in 2007 and 2008 suggests that food prices are, at least, unlikely to return to low levels seen in the past though may be below the peaks⁶. Thus, even assuming for the purpose of argument that the recent increases were an over-reaction, still the prospect of higher prices in the long-run and the unfolding of a “global tragedy” make food insecurity even more relevant now than ever before for most of the countries of the Asia-Pacific region. And in any case the seven gender-based food insecurities (**See Box-1**) persist in the region with such tenacity that food security for all seems quite a distant dream in the A-P Region.

Box-1 Food Insecurities Faced by Women

Women face seven inequalities⁷. Based on the seven inequalities faced by women, it is easy to identify seven kinds of food insecurities faced by women in the Asia-Pacific Region, as under.

1). *Food insecurity caused by mortality inequality*: In some Asian countries, there are unusually high mortality rates of women and a consequent preponderance of men in the total population, as opposed to the preponderance of women found in societies with little or no gender bias in health care and nutrition. Women and girls may be denied adequate nutritious food, resulting in higher infant and child mortality rates than for boys.

2). *Natality inequality based food insecurity*: – In many male-dominated societies, male children are preferred and female children are often aborted, or seen as a burden. This preference can lead to girls and women being in a weaker position to be food secure, by suffering from limitations to physical and social access to food.

3). *Basic facility inequality based food insecurity*:– Females have less access to education and learning or fewer opportunities to develop their talents and skills, hence limiting their productivity in producing food and opportunities for employment, jeopardising their long term economic access to food.

4). *Special facilities inequality based food insecurity*: – Even where women may have access to basic facilities such as primary education, their opportunities for higher education and professional training may be fewer than for young men because, inter alia, “the culture does not see this as ‘feminine’”. Girls may be discouraged from studying subjects that are deemed to be ‘the province of men’. This includes

⁵ OECD (2008). **Rising Food Prices, Causes and Consequences**, Paris, OECD.

⁶ Nellemann, C., et al (eds.) (2009). **The environmental food crisis-The environment’s role in averting future food crises, A UNEP rapid response assessment**, United Nations Environment Programme, GRID-Arendal, www.grida.no

⁷ Sen, Amartya (2001) “Many Faces of Gender Inequality”, *Frontline*, Volume 18, Issue 22, Oct. 27 - Nov. 09.

agricultural sciences and training in techniques for improving agricultural productivity. Such inequality prevents women from growing more food and/or achieving improved access to food.

5). *Professional inequality based food insecurity*: – In terms of employment as well as promotion in work and occupation, women often face greater handicaps than men. Women's income-earning potential is, therefore, hindered, which in turn reduces her ability to purchase food.

6). *Ownership inequality based food insecurity*:– Women do not have the same rights as men for inheritance or ownership of productive resources such as land⁸ and capital. The absence of claims to property can not only reduce the voice of women, but also make it harder for women to enter and flourish in commercial, economic and even some social activities. Thus women often become dependent on others for food especially as widows, when divorced or abandoned. These taken one with the other contribute to food insecurity of women. More over ownership inequality reduces women's ability and incentives to invest in agricultural land having a bearing on food security.

7). *Household inequality based food insecurity*: –Even in cases in which there are no overt signs of anti-female bias in, say, survival or son-preference or education, family arrangements can be quite unequal in terms of sharing the burden of housework and child care, limiting women's opportunities for earning income and may include girls being fed less food and food of lower nutritional value than boys. Intra-familial distribution of resources including food within households, such as women being expected to eat the least, left-overs and after all others in the family, makes women vulnerable to food insecurity.

Furthermore, a fleeting glance at recent production data reveals that most of the production increase in 2007 and 2008 arose in developed countries and hence, the benefits of higher prices have not accrued to producers in developing countries, for their supply response was small in 2007 and virtually zero in 2008. Indeed according to one study only 9 per cent of price increases actually flowed to farmers in the Asia-Pacific Region⁹. Because higher prices of key agricultural inputs such as fertilizers, seeds and energy, made it all the more difficult for all farmers to ratchet up their production, especially the small and marginal farmers, who paid higher input prices without a significant marketable surplus to sell, to reap the benefits of higher prices. Also, export taxes (such as in Indonesia) and restrictions imposed on food exports in some countries (like ban on export of non-basmati rice by India, and ban on rice export by Viet Nam and Thailand) meant that high international prices were not transmitted to the primary producers of food in the domestic markets, where they were saddled with higher costs and stagnant output prices.

⁸ Some studies in China also show that increasingly the landless tend to be women. Figures derived from a survey undertaken by the All-China Women's Federation and the State Statistics Bureau of 2000 showed that 70 per cent of people without their own land were women, and among these women, 20 per cent had never held land, while the rest had lost their land upon marriage, divorce, or reallocation (Li, 2003).

⁹ FAO (2008). *loc. cit.*

The policy response to soaring food prices in developing countries was very varied and there is a need for corrective action. It is disturbing that the current falling prices have nothing to do with recovering global supplies as they have been caught in the downward spiral by slowing demand, because nearly all commodity prices are declining in tandem according as the global economic crisis is deteriorating. The entrenchment of the global financial crisis could mean that the economic slump could be more severe. Judged in that perspective, to the extent that a decline in prices globally reflect an anticipated slow-down in economic growth that will dampen demand, lower prices will probably be associated with more food insecurity in the foreseeable future rather than less.

Thus if a long-term view is taken, not just for the next five or ten years, but for the next, say, fifty years, it is clear that there are serious impending challenges to the future capacity of the Region to ensure food security for all, not least because of changes in demographics, rapid depletion of water resources, impact of climate change and erratic weather events, and anticipated proliferation of natural and human induced disasters. Granted that, policy actions have to be on led four broad fronts, *expansion in food availability* (meeting the challenges of higher food production, water scarcity, energy security, climate change, industrial agriculture and trade, promoting community based responses); *improving economic, physical and social access to food* (transport and social protection) and *improving utilization of food* (vigorous expansion of promotive health care, personal and social hygiene and potable water security).

III. The Framework for Food Security

Given the above scenario, a successful strategy to deal with the present and future food security needs of the Asia-Pacific Region would aim at:

- Ensuring sustainable supply of appropriate food in adequate quantity, especially to close the imminent gap between demand for, and supply of, food;

- Enhancing environmental quality and the natural resource base upon which food production depends;
- Protecting people against shocks.
- Meeting the challenges of water scarcity, energy security and climate change;
- Meeting the challenge of making trade and transportation work for food security;
- Providing people with economic access to food;
- Ensuring that people have physical and social access to food;
- Ensuring that people utilize and absorb the food that is consumed, including public provisioning of potable water;

In order to achieve these goals, Governments of the Asia-Pacific region, irrespective of whether they are self sufficient or self reliant in food or suffer net food deficit will need to establish a set of policies that would ensure, amongst other things:

- i. Increase and diversification of production especially in agriculture to enhance availability of food on a sustainable basis;
- ii. Enhancement of general economic growth especially in agriculture, expansion of employment and guaranteeing decent rewards for work to ensure availability of purchasing power of the people on a sustainable basis, to enhance economic access to food;
- iii. Protecting large sections of people from *both* idiosyncratic and covariate shocks that impinge on food security; and providing social protection to vulnerable sub-populations (including small farmers, women, people with disabilities, people living with HIV/AIDS, the elderly and the infirm) to guarantee economic, physical and social access to, and utilization of food based on justice and equity;
- iv. Reduction in gender based inequalities that lead to eight kinds of food insecurities faced by women to guarantee economic and social access to food to all on a equitable basis;

- v. Enhancement of literacy and health care which includes supply of potable water to enhance economic and social access to, and utilization of food;
- vi. Strengthening good governance and institutions including the news media and civil society organizations to guarantee economic and social access to, and utilization of food based on just and equitable foundation.

IV The Call for a Second Green Revolution

In this section we shall present a partial set of options addressing the first four elements of the framework. Enhancing of literacy and health care and strengthening good governance and institutions including the news media and civil society organizations, require a full discussion between them, and are reserved as issues for a future discussion.

National Interventions:

1. *Start a Second Green Revolution.* While the first Green Revolution of the last century achieved significant yield increases in the Asia-Pacific Region, through promotion of high external input agriculture (HEIA) (of irrigated water, chemical fertilizer, chemical pesticide and insecticides and energy use), it also brought with it, several attendant problems. Now, a Second Green Revolution is needed, one that will increase yields even more than the first one, but one that moves agriculture from high external input-intensive agriculture to “*High Tacit-and-Explicit Knowledge-Intensive Agriculture*”. The Second Green Revolution must integrate traditional knowledge and technology with advances in modern-day science and agricultural engineering including plant genetics, plant pathology and information technology and encompassing ecologically integrated approaches, like intergraded pest and soil fertility management, minimum tillage and drip irrigation. *A High Tacit-and-Explicit Knowledge-Intensive Agriculture* commends itself also on grounds of resilience and equity as it will attempt to return “power to produce” to the farmers rather than investing the whole of it to corporate board rooms.

Genetically modified crops may have a role in this regard but the risks are not all known and so harnessing its power in agriculture should be preceded by a robust testing, regulatory and safety regime.

2. *Set the fundamentals right:* To make the second green revolution happen, governments will need to focus on setting the *factor inputs* right. Key factor inputs, namely, assets (land, tools, machinery, renewable resources of water and “energy” including draught power); efficient credit (fair interest rates and timely availability); knowledge (aggressive agricultural research and development in the public sector together with a robust agricultural extension services to rapidly migrate knowledge, engineering, science and technology from the laboratory to the field); information communication technology applicable to farming (such as precision agriculture); and risk management (social protection systems against covariate shocks and idiosyncratic shocks) and improved crop transport and storage systems, need to be made available on a sustainable basis. An economic Sherlock Holmes may well say: “*Elementary, my dear Watson*”, but Alas the elementary things often matter and are often overlooked for more glamorous solutions.
3. *Invest more on food production and agriculture noting that better targeting of investments in agriculture is the best insurance against covariate shocks.* For setting the fundamentals right, the need for increased public and private sector investment in agriculture in particular and rural sectors in general which have declined (despite the fact that give or take a few percentage points nearly 70 per cent of poor people live on agriculture), can not be over emphasized. “The lack of investment is an important factor accounting for the slowdown in yield growth.”¹⁰ There is a need to reverse this trend, and to start catching up in investments which have fallen behind by years of under-investment by investing in:
 - agricultural R&D especially in developing salinity, drought and water logging resistant crops;
 - dissemination of improved agricultural technology and robust extension services;

¹⁰ Magnus, Jirström (2008), “The Return of the Asian Food Crisis – What is happening and why?” *Asia Portal – In Focus*, 19-Jun-08, accessed on 1-Dec-08 from <http://www.asiaportal.info/infocusblog/?cat=22>

- restoration of micronutrients to soil for reversing the decline in agricultural yield growth;
 - balanced distribution of subsidies for inputs into agriculture, namely, between minerals, organic and inorganic fertilizers (to achieve an appropriate combination in the use of minerals, green manures and organic and inorganic fertilizers); power for agricultural operations; appropriate seeds and efficient credit;
 - promotion of technological innovations as well as community support to maintain time tested irrigation structures such as wells, canals, percolation tanks and ground water extraction as well as in water harvesting and ground-water recharges systems.
4. *Get the institutions in place:* Institutions that help the farmers be put in place, of which extension education, institutions for post-harvest facilities, purveyors of credit, markets, adequate infrastructure, communication networks, connectivity including mobile phones, capacity of farmers to meet international standards (especially on food safety) are especially important. One reason why the benefits of higher prices have not accrued to farmers in many developing countries of Asia Pacific Region, in 2007 and 2008, is because institutions which allow farmers take advantage of the higher prices of food in the international market were not in place. Where institutions existed, farmers have reaped benefit; in Viet Nam is a case in point where small farmers have benefited from high international prices of food rice by accessing export markets.

A key element in this picture is the system that can help small farms' reap the benefits of economies of scale in marketing outputs and help them to meet international standards. In the past, this role was often played by government-run parastatals, howsoever inefficiently, many of which were dismantled under onslaught of the global programme of liberalization, privatization and deregulation. Private companies, Community Based Organizations (such as Self Help Groups in India), grass-roots Non-Governmental Organizations and farmers' organizations (such as Indigenous Multi-Purpose Cooperative or IMPCI, Namitpitan Bulo Farmers Associations, Inc or NBFAl, Bado Dangwa Federation of Association and Cooperatives or BDFCO, and Pide Aguid Fidilisan Multi-Purpose Cooperative or

PAFMPCI, in the Philippines), that are capable of better fulfilling the role as the erstwhile quasi-government agencies, have to be located.

5. *Institute Universal Social Protection.* Many countries in the Asia Pacific region provide protection to vulnerable groups through subsidies, outright grants (like old age pension or widow pensions), price support or price control. These instruments of social protection are often inefficient because they lack in **range, reach and depth** or some combination of these. For example, China basic health Insurance covers only 30 per cent of its 1.3 billion population¹¹. The system is being revamped and the amount that each person covered will get as subsidy is about \$ 17 per year starting in 2010¹². And even these inefficient instruments come with a high cost: subsidies, outright grants (like pensions) and price support can wreck government budgets, while price control, though benefits the food consumers, concomitantly, carries the unintended effect of reducing farmers' incentive to produce more food. A **Universal Social Protection** represents a better alternative. Although more experimentation is needed on what kinds of system works where, given that the A-P Region is very diverse, the challenge for Governments of the region is to devise innovative ways of providing Universal Social Protection to a range of people, with better targeting, appropriate depth and adequate reach. It could include the following:

- Tackling the *seven food insecurities* faced by women, through multi-sectoral programme of, *inter alia*, social protection, affirmative actions, changing laws relating to inheritance and ownership of productive resources and making right to food, education and health care for women and information justiciable rights.
- Undertaking *ex ante* management of covariate¹³ shocks to food security by

¹¹ Bodeen, Christopher (2009). "China in Bold move on volatile health care issue", Associated Press, Monday, 6 April 3.15 ET.

¹² "Attempting resuscitation", **China Economic Review**, March 2009, page 24.

¹³ Covariate Shocks are those shocks which affects everyone in a community or area.

boosting coping strategies of those at risk of suffering covariate shocks through installation of insurance and insurance-like programmes with flexible targeting, flexible financing, and flexible implementation arrangements, before the onset of natural disasters.

- Provisioning for *de jure* and *de facto* insurance for idiosyncratic shocks¹⁴ including through

- more effective, ubiquitous and continuing insurance programmes, whether through *financial innovations* such as micro-insurance or *index insurance schemes* and *community-based health insurance programmes*;

- *de facto* insurance via, for example, a robust system of protecting common property resources, supporting community based responses, public employment guarantee schemes (EGS) like the National Rural Employment Programme in India, underpinned by food-for-work (FFW) or cash-for-work projects as a means of protecting vulnerable people from idiosyncratic shocks like sudden loss of valuable and productive assets, unexpected income loss or other adverse effects.

- Eliminating gender based seven food inequalities:

- By adopting an agent-oriented approach to the women's agenda and regarding women as potentially active agents of major social change rather than as solicitors of social equity.

- By creating an enabling environment, to use Amartya Sen's phraseology, for "cooperative conflict" between genders and devise ways and means for amicable resolutions.

- Taking affirmative action including reservation of seats in all legislatures and parliaments for women as a fair outcome and realization of the benefits of law.

¹⁴ Idiosyncratic shocks are those shocks which affect a household or an individual.

- Making guaranteed employment for 100 days a legal right, for marginalized groups (like people with disabilities, elderly, widows, small farmers, migrants, internally displaced persons, women of women-headed-households, small and marginal farmers) and people who face discrimination on the basis of sex, race, religion, caste, ethnicity, disability and communicable diseases, who are often among the poorest of the poor, commensurate with their needs, noting that employment guarantees are among the best forms of *de facto* insurance¹⁵ for the marginalized groups.

Regional co-operation:

6. *Establish an Asia-Pacific International Food Agency (APIFA)*¹⁶. There is the need for an integrated response to calls for emergency food assistance, instead of several piecemeal efforts being made by different sub-regional groupings like SAARC and ASEAN in the form of grain banks and emergency reserves. The core mission of the *Asia-Pacific International Food Agency* will be to co-ordinate collective action in future food crises, through a response system based on strategic food reserves in member countries, similar to what is done by the International Energy Agency in the wake of the Oil Crisis. The APIFA could be an affiliate of the UNESCAP or FAO in the Region. It would not act as a mechanism for price support for producers, a role best performed by national Governments, or a permanent system for managing food aid, which lies in the domain of other agencies like WFP.
7. *Buy food in exchange for technology transfer*. Several countries like China (which has 7 per cent of world's arable land but feeds 20 per cent of its population), Republic of Korea and a number of Gulf countries who do not have enough arable land to produce enough food have entered into long term food purchase

¹⁵ Such as public employment guarantee schemes (EGS) exemplified by food-for-work (FFW) or cash-for-work projects.

¹⁶ A similar idea in the nature of an *Asian Grain Security System* idea was proposed in Amitava Mukherjee (2008). **Food Insecurity: a Growing Threat in Asia**, January 2008, <http://www.unapcaem.org/publication/FoodInsecurityInAsia.pdf> and in Chapter III of ESCAP, ADB and UNDP (2005). **A Future within Reach, Reshaping Institutions in a Region of Disparities to meet the Millennium Development Goals in Asia and the Pacific**, Bangkok, United Nations, which was germane to the concept of the Asia-Pacific International Food Agency discussed here.

agreements, land leases or land purchases in countries with surplus land, such as Indonesia and Madagascar. “China now is negotiating deals..... to buy more than 2 million hectares of land in countries as far flung as Mexico, Tanzania, and Australia. The United Arab Emirates is seeking some 800,000 hectares in Pakistan alone, while Saudi Arabia is negotiating for 1.6 million hectares in Indonesia”¹⁷. Often these agreements or purchases are, not by Governments, but by companies, like in case of a South Korean Company buying land in Madagascar or Gulf Countries buying such lands in Indonesia. Such purchases displace small and marginal farmers and have the potential of rendering small and marginal farmers into landless agricultural labourers as well as germane to social problems in the countries where land is purchased.

There is a need to remedy the situation by allowing countries which do not have access to arable land to guarantee food security of its people by an “Exchange Agreement”. The countries which need to jack up their food availability would bring into the host country, capital, infrastructure, agricultural technicians and cutting edge level technology in agricultural engineering to produce much more food in the host countries than they could do. The donor country in return will be assured a supply of food equivalent to an agreed proportion (say half) of the increases in food production caused by injection of “*new men, material, capital and technology*”, during the payback period and will have priority in buying food after the payback period is over. Countries that lack the capability of negotiating these complex and innovative exchanges need to get assistance from international agencies like FAO, IFAD and UNESCAP to develop these capabilities pretty much in line with what some of these agencies did in building up national capacities for negotiating WTO Accession. This will of course be contingent upon developed country agricultural trade liberalization and expansion food aid in cash (to be used to purchase food in developing countries) thus investing in the agricultural sectors of developing countries at the same time.

¹⁷ David Montero (2008) “Wealthy Countries seek land in Cambodia, Madagascar and Brazil”, **The Christian Science Monitor**, <http://www.csmonitor.com/2008/1222/p01s06-wosc.html>.

8. *Provide protection against protectionism.* Under the triple crisis of food, fuel and finance, countries are scrambling towards protectionism, more so in the agricultural sector when export restrictions were introduced by nearly 20 countries¹⁸, including in the A-P Region by India, Viet Nam, Pakistan and Thailand (which even considered developing a *Cartel of Rice Exporting Countries* pretty much in line with OPEC). Trust in the world markets is on the wane in as much as some countries are embarking on policies that border autarchy, despite knowing that food-self-sufficiency and food security are different things and that self-reliance, not self-sufficiency, in food is a robust insurance against covariate shocks to which agriculture is prone to. For trade in agriculture to command support, importing countries' legitimate concerns of security of food supply, need to be addressed while ensuring that food exporting countries don't hurt domestic consumers by complying with binding commitments to meet the needs of importing countries. The hibernating Doha round of Trade negotiations should be resurrected to explore the potential for a new set of WTO rules on controls on export and imports of food, to concurrently manage the seemingly conflicting needs of the food exporting and food importing countries in times of crisis and rebuild the international food policy architecture¹⁹.

¹⁸ FAO (2008). **Food Outlook**, November 2008, www.fao.org/docrep/011/ai474e/ai474e13.htm, accessed 6 April 2008.

¹⁹ Hayes, Kristy and Biplove Choudhary (2009). **Rebuilding International Food Policy Architecture**, UNDP Regional Centre, Colombo, Hunger Briefing Paper series 2009.