

Rising food prices and inflation in the Asia-Pacific region: causes, impact and policy response

High food prices have put increasing inflationary pressures across the Asia-Pacific region and are seen as a key downside risk to sustaining recovery in 2011. Bad weather in important food-producing countries, increasing use of crops in biofuels and speculation in commodity markets have added to a long-term decline in agriculture investment and affected global food supplies. In 2010, high food prices kept 19.4 million people in poverty in the region, who otherwise would be out of poverty. Estimates considering different scenarios for the year ahead suggest that high food and oil prices may slow down poverty reduction even further affecting from 10 to 42 million additional people and postponing the achievement of the MDG on poverty reduction by half a decade in many countries, including Bangladesh, India, Lao Peoples Democratic Republic and Nepal. This policy brief outlines short-, medium- and long-term policy responses and interventions that governments and central banks in the region can make to counter the adverse impact of food inflation in the Asia-Pacific region.

Introduction

In the Economic and Social Survey of Asia and the Pacific 2010: Year-end Update, attention was drawn to the incidence of increasing inflationary pressures across the region, which was considered to be a key downside risk to sustaining recovery in the region in 2011. As of March 2011, inflationary pressures are already firming up and could exceed forecasts (see table 1).

In fact, China, Indonesia, Malaysia, Pakistan, the Republic of Korea, Singapore, Sri Lanka, Taiwan Province of China, Thailand and Viet Nam are all experiencing unexpected price pressures to varying degrees driven by higher prices of food items which constitute the single most important component of the consumption basket (from 30 to 40 per cent) over much of the region.

Within the region, the South Asian countries are the hardest hit in this regard with inflation rates either close to, or above, double digits for 2010 and likely to go up further if food prices are taken as an early warning signal. Elsewhere, rates of inflation are still relatively low. But, in a pattern similar to the sharp rise in food prices in 2008 the global economy appears to have entered another phase of higher commodity prices, especially of food and non-food agricultural commodities. There is consequently a real concern that the risk of higher general inflation in the region is looming on the horizon.

The FAO Global Food Price Monitor of 3rd March 2011 (see figure 1) shows that at end-February 2011 food prices had risen for the eighth consecutive month and stood more than 5 per cent higher than in their 2008 peak. Wheat prices were some 59 per cent above their level of a year before, cooking oil 65 per cent and sugar 16 per cent (sugar prices dipped in mid-2010 but have since risen some 94 per cent) Wheat prices have also increased sharply - 77 per cent year on year. Only rice prices were broadly unchanged compared to a year earlier.

It is important to note that global price trends can mask wide divergences in different parts of the world; more particularly in individual countries where local conditions, such as poor logistics, can make such problems far more acute. Thus, for instance, the price of wheat and its products, which are the main staple foods in many North and Central Asian countries accounting for half or more of the total dietary supply, has increased from 14% in Yerevan to as much as 107% in Dushanbe. Increases in price were in general lower in the case of rice, which is staple food in East, South and South-East Asia, but rises in local prices

Table 1. Selected economies of the ESCAP region: inflation, 2008-2011

(Percentage)

	Inflation			
	2008	2009	2010	2011
East and North-East Asia	5.4	0.0	3.0	3.7
China	5.9	-0.7	3.3	4.0
Hong Kong, China	4.3	0.5	2.4	3.5
Republic of Korea	4.7	2.8	3.0	3.6
Taiwan Province of China	3.5	-0.9	1.0	1.5
South and South-West Asia	11.4	11.0	10.3	7.7
Bangladesh	9.9	6.7	7.3	7.2
India	9.1	12.4	11.0	5.8
Nepal	7.7	13.2	10.7	8.0
Pakistan	12.0	20.8	11.7	15.5
Sri Lanka	22.6	3.4	5.9	7.8
South-East Asia	8.8	2.3	4.0	4.8
Indonesia	10.1	4.8	5.1	6.2
Malaysia	5.4	0.6	1.7	3.0
Philippines	9.3	3.2	3.8	4.4
Singapore	6.6	0.6	2.8	3.3
Thailand	5.5	-0.8	3.3	3.5
Viet Nam	23.1	6.9	9.0	9.9

Sources: ESCAP, based on national sources; IMF, International Financial Statistics online (Washington, D.C., March 2011); ADB, Key Indicators for Asia and the Pacific 2010 (Manila, 2010); CEIC Data Company Limited; and ESCAP estimates.

are already substantially higher in Bangladesh, Indonesia, Lao People's Democratic Republic and Viet Nam (see table 2) than price rises in other crops or in other countries.

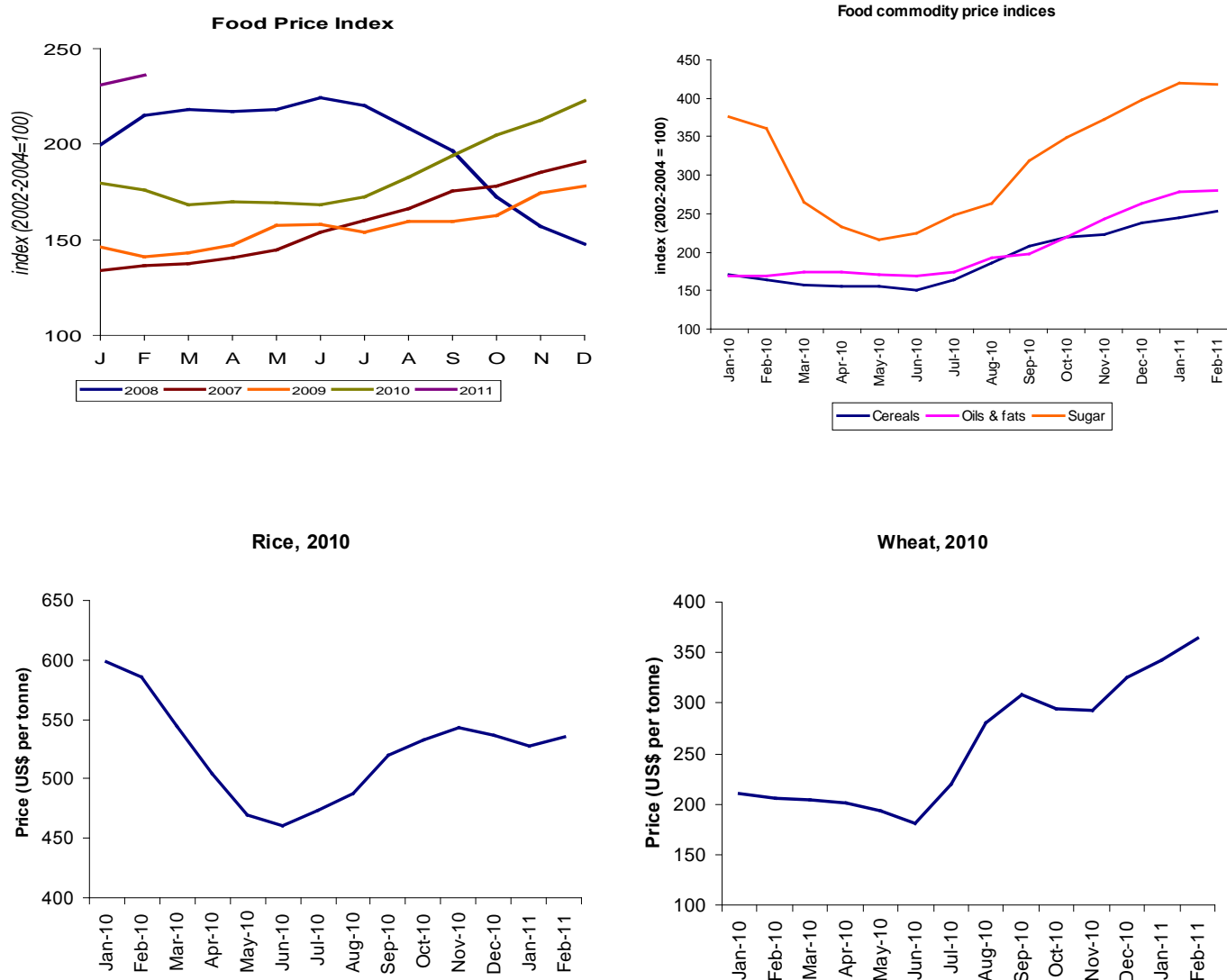
Rising food prices in the developing countries are a result of complex phenomenon with wide-ranging spill-over effects and risks not only for inflation but for the economy as a whole. Particular commodities, say, lentils and vegetables, within the overall category of food cannot be isolated from what is happening to important staples like wheat and rice or to a critical economy-wide input like oil. Rising wheat prices invariably exert an upward pressure on wages, the latter being informally indexed to the former, and higher wages inevitably have an impact on the production costs and hence on the consumer prices of other food items in the consumption basket, not to mention a range of non-food items where labour costs are the principal element in overall costs. Above all, higher oil and energy prices have a major impact not only via the relevant logistics for each commodity (like the cost of bringing it to market) but through their knock-on effects on the prices of fertilizers and agricultural chemicals. Food prices are thus a crucial element in a country's macroeconomic stability.

Causes of Inflation

While inflation is primarily an economic phenomenon, it is heavily laced with politically driven exigencies. Hence, in isolating the specific causes of individual episodes of inflation there is a strong temptation to blame the phenomenon purely on past policy errors rather than examine structural changes occurring in particular economies and their impact on prices.

While such post mortem analyses can reveal much, their real purpose should be to prevent the recurrence of such errors in the future. In the context of policy errors it would be well to concede that some countries have historically tended to have a rather more relaxed approach to inflation than others; in others the precise meaning of price stability has tended to vary. It is noteworthy, too, that inflation has been conventionally considered to be primarily a monetary and, hence, demand-driven phenomenon in the developed countries. In developing countries, it has often been regarded as an unavoidable consequence of the pursuit of development itself.

Figure 1. Food price indices and selected commodity prices



Sources: ESCAP, based on data from FAO, available from <http://www.fao.org/worldfoodsituation/FoodPricesIndex/en/> (accessed March 2011); and UNCTAD, Free market commodity prices, monthly, available from <http://unctadstat.unctad.org/TableViewer/tableView.aspx?ReportId=107> (accessed 30 March 2011).

Table 2. Price change of staple food in major cities of selected Asia-Pacific countries

Country	% price change (real terms)	% of Dietary Energy Supply	Staple
Armenia	14	48	Wheat
Bangladesh	17	71	Rice
China	6	27	Rice
Georgia	69	50	Wheat
Indonesia	16	51	Rice
India	6	21	Wheat
	6	30	Rice
Kyrgyzstan	31	49	Wheat
Lao People's Democratic Republic	20	64	Rice
Mongolia	38	42	Wheat
Nepal	11	34	Rice
Tajikistan	107	58	Wheat
Viet Nam	34	62	Rice

Source: ESCAP secretariat based on data from FAO GIEWS National basic food prices

Invariably, changes in international prices are driven by demand-supply imbalances in global food markets. Declined production of cereals in 2010 in face of growing demand is expected to push stocks down – from 23% in 2009/10 to 21% of world stock-to-use ratio in 2010/11, which is closer to 2007/08 levels (figure 2). Supply-demand balance of wheat is also expected to be tightened from 30% in 2009/10 to 28% of world stock-to-use ratio in 2010/11, but rice production is expected to increasingly exceed demand and increase the world stock-to-use ratio from 28.5% in 2009/10 to 30% in 2010/11. When considering major exporters' stock-to-disappearance ratio, which measures the ratio of supply to domestic demand plus exports, the prospects for 2010/11 are for tightened supply and demand balances of wheat, rice and cereals in general.

It would be appropriate to begin by looking at the short- and long-term factors that have contributed to the current demand-supply imbalances in global food markets. Over the short term, bad weather in important food producing countries have affected global food supply and created the conditions for high food prices. Droughts and floods in major producers of wheat in Asia-Pacific, who together are responsible for almost half of global production, have affected 222 million people and caused an estimated damage of US\$ 35 billion, which includes lost crops.

Last years' export restrictions in a variety of countries also have undoubtedly had an impact on global food supplies, primarily wheat and rice but also oilseeds and cooking oil. For example, in June Bangladesh extended the country's rice export ban until December, in October Kazakhstan banned the export of certain types of oilseeds, vegetable oils and buckwheat, and in August Pakistan deferred the partial lift on wheat export ban after summer floods destroyed at least 725,000 tonnes of grain.¹ In addition, it would be worth mentioning that these supply shocks have come as reinforcements of a longer-term decline in the growth rate of yields of food crops virtually all across the globe. Following the "Green Revolution" of the 1960s yields of major food crops had grown at an average of 2.1 per cent right up to 1990. But, between 1990 and 2005 incentives for investment in agriculture weakened markedly and the growth rate of yields declined to 1.2 per cent.

Private investment understandably lost impetus in the face of declining real commodity prices; however, it was not off-set by greater public sector spending on public goods such as agricultural research, rural infrastructure, education and health. Moreover, production of ethanol from maize for use in biofuels accounting for over 10 per cent of global total maize production in 2007, around 86 million tons, had already made a bad situation worse in maize and in other foods via its substitution effects as consumers of maize switched to other crops and bid up their prices in the process.

While it is the case that it is supply shocks that have primarily led to higher prices in the Asia-Pacific region, and in South Asia in particular, the impact of demand factors should not be relegated entirely into the background. The latter would normally tend to hold sway when the overall growth of demand exceeds the underlying trend rate of output growth of the economy. As supply responses to demand hikes are usually possible only with a time lag there is every likelihood that the injection of extra liquidity in the economy (monetization of the fiscal deficit, exchange rate depreciation) would lead to an upward adjustment in prices. Broadly speaking, however, experience of several countries suggests that such first round effects can be confined and are unlikely to lead to more generalized upward pressure on prices in the region. In that case, how has recent speculative activity impacted on inflation?²

As of end-2010, there is considerable evidence that over the previous two years speculation in the commodity markets has increased and has led to greater short term price volatility. This volatility is causing consumers to indulge in panic buying and hoarding of staples like wheat flour, rice, sugar and cooking oil and for some countries to ban the export of wheat and other items. The consensus among analysts is that speculation-driven volatility has almost certainly added to the pressure on prices by encouraging consumers to hoard.

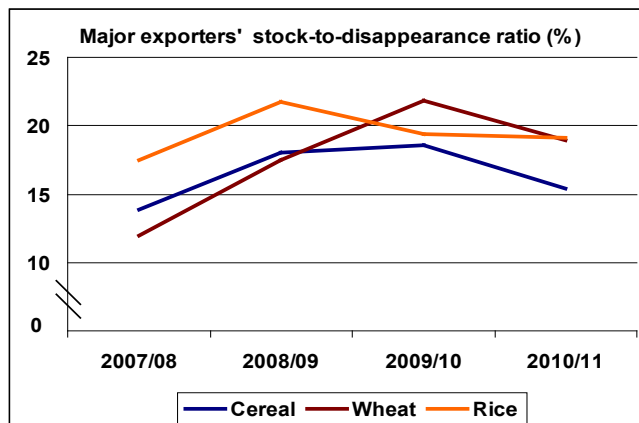
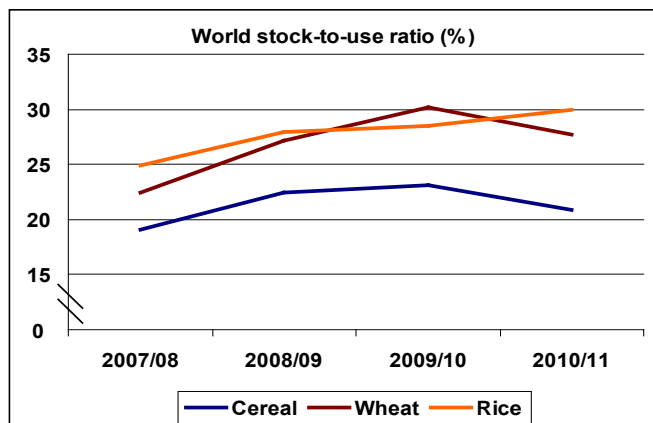
It is important to emphasise that there is nothing inherently wrong with speculation in commodity markets, nor is speculative activity a new phenomenon in these markets. Speculation in the futures markets, whether in financial assets or commodities, assists in the price discovery process and provides buyers with access to supplies according to their requirements spread over time at pre-determined prices. What appears to have happened of late is the much larger volume of funds being directed into commodity market speculation, a result of the massive increase in global liquidity emanating from the developed countries through monetary easing. Most market analysts are of the view that while speculation is not a driver of commodity prices in itself it is a factor that can accelerate and amplify underlying price movements.

As stated earlier, empirically it is supply factors bearing upon food that have caused food prices and more generalised price pressures to emerge and then remain entrenched in the economies of the region, particularly in

1 FAO Country Policy Monitoring

2 Goyal Ashima (2011). "Inflationary Pressures in South Asia", MPDD Working Paper Series (WP/11/14).

Figure 2.



Source: ESCAP, based on data from FAO - World Food Situation

South Asia. As we know, long-run aggregate supply in most developing countries is fairly demand-elastic but it has been subject to frequent negative price shocks. It appears, too, that demand additions or contractions have tended more to amplify these shocks, not create them in the first place. Most economies of the region are primarily supply constrained in that inefficiencies on the supply side perpetuate chronic demand-supply imbalances on the output side and these are translated into temporary upward shifts in prices. Indeed, the food price wage cycle is a major mechanism propagating price shocks and creating inflationary expectations in the region. The following examples shed light on the phenomenon.

In China, consumer prices rose by 3.3 per cent in 2010 and it is estimated that around three quarters of China's inflation is the result of higher food prices but unlike 2008 disruptions to food supplies have been minimal in 2010. The current bout of food inflation therefore reflects stronger demand rather than weak supplies in China. If this diagnosis is correct then an improved supply response in the coming months should ease price pressures in the country. However, recent surveys of households by the People's Bank of China, the central bank, indicate that inflationary expectations are at their highest for over a decade and to the extent that they are causing consumers to buy more than their immediate needs such expectations may be difficult to shift over the short term.

In India, food inflation is aggravated by problems with logistics but there is evidence, too, that a poor overall supply response to increasing demand over a period of time has been the principal culprit in the matter. One recent estimate indicates that an almost 40 per cent rise in disposable incomes since 2005 has created an extra 220 million consumers of milk, eggs, meat and fish. But supplies have simply not been able to keep pace with the additional demand.

The examples of China and India apply with only minor modification virtually across the region. It is true that in richer economies like Malaysia, the Republic of Korea, Singapore and Taiwan Province of China higher food prices will not automatically translate into higher overall inflation as the share of food in household spending is much smaller in these economies than in South Asia. But, there is evidence that

the increase in price pressures even in these economies is being driven by higher food prices along with their wider spill-over effects. In economies like Pakistan, Indonesia, Sri Lanka and Viet Nam, for example, inflation rates are going up driven mainly by higher food prices.

Impact of Inflation

There is little argument that inflation has profound and wide-ranging social and economic impacts, the most fundamental of which is a reduction in food security and an increase in poverty in developing countries. Rising prices of staple food affects the poor in two ways, conditional on their status as net sellers or net buyers of staple food. It increases the income of households that are net sellers and add to the hardship of poor households that are net buyers. That is because they have to spend a larger share of their income on essential food and less is left for other food items, which are important as complementary sources of energy and nutrients, and non-food items, including health and education. In general, unexpected rises of staple food prices have such immediate negative effect on the urban poor since the majority of them are net buyers. But the same is true even in rural areas – for example, studies of rural income generating activities found that 91% of the rural poor in Bangladesh in 2000 were net buyers of main staple food.³

It is still early at this stage to have empirical evidence of the impact of the recent rise of food prices on poverty. However, it is possible to estimate the magnitude of such impact at the regional level by using data on staple food prices in domestic markets in 2010. ESCAP Economic and Social Survey 2011 (forthcoming) estimates considered 27 countries in Asia-Pacific, that together are home to 96% of the total population of developing Asia-Pacific. When information on the change of prices in the domestic markets was not available, information on the international prices of commodities and the the share of the imports of staple food in total consumption was used to estimate the price change. Based on these data on price changes and information on the distribution pattern and level of consumption from household surveys, it is possible to estimate the effect on mean consumption expenditures and hence on rates of

³ FAO (2008). Soaring food prices: facts, perspectives, impacts and actions required. Document for high-level conference on world food security: The challenges of climate change and bioenergy. (Food Agriculture Organization of the United Nations).

Table 3. Droughts and floods in major staple food producing countries in Asia-Pacific

Country	Start	End	Location	Tot. Affected	Est. Damage (US\$ Million)
Drought					
China	Oct-09	May-10	Yunnan, Guizhou, Sichuan, ...	60,000,000	5,684
Russia	Apr-10	Aug-10			1,400
Floods					
China	6-Jun-10	6-Jun-10	Haikou, Sanya, Qionghai, ...	130,000	6
	21-Aug-10	21-Aug-10	Dandong city, Liaoning ...	64,000	
	13-Aug-10	16-Aug-10	Longnam, Tianshui cities ...		
	Jul-10	Aug-10	Jilin province	6,000,000	
	Jun-10	Aug-10	Fujian, Sichuan, Guangxi ...	134,000,000	18,000
India	15-Nov-10	7-Dec-10	Chennai, Cuddalore, Nagap ...		
	9-Sep-10	9-Sep-10	Punjab, Haryana, ...	12,500	
	18-Sep-10	30-Sep-10	Almora, Naintial...	3,267,183	
	5-Sep-10	17-Sep-10	Lakhimpur (Assam state)	30,000	
	6-Aug-10	8-Aug-10	Leh Bus Stand, Choiglamsa ...	225	
	5-Jul-10	15-Jul-10	Jhapa district	523,000	
	13-Jul-10	13-Jul-10	New Delhi		
	18-May-10	24-May-10	Andhra Pradesh	50,000	
	5-Jul-10	15-Jul-10	Haryana's Ambala and Kuru ...	523,000	
Russia	3-Dec-10	3-Dec-10	Oural, Siberia, Moscow	11	
	Jun-10	Aug-10	Moscow, Volgograd, Lipesk, ...		400
	1-Jan-10	26-Jan-10	Moscow, St Petresbourg, ...		
	16-Oct-10	16-Oct-10	Tuapsinskoye, Dzhubskoye, ...	45,214	
	22-Mar-10	26-Mar-10	Kividsensky, Novoannensky, ...	3,250	
Pakistan	28-Jul-10	7-Aug-10	Khyber Pakhtunkhwa, ...	18,102,327	9,500
	21-Jul-10	23-Jul-10	Barkhan district; Balochi ...	4,000	
	22-Jun-10	24-Jun-10			
	8-Feb-10	9-Feb-10	Swat, Shangla, Kohistan, ...		
Australia	25-Dec-10	3-Jan-11	Queensland...	200,000	
	27-Nov-10	6-Dec-10	Wagga region...	1,000	
	1-Sep-10	15-Sep-10	Victoria state; Gippsland ...	10,000	
	28-Feb-10	17-Mar-10	Brisbane, Charleville, ...		109
	13-Feb-10	16-Feb-10	New South Wales		
Kazakhstan	17-Mar-10	24-Mar-10	Tarbagarty, Abay, Kurchum ...	13,000	
	Feb-10	Mar-10	Karaisai, Zhambyl, Ili, ...	16,200	35
TOTAL				222,994,910	35,133

Source: ESCAP, based on data from EM-DAT: The OFDA/CRED International Disaster Database - www.emdat.be - Université Catholique de Louvain - Brussels - Belgium.

poverty. In addition, the likely effect of high oil prices on GDP growth was also taken into consideration, since it is expected to slow down the rate of poverty reduction.

ESCAP estimates that high food prices in 2010 and the onset of high oil prices in 2011 may make countries in Asia-Pacific region face a one-year delay in the achievement of the MDG on poverty reduction. The high prices have prevented 15.6 million people in the region to get out of poverty and have pushed other 3.7 million below the poverty line – totaling 19.4 million people in poverty, who otherwise would be out of poverty. Given the Asia-Pacific economic dynamism, the effect of the rise of prices for staple food on poverty was not an increase in the total number of the poor, which could have happened if the increase in prices was even higher, but it was a slowdown in the rate of poverty reduction.

Given the onset of high oil prices and the continued increase in food prices in 2011, estimates of further impact on poverty were produced considering three scenarios (see table 4). In the first scenario, if the rise in prices continues in 2011 at half rate of 2010 and the average oil price reaches \$105, there will be a slowdown in the rate of poverty reduction in the region with 9.8 million people affected – of whom 8.3 million would be prevented to get out of poverty while an additional 1.5 million people would be pushed into poverty. If prices in 2011 rise at the same rate as in 2010 and the average oil price reaches \$115, a more pessimistic scenario, the resulting slowdown of poverty

reduction is expected to affect 20.2 million people – of whom 15.1 million people would be prevented to get out of poverty while an additional 5.1 million people would be pushed into poverty. In an alternative scenario of further increase in food inflation and oil prices, with staple food prices in 2011 rising at twice the 2010 rate and average oil price reaching \$130, the total number of the poor in the region is expected to actually increase with 42.4 million people affected – of which 24.6 million people would be prevented to get out of poverty and 17.8 million would be pushed into poverty. In all three scenarios, the larger effect is expected to be in preventing people to move out of poverty and the impact is to be higher in rural areas where the majority of the poor lives.

If something similar to scenario 3 actually happens in 2011, the achievement of the MDG on poverty reduction may be postponed by half a decade in many countries of the region, including Bangladesh, India, Lao People's Democratic Republic and Nepal.

Inflation and in particular high volatility of inflation, therefore has major economic and social impacts that have to be dealt with decisively by governments. High inflation volatility increases uncertainty, undermines the signaling function of relative prices in the economy and shortens the time horizon for investment decisions. For households and corporations, it devalues savings in a financial form and increases the propensity to consume.

Table 4. People affected considering possible staple food price scenarios (Millions)

	Scenario 1			Scenario 2			Scenario 3		
	Staple food inflation in 2011 half the 2010 rate & \$105 oil price			Staple food inflation in 2011 same as in 2010 & \$115 oil price			Staple food inflation in 2011 twice the 2010 rate & \$130 oil price		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Pushed into poverty	0.1	1.3	1.5	1.5	3.7	5.1	3.9	13.9	17.8
Prevented to get out of poverty	1.9	6.5	8.3	2.6	12.5	15.1	3.6	21.0	24.6
Total	2.0	7.8	9.8	4.1	16.2	20.2	7.6	34.8	42.4

Source: ESCAP secretariat based on data from FAO GIEWS website and World Bank's Global Income Distribution Dynamics (GIDD) dataset.
Note: Values may not sum to total due to rounding.

Policies for meeting the challenge of Inflation

Policies for dealing with inflation can be divided into short, and medium to long term time frames. Short term policies would be relevant in the immediate aftermath of a temporary supply shock; medium to long term policies would be needed to respond to a chronic inability for supplies to match demand and to boost overall productivity trends in the economy, especially in the production of staple foods. In addition, policies would be needed to devise a more sustainable and coherent national and regional, if not global, framework of incentives, cropping patterns, management of scarce inputs such as water against the need for food security at a national level balanced against the global challenges of climate change and environmental degradation. The following paragraphs examine the policies from each time perspective.

Short-term

Examples of shocks that raise domestic prices are floods, droughts and the effects of sudden increases in international energy prices. These have been dominant inflation triggers in the region but especially so in South Asia. Mild monetary tightening by the central bank after a temporary shock can prevent inflationary expectations from becoming entrenched. Moreover, experience suggests that a first round price increase from a supply shock can be accommodated but second round wage-price increases need to be countered with stronger measures even at the cost of some output losses. Keeping the nominal exchange rate stable can prevent complex domestic price distortions from setting in.

Social protection programmes can also be used to protect the poor and vulnerable against episodes of soaring commodity prices. As during the food price crisis in 2008, many countries have now used their social protection programmes or instituted additional emergency responses to the current high food prices. Countries have implemented food safety net programmes; others have provided cash assistance to poor households. These measures have been effective in tackling the emergency and minimizing the likelihood of social upheaval. They highlight the importance of the development of comprehensive social protection systems that are in place before crises strike.

There are other short-term measures, such as lower tax and tariff rates, freer imports and having bigger food stocks, that a government can put in place to lessen the impact of temporary shocks. It is important, however, to stress that short-term policies will work only for temporary shocks. Medium or long term structural imbalances would require a productivity response.

Medium to long-term

A key medium to long-term policy response is to give priority to boosting the agriculture sector and agricultural productivity. A fundamental reason for chronic supply-driven inflation is that real wages tend to exceed labour productivity even in economies with high unemployment and/or under-employment. The solution is not to seek to reduce or restrain wages but to raise both total factor and labour productivity, especially in agriculture, by reversing the neglect of agriculture in public policy over the past two decades through better price incentives, refocusing on agricultural research and extension programmes and easier access to credit.

Higher agricultural productivity is especially important because, as stated earlier, food prices have been proven to be a critical inflation trigger. If a rise in agricultural productivity reduces food and therefore aggregate inflation, the nominal exchange rate can appreciate, bringing the real exchange rate closer to the target real exchange rate and thus close the gap between them. Even a rise in the productivity of non-traded goods can shift the target real exchange rate upwards and the nominal wage target can be satisfied at a lower exchange rate. Higher productivity increases the real wage and exchange rates compatible with low inflation, thus breaking down the inflation propagation mechanism. Rising productivity can also increase the level of foreign capital inflows that can be safely absorbed and thereby allow investment to exceed domestic savings.

Developing countries in the region need to reform overall food policies given the recent upsurge in food inflation. In the past, East Asian developing countries succeeded in moderating food inflation by focusing on raising agricultural productivity. In South Asia productivity has failed to keep pace with rising demand. Even the creation of large food

stocks for use in public distribution systems has failed to mitigate price surges resulting from periodic supply shocks.

Judging from the experience of India, the efficacy of public distribution systems in the region needs to be greatly enhanced. These systems should ideally strive to focus only on the poorest households. And, wherever possible, public resources need to be shifted from subsidizing consumption to boosting agricultural productivity. Such a shift can be facilitated by a sustained programme of public education and through the use of better designed extension programmes in the rural areas.

Supportive international partnership

International cooperation on commodity markets

Developing countries should seek to find new ways to respond to spikes in food and commodity prices. The effects of policies such as quantitative easing in the developed countries that will almost certainly drive up prices across asset categories in the developing countries need to be countered. One such category is the commodity markets. As far as speculation in these markets is concerned, futures trading clearly serve a useful purpose, helping output responses, improving information for producers and facilitating the hedging of risks. The answer is not to ban such trading outright but to improve its underlying working. For instance, one country or market with lighter regulatory standards can affect others, especially during irrational periods of fear or hype. Regulatory arbitrage occurs in response to uncoordinated, selective tightening of regulations by national authorities. Regulations, information, transparency, consultation and coordination, all need to improve in the commodity markets in order to reduce volatility. In particular, it is important that unregulated derivatives trades be carried out in public exchanges and that speculative position limits (total number and value of contracts for a given commodity) be established and applied equally to all investors.

Instruments such as futures contracts and options allow producers and consumers of food to transfer risks to financial investors. For that purpose, ESCAP has argued, that national and regional commodity exchanges might be developed as pilot projects, with the intention of scaling them up in the future. Such projects, given their inherently complex and risky nature, would need to be complemented by intensive capacity-building programmes and with an appropriate multilateral regulatory regime to prevent excessive speculation and volatility. It should be possible to devise mechanisms that provide adequate counter-cyclical liquidity to soften commodity price shocks. The objectives of policy should be to create the right institutional support and incentives to this end.

Regional, South-South and triangular cooperation on knowledge transfer

At the regional level, food banks could act as food security reserves during normal time food shortages and emergencies. An example is a permanent East Asia Emergency Rice Reserve being discussed by ASEAN+3 as a follow-up to its ongoing East Asia Emergency Rice Reserve Pilot Project. The pilot project, which has been in existence since 2004, is a mutual assistance system to share rice stocks among the 13 countries of ASEAN+3 and to contribute to price stability of rice in the region. Another positive initiative has been the SAARC Food Bank, which was agreed in 2007, that aims to provide support to national food security efforts, foster regional integration and solve regional food shortages through collective action.⁴

Imbalances in global supply and demand of food could be minimized if today's net import countries, particularly least developed countries in Africa and Asia, improve their agricultural productivity. South-south and triangular cooperation on knowledge and technology transfer can play a key role towards such objective. For example, the system of institutes of the Consultative Group on International Agricultural Research (CGIAR), which includes the International Rice Research Institute (IRRI) in the Philippines and the International Crop Research Institute for Semi-Arid Tropics (ICRISAT) in India, have generated new knowledge and technology in agriculture and made it available to national agricultural research systems for adaptation to their geoclimatic conditions. One recent success story in agricultural transformation based on knowledge through international cooperation is the New Rice for Africa (NERICA) programme of the West African Rice Development Association (WARDA; renamed the Africa Rice Center). In 1994 NERICA developed a new rice variety combining the best traits of African and Asian rice varieties. As a major collaborative project, it involved institutions in 17 African countries and the CGIAR with support from the Japanese Government and other multilateral donors. As a result of the growing demand for NERICA rice, cultivated areas are being extended to 210,000 hectares in West and Central Africa, exposing more than 1.7 million African farmers to the new crop and associated technologies. African rice production has increased to 744,000 tons per year with savings of \$88 million in rice imports. South-south and "triangular" cooperation are ought to play an equally important role in fostering the second green revolution in Asia and the Pacific.⁵

⁴ ESCAP Economic and Social Survey of Asia and the Pacific 2009: Year-end Update.

⁵ ESCAP (2010). Economic and Social Survey 2010: Sustaining recovery and Dynamism for Inclusive Development. pp.154.

Conclusions

Given the strong link between food price inflation and overall inflation in the chain of causation the single most important policy initiative that developing countries in the region can adopt is to give priority to boosting the agriculture sector in the years ahead. Such an approach will not only increase the output of food and non-food crops but, as a bonus, reduce poverty as well. It needs to be borne in mind that despite migration to the cities, 80 per cent of the Asia-Pacific poor still reside in rural areas and lack access to adequate land, agricultural inputs, finance and markets to benefit from the higher food prices that have come about since 2008. This state of deprivation needs to be addressed in order to improve the food supply response and make growth more sustainable and inclusive.

ESCAP has also observed in the past that a prosperous rural economy depends not only on agriculture but also on non-farm activities, including agro-industries, commerce and other services. Such activities provide additional sources of income for rural households above and beyond agriculture. They also contribute to a more balanced pattern of rural development. Indeed, a more prosperous rural economy reduces incentives for rural-to-urban migration, easing pressures on urban infrastructure and the provision of public services in cities. Increasing food production is a fundamental objective not only to contain inflation in the short- and medium-terms but also for long-term sustainable development.

Finally, when faced with a temporary supply shock countries should avoid actions that meet national needs but make the problem worse for other countries. At the regional level, it is necessary to support mechanisms for improving emergency access to food through stock sharing and fewer restrictions on the release of stocks to other countries under emergency conditions. Over the long term, more serious efforts should be made to shift production of both food and non-food crops from agriculturally stressed areas in the region where arable land and water availability is declining to areas – even outside the Asia-Pacific region - where such pressures have not yet emerged.

The MPDD Policy Briefs Series aims at generating a forward-looking discussion among policy planners, researchers and other stakeholders to help forge political will and build a regional consensus on the needed policy actions and pressing reforms. This issue for the MPDD Policy Brief has been prepared by the Development Policy Section, Macroeconomic Policy and Development Division, ESCAP which is based on chapter 2 of the Theme Study on Financing an Inclusive and Green Future: A Supportive Financial System and Green Growth for Achieving the Millennium Development Goals in Asia and the Pacific (ESCAP, 2010). For further information on the Policy Brief, please contact Dr. Nagesh Kumar, Director, Macroeconomic Policy and Development Division, ESCAP (escap-mpdd@un.org)

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