

Review

Food in health security in South East Asia

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With a global economic crisis, undernourished peoples in South East Asia, as elsewhere, face even greater food insecurity. Future challenges to food availability include increasing food prices, increasing population size and climate change. National policies are required which emphasise improved intersectoral coordination, enhanced government credibility and accountability, as well as a shift in food aid to investment in agriculture and the empowerment of independent institutions.

Key Words: Southeast Asia, food insecurity, undernourishment, health, economic crisis

INTRODUCTION

South East Asia has been, in some ways, a development success, notwithstanding the Asian financial crisis of the late 1990s and multiple natural disasters, from volcanic eruptions to earthquakes and tsunamis, typhoons and floods, as well as droughts. It is one of the most populous, diverse, and dynamic regions of the world. The region includes Brunei, Burma, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam. There are more than half a billion people, representing a wide range of economic and political systems. The region has a multitude of cultures and religions both within and among nations. Many of its member countries have achieved broad-based growth rates and impressive gains in poverty reduction and health indices. According to Asian Development Bank data, from 1990 to 2005, South East Asia has reduced poverty by 20 percent at 2005 purchasing power parities. However, it is predicted that economic slowdown will result in an increase in terms of the number of the poor in the year 2009 and 2010, particularly in more vulnerable countries like Cambodia.^{1,2}

The countries of Southeast Asia identify themselves strongly as a region whether economically, politically, or from a security perspective. Globalization and economic integration are taking on greater importance as regional economic trading agreements are established and as countries join multilateral economic fora, such as the WTO, and adopt common positions in negotiations. Economic integration is the engine of growth that provides the greatest opportunity for the poorer countries of the region to bridge the development gap. The Asian financial crises of 1997 and the contagion that followed into world markets highlighted the region's close interrelationship with the global economy. Serious negative economic, social, and environmental impacts were felt particularly by the poor. Regional migration and human trafficking increased in response to these pressures.

On the positive side, greater awareness was created of the need for better governance systems and more sustainable development strategies. Security concerns and internal conflicts continue to create uncertainty. The outbreak

of avian influenza is both a health and food security threat to the rural poor and is a cause for significant concern in the region and around the world, given the potential for a pandemic.

Poverty in Southeast Asia

Across Southeast Asia, some 100 million people live on less than \$2 US per day. At first glance, it seems surprising that Southeast Asia would suffer from so much poverty. After all, the region is blessed with a lengthy growing seasons, increasing manufacturing and trade as Chinese goods become more expensive, and booming tourism thanks to abundant natural beauty and outstanding cultural sites.

Some nations in the region, Malaysia and Singapore in particular, have healthy economies and low poverty rates. Others, such as Thailand and the Philippines, are well on their way to recovery after severe set-backs during the disastrous Asian Financial Crisis of 1998. Nations such as Cambodia, Laos, Burma, and East Timor, however, rank near the bottom of global development lists.

According to the World Bank, 37 percent of Southeast Asia's population lives in direst poverty, surviving on less than \$1 US a day. Southeast Asia is second only to sub-Saharan Africa in the percentage of its people who live in poverty, and, with its larger total population, the number of impoverished people is actually higher than Africa's.

FACTORS CONTRIBUTION TO POVERTY

Uneven distribution of wealth

As Southeast Asian economies have risen and produced unprecedented amounts of wealth, poverty rates have not

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declined as much as expected. In large parts, this is due to the uneven distribution of that wealth.

Much of the disparity is between rich city folk and poor country dwellers, although there are poverty-stricken people in city slums as well. For example, the average resident of Bangkok, Thailand makes twenty times as much money as their counterpart in the rural north-east of the country.

The inequality of development often has an ethnic overtone, as well. Members of disadvantaged groups, such as the "hill tribes" peoples of Thailand, Burma, and Vietnam, are far more likely to be living in poverty than ethnic Thais, Burmese, and Vietnamese.

War and poor governance

Armed conflict and disastrous governmental policies are two related causes of poverty in some of the poorest countries in the region. In Burma (sometimes called "Myanmar"), the ruling junta spends 40 percent of its budget on the armed forces, despite the fact that more than 90 percent of the population lives in abject poverty. The Burmese junta uses its well-equipped army to crush protests over the high cost of food. Indonesia, after a struggle for democracy in 1998, has had one of the lowest per capita GDPs in the world, at about \$800 US per year, but this is now rapidly improving as the democratic process advances and confidence builds.

Cambodia is still struggling to recover from the rule of the murderous Khmer Rouge in the 1970s and 80s, which left as many as 3 million Cambodians dead (including nearly all of the educated people). The nation's economic, cultural, and social lives were utterly shattered by the insane policies of the Khmer Rouge. As a result, the country has a poverty rate of around 40 percent.

Natural disasters

When it comes to natural disasters, few areas of the world have as many threats as Southeast Asia. Positioned along both the seismically active Pacific Ring of Fire, and the deadly Pacific Typhoon Alley, Southeast Asia gets more than its fair share of earthquakes, volcanic eruptions, typhoons, tsunamis, landslides, and floods.

The Southeast Asian earthquake and tsunami of December 26, 2004, which left at least 130,000 people dead and destroyed the livelihoods of hundreds of thousands more. In terms of economic impact, however, this particular disaster probably did not impoverish as many people as less-famous disasters. Outpouring of financial help from around the world off-set much of the financial damage done by the tsunami.

Other disasters, smaller in scope and thus less likely to provoke major aid efforts, have had a much more lasting impact on poverty rates. These include the magnitude 8.7 earthquake in Nias, Indonesia in 2005 that killed about 1,000 people, the typhoon-induced landslides of 2006 in the Philippines that killed 1,800 people and carried away whole villages, and earthquake and tsunami in Java that same year that killed 4,830 people, plus various floods, droughts, wildfires, etc. In 2009, over 600 people were feared dead when Typhoon Ketsana, the worst typhoon to hit the Philippines in the last 40 years, caused flooding and devastation around the country but largely centered

on the capital Manila. These kinds of disasters affect harvests and result in escalating food prices, such as rice, which increases the region's food insecurity.

The economic impact of all these disasters on affected villages can be devastating. Survivors who once made comfortable livings from their farms or small shops often lose everything, and don't have insurance or sufficient savings to start over.

In the 50 years since the end of colonialism in South-east Asia, the region has suffered civil wars, military coups, the Asian Financial Crisis of 1998, and one natural disaster after another. Despite all of this, many of the countries in the region have made significant progress in their quest to raise their citizens out of poverty. Hopefully, the next 50 years will see poverty levels continue to drop, and better governance in places like Burma and Laos.

FOOD INSECURITY

Food insecurity exists when all people, at all time, do not have adequate physical, social and economic access to sufficient, and food preferences for an active and healthy life.³

Measure of hunger and malnutrition

The Global Hunger Index developed by the International Food Policy Research Institute, measures hunger and malnutrition, by combining three equally-weighted indicators, (1) the proportion of undernourished as a percentage of the population (reflecting the share of the population with insufficient dietary intake); (2) the prevalence of underweight children under the age of five (indicating the proportion of children suffering from weight loss and/or reduced growth); and (3) the mortality rate of children under the age of five (partially reflecting the fatal synergy between dietary intake and unhealthy environments).⁴

DETERMINANTS

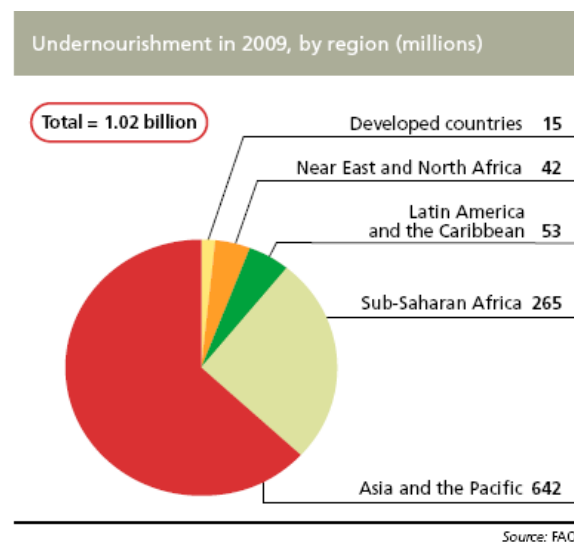
Undernourishment around the world and children's nutritional status

The simplest measure of outcome to food security is to monitor consumption-by estimating the proportion of the population whose food intake is below the minimum dietary energy requirement of 1,800 calories per day (the minimum standard often used by FAO). Based on this on average some 16 percent of the region's population, 542 million people, were going hungry in 2005-2006; and in 2007, as a result of sudden price rises, that number is thought to have increased to 582 million. The greatest problems are in South and South-West Asia where 21 per cent of the population are undernourished.

In South-East Asia, the majority of countries in the subregion have more than one quarter of their children undernourished. For children, the consequences are potentially fatal because poorly nourished children have low resistance to infection and disease. Across Asia and the Pacific, around 3.8 million children die each year before reaching the age of five, and around half of these deaths, over 1.9 million, are from causes related to malnutrition, poor hygiene and lack of access to safe water and adequate sanitation.

Table 1. Population undernourished by country

South-East Asia	Proportion of population undernourished (%)				Number of people undernourished (thousands)			
	1990-1992	1995-1997	2001-2003	2003-2005	1990-1992	1995-1997	2001-2003	2003-2005
Brunei Darussalam	4	3	3	3	10	9	10	10
Cambodia	43	46	33	26	4,400	5,400	4,600	3,600
Indonesia	19	13		17	34,500	26,700		37,100
Lao People's Democratic Republic	29	28	21	19	1,200	1,300	1,200	1,100
Malaysia	3	<2.5	3	<2.5	500	400	600	
Myanmar	44	34		19	18,100	14,800		8,800
Philippines	21	18	19	16	13,300	12,800	15,200	13,300
Thailand	30	23	21	17	16,800	13,700	13,400	10,900
Timor-Leste	11	9	8		100	100	100	
Viet Nam	31	23	17	14	20,600	16,700	13,800	11,500

**Figure 1.** 1.02 billion people are undernourished worldwide in 2009

However, since most food insecure people are usually found in specific provinces or states, it is usually better to consider data at the sub-national level (Table 1). In Indonesia, for example, rates of child undernutrition range across provinces from 15 to 42 percent; in India across states they range from 36 to 60 percent. In addition to mapping in-country food insecurity by region or state, it is also possible to identify food-insecure subgroups. One is rural children – who are twice as likely to be undernourished as those living in urban areas.

The global economic crisis

The economic crisis affects large population in developing countries by higher food prices (the rural landless, female-headed households and the urban poor). Both urban and rural areas have experienced a reduction in income (remittances). It affects the overall purchasing power of the poor and food insecure. Economic crises can also make years of poverty reduction in vain. It can take more than 5 years to recover, for instance Thailand after the Asian crisis of 1997-1998.³

FUTURE CHALLENGES TO FOOD AVAILABILITY

Increasing in food price

Due to higher food prices and reduced income, food ac-

cess by the poor has been affected. The 2006-2007 drought in Australia caused a spike in wheat prices and a shift of demand to rice. At the end of 2008, domestic staple food prices were higher.⁵

Increasing in population of hunger

The projected global population by 2050 will be at least 9 billion, but may be more depending on family planning. Food production needs to increase 70 percent in order to feed 9 billion people in year 2050. Although production and food availability should be enough for all, undernourishment is still widespread in some of the countries of the region. The number of undernourished in the world had been falling, but has risen again with the current multiple crises to 1.02 billion people during 2009, the highest level of chronically hungry people since 1970.³

Climate change

Climate change effects includes increasing temperatures, rising sea levels, increased intensity of storms, greater frequency of heat waves and earthquakes, floods and droughts, more rapid spread of diseases, and accelerated loss of biodiversity. These impacts reduce economic growth and exacerbate poverty in Southeast Asia. It also causes additional deaths from cardiovascular and respiratory diseases due to thermal stress. According to recent

World Bank report, countries of South East Asia could be significantly impacted by rising sea-levels and Vietnam was identified as one of the top ten developing countries worldwide where impacts will be worst. The region's mean temperature is projected to increase. For most countries and will result in loss of % GDP and significantly cost by 2100.^{2,6} In the coming decades, other South east countries will also face more difficulties in climate change impacts, particularly effect of global warming on the world economy.

POLICY OPTIONS FOR SUSTAINABLE FOOD SECURITY IN THE REGION

There has been a decline in the availability of food aid funds, according to the World Food Program. This raises questions about how independent the more economically-compromised of Southeast Asian countries can be insofar as their food security is concerned. At the same time, the United Nation agencies are encouraging policy shifts from aid to investment. Farmers need empowerment to sustain their own livelihoods.¹ Investing in agriculture especially in developing countries not only alleviates hunger and poverty, but also helps ensure overall economic growth, peace and stability. During economics crises, with less investment, food and infrastructural stocks decline. The Philippine's exemplified this with a marked reduction in agricultural capital stocks after the crisis of 1982. It is important that during and following economic crises, investment in agriculture is supported by both the private and public sectors to achieve it's the full socio-economic potential. In the cases of Indonesia, Malaysia and Thailand, agricultural growth has been more stable than other sectors and an important contributor to GDP during crisis.³

Some countries in Southeast Asia have begun to produce immediate and medium-term action plans with regard to climate change.⁷ For example, with its long shoreline of 81,000 km and the fact that 65 percent of Java's population lives along the coastline, Indonesia is vulnerable to climate change impacts. The country has been focused on its policies on mitigation and adaptation, institutional strengthening, capacity building, technology and funding since 2007. It seeks coordinated and integrated efforts on climate change through its various institutions. Key sectors involved are agriculture; marine, coastal and fisheries; communication and transport infrastructure; health; forestry and biodiversity; and water resources.

Another example is Cambodia. It is mainly an agricultural economy and dependent heavily on natural resources. With 435 km of vulnerable coastline, a significant incidence of tropical diseases, and limited financial, technical and institutional resources for adaptation, it is more vul-

nerable to climate change. The Ministry of Environment completed an action plan for food security and climate change in 2005. Many current national policies focus on post-disaster emergency relief with little attention paid to improving local capacity, research and education as long-term strategic measures. More attention on capacity building, awareness raising and infrastructure development is necessary.⁷

CONCLUSION: A STRONGER PARTNERSHIP AND COLLABORATION

We need to do both invest in tomorrow's agriculture and today's urgent food needs. Good governance is essential for sustainable development and poverty eradication. All relevant ministries, technical departments need to combine skills and efforts to design and implement effective, integrated cross-sectoral initiatives. Participation of households, families, farmers' organizations, agribusiness, civil society organizations and others in the policy making process. In order to lessen food insecurity, we need control over resources, access to opportunities and improved governance at the international, national and local levels. The recent Group of Eight (G8) and the Association of Southeast Asian Nations (ASEAN) are in efforts of formulating comprehensive solutions which include food availability, stability and accessibility for an integrated food security framework.¹

AUTHOR DISCLOSURES

Author has no conflict of interest.

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Review

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東南亞糧食在衛生安全之角色

隨著世界經濟危機以及營養不足人口的上升，東南亞國家面臨更大的糧食安全問題。未來在糧食供給上的挑戰，包括糧食價格上揚、人口的增加和氣候變遷的影響。這些國家急需著重政策上改善各部門間的合作，加強政府信用與責任，擴大農業投資以取代糧食援助，及賦予獨立機構甚至個人更多的自主性和權力以因應世界未來的趨勢。

關鍵字： 東南亞、糧食不安全性、營養不足、健康、經濟危機