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Asia's Food Security Conundrum: More Apparent than Real?

By Richard Fielding

Synopsis

There is enough food in the world to feed everyone, yet one billion people are hungry. Biotech approaches to food production will not enhance food security in Asia unless severe distortions in existing food production are first addressed.

Commentary

THE ASSERTION that to feed the growing number of mouths in Asia, more biotechnology is needed, misses three critical points central to the food security debate. This claim was made in an RSIS Commentary on Asia's food security conundrum, published on 1 June 2011. Firstly, high-tech food is highly reliant on cheap oil, and as oil prices increase, food production costs escalate. Secondly, mal-distribution of existing food supplies is such that the adequate levels of food we currently produce are unaffordable to many. Yet waste is abundant whilst in parts of Asia, Africa and Central/South America food choice is profoundly limited more by cost than availability. Most famines take place in the midst of plenty.

Thirdly, industrial food production is increasingly controlled by large industrial conglomerates who displace smaller medium-sized farmers and control both the amount and type of food available.

Hidden Cost of Biotechnology

The costs associated with biotechnology approaches to food production are often under-emphasised. For example, companies control and determine available seed. In the United States, Monsanto Company, the patent holder of genetically-modified seed varieties and their matched herbicides, employs a legal team that aggressively prosecutes any farmer who retains seed for re-planting the following year under US Intellectual Property law. Companies are keen to exploit the financial opportunities emergent from controlling the use of food sources.

However, while poor farmers who adopt these new technology methods increase their productivity, they also increase their costs, with often little resultant net benefit. The extra money generated does not enhance the general population of Asia, but international banks, pension and hedge fund managers. Though the "green revolution" exemplifies how technology has staved-off hunger and created plenty, the massive inputs of fertiliser and water that it needed are again seldom emphasised. Water stress in Asia is a growing problem that previous RSIS articles have addressed.

Most fertiliser is manufactured from oil or gas, which are themselves becoming rare and costly. Agricultural land and virgin forest across Malaysia and Indonesia has been replanted with oil palms to manufacture biofuel replacement for dwindling oil supplies as Peak Oil and climate change begin to bite. Though technology is not necessarily a problem, agrotech solutions are often framed as panaceas; this they are most definitely not. The adoption of technology-derived monocrops and required mechanisation heavily depends on oil and industrial supply chains. Using biofuels grown on agricultural land to drive the mechanised production of food consumes more energy than is produced, making the whole exercise pointless, except in the short-to-medium term for the commodities traders.

Plenty of food to spare

Current global food production meets the energy and nutritional demands of the world's population, with plenty to spare. A billion people go to bed hungry every night not because there is insufficient food but because the food is not affordable where the hungry people are. This reflects two problems. Firstly, globalisation has resulted in about 200 large corporations dominating the lives of tens of millions of urban poor. Branded goods are cheaply produced in out-of-sight factories with poor working conditions, intimidation or prohibition of unions and desultory wages and sold to urban middle class and elites creating billions of dollars of profits that are repatriated to further enrich small numbers of very wealthy people in the West. Food globalisation is one aspect of this.

Secondly, adequate distribution of food requires restraining food production subsidies that skew markets and demand. For example US' government subsidies for oil seed and soya production used in cattle feed facilitates large corporate production of cheap feedlot-raised meat, rather than small organic farmers; the European Union's Common Agricultural Policy subsidises soya, sugar and dairy produced mostly on industrial farms owned by EU corporations. This subsidised over-production requires aggressive marketing supported by government representatives, of cheap food products that undercut or replace local producers and traditional diets, and the driving of new food habits, such as for dairy and beef in Asia.

Producing feedlot-raised meat, for example, which comprises most cheap meat, is a highly inefficient use of grains and water for food production. The forced penetration of markets by meat exporters from the US, EU, South America and Australia help to increase demand for meat, which consumes phenomenal amounts of grain, 66% of world production, that could otherwise feed people much more efficiently. Again, food distribution is largely a function of where profit is to be made; the grain monopoly of four major multinational food commodities producers and traders known collectively as "ABCD", together with national organisations like the Australian Wheat Board, drive market sentiment.

Other Factors

Of course other factors are relevant, but supply shortages are not the sole, or even most important reason for present food scarcities. Monopolies and subsidies distort the economics of production in favour of multinationals: supermarket chains like Tesco, pay paltry rates to producers, which discourage production and drive small farmers out of business, yet charge a premium to shoppers in their energy-hungry urban retail outlets. Rural populations and urban slum dwellers don't get a look in.

These problems must be addressed before adopting high-technology approaches that move us even further down the road to corporate-controlled food dependence that excludes the wretched of the Earth - as Franz Fanon called them. While technology has made major contributions to food production over the past 250 years, and will continue to do so, increasingly we face limitations – lack of water, lack of land and evolving diseases that will constrain what is achievable.

Alternative solutions

There are alternative solutions like increasing urban food production, reverting diets to traditional plant-based rather than animal-dominated, and maximising dietary variety in a sustainable manner. They are all important contributions that need to be explored. Meanwhile, the existing food monopoly and distribution system is widely recognised by academics in the West to be badly broken. It is a system that excludes many, that has obesity and chronic disease as its product even in the poorest countries, whilst advocating even more of the same medicine.

A balanced debate that considers the true costs of these technological alternatives must be aired and their real nature revealed so people can make a fully-informed choice.

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