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No. 71/2011 dated 4 May 2011

China's Food Security: Questioning the Numbers

By Zhang Hongzhou

Synopsis

The Chinese authorities pointed to its seven consecutive years of grain harvests and huge grain reserves to comfort those who worry about its food security. Yet, to some, that seems too good to be true.

Commentary

THE ANNUAL meeting of China's legislature, the National People's Congress (NPC), which ended in March this year discussed issues that the leadership regarded as crucial for the coming years. One which drew particular attention was China's food security problem following the recent severe drought in Northern China and the dramatic increase of grain prices. The National Development and Reform Commission (NDRC) took the view that grain prices "will be stable". It pointed to the huge grain reserve, which accounts for 40 percent of the country's annual consumption, and seven consecutive years of grain harvests. It was an encouraging statement which comforted those who worried about China's food security. Yet, the numbers, to some, seemed too good to be true.

Many scholars and experts have publicly questioned the projections of China's grain harvests and grain reserves. Their concerns are not without grounds given the following factors:

Contradicting Basic Economic Theory

Although the government maintains heavy control on the agricultural sector, there have been remarkable achievements in establishing a market-based agricultural industry. A milestone was achieved in 2004 when the Chinese government decided to fully open its grain market and liberalise the buying and selling of grains. However, what has happened since then, particularly in the last couple of years, seems contradict basic economic theories.

Firstly, the phenomenon of a rapid rise in grain prices goes against the basic supply and demand theory -- ample grain supply would naturally lead to a drop in grain prices. The dramatic price increases could also be caused by other factors, such as rise in production cost. However, when a new price level was recorded and people and organisations were fighting for grains in China's largest grain producing provinces, this might imply a grain supply shortage.

Secondly, it departs from basic trade theory. Given China's increased grain harvests and declining grain consumption -- both per capita grain and meat consumption have decreased in recent years -- China should have been exporting more grains to other countries. Conversely, since 2007, there has been a rapid increase in China's net grain import, particularly for wheat. The imports of rice and maize also increased significantly. These abnormalities inevitably sowed the seeds of suspicion on the authenticity of China's grain production numbers.

Testing the 'Red Line'

One of the most important measures and supporting evidence of China's grain production is the size of its total arable land. In 2006, China set a 'red line' to guarantee that its arable land never shrinks to less than 1.8 billion mu (120 million hectares) to ensure food security. Over the years, China claimed that it has managed to keep its total arable land above the 'red line'. Furthermore, official data even suggested that the total sown area for agricultural products, particularly grains, instead of decreasing, expanded noticeably. However, in recent years, there has been intense debate between scholars and the government officials on whether the 'red line' has in fact been breached.

China's rapid economic growth has been largely driven by the boom of its property sector and vast investment in infrastructure. The massive expansion of China's real estate sector, rapid urbanisation, and huge investment in railway, highway and road in recent years unavoidably demanded conversion of arable land to land for construction. Over the past five years, the revenue from selling land reached 7 trillion yuan.

Pollution is also increasingly endangering the quality and the quantity of China's total arable land. The Ministry of Environment reports that around 10% of the total arable land were contaminated or destroyed by pollution and solid waste. Ministry of Land and Resources once admitted that each year more than 12 million tonnes of grain is contaminated by heavy metal pollution. In addition, land abandonment and over reporting of the arable land area have also further compromised the credibility of the official data.

Are Grain Depots empty?

China's grain reserves account for 40 percent of the country's annual consumption -- much higher than the international standard. As such, there is no need to worry about its food security, at least in the short term. Unfortunately, it has been suspected by that many of the state-owned grain depots have in fact been empty or been used for other purposes.

Although this suspicion was denied by the grain authorities, reporters' investigations seemed to defy the official conclusion. The grain depots that caught fire in Sichuan and Jiangxi provinces recently exposed non-grain items being stored such as jelly, coke and meat. This suggests that China's grain reserves might be lower, if not significantly, than the official figures.

This is not to suggest that the Chinese authorities deliberately provide false data. Given the size of China, it is certainly a very challenging task to collect the relevant data in the first place. It is even more difficult to get the numbers right if we take into account the conflicts of interests among central and local governments as well as state-owned grain organisations.

War China Cannot Afford To Lose

The renowned Chinese agricultural scientist-Yuan Longping once said that food security is "a war China cannot afford to lose". Indeed, as the most populous country in the world, China's food security is always of a high priority. However, to win the war, China must be well prepared. This has to start with knowing the correct numbers for its grain production and grain reserves.

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