

# Boost technology and efficiency

**THERE** is a growing misconception that self-sufficiency in food commodities can guarantee a nation's food security. While food self-sufficiency can be desirable since it can isolate a nation from external shocks, such as global supply and price volatility, concentrating on self-sufficiency alone may not be a good strategy to ensure that food is secured.

The reason is pretty obvious. Food security, as defined in the 1996 Food Summit report, is the situation where "all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life".

On the other hand, food self-sufficiency is the ability to meet national consumption, particularly for staple food crops, from a country's own production rather than importing. A nation need not be self-sufficient to be food secured, so long as it can afford to import to meet the demand for food.

This argument is consistent with macroeconomic data. There is a strong correlation between a nation's income and food security.

Countries with high gross domestic product per capita are found to be very food secured. A good example is Singapore. This is a small island nation with limited arable land for agriculture, but is one of the highest ranked countries in the world in terms of food security. The annual

GDP per capita for Singapore at constant prices last year is around US\$51,000 (RM203,400), which is also one of the world's highest.

If we investigate further to see the relationship between self-sufficiency and food security, we will find that the top 25 per cent of countries in terms of food security are mostly not self-sufficient in calorific food production.

This list excludes a few countries, such as the United States, Canada, Australia and New Zealand, which are both highly food secured and self-sufficient at the same time. However, countries with more than 100 per cent calorific self-sufficiency, such as Argentina, did not make the top 25 per cent list of most food secured nations.

These indicate that policies aimed at increasing food security should not only concentrate on increasing food production, but also on other aspects that could help improve the purchasing power of a nation.

It is also crucial to realise that an increase in food production will only help to improve food security if it is done through increasing technology and efficiency, rather than intensifying agriculture by increasing land area.

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