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<th>China's global agricultural strategy: an open system safeguard the country's food security</th>
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<tr>
<td><strong>Author(s)</strong></td>
<td>Cheng, Guoqiang; Zhang, Hongzhou</td>
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No. 282

CHINA’S GLOBAL AGRICULTURAL STRATEGY:
AN OPEN SYSTEM TO SAFEGUARD THE COUNTRY’S FOOD SECURITY

Cheng Guoqiang and Zhang Hongzhou

S. Rajaratnam School of International Studies
Singapore

28 October 2014
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- Provide a rigorous professional graduate education with a strong practical emphasis
- Conduct policy-relevant research in defence, national security, international relations, strategic studies and diplomacy
- Foster a global network of like-minded professional schools

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RSIS offers a challenging graduate education in international affairs, taught by an international faculty of leading thinkers and practitioners. The Master of Science degree programmes in Strategic Studies, International Relations, Asian Studies, and International Political Economy are distinguished by their focus on the Asia Pacific, the professional practice of international affairs, and the cultivation of academic depth. Thus far, students from more than 50 countries have successfully completed one of these programmes. In 2010, a Double Masters Programme with Warwick University was also launched, with students required to spend the first year at Warwick and the second year at RSIS.

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Abstract

National food security will continue to be the top strategic issue confronting Chinese policymakers. In the next two decades of rapid income growth, China’s total demand for agricultural products will increase in the face of diminishing water and land resources, and the task of feeding the 1.3 billion Chinese people will be even more challenging. The authors suggest that a global agricultural strategy is the strategic choice for China because it enables China to safeguard national food security and at the same time, tackle its rising domestic demand for agricultural resources in the face of environmental pressures.

Dr Guoqiang Cheng is Senior Fellow and Director General of Department of International Cooperation, Secretary General of Academic Committee of Development Research Center (DRC) of the State Council P. R. China. He joined DRC in 2001. Before his appointment to the present position, Dr Cheng worked as fellow of Department of Rural Economy, Deputy Director General of Institute for Market Economy, Deputy Director General of General Office, and Director General of Information Center. Dr Cheng won the honorable award supported by the Chinese National Science Fund for Distinguished Young Scholars. He serves as Adviser for several government agencies and holds concurrent posts as Vice Chairman of the Chinese Association of Grain Economy, Vice Chairman of Chinese Society of Foreign Agricultural Economy, and Adjunct Professor of several universities such as Renmin University of China and University of International Business and Economics. Dr Cheng participated in conducting research and drafting agricultural policy documents of Chinese central government. Dr Cheng completed six distinguished years in the mission of China’s WTO accession negotiation as a special agricultural advisor to Chinese Chief Negotiator during 1997 to 2001. He has also been productively cooperating with international organisations such as OECD for decades with rich research accomplishments. Dr Cheng was awarded the Second Prize of National Awards for S&T Progress, Second Prize of Ministerial Awards for S&T Progress, DRC Outstanding Study Report Award, etc. Dr Cheng's research covers areas of agricultural policy and rural development, international economy and global governance, multilateral and bilateral negotiation.
Mr Zhang Hongzhou is Associate Research Fellow with the China Programme at the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University, Singapore. He previously worked as a Research Analyst with the Maritime Security Programme at RSIS. He received his Master’s degree in International Political Economy from RSIS and Bachelor’s degree in Maritime Studies from NTU. His main research interests include China and regional resources security (food, water and energy), agricultural and rural development, and maritime security. He has contributed papers to peer reviewed journals, edited volumes and participated in international conferences on a wide range of topics and is frequently interviewed or featured by national and international news media.
1. Introduction

In 1994 when Dr Lester Brown published his well-known article “Who Will Feed China?”, China reacted fiercely. Apart from refuting Brown’s claim that China will fail to feed itself, the country issued a grain White Paper which officially set grain self-sufficiency as the foundation of its food security strategy. Since then, China has put major emphasis on boosting domestic grain production. In the past two decades, it came close to keeping its grain self-sufficiency rate above 95 per cent. In the past four years, China’s rising grain production lagged behind soaring demand; as a result, its grain self-sufficiency rate fell below 90 per cent and is expected to dip further. To meet grain shortage, China imports more and more grain and other food stuff from the global market.

Facing dual challenges of soaring demand and depleting agricultural resources, the government is under pressure to reform its food security strategy. When the Central Rural Work Conference convened in December 2013, a new food security strategy based on domestic supply with moderate imports was created to utilise global agricultural resources more effectively while the country continued to pursue self-sufficiency in staples such as rice and wheat. While the self-sufficiency policy is being replaced with a dual strategy, policymakers and scholars are still debating how this newly formed food security strategy should be implemented. Discussion is centered on the age-old global concern that feeding 1.3 billion Chinese people would pose daunting food security challenges for the rest of the world. Besides, the global community is also anxious about the unfolding of the country’s dual food security strategy.

Against this background, the author aims to recommend policies to safeguard China’s food security. After reviewing the liberalisation process of China’s agricultural sector, related problems and its impact on the food security condition, the author proposes a new strategy to tackle China’s increasing reliance on imports. This paper includes detailed recommendations, the definition and implementation of the new strategy. The rest of the paper is organised as follows: Section 2 contains a review of the agricultural liberalisation process after China’s accession to the WTO; Section 3 includes a discussion of China’s major problems with the current agricultural system; Section 4 is devoted to the introduction of the new strategy; Section 5 contains detailed policy recommendations to achieve an open agricultural system and to effectively implement the new strategy, and Section 6 comprises the conclusion.

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3 China’s Number 1 Document for 2014
2. Evolution of China’s Agricultural Liberalisation Process

For 30 years since the founding of the People's Republic of China, the country was under the central planning economic system. The government regarded agriculture as the most important economic sector and closely monitored agricultural production, transportation and distribution activities. In the late 1970s, agriculture was the first sector targeted by China’s reform and liberalisation push. While the focus was on domestic liberalisation, China gradually opened its agricultural market to the world. During the early Chinese reform period, agricultural exports became an important source of foreign reserve for China. Since China joined the WTO in 2001, it has implemented policies and measures to accelerate market reform by harnessing domestic and foreign resources and markets with the aim of enhancing agricultural competitiveness and national food security.

China’s agricultural liberalisation process generally took on the following characteristics:

2.1 Phenomenal Agricultural Trade Growth

China’s agricultural trade experienced rapid growth over the past decades (see figure 1). Admission to the WTO was a milestone for China’s agricultural trade growth and paved the way for its exports and imports to soar. Over the past 10 years, while China’s agricultural export has expanded in accordance with the country’s comparative advantage, the inflow of foreign agricultural products increased at a phenomenal rate. In 2011, China overtook the United States as the world’s largest importer of agricultural products. In 2001, China’s total agricultural imports was only valued at USD 11.7 billion; by 2012, such imports amounted to USD 112.5 billion with an annual increase of 23 per cent. This shows that China has the fastest growth in agricultural imports in the past years.

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6 Due to different statistical methodologies, WTO database shows that China’s agricultural imports in 2012 amounted to USD 157 billion.
7 Ministry of Commerce, China’s Agricultural Export and Imports monthly report, December, 2013.
FIGURE 1: Growth of China’s agricultural trade

![Graph showing growth of China's agricultural trade from 1950 to 2010.]

Sources:
(2) Data for 1961—1979 is from the FAO database.
(3) Data for 1992—1994 is calculated by the author.\(^8\)
(4) Data after 1995 is from the Ministry of Agriculture.

TABLE 1: China’s agricultural trade 2000-2012\(^9\)

<table>
<thead>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural GDP</td>
<td>$ Billion</td>
<td>176.7</td>
<td>281.6</td>
<td>611.7</td>
<td>829.7</td>
</tr>
<tr>
<td>Export</td>
<td>$ Billion</td>
<td>15.60</td>
<td>27.60</td>
<td>48.9</td>
<td>63.3</td>
</tr>
<tr>
<td>Import</td>
<td>$ Billion</td>
<td>11.20</td>
<td>28.70</td>
<td>71.9</td>
<td>112.5</td>
</tr>
<tr>
<td>Net Import</td>
<td>$ Billion</td>
<td>4.40</td>
<td>-1.10</td>
<td>-23.04</td>
<td>-49.19</td>
</tr>
<tr>
<td>Export dependency ratio</td>
<td>%</td>
<td>8.8</td>
<td>9.8</td>
<td>8.0</td>
<td>7.6</td>
</tr>
<tr>
<td>Import dependency ratio</td>
<td>%</td>
<td>6.3</td>
<td>10.2</td>
<td>11.8</td>
<td>13.6</td>
</tr>
<tr>
<td>Trade dependency ratio</td>
<td>%</td>
<td>15.2</td>
<td>20.0</td>
<td>19.7</td>
<td>21.2</td>
</tr>
</tbody>
</table>

Source: China’s Customs Statistical Yearbooks and China’s Statistical Yearbooks, multiple years

China’s agricultural sector on foreign trade increased significantly both in terms of absolute value and the dependency ratio. Its agricultural trade increased from 15.2 per cent in 2000 to 21.2 per cent in 2012 (see table 1). Most notable is the agricultural import dependency ratio. It reached 13.6 per cent in 2012, a double of 2000’s figures.

Moreover, the agricultural trade structure changed dramatically over the past 20 years. In 1995, grain (wheat and corn), edible oil, cotton and sugar made up 54.4 per cent of China’s total agricultural imports (see table 2). Yet soybean, cotton, edible oil, aquatic products and meat-based non-staple foods accounted for nearly 60 per cent of China’s 2011 total agricultural imports. Among China’s agricultural imports in 2011, soybean is of particular importance. In 2012, soybean imports, valued at

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\(^9\) Note: Agricultural products include the WTO definition of agricultural products plus aquatic products. Official RMB to USD exchange rate was used.
USD 30 billion, accounted for one-third of the country’s total agricultural imports. China imports are equal to 80 per cent of its annual consumption, and about 5.8 times of its domestic soybean output. As the world’s largest soybean importer, it imports exceeds 60 per cent of the global soybean imports.10

### TABLE 2: China’s major agricultural imports, 1995 and 2011

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th></th>
<th>2011</th>
<th></th>
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<tr>
<td></td>
<td>Value (USD 100 million)</td>
<td>Share %</td>
<td>Value (USD 100 million)</td>
<td>Share %</td>
</tr>
<tr>
<td>Total</td>
<td>121.65</td>
<td>100.00</td>
<td>Total</td>
<td>947.72</td>
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<tr>
<td>Wheat</td>
<td>20.26</td>
<td>16.66</td>
<td>Soybeans</td>
<td>298.34</td>
</tr>
<tr>
<td>Edible oil</td>
<td>14.55</td>
<td>11.96</td>
<td>Cotton</td>
<td>95.24</td>
</tr>
<tr>
<td>Cotton</td>
<td>14.22</td>
<td>11.69</td>
<td>Edible oil</td>
<td>77.14</td>
</tr>
<tr>
<td>Sugar</td>
<td>8.98</td>
<td>7.38</td>
<td>Aquatic products</td>
<td>55.88</td>
</tr>
<tr>
<td>Corn</td>
<td>8.11</td>
<td>6.67</td>
<td>Meats</td>
<td>34.11</td>
</tr>
<tr>
<td>Wool</td>
<td>6.80</td>
<td>5.59</td>
<td>Fruits and nuts</td>
<td>30.36</td>
</tr>
<tr>
<td>Aquatic products</td>
<td>5.99</td>
<td>4.92</td>
<td>Wool</td>
<td>29.27</td>
</tr>
<tr>
<td>Rice</td>
<td>4.26</td>
<td>3.51</td>
<td>Milk, eggs and honey</td>
<td>26.58</td>
</tr>
<tr>
<td>Barley and other grains</td>
<td>3.18</td>
<td>2.60</td>
<td>Sugar</td>
<td>19.43</td>
</tr>
<tr>
<td>Meats</td>
<td>0.95</td>
<td>0.78</td>
<td>Oil seeds</td>
<td>8.02</td>
</tr>
<tr>
<td>Fruits and nuts</td>
<td>0.84</td>
<td>0.69</td>
<td>Barley and other grains</td>
<td>6.77</td>
</tr>
<tr>
<td>Soybeans</td>
<td>0.75</td>
<td>0.62</td>
<td>Corn</td>
<td>5.78</td>
</tr>
<tr>
<td>Milk, eggs and honey</td>
<td>0.63</td>
<td>0.52</td>
<td>Wheat</td>
<td>4.18</td>
</tr>
<tr>
<td>Oil seeds</td>
<td>0.26</td>
<td>0.22</td>
<td>Rice</td>
<td>3.43</td>
</tr>
</tbody>
</table>

**Source: China Customs Database**

However, in recent years, China’s grain import surged rapidly. This seems to be a paradox because official records indicate 10 consecutive years of increasing grain production in China since 2003. In 2013, China’s domestic grain production reached 600 billion tonnes, far exceeding the official target of 540 billion tons for 2020 (target set in the country’s first food security plan in 2008).11 At the same time, the country’s grain imports reached 86 million tonnes,12 including over 15 million tonnes of imported cereal.13 This means that China’s grain self-sufficiency rate in 2013 was only around 88 per cent when soybean imports included in the calculation fell below the official red-line of 95 per cent.14

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12 Soybean is included in China’s grain imports.
13 2013 Economic situation and analysis of China’s import and export outlook.
2.2 Substitution Effects of China’s Agricultural Imports

Rapid surge in China’s grain imports, particularly cereal imports, has prompted widespread domestic concerns over the impact of growing imports on the country’s agricultural sector and food security.\textsuperscript{15} There is, however, general consensus that managing agricultural imports is parallel to utilising foreign water, land and other resources in the face of scarcity. In other words, China has to develop a strategy to tackle worsening domestic resource scarcity and to sustain the supply of staple foodstuff. From the global perspective, agricultural imports would be the solution for domestic grain self-sufficiency and a crucial component of the new food security strategy.

To help us assess the impact of agricultural liberalisation on the domestic market, this paper includes an analysis of the resource substitution effects of major agricultural products including grain, edible oil, oil seeds, poultry products, milk, rubber and fishmeal. The land substitution effect increased from 300 million \textit{mu} (20 million hectares) in 1995 to 1 billion \textit{mu} (667 million hectares) in 2012 (see table 2). Similarly, the ratio of utilising foreign land resources over domestic cultivation areas improved notably. For instance, this ratio increased two-fold from 13.1 per cent in 1995 to 40.7 per cent in 2012. This shows that agricultural imports have improved domestic food supply, eased resource scarcity and contributed tremendously to China’s industrialisation and urbanisation processes.

\textbf{FIGURE 2:} China’s agricultural imports—land substitution

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2.png}
\caption{China’s agricultural imports—land substitution}
\end{figure}

\textit{Source: Cheng (2013)}\textsuperscript{16}

In 2012, China’s total agricultural imports, equal to substituting 1 billion \textit{mu} (66.7 million hectares) of farm land, effectively alleviated domestic shortage of land and water resources. Of all the agricultural imports, both oil-bearing crops and edible oil imports affected land substitution the most: oil-bearing crops accounted for 486 million \textit{mu} (32 million hectares) and edible oil imports accounted for 302 \textit{mu}\textsuperscript{15}

\begin{footnotesize}
\textsuperscript{15} \textit{Refer to domestic news at} \url{http://finance.people.com.cn/n/2013/0205/c1004-20434376.html} \textit{and} \url{http://www.ftchinese.com/story/001034353}

\end{footnotesize}
(30 million hectares). This is largely the result of implementing China’s 1996 strategy of “sacrificing soybeans for cereal sufficiency”.

While rising agricultural imports have significant land substitution effects, there is a notable decline in China’s self-sufficiency level of agricultural output during 1991 to 2012. This is evident in the declining self-sufficiency rates of calories, protein and fat. Analysis indicates that China’s per capita daily calorie intake increased from 2000 kc in 1991 to 3100 kc in 2012 as food imports rose from 90 kc to 500 kc. In the same year, the country’s calorie self-sufficiency level fell to 84.4 per cent in 2012 from 95.4 per cent in 1991. The decline in protein self-sufficiency is even more notable. Protein self-sufficiency fell from 94.6 per cent in 1991 to only 78.1 per cent in 2012. Per capita daily protein intake increased from 55g to 76g while protein from imports increased from 3g to 17g. The biggest drop occurred in fat self-sufficiency. While the Chinese per capita daily fat intake increased from 19g to 80g during 1991—2012, the amount of fat provided by imports jumped from 0.02g to 42g. This led to drastic decline of the country’s fat self-sufficiency from 99.9 per cent to 44.4 per cent (see figure 3).

FIGURE 3: China’s changes in nutritional self-sufficiency

Source: Cheng (2013)\footnote{Ibid.}
TABLE 3: China’s major agricultural imports and land substitution equivalent (10000 mu)

<table>
<thead>
<tr>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice</td>
<td>395</td>
<td>-649</td>
<td>-39</td>
<td>-54</td>
<td>465</td>
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<tr>
<td>Corn</td>
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<td>-3424</td>
<td>-2451</td>
<td>398</td>
<td>1239</td>
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<tr>
<td>Wheat</td>
<td>4829</td>
<td>293</td>
<td>1031</td>
<td>301</td>
<td>1026</td>
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<tr>
<td>Barley</td>
<td>599</td>
<td>885</td>
<td>816</td>
<td>1039</td>
<td>1042</td>
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<tr>
<td>Oil-bearing crops</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Soybean</td>
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<td>23035</td>
<td>46251</td>
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<td>Oilseed</td>
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<td>2932</td>
<td>248</td>
<td>1352</td>
<td>2291</td>
</tr>
<tr>
<td>Sesame</td>
<td>-208</td>
<td>-146</td>
<td>147</td>
<td>407</td>
<td>382</td>
</tr>
<tr>
<td>Edible Oil</td>
<td>16302</td>
<td>8601</td>
<td>30417</td>
<td>35864</td>
<td>30239</td>
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<tr>
<td>Soybean oil</td>
<td>7990</td>
<td>1546</td>
<td>8970</td>
<td>6786</td>
<td>6604</td>
</tr>
<tr>
<td>Peanut oil</td>
<td>4</td>
<td>-7</td>
<td>-26</td>
<td>69</td>
<td>61</td>
</tr>
<tr>
<td>Rapeseed oil</td>
<td>1300</td>
<td>55</td>
<td>328</td>
<td>2211</td>
<td>2438</td>
</tr>
<tr>
<td>Oliver Oil</td>
<td>7007</td>
<td>7000</td>
<td>21119</td>
<td>26799</td>
<td>21137</td>
</tr>
<tr>
<td>Poultry products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pork</td>
<td>-301</td>
<td>170</td>
<td>-227</td>
<td>835</td>
<td>1205</td>
</tr>
<tr>
<td>Beef</td>
<td>-22</td>
<td>-15</td>
<td>-22</td>
<td>2</td>
<td>51</td>
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<tr>
<td>Mutton</td>
<td>0</td>
<td>18</td>
<td>14</td>
<td>53</td>
<td>120</td>
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<tr>
<td>Poultry</td>
<td>-19</td>
<td>400</td>
<td>183</td>
<td>271</td>
<td>221</td>
</tr>
<tr>
<td>Milk</td>
<td>40</td>
<td>110</td>
<td>136</td>
<td>726</td>
<td>781</td>
</tr>
<tr>
<td>Others</td>
<td>5634</td>
<td>6214</td>
<td>12239</td>
<td>10966</td>
<td>12989</td>
</tr>
<tr>
<td>Cotton</td>
<td>1660</td>
<td>-66</td>
<td>3638</td>
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<tr>
<td>Sugar</td>
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<td>58</td>
<td>194</td>
<td>301</td>
<td>656</td>
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<td>Rubber</td>
<td>442</td>
<td>1117</td>
<td>1903</td>
<td>2731</td>
<td>3119</td>
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<tr>
<td>Fishmeal</td>
<td>2911</td>
<td>5038</td>
<td>6504</td>
<td>4123</td>
<td>3510</td>
</tr>
<tr>
<td>Total</td>
<td>29467</td>
<td>28864</td>
<td>68265</td>
<td>98464</td>
<td>97987</td>
</tr>
</tbody>
</table>

**Source:** Cheng (2013)

3. Problems with the Current System

Since its admission to the WTO, China began to liberalise the country’s agricultural system and actively implement agriculture “Going Global” strategy. With years of effort, a relatively liberal food security safeguarding mechanism has already been constructed. However, owing to the lack of grand strategic planning on the systemic and coordinated global agricultural supply system which is based on overseas agricultural investment, trade and cooperation in other areas, the current system is still

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18 Ibid.
highly import-dependent. Compared with overseas investment in the energy sectors, overseas agricultural investment is still at its initial stage for various reasons.

First, it is constrained by the slow development of the agricultural sector. In spite of the country’s strong push, China’s agricultural Outward Foreign Direct Investment (OFDI) amounted to USD 3.42 billion, making up only 0.8 per cent of the country’s total outward (OFDI) of 2011. And the OFDI stock was also only 1.07 per cent of the national total. Since the mid-1990s, with rapid development in the domestic food processing and manufacturing sector, the gap between Chinese companies and their international counterparts narrowed. Yet only a very limited number of Chinese grain companies began to invest overseas. The reason is very simple. A company’s overseas expansion is tightly related to the domestic market and the development stages of the company itself. Generally speaking, domestic market is the most important strategic source for a company. Thus, when domestic market has sufficient space for companies to expand, there will be little incentives for companies to venture abroad and only after domestic market becomes mature and competition intensifies, the companies will then consider expanding overseas to explore new competitive advantages. Currently, only the vegetable oil industry has reached a mature stage, thus some of the domestic oil crushing and processing companies are investing abroad to build their global supply chains. On the contrary, because of the rapidly growing domestic grain market, Chinese grain companies have little incentive for venturing overseas.

Second, the Chinese grain companies have limited ambitions for overseas expansion. Most Chinese grain companies lack the necessary global vision and cross-border management skills. There is also a severe shortage of international expertise in business management skills, foreign language skills, and adeptness with local cultures, law and society. Next, as some countries lack understanding of the foreign business environment and their own strengths and weakness, many overseas agricultural investments failed bitterly, resulting in a huge waste of corporate human and financial resources.

In addition, the lack of sufficient funding is also a key obstacle to Chinese agricultural companies’ overseas expansion. Chinese agricultural companies are generally small with limited overseas investment capacity. In the meantime, the majority of Chinese companies with overseas investment are small to medium-sized companies. The average value of the overseas agricultural investment project of developed countries is about USD 6 million; developing countries, about USD 2.6 million; China’s, only about USD 1 million. Large Chinese agricultural companies channel their funds, not for overseas expansion but for the expansion of domestic market shares. Finally, the absence of industrial coordination mechanisms limits the Chinese companies’ ability for overseas expansion.

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Currently, there are very few industrial associations that support Chinese companies by carrying out coordination, regulation, conflict management and risk sharing services.\(^{23}\)

Worse still, occasionally, Chinese companies engage in unhealthy competition against each other. Some companies do not respect the host country’s culture, environment, sustainability of local agricultural resources and environmental protection. They also fail to provide employment opportunities for local residents and do not interact with the local community which often generated resistance against Chinese investments.\(^{24}\)

Third, central planning and national strategy for building an open agricultural system are lacking. At the moment, because some departments of the Chinese government still resist the strategy of utilising global agricultural resources,\(^{25}\) the global agricultural strategy is not included in the overall national security policy. Preparation is also not adequate for large-scale imports of foreign agricultural products. Strategic thinking on the issue of further liberalising the agricultural sector is still lacking, as evident in the following aspects.

To begin with, Chinese policy makers do not fully understand the dual strategy of utilising both international and domestic markets and relying on both domestic and foreign agricultural resources. Some officials are struggling with the dilemma of increasing agricultural imports: on the one hand, increasing agricultural imports will hurt domestic agricultural production; on the other hand, limiting agricultural imports will raise domestic demand for agricultural products.

Besides, at the national level, overall strategic layout and planning on building an open agricultural system is still not ready. A comprehensive plan to better utilise international resources to meet the growing food demand driven by rapid industrialization and urbanisation is still needed. In other words, the national food security safeguard mechanism based on the global perspective does not exist. At the bureaucratic level, there is no well-coordinated agricultural trade strategy and no outward agricultural investment management mechanism. The management and regulation of agricultural trade and overseas investment are segregated because multiple agencies are involved. Furthermore, China has not built the institutional mechanism needed for effective overseas agricultural investment protection. While the country’s agricultural trade soars every year with increasing food imports, the supply channel for the major agricultural products such as grain is still not secure because of a lack in overseas production capacities, storage facilities, ports, processing channels and trade networks. Although China is the world’s biggest importer of agricultural products, its power over global agricultural market prices remains weak.\(^{26}\) It still cannot effectively protect its domestic agricultural market and the interests of its companies.


\(^{25}\) Cheng Guoqiang, Global Agricultural Strategies (2013), 94.

\(^{26}\) Yi Qing, “An analysis of China’s lack of price power over major commodities,” SAR Economics (2012).
Fourth, the policy system for supporting China’s overseas agricultural investment is still not established yet. Companies which undertake overseas investment usually encounter more difficulties and risks than companies undertaking domestic investment. This is particularly true for overseas investment in the agricultural sector as this sector is often the most protected sector of national economy. Foreign investment on land and water resources is also highly politically sensitive. China’s agricultural “Going Global” effort has to be supported by the government; yet, such support is not forthcoming.

As the small and medium agricultural companies are the main players in agricultural investment projects in foreign countries, they lack funds and have limited access to financial support and are largely dependent on bank loans. Financing through bond and share offering is still at the infancy stage and the amount is quite limited. Since these companies have limited securities for their loans, they often do not get sufficient bank loans. For this reason, the Chinese government should work on providing funds and also improve tax and trade tariffs to support its agricultural “Going Global” push. China still has not signed the Avoidance of Double Taxation Agreement with several countries. As a result, double taxation is unavoidable in those countries. On the issue of tariff, agricultural products produced by Chinese companies do not enjoy preferential treatment in foreign countries. The same quota system, tariff rates and other duties are applied. This kind of customs control system is not conducive to China’s “Going Global” effort.

In addition, the administrative procedure for China’s overseas agricultural investment is still very problematic. China’s overseas investment activities are managed by multiple government agencies including the National Development and Reform Commission (NDRC), the Ministry of Commerce (MOFCOM) and the State Administration of Foreign Exchange (SAFE). For the state-owned companies, it is a requirement to gain NDRC’s approval. For agricultural enterprises, relaxing control over their overseas expansion could be the best policy support. In recent years, while the government has taken steps to simplify the administrative procedure, relax control and provide a better policy environment to support the country’s agricultural “Going Global” strategy, there is still no central coordination mechanism to control the activities of different agencies. Besides, some regulatory requirements are outdated. Finally, China’s state-owned enterprises (SOEs) tend to focus on short-term corporate performance. This evaluation method is not fair for agricultural investment which is

long term by nature, and hence profits should not be expected in the first few years or even 10 to 20 years.\textsuperscript{32}

4. Global Agricultural Strategy—the strategic choice for China

Taking these problems into consideration, the authors advocate that China should strive to implement a global agricultural strategy based on a liberal food security safeguarding mechanism. This strategy can be defined as the approach which continues to emphasise on the fundamental role of domestic agricultural production in food security and ensure effective supply of major agricultural products; at the same time, it aims to further improve the country’s ability to utilise international markets and explore foreign agricultural resources. The objective of this strategy is to build a reliable global agricultural supply network for China by actively developing global agricultural resources.\textsuperscript{33}

The rest of this section is a discussion of the reasons for China’s global agricultural strategy, followed by basic concepts and the theoretical framework of this strategy.

4.1. The need for a global agricultural strategy

First and foremost, a global agricultural strategy is needed to ensure the country’s long-term food security. In the next 10 to 20 years, the accelerating pace of industrialisation and urbanisation coupled with population growth will lead to a predominantly animal protein-based diet that will further increase the country’s demand for agricultural products.\textsuperscript{34} As land, water and labour resources as well as the comparative advantage of the country’s agricultural sector continue to diminish; China will face greater challenges to ensure sufficient supply of major agricultural products.\textsuperscript{35}

Research shows that China needs at least 3.5 billion \textit{mu} (233 million hectares) of farming land to maintain the current demand and supply balance of agricultural output. At the moment, China falls short by 30 per cent: its total farming land is less than 2.5 billion \textit{mu} (166 million hectares). As discussed, in recent years, imports of agricultural products from the global market made up for the shortage. The shortage of arable land resources was about 20 per cent.\textsuperscript{36} Because of China’s huge population, limited land resource, and high environmental costs, its domestic agricultural output will continually fall short of its domestic demand. To reduce the pressures on domestic resources and the environment, China has to push forward the global agricultural strategy. By importing moderate amounts of agricultural products from the global market, the country’s land, water and other resources can be reallocated to achieve absolute self-sufficiency in cereal supply to boost the socio-political stability.

\textsuperscript{32} Cheng Guoqiang, Global Agricultural Strategies (2013), 94.

\textsuperscript{33} Zhang Hongzhou, “China’s global drive for resources: A market-oriented approach for food,” RSIS Commentary (2014).


\textsuperscript{36} Refer to China News at http://finance.chinanews.com/cj/2012/11-29/4369282.shtml
China’s global agricultural strategy is certainly not only about importing more agricultural products from the global market. It is also about investing in more foreign agricultural resources in developing countries with ample agricultural resources. China’s investment and aid can enhance these countries’ agricultural production, tighten their food security and also alleviate global poverty. Constructing a new global agricultural and food regime will in turn enhance China’s food security.37

Moreover, the global agricultural strategy forms an integral part of China’s grand plan to modernise the country’s agricultural sector. As the progress of agricultural modernisation is lagging far behind the country’s rapid industrialisation and urbanisation, China’s “Going Global” strategy calls for advanced technologies and foreign capital in order to accelerate domestic agricultural modernisation and improve the competitiveness of the domestic agricultural sector. China’s oil and gas industry is dominated by state-owned oil companies; its agricultural sector employs a third of the country’s labor force, equal to supporting the livelihood of over 600 million rural residences.38 China’s agricultural “Going Global” strategy also focuses on expanding the global market because China enjoys comparative advantage in the export of fruits, vegetables and aquatic products, among others.

Besides the huge potential in developing global agricultural resources, there are also valuable opportunities for China to implement its global agricultural strategy. Various studies show that there is still great future yield increase potential of global agricultural output. According to the FAO estimates, there are still more than 1.4 billion hectares of arable land in the world: over 1 billion hectare of land is suitable for the cultivation of rice, wheat and corn, with growth potential of 8-10 per cent. Considering growth and yield potential, the global food supply growth potential will be even greater. In Southeast Asia, taking Laos, Cambodia, and Myanmar for example, research shows that the current agricultural production is still largely rain-fed. Owing to weather conditions, naturally the yield is quite low. For instance, in 2010, the rice yield of Laos, Cambodia, and Myanmar were only 231 kg/mu, 198 kg/mu and 275 kg/mu respectively, far below the level of 437 kg in China.39 These three countries basically do not use improved seeds, fertilisers, pesticides and agricultural machinery, despite its poor irrigation infrastructure. Looking at the results of rice cultivation demonstration projects undertaken by Sinograin, China Electronic Technology Company and other companies, by using better seeds, fertilisers and moderately scaling up farm size, the rice yield can be increased by 50-100 kg per mu. Even without expanding cultivation areas, rice yield of these three countries can be increased to 50-60 million tonnes from the current level of 43 million by using better farming techniques. Sinograin’s demonstration project in Laos also shows that by having better irrigation system, seeds and farming techniques, the rice yield in these three countries can be increased to 60-80 million tonnes, with export potential of 8-10 million tonnes.40 Therefore, under the global agricultural strategy, huge opportunities exist for China to fully utilise global agricultural resources.

40 Ibid.
4.2. Basic principles in China’s global agricultural strategy

The ultimate objective of implementing the global agricultural strategy is to support China’s food security strategy; the implementation of the global agricultural strategy should be based on the following principles:

First, the global agricultural strategy calls for improvement in the capability of domestic production. Effort has to be centred on reforming the country’s agricultural support policies, optimising agricultural reserve system and advancing the agricultural import control mechanism in order to ensure basic self-sufficiency in grain production.

Second, the basic approach of the global food security strategy is to encourage Chinese agricultural companies to invest further in the development of foreign agricultural resources, and actively participate in global agricultural trade and cooperation. China should also aim to diversify agricultural imports, invest across the whole spectrum of agricultural activities—production, processing, storage, transportation and retailing—to build a global agricultural supply network.

Third, deepening and expanding global cooperation is the key to the success of the global agricultural strategy. While the focus should be on enhancing agricultural aid to developing countries or regions to improve their agricultural production, China also needs to engage developing countries with ample agricultural resources with the aim of deepening agricultural trade and investment cooperation, and constructing a better global food regime.

Fourth, safeguarding “food rights” for all as the universal responsibility of nations is the fundamental ideology guiding China’s global agricultural strategy. China will call upon major agricultural countries as well as major agricultural exporters to carry out their duty to stabilise global agricultural production and supply, to reduce the impact of biofuels on the global agricultural market so as to ensure sufficient, affordable and healthy food supply.

In the meantime, to implement the global agricultural strategy, China needs to improve the way it manages the following relationships: first is the relationship between the domestic agricultural supply and foreign resources. While utilising foreign agricultural resources helps to ease resource and environmental pressures and close the supply gap of certain agricultural products, agricultural imports have to be closely monitored to minimise destabilising effects on domestic agricultural production and to avoid depressing farmers’ employment and income.

Next, China needs to effectively deal with global risks while actively utilising foreign agricultural resources. At present, China’s agricultural imports are limited in terms of variety and sources. As a result, its growing imports tend to have a significant impact on the global agricultural market, highlighting the big country effects. As the varieties of agricultural imports increase, China faces the limitation of sources. The over-reliance on major agricultural exporters creates huge risks for China.

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Any shortage in output in the event of natural disasters, compounded by international speculation, can cause global food prices to soar and threaten China’s agricultural supply and domestic production. To counter this, China has to diversify its agricultural import portfolio and sources by importing more processed agricultural products and food substitutes for some major agricultural commodities. For instance, to reduce its over-reliance on soybean imports, China can import more rapeseed oil, peanut oil, soybean oil, and olive oil. China can also import more poultry and other meat products to reduce the need for imported corn and other feed grain. Apart from diversifying imports, China needs to invest in resource-rich and inexpensive countries, which enjoy relative political stability, has relatively robust system of laws and regulations and welcomes foreign investment in the agricultural sector. For instance, China should invest more in the Southeast Asian countries, the Black Sea region, Latin America and Africa on soybeans, cotton, palm oil and sugar production so as to meet China’s current or future needs.

Finally, the relationship between corporate investment and global cooperation has to be carefully managed. Solving the global food problem is the foundation for safeguarding China’s food security. The most powerful approach to achieve global food security is by enhancing the agricultural production capability of developing countries. History shows that developing countries, particularly the least developed countries, are most vulnerable to global food crisis caused by supply and demand imbalance, price shock and other factors. Dependence on developed countries’ agricultural supply alone is insufficient to safeguard developing countries’ agricultural supply and food security. Therefore, it is important to promote the development of the agricultural sector of developing countries so as to safeguard global food security. For China to do so, it is important to systematically combine overseas agricultural investment and global cooperation.

5. Policy Choices for the Global Agricultural Strategy

For China’s global agricultural strategy to be successful, policy changes are needed at both the strategic and policy levels. At the strategic level, it is critical to fully understand the complexity and importance of food security in order to appreciate and accept the reality of the growing scarcity of agricultural resources faced by the country. Although it is still of utmost importance to promote domestic agricultural production so as to ensure basic self-sufficiency in staple grains, the utilisation of global agricultural resources becomes the inevitable option for China to safeguard its food security. The global agricultural strategy should be recognised as one of the key national strategies for China. To build an open agricultural system and safeguard national food security, the key approach is attaining basic sufficiency in grain supply by “relying on domestic production with moderate imports”. This means that the government needs to introduce overall planning to further liberalise the agricultural sector, build an open agricultural system, guide China’s overseas agricultural expansion, and establish a global agricultural supply system in every aspect.

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FIGURE 4: Global agricultural strategy: A five-dimensional framework

Source: The authors

At the policy level, the global agricultural strategy has five major components (see figure 4). The first component is agricultural import diversification. As discussed, presently, China's agricultural imports are limited to a few agricultural products and national suppliers, particularly the United States. The first priority of China's global agricultural strategy is to realise agricultural import diversification. Diversification of agricultural imports entails the import of various agricultural products via multiple channels, regions and approaches. The purpose of import diversification is to reduce risks caused by over-dependence on a few suppliers. This can be achieved by nurturing potential markets, by supporting agricultural development in countries with huge potential for production increase and by exporting agricultural products. For instance, the focus should be on investing in and forging closer agricultural ties with countries such as Russia, Kazakhstan and Ukraine which have huge uncultivated land and potential to become leading agricultural exporters.

The second component is the expansion of overseas agricultural investment. Private sectors and enterprises should be encouraged to be the main forces of investment in foreign agricultural resources. In terms of investment destinations, the focus should be on neighbouring countries and developing countries in Asia, Africa and Latin America which have agricultural products that are in shortage in China. The main task for China's overseas agricultural investment lies in establishing a global system for production, marketing, transportation, storage, processing and manufacturing. China's overseas agricultural investment needs to be market-oriented, led by agricultural companies with government support. China needs to encourage and support its agricultural companies, both the SOEs (such as COFCO and the Beidahuang group) as well as private companies (such as
Shuanghui and Bright Groups) to become global players that can compete with established global agribusiness giants such as Cargill. At the same time, China also needs to actively establish overseas agricultural investment associations and overseas agricultural companies associations to enhance coordination and cooperation among Chinese companies for better risk management and conflict resolution. The government should play the role of creating a favourable investment environment, providing necessary support, creating opportunities and offering protection to China’s agricultural companies. To encourage China’s agricultural companies to invest overseas, the government needs to do the following: (i) simplify overseas investment application, approval and management procedures, and relax constraints on overseas agricultural investment and cooperation in order to minimise government intervention; (ii) increase fiscal support through setting up an overseas agricultural investment fund and establishing insurance protection mechanism both in terms of official and commercial insurances; and (iii) improve the tax system to avoid double taxing companies which invest in countries that China did not sign the Double Taxes Avoidance Treaty with, and provide other tax benefits to agricultural companies in accordance with WTO regulations.

At the corporate level, the Chinese agricultural companies intending to invest abroad need to show greater commitment to strong environment protection, fair labour practices and well-developed social governance. For a long time in China, Corporate Social Responsibility (CSR) had been prescribed by the government but Chinese companies mostly neglect the concept of CSR. As Chinese companies expand overseas they naturally bring their experience and culture from home, sometimes hurting the host countries, mainly those with weak governance. As a result, as noted by some Chinese scholars, the lack of CSR initiatives has tarnished the overall reputation of Chinese enterprise, brands and the country as a whole, greatly hindering the ability for Chinese companies to continue the going out strategy. This is particularly the case in China’s overseas agricultural investment. China’s land lease or purchase in Africa in the past few years has already been labelled as land grabbing or neocolonialism, exacerbating food insecurity in the continent. This has attracted huge international criticism and local resentment towards China’s overseas agricultural investment projects. Thus, Chinese agricultural companies need to adhere to international or even higher CSR standards. It is important for Chinese companies to adopt an inclusive strategy in their overseas agricultural expansion which takes full consideration of China’s rising demand for food, the companies’ corporate interests, the needs of the local community, and environmental sustainability as well as food security concerns of host countries.

Pushing forward the new model of global agricultural cooperation is the third component. China needs to learn from its decades of experience in global agricultural cooperation and initiate the new model to


46 Ibid.
keep up with the changing global situation. This new model requires close coordination between domestic and global affairs. It aims to further liberalise China’s agricultural sector and contribute to the country’s food security. Based on the principle of mutual beneficial cooperation, China will give economic and technological support to develop the agricultural sector in neighbouring countries. China needs to enhance connectivity with neighbouring countries, establish more border trading centres and free trade zones, and improve environmental conditions for cross-border investment. China should set up the agricultural development fund to support agricultural development in developing countries and also sign bilateral agricultural cooperation agreements on various aspects. By taking these steps, China can reduce poverty, support local food security, and build a fair and effective global food regime. In addition, China needs to provide more support to the FAO and other international institutions and non-governmental organizations to undertake information sharing, consultancy and assistance on matters related to global food security and agricultural development. In the meantime, pushing forward the new model of international agricultural cooperation helps to enhance China’s global status and play a leading role in global food governance and agricultural development.

The fourth component is developing stable ties with strategic agricultural trade partners. In the foreseeable future, agricultural trade will still be the main channel for China to utilise global agricultural resources. While it pushes for overseas agricultural investment and pursues a new model of international agricultural cooperation, China needs to build sustainable, predictable and stable strategic agricultural trade partnerships with major agricultural suppliers. China can sign long-term agricultural trade agreements and national treaties with agricultural suppliers such as the United States to protect the supply of major agricultural goods. China should initiate a new round of bilateral or multilateral FTA negotiations with countries in Southeast Asia, the Black Sea and Latin America to upgrade economic and trade relations. It is in China’s interests to actively promote multilateral trade negotiations under WTO to improve global food governance. From a strategic perspective, in order to maximise China’s interests in global agricultural trade, China needs to adjust its policy orientation and global role by moving away from passively following the norm to proactively reforming restrictive global agricultural investment and trade regimes that support export bans and other unfair trade practices. Besides, China needs to play a bigger role in developing global norms and rules such as regulating the development of biofuels, and speculations on global food market in order to further liberalise global agricultural investment and trade.

Finally, it is essential for China to build the global agricultural commodity exchange centre. The basic function of future markets and commodities exchange centres is price setting and risk management. International experiences indicate that the location of the price setting centre does not necessarily mean that the country or the commodity exchange centre can set the price, and having the pricing power does not mean that a country can set the price. Nonetheless, a country which has pricing power will have a certain degree of influence over the market. For instance, research shows that the agricultural projection report published by America’s Department of Agriculture has significant impact

on the price of Chicago Board of Trade’s (CBOT) futures.\textsuperscript{48} In the meantime, countries with pricing power can regulate the speculation activities in futures trading via laws and regulations in order to prevent price fluctuations, manage market risk and safeguard the healthy development of the domestic sector.

China, being the largest agricultural importer of soybean, cotton and palm oil, has a vital position in the global agricultural trade. With increasingly frequent price fluctuations, China faces greater risk in the global agricultural market and urgently needs to build global commodity exchange centres. China has to further develop Dalian, Zhengzhou and other domestic commodity exchanges to compete with Chicago, London and New York.

6. Conclusion

Food security is always the top concern for Chinese policymakers. Since the late 1970s, self-sufficiency remains as its overriding policy objective. Throughout the past three decades of remarkable agricultural progress, China has more or less maintained a high degree of self-sufficiency in food supply, particularly in cereal supply. In recent years, with the dual challenge of rapidly rising demand and worsening land and water scarcity driven by rapid industrialisation and urbanisation, it is increasingly clear that food self-sufficiency is no longer a possible option for China.\textsuperscript{49}

Recognizing the grave reality, the Chinese government has re-defined the country’s food security strategy. The longstanding self-sufficiency policy is being replaced by the policy of relying on domestic production with moderate imports. The new policy highlights the critical importance of simultaneously developing the domestic agricultural sector and better utilising international agricultural resources. While policymakers and scholars are still debating how this new policy should be implemented, the author having analysed the liberalisation process and existing problems of China’s agricultural sector, suggests that a global agricultural strategy is needed to further liberalise the country’s agricultural sector and safeguard the nation’s food security strategy.

On the one hand, the global agricultural strategy can be defined as the approach that continues to emphasise the fundamental role of agricultural domestic production in food security and to ensure effective supply of major agricultural products. On the other hand, it requires further improvement of the capability to utilise both domestic and international markets and a deeper exploration of the use of domestic and foreign agricultural resources. The objective of the global agricultural strategy is to build a sustainable, stable and secure global agricultural supply network for China by actively developing global agricultural resources.

The success of this global agricultural strategy will require serious political support from the top and detailed and well-coordinated policies on the ground. At the grand strategic level, the authors


advocate that the global agricultural strategy should be included and recognised as one of the national strategies for China. At the policy level, the authors suggest that there are five main aspects of this global food security strategy: (i) diversification of agricultural imports; (ii) promotion of overseas agricultural investment; (iii) enhancement of global agricultural cooperation; (iv) establishment of strategic partnership with major food exporters; and (v) construction of global commodity exchange centres in China. Given food security has emerged as a top threat to humanity and foreign investments in agriculture is highly political and sensitive by nature, it is critical that the Chinese government further encourages its agricultural companies to adhere to better CSR standards, ensure sustainability in the agricultural sector of host countries, protect the local environment and contribute to food security of the local community while carrying out the country’s global agricultural strategy.

As China’s food demand and supply gap widens, the country’s further integration into the global food market becomes inevitable. While the global community is carefully monitoring China’s overseas agricultural expansion, they have no need to be alarmed. China’s global agricultural strategy is not about land grabbing or global control of food supply; instead, it aims to support domestic agricultural development via further liberalisation and safeguarding China’s food supply while minimising uncertainties in the global food market through deepening global food trade and expanding market share.
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