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# China Declares War on Waste in Food Catering, Potentially Saving G&O

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## Summary

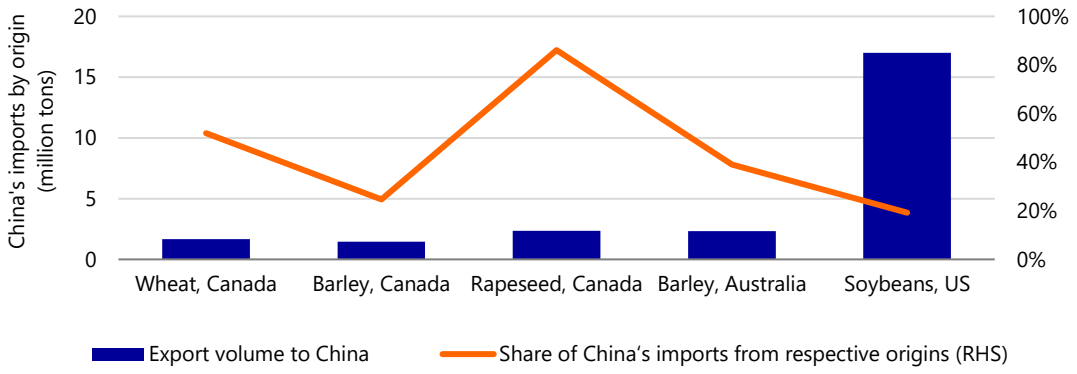
- Ongoing anti-food waste campaigns in China aim to reduce food loss in catering. Although China seems to have no immediate worries about food shortage, but the coronavirus pandemic, the geopolitical turmoil, and the escalating trade tensions with leading exporters have the potential to restrict China's access to edible oil and protein meals. China is highly dependent on these imports, often in the form of oilseeds, which are then domestically processed.
- Based on Rabobank's analysis, eliminating waste in food catering (including restaurants, group dining and food deliveries) could make up to 5% of the nation's soybean imports (5m metric tons) and 6% of the palm oil imports (0.4m metric tons) unnecessary. In addition, 10m metric tons of feed grains, mostly corn, could also be 'saved' this way. As China's corn is experiencing supply shortfalls and depleting stocks, to some extent it could help narrow the deficit and lower import needs.
- Food waste in food catering only represents a small proportion of total food losses. A broader food loss reduction along the food chain will increase food security, reduce environmental impacts and ultimately form a more sustainable food system.

## China Reiterates Aim to Reduce Food Loss Amid Pandemic and Political Conflict

Food security is always a top priority of the Chinese government. The nation is striving to achieve self-sufficiency in staple food grains. Large quantities of wheat and paddy rice are stored in the state reserve, probably equivalent to one-year's need. Yet the Chinese government still emphasizes the urgency of reducing food loss, given the nation's large population to feed and its scarcity in natural resources. After all, waste of food is also wasting water, land, energy and other resources. President Xi's national anti-food waste campaign, targeted at food catering, attracts increasing attention and enhances Chinese citizens' sense of 'food security'.

President Xi's reiteration of food security might also be associated with the coronavirus pandemic, the geopolitical turmoil and the US-China trade tensions. The coronavirus pandemic could jeopardize food security in importing countries, amid port lockdowns and trade restrictions. China heavily depends on imports of oilseeds for its edible oil and protein meal supplies, which could also face strains. In addition, political tensions threaten trade flows and the risk of a further deterioration of the US-China trade relationship should not be ruled out. Trade disputes with Canada and Australia could also be prolonged and escalate further. The US, Canada and Australia are all major agriculture trade partners, exporting grains and oilseeds to China.

**Figure 1: G&O exports to China face uncertainties from trade disputes with Canada, Australia, and the US**




Source: China Customs 2020

Facing increasing uncertainties, the Chinese government is expected to prepare for a theoretical worst-case scenario. On the supply side, China might diversify import origins, boost domestic production and establish higher buffer stocks. Due to continued urbanization, China has limited potential to expand planted acreage. And frequent occurrences of adverse weather, such as drought, flooding, typhoons and early frost, could lead to yield volatility and loss. Thus, reducing food waste on the consumption side becomes one of the solutions for enhancing food security.

## Millions of Metric Tons of Grains and Oilseeds Could Be Saved By Reducing Food Loss

The ongoing anti-food waste campaign mostly targets the food catering channel. Traditionally, in China, hosts tend to over-order food, to show generosity to guests. An average of 11.7% of food served is wasted, based on a study co-authored by the Chinese Academy of Science and the World Wildlife Fund. For business banquets, social gatherings and school canteens, the waste rates even exceed 30%.

A portion of the food waste of dining-out is edible oil and animal protein. In China, food catering accounts for 40% of edible oil consumption. Animal proteins make up between 35% and 65%. White-feather broiler and beef make up an estimated 55% to 65% of food catering, with pork and yellow-feather broiler at 35% to 45%. Using 11.7% as the reference waste rate and standard feed formulas, Rabobank converted the wasted animal protein into feed grains and protein meals, along with the wasted food grains and edible oil.

**Table 1: Food waste in the food catering channel: Calculated direct (food) and indirect (feed for meat production) saving potential for agricultural commodities**

| *Category* | *Subcategory* | *Quantity, million metric tons* |
|---|---|---|
| Staple food grains | Milled rice | 4 |
| | Wheat | 3 |
| Feedstuff | Feed grains (e.g. corn) | 10 |
| | Protein meals | 5 |
| Edible oil | Soy oil | 1 |
| | Palm oil | 0.4 |
| | Other oil | 0.3 |

Note: Energy grains refer to corn and other feed grains; protein meals refer to soymeal, and other protein sources
Source: Rabobank 2020

## What's the Impact of a 'No-Waste Scenario'?

Eliminating food loss in food catering could reduce the use of 5m metric tons of protein meals, of which 80% are soymeal, and 1.7m metric tons is edible oil, of which 60% are soy oil. The savings of soymeal and soy oil would be equal to 5m metric tons of imported soybeans, or lowering 5% of the nation's imports. Meanwhile, roughly 0.4m metric tons of palm oil, or 6% of the annual imports, could be saved.

As for grains, potential savings in food grains will be negligible at 7m metric tons, or less than 3% of annual consumption. Besides, 10m metric tons (5%) of China's feed grain use, mostly corn, could also be spared. As China's corn is experiencing a big deficit and a low inventories, the savings could help narrow the supply-demand gap and lower future import needs to some extent.

Lastly, food waste in food catering only accounts for a small share of China's total food losses. Besides food catering and household consumption, massive food losses also take place in the harvest, storage, transportation, processing and retail stages, requiring a more efficient supply chain. The current campaign advocates a change in the social behaviours relating to frugality, but over time, China's food value chain will need improve and streamline to be more sustainable in both production and consumption patterns, i.e. increased food security, better resource efficiency, alleviating environmental pressures and reducing greenhouse gas emissions.

# Imprint

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