As Asians get rich and healthy, 'smart crops' replace rice on future menus

By Rina Chandran

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TAIPEI, May 21 (Thomson Reuters Foundation) - Lunchtime in Taipei's Ximending district is a test of wills and patience as tourists and locals jostle at restaurants and street stalls to choose from steamed and fried dumplings, flat and thin noodles, stuffed pancakes, grills and desserts.

In this foodie haven, one item makes only an occasional appearance on menus and on plates - rice.

Once a staple of Taiwanese diets, rice consumption per person has fallen more than two-thirds in 50 years, according to the United Nations' Food and Agricultural Organization (FAO), as "smart crops" and "super foods" muscle their way onto plates.

It is the steepest drop in Asia but a trend across the continent as urbanisation, rising incomes, climate change and concerns about health and food supplies drive a push for alternatives for the future such as millets and more protein.

"I ate a lot of rice when I was younger but now I eat more vegetables, fish and meat. It's healthier," said Guan-Po Lin, 24, who moved to Taipei for university.

"People are spending more on food, and they want to eat healthy, and rice is not seen as a healthy choice."

About 90 percent of global rice production and consumption is in Asia, home to 60 percent of the world's population.

Yet, as trends in Taiwan, Japan, South Korea and Hong Kong show, consumption is set to drop significantly as diets change.

Per capita consumption has fallen about 60 percent in Hong Kong since 1961, and by almost half in Japan. In South Korea, it has slid 41 percent since 1978, FAO data showed.

Alongside that the consumption of fish, meat, dairy, fruits and vegetables has risen significantly.

Rice will still be the single most important crop in the region, key in diets and a symbol of Asian culture, but it will not be as dominant in coming years as new foods are snapped up, said David
Dawe, a senior economist at the FAO in Bangkok.

"It is the future for Asia - well-nourished people who can perform better. You cannot get that by filling up on rice; you need more fish, meat, fruits and vegetables," he said.

**RITUAL STATUS**

Rice is said to have first been domesticated in the Yangtze River valley in China more than 10,000 years ago.

In Asia, rice was consumed mostly by the wealthy and did not become as ubiquitous until the Green Revolution of the 1960s, when governments introduced higher yielding seeds and better fertilisers to improve output and feed expanding populations.

In Taiwan, millets were the staple of indigenous and rural people, and had a higher status in ritual ceremonies than rice.

In India, malnutrition is one reason the government is pushing millets which are richer in protein, fibre and micronutrients than rice or wheat, said S.K. Gupta, a principal scientist at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in Hyderabad.

Also millets need less water and can grow in saline soil and withstand warmer climate, crucial factors as temperatures and sea levels rise in South Asia.

"Historically, a large section of the population was eating millets and maize, but when they moved to urban areas, they switched to rice and wheat," Gupta said.

"Consumers can be encouraged to go back to millets if they are more readily available, and farmers will grow more if they get better prices. It's already happening," he told the Thomson Reuters Foundation.

**CRAFT BEERS**

The shift away from rice in wealthier Asian nations is explained by Bennett's Law, which argues that as income increases people spend proportionately less on starchy staples such as rice, FAO's Dawe said.

Rice is regarded as inferior when per capita income reaches $2,364 in Asian nations, according to FAO's estimates.

Changes are already evident in mainland China and some southeast Asian countries, where people are eating a more protein-rich diet with more meat and fish, Dawe said.
In the Philippines, one of the world's biggest importers of rice, the government has considered substitutes such as corn, banana, sweet potato, cassava, taro and adlai - an heirloom grain also known as Job's Tears or Chinese Pearl Barley.

At the other end, food companies and chefs are responding to the demand for healthier diets with millets in bread, pasta, even craft beers.

"It took some time to get people excited about these lesser known, stereotypically inferior grains like ragi (finger millet), jowar (sorghum) and kodo," said Thomas Zacharias, chef partner at The Bombay Canteen, among Asia's top restaurants.

"We showcased them in new and interesting ways that appealed to the current generation, and there's definitely been a shift," said Zacharias, whose barley and jowar salad with a hung curd dressing is a hot favourite of diners in Mumbai.

Marketing helps. Production of quinoa increased by more than 70 percent from 2000 to 2014 in the top growing countries, according to the FAO, because it was sold as a "super food".

SMALLER FOOTPRINT

The FAO promotes rice alternatives as "smart crops" to make them more attractive.

It is also promoting aquaculture - farming shrimp, carp and tilapia alongside rice - to help farmers improve incomes while making fish more cheaply available.

"Asian farmers will not get rich growing rice on a small farm," said Kundhavi Kadiresan, FAO's Asia representative.

"Countries are also starting to take the issues of undernutrition, micronutrient deficiency and obesity seriously. Sticking to rice means that fruits and vegetables are not as easily available and affordable as they could be."

Malnutrition and climate change are also top concerns for rice biologists and breeders, said Rod Wing, a University of Arizona professor who recently completed the genome sequencing of seven wild rice varieties.

"Rice feeds the poorest of the poor, and as long as there's overpopulation and poverty, people are going to be eating rice," said Wing, referring to the fact that 60 percent of the world's hungry are in the Asia Pacific.

"So it's important that we can grow varieties that have a higher nutritional value and a smaller environmental footprint."
For consumers like Lin in Taipei, rice is here to stay.

"We may eat less of it, but for my family, no meal is complete without rice," he said.

(Reporting by Rina Chandran @rinachandran, Editing by Belinda Goldsmith Please credit the Thomson Reuters Foundation, the charitable arm of Thomson Reuters, that covers humanitarian news, women's rights, trafficking, property rights, climate change and resilience. Visit news.trust.org to see more stories.)