Trinidad native wins 2021 World Food Prize

Goes for 1st time to a woman of Asian heritage

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Shakuntala Haraksingh Thilsted on Tuesday became the first woman of Asian heritage to win the World Food Prize, a $250,000 award that recognizes research she conducted establishing the nutritional importance of tiny, commonly found fish.

Her work has improved the diets, health and livelihoods of millions across the world, the Des Moines-based World Food Prize Foundation said. U.S. Secretary of State Antony Blinken, U.S. Agriculture Secretary Tom Vilsack and United Nations Nutrition Chairwoman Nao-ko Yamamoto announced the award in a recorded message.

The Des Moines nonprofit’s annual symposium brings thousands of people to Iowa in October to discuss how to improve global food security and nutrition.

Last year, however, the symposium was held virtually, due to the coronavirus public health emergency.

The foundation said Thilsted was the first to establish that many small fish species commonly eaten across Southeast Asia are an important source of essential micronutrients and fatty acids that improve the absorption of nutrients from plant-based foods. Her work reshaped scientific understanding of the benefits of fish in diets, the foundation said in naming Thilsted this year’s winner.

“I started with the goal of improving the nutrition and health of women and children,” said Thilsted, a Trinidad native who worked with severely malnourished children early in her career. “I believed if you could keep people well-nourished, you would prevent them from getting sick.”

Thilsted, 71, said mothers would tell her they and their families felt stronger when their village had water. “I realized it wasn’t the water that made them feel better. It was the foods that the water brought with them – the fish,” said Thilsted, who is the nutrition and public health global lead at WorldFish, an international research center based in Malaysia.

Thilsted also is among those leading the United Nations’ work to build sustainable and equitable food systems as well as addressing food security and nutrition.

Thilsted worked to bring more fish from the pond to the pot, conducting research that showed small and large fish species could be farmed together in rice field ponds. Her breakthrough helped increased fish consumption and production, transforming the diets and incomes of some of the world’s most vulnerable people in Asia and Africa, the World Food Prize Foundation said.

“Dr. Thilsted figured out how these nutrient-rich small fish can be raised locally and inexpensively,” Blinken said in a statement. “Now, millions of low-income families across many countries, including Bangladesh, Cambodia, India, Nepal, Burma, Zambia, Malawi are eating small fish regularly, dried and fresh ... giving kids and breastfeeding mothers key nutrients that will protect children for a lifetime.”
In Bangladesh, small-holder farmers supply the majority of fish production from the country's 4 million household ponds. In the 1970s, most fish farmers "cleaned" their ponds with pesticides, the World Food Prize Foundation said. "This expensive practice was thought to eliminate competition from the small, lower-yielding native fish species before farmers stocked their ponds with more marketable fish such as carp or tilapia," the group said.

But Thilsted, along with other researchers, found that small fish did not compete with large fish for space or food. Instead, leaving them in place "increased total productivity by as much as five times, as well as enhancing species diversity and nutritional value of the production," the World Food Prize Foundation said.

In 2004, the Bangladesh Ministry of Fisheries and Livestock banned clearing ponds and prohibited the use of pesticides to kill naturally occurring fish. "Thilsted had convinced the leadership of a nation to convert to practices that were not only more economical and nutrition-sensitive, but reduced environmental pressures, habitat loss and health risks in rural communities," the foundation said.

Consumption of fish in the home increased when Thilsted introduced an inexpensive, homemade gill net designed for women to easily harvest mola, a tiny native fish species, in small amounts for daily household use, the group said.

Though mola only accounted for 15% of production by weight, they contributed 54% of the needed vitamin A, 42% of vitamin B12 and a quarter of the calcium and iron in the diet for a family of four, the foundation said.

Building on popular local recipes, Thilsted also "developed original whole dried fish food products, such as fish chutney and fish powder, with four times the nutrient density of fresh fish" that families could easily use, the foundation said.

"Improvements in processing practices also resulted in reduced fish waste and loss and increased incomes for entrepreneurs, most of them women, who produced these value-added foods," the foundation said.

Thilsted encourages "pond polyculture" together with growing orange sweet potatoes and vegetables alongside the ponds as a practical way for rice farmers to diversify their farms and diets.

"This award is an important recognition of the essential but often overlooked role of fish and aquatic food systems in agricultural research for development," Thilsted said in a statement.

In Bangladesh, Thilsted's fish-based approach is now recognized as more cost-effective at supplying nutrients than vegetable gardening, prompting the government to promote pond polyculture as a means of tackling malnutrition, the foundation said.

The approach has helped Bangladesh become the fifth-largest aquaculture producer in the world, supporting 18 million people and increasing productivity threefold since 2000, the group said.

Thilsted is the seventh woman awarded the World Food Prize, said Foundation President Barbara Stinson. Thilsted "continues to stand at the forefront of innovation, pushing the boundaries of nutrition-sensitive food systems, truly changing the conversation from not just feeding populations but nourishing them," Stinson said in a statement.

"As our global population grows, we will need diverse sources of low-emission, high-nutrition foods like aquaculture," Vilsack, Iowa's former governor,
said in a statement. “It is going to be crucial in feeding the world while reducing our impact on the climate. Dr. Thilsted has been a leader in this effort and certainly a worthy recipient of the World Food Prize this year.”

Thilsted is descended from a family of Indian Hindu immigrants to Trinidad and Tobago, and she began her career as the first and only woman stationed in Tobago’s Ministry of Agriculture, Lands and Fisheries.

Later, while working at the International Centre for Diarrhoeal Disease Research in Bangladesh, Thilsted established a kitchen garden at the malnutrition rehabilitation center where more than 6,000 children were admitted every year. Along with an outreach program that worked with families and communities of discharged children to help improve diets, readmittance rates fell by two-thirds, the foundation said.

Shakuntala Haraksingh Thilsted.