



## MARINE FISHERIES AND FOOD SECURITY IN CHINA

A SCIENTIFIC COLLABORATION SUPPORTED BY THE LENFEST OCEAN PROGRAM

China has the largest marine fisheries in the world. It is also the largest consumer of fishmeal, a product used in both fish farming and pig production, two other industries in which China leads the world. The course China sets for its fisheries and aquaculture will have an enormous effect on marine ecosystems and the world food supply.

In 2014, the Lenfest Ocean Program and Dr. Roz Naylor, Director of Stanford University's Center on Food Security and the Environment (FSE) launched a project to build collaboration between Western and Chinese scientists on fisheries issues.

The project began with a symposium in Beijing in May 2014 attended by 30 scientists. Each session was chaired by one Chinese scientist and one Western scientist. One topic of particular interest was the overarching goal of managing China's wild fisheries. Another was the widespread lack of enforcement of the national fisheries laws and regulations, which Chinese scientists identified as a concern.

In January 2015, Naylor and colleagues published a paper in *Science* assessing the effect of China's aquaculture on wild fisheries. It reports that aquaculture's demand for fishmeal is destined to diminish wild stocks worldwide unless it is mitigated. One option for this is to recycle fish-processing wastes as feeds. (Co-authors of the paper included symposium participants Ling Cao, Duncan Leadbitter, and Wenbo Zhang.)

In March 2015, the project will convene a follow-up symposium in Shanghai to discuss publications connecting fisheries, aquaculture, food security, and marine ecosystems.

**" SEAFOOD PLAYS A VITAL ROLE IN FOOD SECURITY FOR CHINA AND THE WORLD, AND THE DEMAND IS GROWING. AS A LEADING PRODUCER AND CONSUMER OF SEAFOOD, CHINA WILL INCREASINGLY DEPEND ON MARINE RESOURCES AS A CRITICAL SOURCE OF PROTEIN AND NUTRITION."**