

# TRAINING CAMBODIAN FISHERIES STUDENTS AND FACULTY ON AQUACULTURE TO BUILD CAPACITY

By Sina Nov

For students and Faculty of Fisheries of Cambodia's Royal University of Agriculture, the country's growing aquaculture sector is an exciting frontier for research. Advancing aquaculture production in the country will require innovative approaches and technologies, which the university will play a key role in developing and promoting. Soth Vithun, a PhD student and member of the Faculty of Fisheries, was excited about the opportunity to participate in aquaculture trainings organized by the Feed the Future Innovation Lab for Fish project "Development of the Bighead Catfish (*Clarias macrocephalus*) Culture for Sustainable Aquaculture in Cambodia."

"I wanted a deeper understanding about feed formulation and feed production," Vithun said. "The training provided me with the tools to help me in conducting my research on diet formulation and development for bighead catfish."

Vithun joined the trainings and learned more about how to use a nutritional specification and feed ingredient database search engine online. Now, he can conveniently find information regarding the nutritional requirements for certain species of fish as well as information on feed formulation based on species. Before, he had to spend hours searching online for the composition of an ingredient.

The Bighead Catfish Culture project is working to develop and apply new technologies on formulated sustainable feeds for bighead catfish aquaculture with the goals of helping increase income, promoting gender equality and empower youth by working with women and youth producers, providing nutritious food, and strengthening resilience in Cambodia. In addition, the project has the aim of building the capacity of local institutions to expand bighead catfish farming.

This year, the project conducted two trainings, the first on formulating and preparing aquaculture feeds and the second on managing a research facility to build the capacity of local institutions. The trainings also included how to formulate carp diets, choose the right type of feed, and prepare experimental feed.

"Producing quality feed requires a lot of techniques, and I wanted to improve my knowledge and skills to be able to solve feed production and packaging challenges in Cambodia," Vithun said. "I learned a great deal and look forward to more trainings related to this topic."

The trainings have allowed participants to improve their knowledge of aquaculture, Recirculating Aquaculture System (RAS) processes, mechanical filters, biological filters, as well as areas where RAS may be utilized and what to consider to build the system. Recirculating Aquaculture Systems purify culture water, with the help of mechanical filters and biological filters, so it can be continually reused to provide an efficient and sustainable



Students and Faculty of Fisheries members at the Royal University of Agriculture participated in the virtual training together to have access to Wi-Fi while also being able to collaborate with those who could not join in person. (Photo by Prum Panhavuth)

## PROJECT TEAM

### Lead PI

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solution to aquaculture production. It is important for the students and members of the Faculty of Fisheries to learn about RAS processes, which will be applied within the research of the Bighead Catfish Culture project.

Another training participant, Sohor Hot, an aquaculture student from the Faculty of Fisheries at the Royal University of Agriculture, mentioned that the topics included in the trainings were new for him.

"I understand a lot more about feed formulation, how to process feed, and RAS setup and its benefits. Additionally, I learned about the aquaculture system," Hot said. "Out of all of the sessions, my favorite was how to formulate carp diet because I am personally interested in feed production and the process the feed goes through to get the final product."

Hot and other students would like to see more trainings like this available in the future.

"It is very beneficial for students and faculty members," Hot said. "We still need more knowledge and new techniques to develop the aquaculture sector in Cambodia."

The trainings provided through the Bighead Catfish Culture project are strengthening the individuals' and the institutional capacity regarding aquaculture, especially for feed formulation and bighead catfish farming. The development of the students' and faculty members' skills in this area will prepare them to be future experts, which will not only help them to be successful in their career but will be a great asset in developing Cambodia's aquaculture sector.

## ABOUT THE FISH INNOVATION LAB

The Fish Innovation Lab supports the United States Agency for International Development's agricultural research and capacity building work under Feed the Future, the U.S. Government's global hunger and food security initiative. Mississippi State University is the program's management entity. The University of Rhode Island, Texas State University, Washington University in St. Louis, and RTI International serve as management partners.

[www.feedthefuture.gov](http://www.feedthefuture.gov)  
[www.fishinnovationlab.msstate.edu](http://www.fishinnovationlab.msstate.edu)