

NUTRITION AND FOOD SAFETY TRAINING MAKE A DIFFERENCE FOR NIGERIAN FISH PROCESSORS

By Joseph Nkem Nuntah and Grace Adegoye

For Nigerian fish processor Blessing Bosin, training on safe fish handling and processing has made a major difference in how she runs her business.

Fish processing and marketing provide substantial income for many in the coastal areas of Delta State, Nigeria. This sector is dominated by traditional practices of fish handling, processing, preservation, and storage, which often result in poor quality products that, in some cases, are not safe to consume or have reduced nutrient content.

After attending the training sessions organized by the Nourishing Nations team as part of the Feed the Future Innovation Lab for Fish, Bosin improved her fish processing setup by re-designing her processing environment with an adequate water supply channel. She then acquired a modified smoking kiln that allows for easy control of temperature and smoking intensity, and she now has a stainless-steel table for fish handling.



Blessing Bosin, from Delta State, improved her fish processing setup with a modified smoking kiln and stainless-steel table. (Photo by Joseph Nkem Nuntah, Nourishing Nations' project coordinator)

"I have better quality processed fish products with an appealing color and aroma, without the smell of heavy smoke," Bosin said. "This has led to an increase in my customer base. Also, due to increased product quality, many of my customers are willing to wait for my processed products to be ready rather than go elsewhere."

Bosin was not the only participant who made improvements in their fish-processing business after attending the Nourishing Nations' training sessions in August 2021. A total of 122 fish processors, 97 women and 25 men, from the three senatorial districts of Delta State participated in the training program on nutrition education, safe fish handling, and processing. In a survey of participants, the vast majority rated the training as useful and relevant to their businesses.

Osadebay Obianuju, the director of fisheries in the Delta State Ministry of Agriculture and Natural Resources, said, "The Nourishing Nations' training was educational and was a timely intervention that is sure to help fish processors in the state improve on the quality and safety of their processed fish products."

The training schedule, structured in seven modules by the Nourishing Nations team, was delivered in a train-the-trainers format, so the trained participants will further pass on the knowledge gained about safe fish processing to other fish processors in their communities. The sessions were facilitated by Grace Adegoye, PhD nutrition candidate at Mississippi State University, alongside co-facilitators Henrietta Ene-Obong, the project's co-principal investigator from University of Calabar; Joseph Nkem Nuntah, the project's coordinator from University of Benin in Nigeria; Benson Echie, Delta State nutrition officer; and Charles Mordi, director of fisheries at Delta State Agriculture and Rural Development Agency.

Another highlight of the training covered nutritional value of fish, which is rich in vitamins and omega-3 fatty acids and is part of a healthy diet.

PROJECT TEAM

Lead PI

Lauren Pincus, PhD
WorldFish

Nigeria Co-PI

Henrietta Ene-Obong, PhD
University of Calabar, Cross
River State

U.S. PI

Terezie Tolar-Peterson,
EdD, MS, RDN, LDN, FAND
Mississippi State University

One participant in the Delta North training session, Charles Eze, said, “The nutrition education has influenced my family's eating habits tremendously. We are now striving to have a healthier diet.”

Following the nutrition training, which highlighted fish value-added products (i.e., fish oil, fishmeal, fish paste, fish eggs, and fish powder), Esther Soweperegha noted that she is interested in venturing into the production of fish powder to expand her business and income. She said, “I would love to have further training from the Nourishing Nations project on fish value-added products to help me get involved in the business.”

An additional impact from the training in Delta State is that some trained fish processors, led by Comfort Claymer, have organized themselves into a group with the collective goal of improving the quality of their processed fish products. The group is optimistic that with an adequate plan they could evolve into a fish processors' cooperative society, which was encouraged during the training sessions.

The Nourishing Nations project has proposed the next phase of training in February 2022 to focus on further education around new processing technologies, including solar drying equipment, and developing new fish-based products. The training will assist fish processors with developing a business plan and mobilizing the resources needed to enact these changes, such as financial resources and support from other training participants.

“In the upcoming training sessions, fish processors will discuss how to incorporate the nutrition information they previously learned into a marketing strategy they can use when selling their products,” said Lauren Pincus, lead principal investigator of the project. “Additionally, they will consider how to target their products to pregnant women and women with young children in order to sell more and improve the diets of this vulnerable population.”

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
www.fishinnovationlab.msstate.edu