

A COMMUNITY HEALTH WORKER BECOMES A FISHFIRST! ZAMBIA CHAMPION AND LOCAL CATALYST FOR CHANGE

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“Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed, it is the only thing that ever has.” — Margaret Mead

Zambia’s Lake Kariba is the world’s largest artificial lake by volume. Fishing, processing, and selling fish are major sources of income, and most households in the Lake Kariba region are directly involved in smallscale capture fishery activities. Lake Kariba is also a primary source of kapenta (*Limnothrissa miodon* and *Stolothrissa tanganicae*), nutrient-dense small, pelagic fish popular throughout Zambia, the Democratic Republic of Congo, Malawi, and Zimbabwe. Like other small pelagics around the world, kapenta are typically consumed whole and eaten fresh, sun-dried, or dried and ground into a fine powder and added to traditional dishes. However, it is noteworthy that many local fishing families at Lake Kariba do not regularly consume kapenta or other locally sourced small pelagics.



In the red skirt, Betty Muleya is helping with the cooking demonstrations. (Photo by Agness Chileya)

In 2022, the FishFirst! Zambia team returned to Lake Kariba to implement the second phase of their research, which focused on providing nutrition training, conducting cooking demonstrations, and implementing sensory panels to evaluate the acceptability of four traditional Zambian dishes fortified with ComFA+Fish. This powder is a nutritional supplement with the primary ingredient being locally sourced small pelagics, which are dried and ground into a fine powder. ComFA+Fish also includes locally sourced staples such as groundnut powder, orange-fleshed sweet potato powder, and fresh or dried pumpkin leaves.

For the cooking demonstrations, the team prepared four dishes on-site using ComFA+Fish to highlight the ease of using the fish powder to fortify traditional Zambian dishes. For the sensory panel, there were 42 mothers recruited from fishing villages in three districts in the Southern Province. These mothers evaluated acceptability of the four ComFA+Fish dishes and whether their young children (ages 6-23 months) found ComFA+Fish Complementary Maize Porridge acceptable.

Among these participants was Betty Muleya, a community health worker in Sinazongwe District. Muleya’s involvement with FishFirst! Zambia began in 2021 when she contributed to recruitment efforts during implementation of a survey to explore post-harvest fish loss, food security, and dietary diversity. Muleya was especially helpful in recruiting participants because—as a trusted community health worker—she regularly interacts with mothers on issues pertaining to their and their children’s health.

During the FishFirst! Zambia training, mothers learned about child malnutrition (e.g., stunting), the importance of a diverse diet of nutrient-rich foods, and recommended amounts of food to offer young children transitioning

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from exclusive breastfeeding to complementary feeding. Given the importance of Lake Kariba as a source of kapenta, mothers also learned that kapenta is a nutritional powerhouse that can provide essential minerals, fatty acids, and vitamins important for combatting stunting and promoting children's growth and brain development.

Muleya took an active role in the FishFirst! Zambia activities by learning how to make the ComFA+Fish dishes and assisting in the on-site preparations.

She noted that, "The children ate the porridge well, and the mothers liked the various fish-based dishes prepared in different tasty ways."

At the end of the two-days of activities, Muleya explained that she appreciated the knowledge and skills she and the other participants had acquired and noted that mothers who participated continued to incorporate

kapenta into their household's daily meals.

"We learned how dried fish can be ground into fine powder and combined with a number of other local foods available in our communities," Muleya said. "Such diets should help our children to grow healthy, tall, and not stunted. Here in Zambia, the problem of stunting is prevalent and of great concern, which is unfortunate given that water bodies with plenty of fish surround our communities."

Muleya also led the women from her community in creating an action plan to implement their training as soon as they returned home.

"We will engage the village heads and other community leaders and inform them on what we have learned through FishFirst!" she said. "We will seek their approval to have more trainings for women and caregivers who did not have the opportunity to attend the training. That way, more families will know about the nutritional benefits of fish consumption as well as other nutrition topics. We want this message to spread to every household in our community."

After returning home, Muleya received approval from her community's health clinic to spread the knowledge she gained. To date, she has facilitated talks at five clinics for lactating mothers on the benefits of fish consumption. Currently, Muleya and other women are mobilizing resources to conduct another training in their community. These experiences demonstrate how knowledge transfer and capacity development through simple technologies are well-positioned for uptake among communities, particularly when championed by a catalyst for change such as Muleya.

"I would like this knowledge to spread," she said, "because I know the benefits that it has on the well-being of our children, mothers, and households."

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
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