Topics at the nexus of climate change, fisheries, and blue foods

A webinar series highlighting the impact of climate change on fisheries, aquaculture, and the communities who depend on them

September 2025: The opportunities in aquaculture to support resilient and sustainable blue foods

Presentation 1: Understanding the Interplay Between Aquaculture, Fisheries, and Trade

Overharvesting wild marine and freshwater species in African countries has caused significant declines in stocks, reducing wild capture fisheries used for food and nutritional security. This has increased reliance on imported aquatic foods and aquaculture. However, this dependence often neglects the need to sustain wild fisheries, especially in regions where fish is not just a food for hunger but a crucial source of nutrients, particularly in Africa, where it is a key part of the diet. This study investigates the relationship between aquaculture, fisheries, and trade in all coastal nations in Africa and those around Lake Victoria. It looks at how each source of aquatic foods affects food and nutritional security. Our findings highlight the need for balanced policies that promote sustainable aquaculture, conserve wild stocks, and regulate trade to prioritize local food and nutrition needs.

Webinar Presenter: **Temiloluwa Akinyemi** is a dedicated research analyst and policy expert specializing in sustainable aquaculture, fisheries management, balanced trade policy, and coastal governance. She recently earned her Master of Science in Coastal Science and Policy from the University of California, Santa Cruz. This complements her previous education, which includes a Master of Philosophy in Fisheries Science from the University of Cape Coast in Ghana and a bachelor's degree in Aquaculture and Fisheries Management from the Federal University of Agriculture in Nigeria. Temi has led interdisciplinary, data-driven projects across Africa and the United States. She currently works at the Monterey Bay Aquarium with the Global Ocean Conservation Team, working on research that advances the role of blue foods in addressing food and nutritional challenges.

Presentation 2: Future of Fish Feed (F3) effort

The F3 Program was developed to reduce or eliminate the need to harvest marine forage fish for fish meal and fish oil, or krill, to be used in animal feed. F3 is focused on aquaculture feeds as this industry is currently the biggest consumer of these products. There are three main focus areas of the program; 1) Challenges, 2) Meetings and Webinars, 3) Research/Demonstration trials. Each area will be discussed as well as future and ongoing projects.

Webinar Presenter: **Rick (Frederic) Barrows** is founder of Aquatic Feed Technologies a consulting company focused on the development of sustainable aquaculture feeds with clients ranging from fish farms, feed manufacturers, and feed ingredient suppliers. He also serves as Chief Scientific Officer of the Future of Fish Feed (F3) and Feed Innovation Network, a marine conservation organization focusing on the development of aquaculture feeds that do not rely on marine harvested ingredients. He is also co-founder of Keys Feeds LLC, a company producing feeds specifically for marine baitfish. Prior to this he served for 13 years as Lead Scientist and Nutritionist for the Trout Grains Project of the Agricultural Research Service/USDA. His research focused on the development of fishmeal and fish oil free diets for trout and other species. Prior to this he worked for the U.S. Fish and Wildlife Service developing feeds for a variety of fish species for recreation, food and threatened and endangered species with feeds for all life stages. During the last 40+

years he has authored or coauthored approximately 170 peer-reviewed publications and several book chapters.

This webinar series is jointly hosted by the UN Ocean Decade Programs Blue Food Futures, Fisheries Strategies for Changing Oceans and Resilient Ecosystems (FishSCORE), Sustainability, Predictability, and Resilience of Marine Ecosystems (SUPREME), Sustainability of Marine Ecosystems through Global Knowledge Networks (SmartNet), and Fisheries and Marine Ecosystem Model Intercomparison Project (FishMIP) and endorsed project Basin Scale Events to Coastal Impacts (BECI). This webinar series highlights current efforts and challenges at the climate-fisheries nexus. Presentations and discussions will range from data-driven efforts to better understand oceanographic and biological changes affecting fisheries, to how the results can be used to inform fisheries management, aquaculture, and sustainable food decisions, to the many ways people and broader communities are being impacted by and adapting to changes in marine ecosystems and marine resource use.