Food and Agriculture Organization of the United Nations



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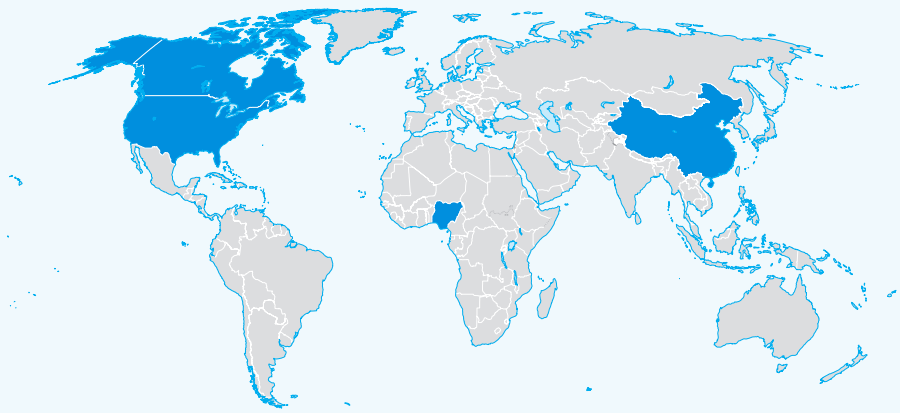
# Strengthening food security through innovative aquaculture management

Joining hands in partnership since 2010, the Food and Agriculture Organization of the United Nations (FAO) and Mississippi State University (MSU) are collaborating to exchange resources, expertise, experience and knowledge to improve food and nutrition security and alleviate poverty through sustainable aquaculture development efforts.

**MAIN AREAS OF ACTIVITIES:**

- Capacity development and management enhancement in animal and veterinary public health, plant health, fish health, food safety, and nutrition programmes.

■ Collaborating Countries



Source: United Nations Map No. 4170 Rev. 18.1, February 2020

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

## PARTNERSHIP MILESTONES

| | |
|---|---|
| **2010** | Partnership established |
| **2014** | Joint Declaration recognizing MSU as a Center of Knowledge and member of the Global Aquaculture Advancement Partnership |
| **2018** | MSU proposed as FAO Reference Center on Aquaculture Biosecurity and Antimicrobial Resistance |
| **2019** | FAO and MSU sign agreement to create internship program |

## CONTRIBUTING TO



# KEY RESULTS

## 01 Combatting antimicrobial resistance

- Knowledge exchanges between the two organizations, with MSU experts participating in FAO projects and helping to strengthen capacities, policies, and national action plans. An expert from MSU is currently involved in the FAO Aquatic Antimicrobial Resistance (AMR) Project, which works to ensure prudent and responsible use of antimicrobials in aquaculture. Another MSU scientist serves as a member of the FAO Good Emergency Management Practices (GEMP) technical working group.
- Awareness-raising, through joint events, help to draw attention to topics which may have serious economic, security, trade or public health implications. FAO and MSU have jointly sponsored U.S. Congressional briefings, including most recently one on *Aquaculture Biosecurity: the Invisible Threat of Antimicrobial resistance*.

## 02 Innovations for food security

- Knowledge exchanges: Senior representatives from both organizations have delivered seminars, with former FAO Deputy Director-General Dan Gustafson speaking at MSU on FAO's global programs, and MSU President Mark Keenum presenting the university's work on innovations to solve hunger at a seminar at FAO.
- Awareness-raising: the FAO-MSU partnership has drawn attention to Blue Growth (the long term strategy to support sustainable marine and maritime growth) through workshops and presentations, including the U.S. Congressional briefing on "Blue Growth: Future of Fish as a Significant Food Source".

## 03 Improving aquaculture biosecurity

- **Research initiatives**: FAO and MSU have brought together international experts to collaborate on research on emerging aquatic animal diseases
- **Toolkits**: The Progressive Management Pathway for improving Aquaculture Biosecurity (PMP/AB) provides guidance and assessment tools needed to monitor biosecurity at the farm, regional, and national levels.
- **Methodology**: in the context of a workshop organized by the partnership, experts from the United States of America, China and Canada worked together with technical colleagues from other countries to develop a preliminary methodology for measuring socio-economic impact of diseases in after aquaculture.

## 04 Forming the next generation of food security leaders

- The joint FAO-MSU internship program, created in 2019, aims to attract MSU's talented young women and men to link their new perspectives, innovative ideas and latest research experience to FAO's technical work. The programme further allows interns the opportunity to gain first-hand exposure of working in the real world and for practical application their skills, learning and theoretical knowledge.




# AREAS OF COLLABORATION

**FAO and Mississippi State University work in partnership at a global level to develop capacities and enhance management in the areas of animal and veterinary public health, plant health, fish health, food safety and nutrition programmes.**

# ABOUT MISSISSIPPI STATE UNIVERSITY

**Founded in 1878, Mississippi State University (MSU) is a public university that offers more than 175 programmes leading to a baccalaureate, master's or doctoral degree. The university contains eight academic colleges, including programmes dedicated to Agriculture and Life Sciences, Forest Resources, and Veterinary Medicine.**

# LOOKING FORWARD

Feeding the future…with fish: MSU manages the Feed the Future Innovation Lab for Fish, which aims to reduce poverty and improve nutrition, food security, and livelihoods in developing countries by supporting the sustainable development of aquaculture and fisheries systems. Funded by the U.S. Agency for International Development (USAID), the lab supports and links research partners around the globe to identify, develop, and scale-up promising methodologies and technologies for local fish farming systems, and to intensify and diversify major production systems where the poor and undernourished are concentrated. FAO is an implementing partner who will lead a project on integrated fish-rice farming in Nigeria. FAO scientist Dr. Melba Reantaso serves on the External Advisory Board for the Fish Innovation Lab. "Responsible Management of Bacterial Diseases in Aquaculture" technical publication co-written by FAO, MSU and other global experts (expected for publication in 2020) to raise capacities and awareness on sustainable and responsible aquaculture to improve human and environmental health.

## CONTACT

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