



# WorldFish in Bangladesh

Healthy People. Healthy Planet. Shared Prosperity.



## Country Profile

Bangladesh is rich in aquatic resources. The country has 0.84 million ha of inland closed waters, such as ponds, seasonal waterbodies and shrimp and prawn *ghers* (a type of integrated aquaculture), and 3.86 million ha inland open waters, including rivers and estuaries, the Sundarbans, Kaptai lake and floodplains. It also has 710 km of coastal belt and a 70,000 km<sup>2</sup> Exclusive Economic Zone for fishing at sea.

Aquatic food is central to the diet of the Bangladeshi people, as fish is the most consumed animal-source protein. Bangladesh's aquatic food production system also plays a key role in achieving food and nutrition security, as well as improving the country's economic, social and environmental sustainability and climate resilience. In 2022–2023, total aquatic food production in Bangladesh was 4.9 million metric tons. Bangladesh is looking to double the production within 10 to 15 years.

WorldFish has been collaborating with partners in Bangladesh since 1987 to create a more productive fisheries and aquaculture sector that contributes to diversified and resilient rural livelihoods and promotes food and nutrition security through research-driven solutions.

Current efforts to achieve these goals have two major focuses. First, to develop a Bangladesh Strategy on aquatic food production for 10 years that follows the WorldFish Global Strategy (<https://worldfishcenter.org/strategy-2030>) and aligns with the goals of the Government of Bangladesh for the sustainable promotion of resilient small-scale fisheries and sustainable aquaculture. The strategy integrates four major themes:

## Where We Work



## FAST FACTS

- **24.75 kg** of fish per person per year is consumed
- Fish accounts for **60 percent** of animal source protein intake in the country.
- **18.2 million** people are employed in fisheries and aquaculture
- **36 million** people live less than **1 meter** above high tide level





### Technology

The use of appropriate, adaptive and innovative advanced technologies.



### Climate resilience

Supporting biodiversity and overcoming the challenges caused by climate change in aquatic food production.



### Nutrition

The production of aquatic foods is useful to increase the household consumption of safe and nutritious foods.



### Gender equity

Allowing participants, including women, to actively engage and adopt practices to improve production and income, with equity in access and benefit sharing.

The second major focus is to provide policy support to the Government in revising the National Fisheries Policy 1998. WorldFish has been working with the Department of Fisheries and other stakeholders to conduct policy dialogues to co-create evidence-based policy proposals to enable sustainable aquatic food production and ensure resilient aquatic food systems for the country. These will feed into the revised policy, which will help accelerate the expansion of aquatic food production in Bangladesh through sustainable aquaculture and resilient small-scale fisheries.

## Enabling impact

WorldFish contributes to aquatic food production in Bangladesh in two major ways: the promotion of small-scale fisheries, and the promotion of sustainable aquaculture.

### Promoting small-scale fisheries

WorldFish promotes **nutrition-sensitive, environment-friendly fisheries using community-based fisheries management approach**. Through the **Small Fish and Nutrition Project**, 500 households managing Soma Nadi Jalmahal, a community-based organization in Sunamganj District, increased fish production. The project has also helped improve the nutrition of pregnant women, lactating mothers and young children of poor fishers' households.

**ECOFISH II**, a successor to the USAID-funded ECOFISH-BD Project, uses **ecosystem-based fisheries management** to increase the production of hilsa, the national fish of Bangladesh. Running until the end of 2024, the project is improving the social and ecological resilience of coastal fishing communities in the Meghna River ecosystem, the Nijhum Dwip Marine Protected Area in Noakhali District and Naf River Marine Protected Area in Cox's Bazar District. It does this by developing appropriate technologies, environmentally friendly and climate-smart seaweed production, and green mussel farming in marine environments.

ECOFISH II has already improved more than **300,000 hectares** of fisheries, established adaptive co-management among fishing communities, conserved biodiversity and boosted ecosystem health – ultimately benefiting more than **13,000 households**. It continues to provide diversified livelihood support to empower women fishers and initiate women's income and nutrition groups.

WorldFish has also developed community-based fisheries and aquaculture (CBFA), which improves the productivity, biodiversity, income, nutrition, employment and livelihoods of people using seasonal floodplains in Bangladesh. One major project to use CBFA was the **Floodplain Fisheries and Aquaculture in Bangladesh** project, which ran from 2012 to 2014. This project promoted the good governance, enhanced stocking and conservation of small indigenous fish in seasonal floodplains. It resulted in a significant improvement in the productivity, species diversity, income, nutrition and livelihoods of poor households.

### Promoting sustainable aquaculture

**Feed the Future Bangladesh Aquaculture and Nutrition Activity (BANA)** was a USAID-funded project of WorldFish that ran from 2018 to 2023. By applying a market system approach to sustainable aquaculture growth, BANA enhanced the productivity of aquaculture systems, strengthened market systems, stimulated private-sector investment and fostered awareness and adoption of nutrition-related behaviors, with a specific emphasis on opportunities for women and youth. The project reached almost **385,000 people** (25 percent women and youth) with aquaculture information and services, and farmers applied improved management practices across almost **90,000 ha**.

**SUCHANA** was a multisectoral nutrition program that ran from 2015 to 2023. Funded by UK Aid and the European Union, and led by Save the Children and WorldFish, it aimed to prevent chronic malnutrition in children in **the first 1000 days** of life by addressing the multiple causes of malnutrition among poverty-stricken families and communities. SUCHANA reached more than **235,500 households** from **20 Upazilas** (Sub-districts) in Sylhet and Moulvibazar districts. By helping communities grow fish and vegetables at the homestead level, the project also boosted the nutritional status of participating regions.





**Introducing Circularity Through Climate-Smart Aquaculture in Bangladesh (Artemia4Bangladesh)** ran from 2020 to 2023. Funded by the European Union, the project introduced climate-resilient *Artemia*, also known as brine shrimp, to **170 salt farms** in the Cox's Bazaar region and trained **more than 2000 farmers** on *Artemia* pond culture, improved traditional aquaculture in salt fields, and shrimp nursing and grow out. By supporting women in salt farming households to participate in homestead aquaculture and vegetable gardening, Artemia4Bangladesh also provided alternative sources of income and nutrition, increasing salt farmers' incomes by as much as **400 percent** and enhancing their capacity to adapt to climate change.

## Moving forward

Through the **CGIAR Research Initiative on Asian Mega-Deltas**, WorldFish has been addressing the challenges of climate change in Bangladesh by building nutrition-sensitive and climate-resilient agrifood systems using cross-sectoral policy analysis and financial and technical capacity building. By developing a network of inclusive "Learning Alliances" – a diverse group of individuals committed to improving knowledge on a specific topic – the initiative aims to diversify agrifood systems in deltas, accelerate adaptation by **150,000 smallholders** and improve the management of **100,000 ha** of land.

The **Asia–Africa BlueTech Superhighway (AABS)** was launched in 2023 and is led by WorldFish. AABS will harness the power of **South–South collaboration** to **improve the sustainability, adaptive capacities, climate resilience and prosperity of vulnerable coastal communities** in five countries across Africa and Asia, including Bangladesh. Implemented in two phases until 2030, AABS will transform the lives of hundreds of thousands of people working across aquatic food systems, particularly women and youth.

## Major Challenges

- Production is not keeping pace with population growth
- Reduction of fish production area due to construction of houses in wetlands
- Overfishing
- Adverse effect of climate change
- Risk of increasing salinity for sea level rise
- Water pollution

### Scientific Excellence in Bangladesh



**547** publications



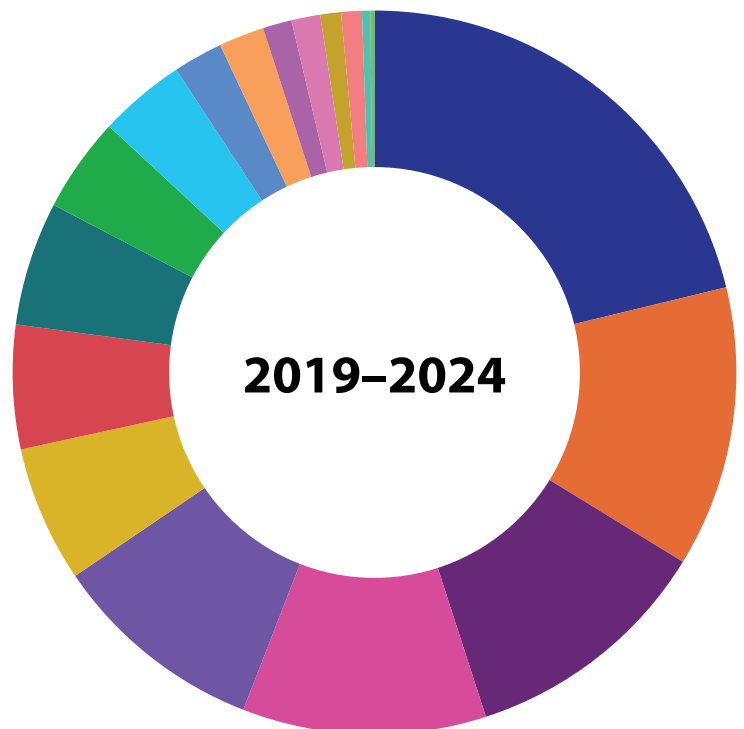
**31** project leaders



**22** types of publications

#### Type

- Donor Report (115)
- Poster (68)
- Report (61)
- Dataset (59)
- Journal Article (52)
- Brief (33)
- Manual (30)
- Video (30)
- Brochure (23)
- Blog (21)
- Training Material (12)
- Presentation (11)
- News Item/Press Item (7)
- Working Paper (7)
- Conference Paper (5)
- Other (5)
- Book Chapter (2)
- Map (1)



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## Partners

### Government

- Ministry of Fisheries and Livestock
- Department of Fisheries
- Bangladesh Fisheries Research Institute
- Bangladesh Fisheries Development Corporation
- Bangladesh Small and Cottage Industries Corporation
- Department of Public Health
- Bangladesh Livestock Research Institute

### NGO, Private sector and financial institutions

- BRAC
- Coast Trust
- FishTech
- Shushilan
- Save the Children
- Center for Natural Resource Studies
- Thengamara Mohila Sabuj Sangha
- Advanced Chemical Industries Limited
- Bank Asia

### Universities

- Chattogram Veterinary and Animal Science University, Chattogram, Bangladesh
- Bangladesh Agricultural University, Mymensingh, Bangladesh
- Can Tho University, Vietnam
- Noakhali Science and Technology University, Noakhali, Bangladesh
- Khulna University, Khulna, Bangladesh
- Sylhet Agricultural University, Sylhet, Bangladesh
- Sher-e-Bangla Agricultural University, Dhaka, Bangladesh
- Patuakhali Science and Technology University, Patuakhali, Bangladesh
- Shahjalal University of Science and Technology, Sylhet, Bangladesh
- University of Hohenheim, Germany

### Donors

- United States Agency for International Development
- European Union
- Foreign, Commonwealth & Development Office, United Kingdom
- Deutsche Gesellschaft für Internationale Zusammenarbeit
- International Fund for Agricultural Development
- Bill & Melinda Gates Foundation
- Japan International Cooperation Agency

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## About WorldFish

WorldFish is a leading international research organization working to transform aquatic food systems to reduce hunger, malnutrition and poverty. It collaborates with international, regional and national partners to co-develop and deliver scientific innovations, evidence for policy, and knowledge to enable equitable and inclusive impact for millions who depend on fish for their livelihoods. As a member of CGIAR, WorldFish contributes to building a food- and nutrition-secure future and restoring natural resources. Headquartered in Penang, Malaysia, with country offices across Africa, Asia and the Pacific, WorldFish strives to create resilient and inclusive food systems for shared prosperity. Learn more at [www.worldfishcenter.org](http://www.worldfishcenter.org)

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