



# WorldFish in Myanmar

Healthy People. Healthy Planet. Shared Prosperity.



## Country Profile

- Fish provides more than **60 percent** of animal-source food for the people of Myanmar
- More than **50 percent** of the population is living in poverty, with the highest rates in rural areas
- Myanmar's population consumes around **45 kg** of fish per person per year, more than double the global average of **20 kg**

Close to half of Myanmar's population is dependent on farming for employment, producing crops, livestock and aquaculture. This means the country is particularly vulnerable to unpredictable and extreme weather, which is exacerbated by climate change. The fisheries sector employs **3.2 million people**, with inland and marine fisheries making up nearly **65 percent** of fish production. Climate change impacts the fisheries sector and fish production through increased water temperature, periodic flood and drought cycles, river erosion and storm surges. Although aquaculture has grown significantly in the past decade and is responsible for **35 percent** of annual fish production, Myanmar has seen a decline in capture, inland, inshore and offshore fisheries.

## Where We Work



## FAST FACTS

- WorldFish is dedicated to improving Myanmar's food basket through integrated rice-fish production
- In 2020, Myanmar produced **3 million metric tons of fish worth USD 9.8 billion**
- The hilsa industry is worth **USD 1 billion per year**, providing employment for **1.6 million people**
- **10,000 people** were reached through multiple communication platforms to increase awareness of the importance of fish-based products for improved nutrition
- **9.6 million** juvenile fish have been distributed to aquaculture farmers







*Fish is very important to my family because it is not only our source of livelihood but also a source of vital nutrients that help us accomplish our daily tasks.*

*– Farmer  
Myanmar*



## WorldFish's Support

WorldFish and our partners have been working in Myanmar since 2014, with a focus on integrating our research with local organizations and aligning with national strategies. Our goal is to increase the production of nutritious aquatic food to help mitigate food insecurity and poor dietary diversity, which affects around **50 percent** of the population.

Our integrated research and development program seeks to unlock the potential for growth in aquaculture while sustaining capture fisheries through improved management. We are committed to developing small-scale aquaculture, including stimulating the growth of small- and medium-sized aquaculture enterprises, to improve incomes, human nutrition and health.

WorldFish works to improve nutrition in Myanmar in the face of conflict and instability. One way we do this is by working with supply chain actors to produce and market dried fish powder, a long shelf-life food, using locally sourced, nutrient-dense small fish. The project has helped improve the nutrition of more than **2000 people**, especially pregnant and lactating mothers and young children, while also creating a new source of income.

Myanmar has the highest per capita rice consumption globally at more than **200 kg** per year. However, the threats of salinization, sea-level rise and outmigration of young people from traditional rice farming zones means that the profitability of rice production varies greatly according to circumstances. In inland fish production areas, climate change and infrastructure development have damaged the connectivity between rivers and the productive wetland floodplains, resulting in significantly reduced fish production. Research carried out by WorldFish and implemented with Ministry of Agriculture Livestock and Irrigation Departments has demonstrated that integrated rice–fish–vegetable systems can increase land use profitability by between **40 and 100 percent** – improving livelihoods, food security and better utilizing agricultural land.

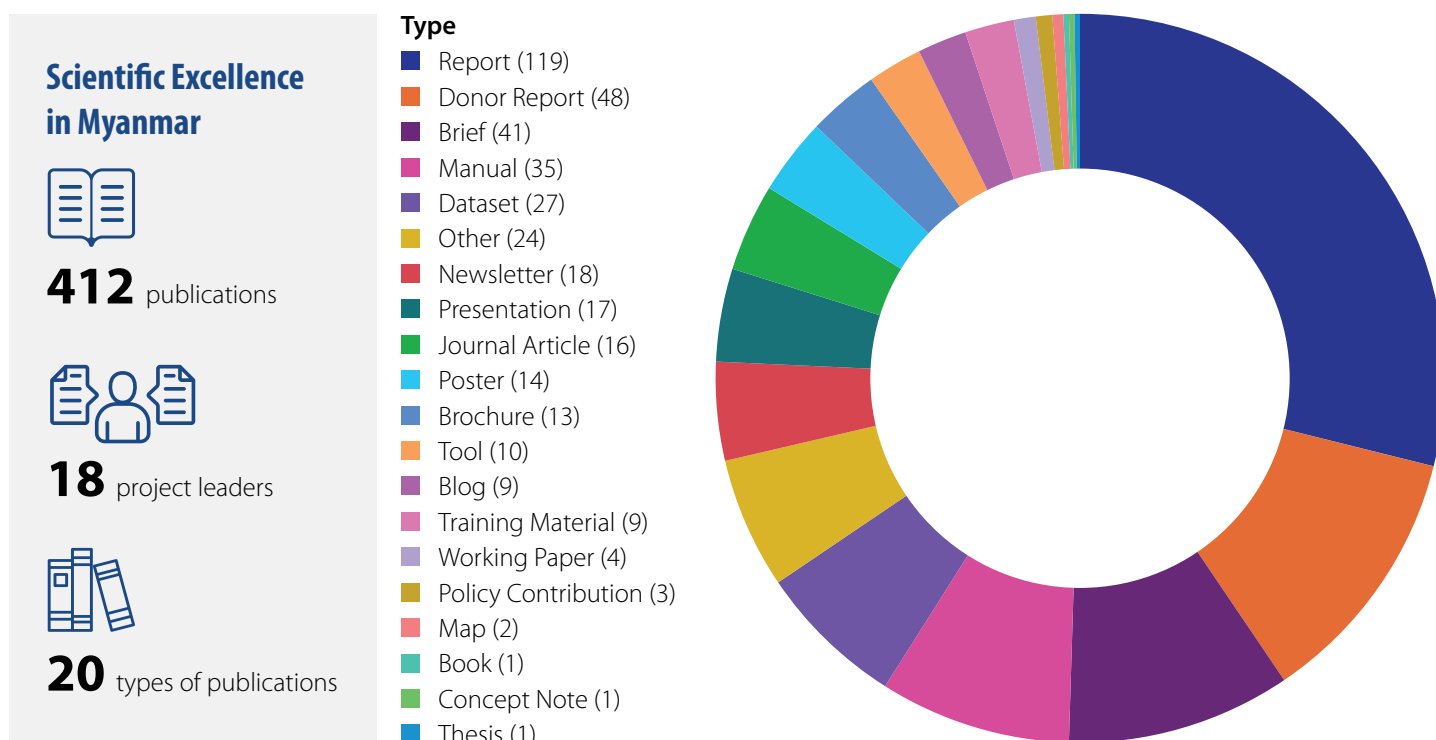
## Enabling Impact

Food production in Myanmar is governed by strict land use and water access rules. WorldFish and partners have demonstrated that introducing fish can increase the profitability of integrated agriculture systems. Continued access to fish is essential when promoting a diverse, nutrient-rich diet.

The hilsa shad is a critical fish for Myanmar's local livelihoods, nutrition and ecosystems. However, over the last two decades the hilsa stocks in Myanmar have been declining from overfishing and habitat degradation and are near economic collapse. To reverse this loss of biodiversity, WorldFish and its partners launched a series of research programs to better understand hilsa in the region, the drivers of its decline and potential solutions.

Researchers found the small-scale hilsa fishery sector to be worth around **USD 1 billion** per year, with more than **1.6 million fishers** and market chain actors dependent on the fish for their livelihoods. They also discovered that more sustainable hilsa management could help protect the Irrawaddy dolphin, a near-extinct species. As a result, a series of science-driven policies were presented to the government in Myanmar by WorldFish to protect hilsa stocks and were passed in critical regions of the country. These newly enacted policies to protect aquatic habitats will not only help revive ecosystems but will also ensure sustainable livelihoods and nutrition for millions of fishers, workers and their families in Myanmar.

Small-scale aquaculture development projects look at climate-smart aquatic food production opportunities and inclusive market development for economic growth and poverty reduction. Their combined goal is to increase smallholder food production and strengthen existing market systems, focusing on women and young people and financial inclusion. Thanks to these projects, more than **10,800 households** can access improved farming inputs. The projects also drive interventions to improve market access for small-scale producers, including aquaculture extension services to promote better management practices. **20 fish hatcheries** are now applying these practices for improved productivity.



## Moving Forward

The triple impacts of the COVID-19 pandemic, political instability and climate change have heavily impacted food production systems. Fuel prices in Myanmar doubled in 2022, triggering increases in all agriculture and aquaculture input costs, including fish seed and feed. The cost of the common diet rose by **82 percent** between June 2020 and February 2023. Myanmar's progress against malnutrition has been reversed, with rising micronutrient deficiencies and increased risks of stunting and wasting. WorldFish and partners are working to analyze the most cost-effective ways of ensuring smallholders can produce nutritious food.

WorldFish collaborates with the Scaling Up Nutrition network for improved human nutrition. The network strongly focuses on interventions that promote employment in the food value chain, especially opportunities for women and youth. Value-addition work, sun drying and smoking have helped with the marketing of fish that are below the usual market size, due to being produced in water-scarce systems impacted by climate change.

The Feed the Future Burma Fish for Livelihoods project aims to increase fish production and consumption, labor productivity and food availability, especially for women and young children from vulnerable households. It provides opportunities for entrepreneurial activities in small-scale aquaculture systems and promotes social behavioral change that results in improved nutrition, direct home production, and toward households making

nutrition-conscious purchases at market. Almost **15,000 participants**, including more than **5000 women**, have already received assistance through the project. Its innovative micro-interventions, such as small-scale integrated agriculture promotion at the household level, protect nutritionally vulnerable people from the worst impacts of Myanmar's multiple crises.

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## Partners

- Ar Yone Oo Social Development Association
- CSO-SUN Alliance
- Greenovator
- International Water Management Institute
- Karuna Mission Social Solidarity
- Mawk Kon
- Mg Moe Khaine Mye
- Myanmar Department of Fisheries
- Myanmar Fisheries Federation
- Village Link

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## Donors

- United States Agency for International Development
- Livelihoods and Food Security Fund
- CGIAR Trust Fund

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## Contact

### **Mike Akester, Regional Director, South East Asia and the Pacific**

WorldFish Myanmar Office

Department of Fisheries, West Gyogone, Bayint Naung Road, Insein Township, Yangon, 11181, Myanmar

Phone: +95 (0)1647 521

Email: [worldfish-myanmar@cgiar.org](mailto:worldfish-myanmar@cgiar.org)

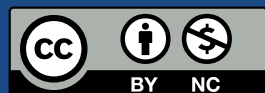
## About WorldFish

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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