



**TRANSFORMATIVE
RESEARCH
CHALLENGE
2025**

Integrated Water Management for Food Security Prize





Integrated Water Management for Food Security Prize (Resilient farming and fishing communities through integrated water management for food security)

(Co-hosted by the FAO Land and Water Division (NSL) and the FAO Fisheries and Aquaculture Division (NFI))

Agriculture accounts for over 70% of global freshwater withdrawals, with most used for irrigation. While water is critical for food production, agrifood systems must play a role in conserving this limited and vital resource. Inland water bodies and river basins sustain farming and fishing communities, including Indigenous Peoples, whose traditional knowledge and governance systems are vital for water sustainability but often excluded from Integrated Water Resources Management (IWRM) planning.

With global water demand projected to rise by 24% by 2050, increasing scarcity threatens food security and livelihoods. This prize seeks to support youth-led research on innovative IWRM solutions, including technological and social innovations, governance strategies, financing mechanisms and the integration of indigenous knowledge with scientific research.

It aims to highlight how sustainable water management can strengthen resilient farming and fishing communities, ensuring equitable access to resources while supporting environmental, social and economic benefits in a balanced manner.





Objectives of the prize:

This prize encourages youth-led innovations that address critical gaps in water resource management and aims to:

- Identify and nurture youth-led innovations that promote inclusive, integrated water governance for farming and fishing communities.
- Foster scalable, science-based solutions that address environmental, social and economic challenges in water management.
- Facilitate collaboration between young researchers, FAO experts, and global thought leaders to enhance knowledge exchange and accelerate innovation adoption.
- Advocate the role of innovation in achieving the SDGs and the FAO Blue Transformation Roadmap's vision of sustainable agrifood systems.

Themes of the prize:

The research topics of interest for the Integrated Water Resources Management for Food Security Prize include:

- **Community-based integrated water resources management for resilient farming and fishing communities** focuses on the development and implementation of community-driven IWRM strategies that align water management with local agricultural and fishery practices. This approach supports sustainable, climate-resilient practices that address challenges like water scarcity and environmental change. The goal is to ensure that water resources are managed efficiently to benefit local communities, strengthen food security and promote long-term sustainability.





- **Cross-sectoral water allocation, including tenure, for sustainable agriculture and fisheries** focuses on the development of inclusive, equitable water allocation systems, including tenure, that balance the needs of agriculture, fisheries and other sectors. This includes water accounting systems, water tenure assessments and governance frameworks that ensure the fair and efficient distribution of water resources.
- **Integrated flood and drought risk management for farming and fishing communities** addresses the need for sustainable water use in both aquaculture and agriculture, two sectors that heavily depend on water. It explores innovative water-saving techniques such as drip irrigation, rainwater harvesting, water recycling and aquaponics to optimize water use and reduce waste. The focus is on improving water efficiency to maintain food security and promote sustainable agricultural and fishery practices.
- **Policy and institutional frameworks for integrated water resources management in agriculture and fisheries** explore the development of policies and institutional frameworks that support the integration of IWRM with the farming and fishery sectors. It includes proposals for governance models that enable cross-sector collaboration, stakeholder engagement and the inclusion of farming and fisheries considerations in integrated water management policies. The aim is to ensure coordinated, sustainable and resilient water governance.





What will not be eligible?

The following topics fall outside the scope of the prize and will not be considered:

- **Large-Scale Infrastructure Projects:** This prize focuses on innovative, affordable solutions rather than large, costly infrastructure projects like dams or extensive irrigation networks.
- **Non-Agricultural Water Use:** The prize prioritizes water efficiency in farming and fisheries. Industrial or urban water use research is excluded.
- **Solutions Requiring High Capital Investment:** The prize supports affordable, scalable solutions accessible to small-scale farmers and fishers.
- **Proposals Without an Inter-Sectoral Approach:** Proposals must integrate the farming and fisheries sectors within an IWRM framework to be eligible.

Application Deadline:

Researchers must submit their applications by 9 May 2025.





What do young researchers gain?

- **Research Funding:** Winning teams receive up to USD 10 000 in research funding to implement their research projects. In addition, one team will be selected from the winners of each TRC category as the overall winner of the 2025 Transformative Research Challenge and will be awarded an additional USD 10 000 in research funding.
- **Global visibility:** Finalist teams receive recognition for their innovative work through the WFF website and social media channels, showcasing their projects to a global audience.
- **Networking opportunities:** Finalist teams will be able to connect with a global network of young leaders, agrifood experts and representatives from the public and private sectors, as well as the United Nations.
- **Capacity development:** Semi-finalist teams receive expert guidance to strengthen their skills in research proposal development.
- **Invitation to FAO headquarters:** Finalist teams are invited to present their research at the TRC Finals held at **FAO headquarters in Rome** in **October 2025**, in front of a high-level jury and a global audience via live stream on a range of platforms including UN Web TV.
- **Post awards support:** Finalists are invited to apply for the **WFF Youth Food Lab** incubator programme. Winning teams may also receive continued support to further develop and implement their research proposals.

In addition, winning teams will receive:

- Personalized mentorship from FAO water management experts and international researchers, and an opportunity to present their research in high-level dialogues relevant to their prize topic
- The opportunity to become part of a global platform for youth to showcase their innovative research ideas.

