

Freshwater Fisheries

2025 Workshop in Brazil

Summary Report



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Meeting Goals

The Global Freshwater Fisheries and Brazil teams brought together TNC staff, partners and community members to the Tapajós, a place where community-led conservation principles are applied to achieve freshwater outcomes for people and biodiversity alike.

Our meeting goals were to:

- Provide an opportunity for cross-program sharing of best practices and lessons learned in implementing freshwater fisheries co-management;
- Provide training in subject areas of greatest interest to participants;
- Learn about the work being done in Brazil;
- Strengthen cross-institutional collaborations;
- Hear from our partners and global experts about their work; and,
- Strengthen the community of practitioners implementing freshwater fisheries co-management.

Through a combination of sessions focused on relevant topics, group work to dive into content, and field trips to visit the work being done in Brazil, participants were immersed in topics of high importance to freshwater fisheries co-management and able to share and exchange with others tackling similar problems.

Participant Summary

Of the 58 participants we hosted, 32 were TNC staff and the remaining represented the 23 partner organizations listed below that include local communities, governments and other NGOs. Twenty-one (36%) of participants were female and 37 (64%) were male. Across Latin America, Africa and other locations, participants came from 12 different countries.



Partner Organizations in Attendance:

- SAPOPEMA - Society for Research and Protection of the Environment, Brazil
- SEMAS - Secretariat for the Environment (Manaus), Brazil
- Ministry of Water and Forests, Gabon
- CEELS - Community Economic Empowerment and Legal Support, Tanzania
- Zancudo Cocha community, Ecuador
- UFOPA - Universidade Federal do Oeste do Pará, Brazil
- IPA - Instituto de Desenvolvimento da Pesca Artesanal e da Aquicultura, Angola
- Wildlife Conservation Society, Brazil
- DGPA - Department of Fisheries and Aquaculture, Gabon
- ACIBAC - Asociación de Cabildos Indígenas del Bajo Caquetá, Colombia
- IBC - Instituto del Bien Común, Peru
- IMARPE - Instituto del Mar del Perú
- ASIMC - Asociación de autoridades tradicionales indígenas del municipio de Solano, Caquetá, Colombia
- OELO - Organisation Ecologique des Lacs et de l'Ogooué, Gabon
- MOPEBAM - Associação Movimento dos Pescadores do Baixo Amazonas, Brazil
- OTCA (Intergovernmental Agency of the Amazon)
- TURIARTE (women-led tourism and handicraft cooperative), Brazil
- Vila Betânia - TI Betânia - Rio Içá, Brazil
- Department of Fisheries, Zambia
- WorldFish, East and Southern Africa
- Dirección de Políticas y Ordenamiento Pesquero del Viceministerio de Acuicultura y Pesca, Ecuador
- Margaret A. Cargill Philanthropies
- IPIAP - Public Aquaculture and Fisheries





Workshop Sessions

Overview

The workshop sessions were designed based on a pre-event survey to align with participants' priorities and directly support the workshop's core objectives: sharing best practices, providing targeted training, and strengthening cross-institutional collaboration in freshwater fisheries co-management. Each country team (Brazil, Colombia, Ecuador, Peru, Tanzania, Angola, Gabon, and Zambia) presented an overview of their fisheries work, highlighting diverse approaches across regions. The sessions covered key themes such as gender equity, sustainable finance, community governance, fisheries management, and climate adaptation—each paired with interactive group activities to encourage practical application. This structure ensured that participants not only gained new insights but also contributed their own expertise.

Session: Deepening Gender Equity in Fisheries

Presenter: Cecile Brugere, Global Freshwater Fisheries Equity Advisor (TNC)

Learning Objectives:

1. To remind workshop participants of the reasons why gender equity matters to freshwater fisheries;
2. To highlight where programs and interventions can sit on the 'Gender integration continuum' and the aim to move the needle to the right of this continuum (equity) with gender transformative approaches; and,
3. To introduce the 'Reach-Benefit-Empower-Transform scale' and associated notion of empowerment (with its indicators to measure change) as a critical stepping-stone towards gender transformation.

Group Activities:

Group activities were organized to lead participants to reflect on the extent to which the activities they implement reach, benefit, empower women and/or transform gender relations in the areas where they work. Groups were constituted of members from two different geographies (and where possible different continents) to enrich exchanges of experiences. Some groups pushed their discussions into an analysis of the strengths and opportunities they have in order to advance gender equity in their activities, as well as weaknesses and threats they are facing in doing so. Discussions got participants thinking critically about the degree to which their activities are progressing gender equity in freshwater fisheries management and in monitoring and value chains. Some teams expressed a priority gender-related need for support from the global team.



Session: Community Regenerative Economies and Finance

Presenters: Zondo Chulu (TNC), Rodrigo Quintana (TNC), and Rahma Adam (WorldFish)

Learning Objectives:

1. Understand the core principles and key strategies that underpin sustainable livelihoods and financing in freshwater fisheries;
2. Explore practical mechanisms and case studies - successful and emerging around sustainable financing, alternative livelihoods and WorldFish innovations in the post-harvest sector; and,
3. Engage in cross-regional learning through facilitated fishbowl discussions to unpack key opportunities and challenges in scaling livelihoods and finance solutions.

The three presenters showcased practical steps in identifying alternative livelihoods (Zondo), the process towards identifying and implementing sustainable financing for projects (Rodrigo), and post-harvest innovations and methods to reduce waste, increase nutrition and enhance gender equity (Rahma).

Group Activities:

The group was invited to join the presenters in a 'Fish Bowl' session facilitated by Silvia Benitez. The discussion centered around general and specific components of the session. WorldFish has developed several promising innovations around fish drying and smoking, which may present opportunities for pilot testing in new communities and geographies. A broader discussion explored the role of TNC, a conservation organization, within freshwater fishery projects where objectives around food and livelihood development may have priority for community and/or other

Interested Parties. The need to have clarity in objectives and manage expectations within a project was reiterated and to explore the role of partners in co-delivering non-biodiversity targets sustainably.

Session: STRENGTHENING COMMUNITY GOVERNANCE IN FRESHWATER FISHERIES

Presenters: Machaya Chomba (TNC) and Guillermo Estupinan (WCS)

Learning Objectives:

1. A reminder on the overlapping but separate components of governance and management in freshwater fisheries,
2. To hear about the process in Amazon by WCS and
3. To learn about 'good practices' and 'success factors' identified by FAO in other fishery co-management projects.

Group Activities:

Country teams evaluated their project's governance and identified potential areas of future work by evaluating the current project status against identified 'good practices' and 'success factors' in other fishery co-management projects. The three categories of good practices were 1) internal good practices around accountability and transparency, feasibility and performance, participation and equity and rule of law, 2) external good practices around enabling environment, and 3) individual good practices around individual and household engagement. The status of a project in an area was reviewed both optimistically and scrutinized negatively through a roleplay to allow teams to review from opposing angles.



Session: FROM OBJECTIVES TO EVALUATION: FISHERIES MANAGEMENT AND DATA CONSIDERATIONS

Presenters:

- Bruce Ellender (TNC; fisheries management objectives, management options/activities, demo of Zambia's eCAS system)
- Patrick Mwiya (Zambia Department of Fisheries; example from Zambia on challenges in managing fisheries and stakeholders' diverse objectives in fisheries)
- Machaya Chomba (TNC; protection as one fisheries management option, and connection to OECM discussion)
- Shiteng Kang (TNC; data considerations in fisheries management)

Learning Objectives:

1. Review different aspects and considerations when setting fisheries management objectives with partners and communities;
2. Gain an improved understanding of fisheries management options/activities to achieve stakeholders' fisheries management objectives and their respective data needs;
3. Clarify core data to inform design and monitoring of fisheries management; and,
4. Reflect on programs' fisheries management objectives, management options/activities, and underlying processes for determining them through group activity and cross learning.

Group Activities:

Country teams were put in small groups (two country program per group) to first reflect on their own fisheries management objectives and current and/or planned management options/activities, then share with each other to receive peer feedback and discuss ways to improve. Country programs then were invited to share reflections during the plenary discussion.

Discussion questions included:

- What are your fisheries management objectives?
- How did you develop (and adjust) your fisheries management objectives?
- What was your approach to understanding communities' motivations and needs in fisheries co-management?
- How did the communities you're supporting feel about the objective development process?
- What are your current and/or planned fisheries management activities?
- What was your approach to determining which management activity to implement?
- What data and information did you use to decide on management activities?
- Can these management activities achieve your objectives?
- What data and information gaps do you foresee?

Session:

UNDERSTANDING CLIMATE CHANGE IMPACTS AND EXPLORING ADAPTATION OPTIONS

Presenters: Fernanda Silva (Amazon Freshwater Fisheries Scientist, TNC) and Deo Mushagalusa (Africa Freshwater Fisheries Scientist, TNC)

Learning Objectives:

1. Understand the main climate change impacts on African and Amazon freshwater ecosystems and fisheries;
2. Discuss adaptation strategies for fisheries, food security, biodiversity and socioeconomy; and
3. Provide inputs to the Freshwater Fisheries strategy about teams' needs.

Group Activities:

Participants were divided in four groups to discuss feasible adaptation approaches for impacts on fisheries, biodiversity, food security and socioeconomic. Each group was asked to complete a table with actions related to policy, knowledge, technology/infrastructure, behavior change, or fisheries management needed to achieve the proposed adaptation approach. Results are shared below:

1. Impact: Competition for Aquatic Resources

Adaptation Strategy: Transboundary management plan

- Policy: Encourage all parties to sign and implement the transboundary plan.
- Knowledge: Use short- and mid-term climate/ weather forecasts; map legal fishers per country.
- Additional Pressure from Drought-Induced Migration
- Policy: Institutionalize drought insurance with stakeholder partnerships; improve access to finance, markets, and capacity building.
- Knowledge: Early warning systems, drought-resistant crops, and documentation of Indigenous Knowledge Systems (IKS).
- Technology/Infrastructure: Early warning systems, regenerative agriculture, mobile communication tools.
- Behavior Change: Promote sustainable farming/ fishing and climate-resilient livelihoods.

2. Impact: Habitat Loss and Migration Pattern Changes

Adaptation Strategy: Regional coordination for migratory species conservation

- Policy: Pre-COP negotiations, promote Colombia's accession to migratory species conventions, secure implementation resources.
- Knowledge: Prioritize key species, integrate knowledge systems, align and strengthen monitoring networks.
- Technology/Infrastructure: Develop capacity-building and information management systems.

3. Impact: Fish Mortality

Adaptation Strategy: Improve income to build emergency savings

- Policy: Promote appropriate technologies, adjust fishing quotas/permits, implement drought early warnings, review closed seasons.
- Knowledge: Monitor fishing impacts on biodiversity.
- Technology: Use freezers, salting machines, and develop value-added chains.
- Behavior Change: Encourage financial planning and community emergency funds.

4. Impact: Increased Fishing Activity

Adaptation Strategy: Strengthen fisheries management

- Policy: Formalize organizations, approve laws, and promote experience exchange.
- Knowledge: Conduct situational diagnoses, gather scientific/traditional knowledge, map fishing zones.
- Technology/Infrastructure: Regulate fishing gear, promote diversification (fishing/agriculture/crafts).
- Fisheries Management: Implement zoning, seasonal closures, agreements, and surveillance.

5. Impact: Low Income

Adaptation Strategy: Diversify income sources and promote alternative livelihoods

- Policy: Develop affordable climate loan schemes and improve capital access.
- Knowledge: Conduct diagnostics for viable value chains and livelihoods.
- Technology/Infrastructure: Reduce post-harvest loss, apply climate-smart technologies, add value to products.
- Behavior Change: Build entrepreneurship, business, and financial literacy; foster multi-stakeholder collaboration.
- Fisheries Management: Restore habitats and buffer zones; implement temporary closures.



Community Site Visits

TAPAJÓS NATIONAL FOREST AND JAMARAQUÁ, MAGUARI, AND SÃO DOMINGOS COMMUNITIES

On May 21st, workshop participants were guided on a 9-kilometer trail in the Tapajós National Forest. This forest is located in western Pará and was created in 1974 to protect the rich biodiversity of the Amazon, promote the sustainable use of natural resources, and preserve the traditional communities that inhabit the region. The forest is managed by the Chico Mendes Institute for Biodiversity Conservation (ICMBio). Along the trail, the guides offered detailed information on how the local communities use natural forest products for foods, medicines, and cultural activities.



The Maguari community prepared a lunch after the hike and participants could discuss with community members and visit their craft store featuring products that they learned about on the hike (for example rubber made purses from the rubber trees).

Also on May 21st, participants were welcomed by the Amelias Project leaders from the São Domingos Community.

The Amelias project is a local association working with extraction of andiroba oil and production of honey from native bees. This community-led, sustainable development project is a path forward for communities living near the Tapajós River to generate a diversified income.



CIRCLE WITH FISHERS

On May 23rd, participants held a discussion circle with local fishers, fishing organizations and women leaders of the Saracura community. Participants were warmly welcomed with an array of food prepared with local products by hand.

The circle allowed for an engaging discussion on the following topics:

1. The historical context and organizational structure of fishers
2. Fisheries Agreement: construction and implementation challenges
3. Gender: Women in Fishing (experience of women from the Saracura community)

The Amazon fishing agreement discussion was well-suited to the needs of the workshop participants. The circle provided an opportunity to ask questions from both recently formed and long-standing fishing organizations in the Amazon.

The women leaders of the Saracura community shared their experiences as fisheries leaders and decision-makers. They discussed both the challenges they faced and pride that they took in their work. They explained that the "Guide for the Women of the Tapajós and Lower Amazon Waters" prepared with TNC Brazil's support, facilitated women's capacity building and awareness raising about their rights, which has resulted in significant changes in how they feel they are considered in their families and communities.



Evaluations

Evaluation forms were distributed after one field trip and three days of workshop. Forty-five responses (of 50 potential respondents) were submitted.

Usefulness of Workshop

Overall, respondents found that cross-regional meetings are highly valued for:

- Sharing lessons and networking
- Enhancing understanding of fisheries work in different contexts
- Building connections with global and country teams

Evaluation quote: *"These interactions are important for exchanging experiences and also for helping to improve methodologies that are being used in different contexts."*

While cross-region workshops are largely seen as worthwhile to learn across cultural contexts, some respondents suggested balancing them, or replacing them, with regional workshops to improve relevance. Some found that programs in other regions were more similar to their programs than within their region.

Evaluation quote: *"I think regional and cross-regional workshops are both important, but it is possible to move onto a phase of facilitating regions in two years and then return to an international phase in the third year."*

Partnerships are already forming as a result of the workshop, and many respondents planned on further pursuing cross-program engagements. Specifically noted were further interest on fishing agreements, sustainable livelihoods, and fisheries monitoring.

Evaluation quote: *"I have already started communications with the Brazilian team to have a translated fishing agreement so that we can get to understand the content and possible adoption to our program."*

Workshop Content

Workshop content was highly relevant to participants' programs. The highest-ranking presentations/sessions in terms of usefulness were team presentations, community governance, and fisheries management.

Evaluation quote: *"Helpful on objective setting and governance aspects as they are the heart of what I do and also the discussion on climate change adaptation was timely."*

Suggestions for workshop content improvement included:

- Group work: more time for group work and simpler group work exercises
- Case studies: documents or case studies provided before sessions
- More time: optimize time to allow more interactions between countries and with partners
- Local guests: include more local guests in the agenda

Evaluation quote: *"More time for sharing between countries. For example, each day have a work team with one country to share in all aspects. 2. Vary the presentation methodology—make them more dynamic. 3. Have more local guests."*

Community Site Visits

While the responses regarding the site visit were overall positive, some respondents noted wanting more time to discuss directly with community members. However, we conducted the survey prior to the Friday site visit with the circle of fishers.

Evaluation quote: *"Through field trips I got to understand the fisheries management approaches used by local communities, the fisheries agreements and better practices."*



Next Steps

Over the coming months, the Global Freshwater fisheries team will follow up with many of the workshop participants and country teams to advance specific bodies of work in the physical, ecological, and social science of freshwater fisheries co-management.

In addition to direct follow-up, we will release our newly designed website to highlight and make available a library of tools and methods appropriate for freshwater fisheries in different contexts. We will also consider next steps, potentially including the development of more in-depth training on specific topics including catch assessment, gender equity, fisheries governance, and developing and implementing monitoring plans.

Please reach out if your team is interested in more direct engagement.

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Additional Insights

Engaging with communities in their own space allowed for a much-improved understanding of the community work – both fisheries and related livelihoods. Fisheries agreements and elevating women's roles in fisheries decision-making were key takeaways of the discussions. These two topics were highlighted in the workshop evaluations, among country team program side discussions, and throughout the workshop as pillars to successful fisheries management for biodiversity and human well-being outcomes.

Evaluation quote: "The work that we are doing in freshwater fisheries across the organization is complicated, which makes it more exciting!"

