Monterey Bay Aquarium

Socio-Economic Learning Framework for small-scale seafood production

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Monterey Bay Aquarium's Socio-Economic Learning Framework for small-scale seafood production (SELF)

A listening and learning tool for projects to improve small-scale seafood production

Sustainable seafood comes from fisheries and aquaculture operations that minimize harmful environmental impacts, ensure good and fair working conditions, and support livelihoods and economic benefits throughout the entire supply chain. Yet, investigations over the past decade have revealed widespread labor abuses and inequities in the global seafood sector. In addition to these challenges, small-scale seafood producers are vulnerable to poverty, climate change, and market exclusion, leaving them with little incentive to adopt responsible practices. Advancing seafood sustainability requires inclusive solutions that work for every member of the supply chain.

To protect ocean health while meeting the growing global demand for seafood, Monterey Bay Aquarium collaborates with local industry, scientists, governments, and human rights experts to tackle the intertwined environmental, social, and economic challenges in seafood production. Through this collaborative work, the Aquarium promotes strategies and shares practical tools that protect ocean health while ensuring equity and resilience across the supply chain.

Monterey Bay Aquarium's Socio-Economic Learning Framework (SELF) is a free tool designed to gather insights about the lives and livelihoods of small-scale seafood producers. Flexible and partner-oriented, SELF uses guiding questions to support listening and learning in a variety of settings. These learnings can be applied to interventions to improve both social and environmental outcomes.

SELF is not a "check the box" type of exercise. By exploring and identifying the core issues that must be addressed or leveraged to change the market, nongovernmental organizations (NGOs), governments, industry stakeholders, and others can use SELF to drive sustainable solutions that strengthen supply chains and ensure shared benefits across all actors.

Introduction and overall methodology

Intended use

NGOs, governments, industry stakeholders, and others can use SELF to learn about the lives and livelihoods of seafood producers and their families and identify underlying socio-economic factors that influence farming and fishing practices, potentially impacting both social and environmental outcomes. SELF is intended for use in both small-scale aquaculture and fisheries projects to promote and support socially, environmentally, and economically sustainable seafood.1

SELF is first and foremost a learning tool designed to capture knowledge, concerns, and aspirations from small-scale fishers, small-holder farmers, and their family members. It does not measure or verify compliance with pre-defined standards in farms or on fishing vessels. Instead, the tool is built around a set of questions intended to stimulate conversations that inform activities and indicators for tracking progress and impact. Local government workers, NGOs, and various market actors at all levels of the supply chain can use SELF to listen and learn about actions that can improve livelihoods, uphold rights, and promote equity.

SELF can be used on its own or in combination with other tools and frameworks (e.g., environmental verification and climate vulnerability assessment tools) to design projects, track socio-economic outcomes, address challenges, and capitalize on opportunities in seafood producing communities (e.g., through the development of community action plans or project results matrixes and Monitoring, Evaluation and Learning frameworks).

The framework includes complex issues that are impacted by multiple actors (e.g., the fishers and farmers themselves, local and national governments, intermediaries, seafood processors/exporters and importers, end-buyers). SELF explores the issues and impacts within a given project as well as external factors that may intersect with project activities and contribute to unintended consequences that either require mitigation or can be leveraged to support interventions.

[1] Small-scale aquaculture is defined here as aquaculture farms with small production volume, and/or relatively small surface area (up to 4 ha), operated mainly by family labor and with no or limited permanent employees, and typically with low investments and financial capacities, limited access to technology and other inputs (adapted from FAO and UN-ESCWA). There is no agreed upon definition of small-scale fisheries. Leaning on the FAO definition, we define small-scale fisheries as capture fisheries undertaken for subsistence as well as local, regional, and global supply chains using small, often traditional vessels, relying primarily on household or family labor, fishing in coastal waters on short (day or 24-hour) trips using limited finance and energy resources. In both aquaculture and fisheries, the definitions include auxiliary activities undertaken by household/family members, such as post-harvest handling, preparation of inputs, and maintenance of gear.

SELF is intended for a variety of users who may or may not have established relationships with fishing and farming communities (see Box 1). Applying SELF may require multiple actors to work in partnership and share connections and insights. The tool works well in partnership models where multiple actors bring different skills and resources to a project. For example, end-buyers may have a keen interest in promoting stable livelihoods, while sourcing communities and local organizations, who speak the language and understand local culture, are likely better placed to apply the tool in practice. Different contexts will require different partners. It all comes down to room to draw out insights that will lead to effective strategies.

Who can use SELF?

Multiple stakeholders can use SELF to support sustainable small-scale seafood production. Users may include (but are not limited to):

- **Processors/first-level buyers** engaged in aquaculture and fisheries improvement projects who want to understand, track, address, and communicate socio-economic impact and action taken to the market.
- **Downstream buyers** interested in engaging with their sourcing communities and supporting their suppliers to do better business.
- **Government departments** working to understand socio-economic vulnerabilities in fishing and farming communities and build enabling policy and regulatory environments to support fisher and farmer livelihoods and decent working conditions. This includes both local government departments that can support change at the community level and regional and national governments in a position to institute systems and policy changes to create an enabling environment.
- **NGOs and others that are supporting fisheries and aquaculture improvement projects** and want to improve results through more holistic approaches and document the impact of interventions.
- **Farmer and fisher organizations** working to communicate about and address socio-economic challenges in their communities.
- **Other community-based organizations** (e.g., women's organizations, youth groups) working to address socio-economic challenges within their communities.
- **Academic and research institutions** that are conducting community-based action research and sharing knowledge about small-scale seafood production.

BOX 1: Intended SELF users

SELF structure and development process

SELF provides a framework for identifying challenges and developments against different elements of well-being and equity. These elements map to the supply chain equity framework that the Aquarium developed with support from its Social Sustainability Advisory Group (SSAG). As this framework is flexible and adaptable and can change over time, SELF is designed to be adjusted and adapted as well.

The tool draws from the Socio-Economic Baseline Studies undertaken in partnership with the Department of Sociology and Social Work, Acharya Nagarjuna University in shrimp farming communities in Andhra Pradesh, India (2024); the University of the Philippines—Visayas in blue swimming crab fishing communities in the Western Visayas (2024); and Can Tho University in Cà Mau, Vietnam (2023). Additionally, SELF is based on a review of relevant tools, instruments, and background documents. The tool is heavily inspired by participatory rural development approaches and environmental management co-creation approaches, as well as the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (the SSF Guidelines).

SELF recognizes that aquaculture production systems and capture fisheries of different species vary, and communities that rely on small-scale seafood production are not homogenous. The tool can be adapted to different contexts by prioritizing elements of equity (from the overall framework) that are particularly relevant to a given context. Users are also encouraged to capture insights from different gender perspectives.

Elements of SELF

The elements of SELF align with the nine elements of Monterey Bay Aquarium's supply chain equity framework, in the context of small-holder aquaculture farming and small-scale fisheries. These elements, which are closely interlinked, are explained here:

- **Decent work:** Work in freedom and safety in line with the International Labour Organization (ILO) *Fundamental Principles and Rights at Work*. Recognizing that family-based seafood production is often excluded from labor legislation and some provisions in ILO conventions, SELF is adjusted to small-scale seafood production, focusing on decent work deficits that are more likely to occur in small-scale fisheries and aquaculture.
- **Entry barriers to the industry:** Social norms that may facilitate or prevent certain groups or individuals from obtaining the knowledge, skills, or resources needed to become fishers or aquaculture farmers. Often ingrained and beyond the control of individual actors, these norms will take time to change. Critical to fishing and farming practices, distribution of resources, and realization of rights, these norms must be identified and recognized, even if they cannot be addressed in the immediate term.

- **Access to markets:** The systems, such as assurances or intermediaries, that may facilitate or prevent small-holder farmers or small-scale fishers from accessing the market(s) of their choice (within the limits of the product quality that processors seek and consumer preferences). This element does not distinguish between different markets as good or bad, but instead examines the choices available to farmers and fishers. Markets may include selling to processors for export, to domestic supply chains, or directly to consumers.
- **Access to finance, insurance, and other inputs**: Access to inputs (e.g., quality feed and stock, gear, fuel) or lack thereof, that may render farmers and fishers vulnerable to debt cycles, climate change impacts, and other challenges that may affect the robustness of their livelihoods.
- **Access to social services that underpin production, livelihoods, and well-being:** The extent to which farmers, fishers, and their families have access to education, health care, social protection, water and sanitation, and infrastructure. This element is usually the government's responsibility and beyond the control of supply chain actors (though supply chain actors may contribute to services, such as health care and education, within their sourcing communities). Access to social services is critical to enable sustainable seafood production through mitigating climate change impact, reducing poverty, and preventing decent work deficits.
- **Voice and participation:** The extent to which farmers, fishers, and their families can participate in decision-making and policy formulation that impacts their lives and livelihoods. For example, do fishers and farmers have any say in decisions on government provision of health care, buyers' preferences for certain products, or vessel/farm registration procedures? Voice and participation are often associated with national and local political culture and systems, organization and collaboration among and between farmers and fishers (or their family members), and other, often more powerful, actors.

Continuous application

SELF is not a one-off tool designed to simply collect information. It is intended as a listening and learning tool to facilitate action in support of small-scale seafood producing communities. SELF works best when applied within a framework that has the capacity to act on the findings and track the impact of these actions over time.

- **Economic resilience:** The distribution of costs and benefits, including prices, along the supply chain; the level and stability (over time) of income; the extent to which fishing and farming families have alternative sources of income, including social protection (such as retirement and maternity benefits); and the extent to which the household income is sufficient for decent living standards while maintaining a buffer against the impact of economic shocks. Low economic resilience can be a direct cause of environmentally unsustainable fishing/farming practices, rendering fishers, farmers, and their families more vulnerable to challenges such as labor rights violations and ill-health, potentially creating downward spirals.
- **Transparency in the supply chain**: The extent to which farmers/fishers and other supply chain actors have access to information to help inform decisions, such as prices, working conditions, and sourcing policies. This also includes information on consumer preferences to allow farmers/fishers to understand market dynamics.
- **Partnership and collaboration:** The extent to which actors work together across supply chains and across sectors, such as in multi-stakeholder projects in farming areas, to address challenges and ensure decent work and stable livelihoods in conjunction with environmental conservation and good fishing/farming practices.

How to apply SELF

SELF identifies areas that need attention to mitigate the risk of negative socio-economic impact, as well as areas of opportunity for supporting positive socio-economic outcomes as they correlate with different fishing and farming systems. This information is valuable to farmers, fishers, their communities, local governments, industry actors, buyers, NGOs, funders, and others who support environmental improvements and social development. SELF does not establish direct correlation or causality between environmental improvements and socio-economic impact, nor does it assign scales or values to the impact. The dynamics involved are too complex to attempt to do this in a meaningful way. SELF produces a picture of socio-economic developments, challenges, and opportunities at a given point in time. This includes capturing insights about varying gender roles where appropriate to the context.

SELF aims to support efforts to:

- undertake a mapping of socio-economic key issues (challenges and resources) at regular intervals (continuous application);
- track developments over time; and
- identify actions to mitigate unintended socio-economic consequences, incentivize improved fishing and farming practices, and support opportunities to improve the social, economic, and environmental sustainability of seafood.

SELF features a series of issues to explore and is designed to help:

- collect baseline information;
- prioritize action items;
- conduct a rapid assessment of changes and developments that have occurred over a selected period;
- identify issues that may need mitigation; and
- identify opportunities that can be developed further.

SELF delves into areas that are often of concern in small-scale fishing and aquaculture. However, it is important to record and analyze all responses, including those that fall outside the questions. Similarly, it is not necessary to explore all the SELF elements and issues. Those collecting the information must be in listening mode and focus on learning.

SELF can be applied through focus group discussions, community mappings, transect walks, individual interviews, and/or other information gathering activities. Whatever is most suitable in the context works if the farmers, fishers, and families are in a situation that allows them to be comfortable telling their stories. As SELF is a listening and dialogue-based tool, using close-ended survey tools is discouraged.

Farming systems, fishing practices, ownership structures, and the workforce among small-holder farms and small-scale fishing vessels differ. SELF must be applied in a way that is appropriate to the context. Family farms on their own land, family farms on leased land, contract farming, farms operated by a sole proprietor, farms hiring day laborers, self-employed fishers, hired crew members paid through catch-shares, and hired crew members paid a salary will all have different insights.

Input from farmers or fishers is critical, but insights from other members of their households are also extremely valuable. Without added voices, there is a risk that the findings will only reflect the views of adult males, as aquaculture farming and fishing operations are often male-dominated. Similarly, in communities where different genders participate as fishers or farmers, it is important to use SELF to identify differing gender perspectives.

Where farmers employ hired workers (e.g., day laborers) or fishers take on crew, the workers' perspectives must also be included. Including all impacted individuals in the process ensures broad representation and voice within the community. Additionally, different perspectives offer multiple data points to help assess the validity of the information given. Pairing focus group discussions, key informant interviews, and other information-gathering methods with a thorough review of existing research and data will help fill in gaps and create a full picture.

A word on biases, ethical guidelines, and creating a safe space

Everyone holds biases. Fishers, farmers and their families, other community members, and those applying SELF all speak, listen, and analyze from their own vantage point. When listening and interpreting responses, be aware of your own biases. Do you think about fishing and aquaculture as a business or as an ocean health concern? How do your age, gender, and nationality shape your perceptions? Pay attention to what is actually being said. While you will have clear ideas about the desired outcome, there are many ways to achieve that goal. Respectfully probe perspectives you don't understand. If you have questions about a response, compare it to the perspectives of other community members as well as existing literature and other research.

When speaking with minors, follow ethical guidelines related to children's and guardians' consent, protection and safeguarding, transparency, and other considerations. Ethical Research Involving Children provides comprehensive guidance and resources.

Additionally, it is important to create a safe space for participants to share their views. Explore the socio-cultural norms that shape human interactions, including gender roles and norms. In some communities, people may be more comfortable speaking in gender-segregated groups. Similarly, age , ethnicity, or other personal characteristics may shape people's role and facilitate or impede their ability to participate. For example, in some instances, young men may have less voice than older women, even if men generally have more voice than women.

If applying SELF within communities where some members may be vulnerable to human trafficking and forced labor, ensuring participants' safety is critically important. Assess the risks of human rights violations before applying SELF. Monterey Bay Aquarium's Seafood Social Risk Tool (SSRT) can be a starting point. Even in a safe space, people may be uncomfortable sharing information about difficult issues. It will take time to build trust.

SELF application

A schematic representation of the SELF application process is presented in Figure 1. Although the process is presented as a timeline, it is iterative. Users may go back to previous steps (or skip forward) as required. For example, once you identify and plan priority actions, you will likely need to go back to the fishers, farmers, and community members to gather more input and validation. Similarly, communication to market stakeholders may happen throughout the process.

FIGURE 1: The SELF application process

Before starting the information gathering process, determine which information is "need-to-know" and which is "nice-to-know." Using SELF to collect baseline information may require more questions than when applying SELF for continuous monitoring and tracking. For example, a baseline study may include all nine elements and collect information about issues that could be addressed within a project, as well as information about contextual issues outside the control of the project. Subsequent monitoring and tracking may be limited to questions under the control of the project and, possibly, the contextual factors that could weaken outcomes. While it is important to gather a range of perspectives, tailoring questions to the audience and being deliberate about the information you collect will ensure you respect people's time while prioritizing important questions.

Remember that the questions presented in the sample scripts are generic. Tailoring the questions to the context is a critical part of the process. This may entail language translation as well as "conceptual translation" (i.e., wording the questions differently to ensure they resonate with people and are easy to respond to, even if applied in English).

SELF Framework

Using focus group discussions, community mapping, transect walks, individual interviews, or other information-gathering activities, SELF explores the issues and challenges that contribute to an equitable supply chain.

Decent work explores:	**Entry barriers explores:**	**Market access explores:**
• Division of labor by age and gender • Child labor and protections for young workers • Employment practices and working conditions for hired workers • Exposure to unsafe or hazardous conditions • Access to safety equipment and health risks • Emergency response	• Who enters the sector and how they do so (demographics, inclusiveness) • Youth access and aspirations • Structural and social barriers to entry or exit • Land and water access (aquaculture) • Encroachment and resource conflicts (fisheries)	• Sales channels and buyer dynamics, including the role of intermediaries • Buyer priorities and restrictions on selling • Effects of seasonality and quality standards • Supporting infrastructure for market access • Regulatory compliance and enforcement
Access to inputs explores:	**Social services explores:**	**Voice and participation explores:**
• Financing and debt challenges • Access to technical information and support • Barriers to acquiring essential inputs (e.g., gear, seed, feed, fuel) • Innovation and system improvement resources	• Access to health care and education • School attendance and barriers for children • Training opportunities for youth • Availability and access to social protection (including seasonal support)	• Involvement in groups or associations • Roles of other household members in groups • Benefits and obligations or participation • Community-level representation and support networks
Economic resilience explores:	**Transparency explores:**	**Partnerships explores:**
• Income stability and seasonality • Diversification of income sources • Trends in cost of living and income adequacy • Reliance on loans and emergency savings	• Presence and clarity of formal agreements with buyers and workers • Methods for collecting and sharing production data • Stakeholder involvement in transparency systems	• Existing collaborations (e.g., with buyers, NGOs, government) • Resource conflicts and conflict resolution • Gaps in partnerships and opportunities for new alliances

As each situation is unique, SELF must be tailored to the local context. Work with your partners to determine how to apply the SELF framework to achieve an optimal outcome. Explore the elements that are most relevant to the project and, within each element, adapt, add, and omit questions as needed.

These samples are intended as practical examples for applying SELF. They should be adapted to the local context:

SELF key informant interview guide (SAMPLE)

SELF focus group discussion guide (SAMPLE)

SELF community mapping guide (SAMPLE)

The following resources provide additional guidance and inspiration:

Potsdam University, Participatory Vulnerability and Capacity Assessment toolkit

CARE (2019) Climate Vulnerability and Capacity Analysis Handbook (section C CVCA tools/field guide)

TNI Toolkit Participatory Action Research