
Summary of Funding to Aquaculture & Fisheries, 2016–2021

Executive Summary

A *TRACKING THE FIELD* REPORT
BY THE ENVIRONMENTAL GRANTMAKERS ASSOCIATION



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THE FIELD
ENVIRONMENTAL GRANTMAKERS ASSOCIATION


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Introduction

Aquatic foods have been a dietary mainstay for much of the world’s population and seafood is one of the fastest growing sectors of global animal protein production¹. A recent report from the United Nations estimates that more than 3.3 billion people around the world depend on fish and seafood for at least 20% of the animal-protein in their diets². Many forms of fishing and aquaculture—especially traditional methods and appropriate-scale kelp and shellfish farming – support climate resilience and culturally appropriate diets. The increased corporate and investor interest in aquatic foods suggests that we take a closer look at what’s happening now and what might be on the horizon. Aquaculture and fisheries also deeply intersect the issues of ocean health, biodiversity, food systems, climate adaptation, sustainable communities and the livelihoods of Indigenous peoples.

According to the [Food and Agriculture Organization of the United Nations](#), more than half of the world’s current seafood production comes from aquaculture and the rest comes from capture fisheries. To better understand existing efforts in philanthropy around fisheries and the rising aquaculture sector, the GRACE Communications Foundation partnered with the Environmental Grantmakers Association (EGA) to create this report. This report analyzes funding given to aquaculture and fisheries based on data from EGA’s [Tracking the Field](#) database. It is part of EGA’s efforts to help funders understand the funding ecosystem of specific issues, examine the breadth of work that’s been done in the philanthropy sector, discover innovative program approaches to inform future grantmaking, and invite potential allies and partners into the conversation.

This report dives deep into over \$500 million in Aquaculture & Fisheries grants made between 2016 and 2021, revealing gaps in the geographic and issue focus areas. Further, it examines funding that supports different aquaculture methods, such as open-ocean aquaculture and on-land recirculating aquaculture; seafood market strategies including local seafood supply chains, seafood certification, and transparency & traceability; and tribal fisheries and Indigenous aquaculture projects. The report also compares the funding given to various aspects of sustainable fisheries management, including fishing community engagement and fisheries management policy & research.

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- 1 Rabobank, “Global Animal Protein Outlook 2023: Deciding How to Grow amid Challenges and Opportunities.” <https://research.rabobank.com/far/en/sectors/animal-protein/ap-outlook-2023.html>, accessed April 2024
 - 2 Food and Agriculture Organization of the United Nations. “The State of World Fisheries and Aquaculture: Towards Blue Transformation,” 2022. [fao.org/3/cc0461en/cc0461en.pdf](https://www.fao.org/3/cc0461en/cc0461en.pdf), accessed April 2024.

Methodology

Tracking the Field (TTF) is a research project at EGA that started in 2007, with the goal to deepen understanding of trends, challenges, and critical needs in environmental philanthropy. *TTF* now boasts over 160,000 grants totaling more than \$20 billion given by EGA members and members of EGA's affinity group partners. The grants data were collected via publicly-available data sources, including funder websites and 990 Forms, and also from funders directly. Each grant was manually reviewed, tagged, and inputted into EGA's online CiviCRM database.

This report was created based on keyword searches within over 80,000 grants made between 2016 and 2021 tracked in EGA's *TTF* database. The EGA research team went through a deliberate group process in the development of the taxonomy used in this report to ensure that the taxonomy represented the breadth of funding in the space. **A draft taxonomy was co-developed with the Grace Communications Foundation. Next, a list of top funders in the field were consulted to refine the taxonomy, including Walton Family Foundation, Gordon and Betty Moore Foundation, The David and Lucile Packard Foundation, MacArthur Foundation, Oak Foundation, Global Greengrants Fund, and Tides Foundation.**

Grants were identified for the different issue categories of Aquaculture and Fisheries using extensive keyword searches in the grant description and grantee name fields. Due to the varying level of details included in the individual grant descriptions, the keyword search method has its limitations and may not fully capture all of the grants related to specific issues, but it can still showcase the relative disparities in funding to different issues. To best compensate for the limitations of the keyword search method, the EGA research team also visited grantees' websites to review the initiatives supported in the grants, to facilitate more nuanced tagging of the more complex issues.

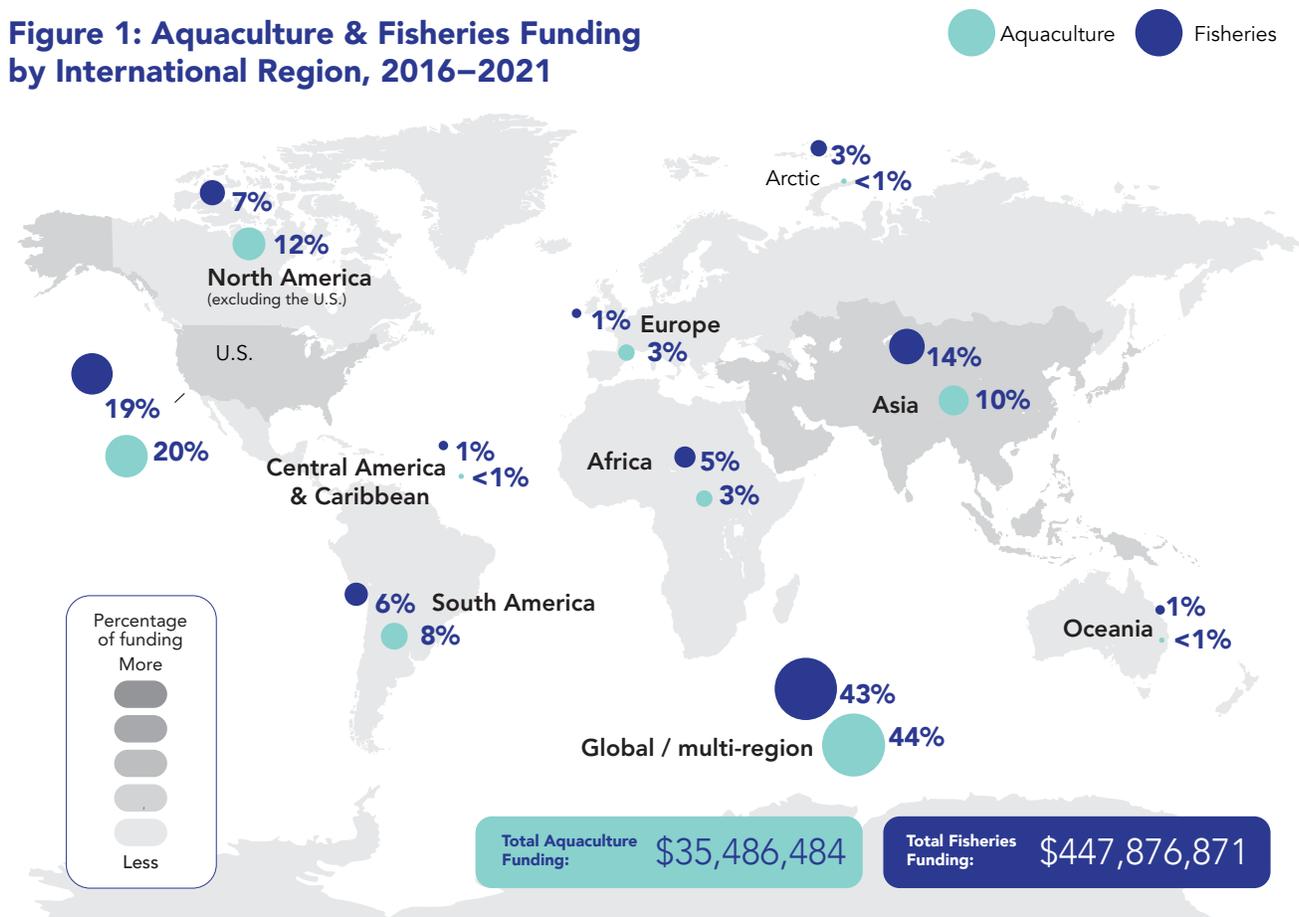
Learn more about *Tracking the Field* at ega.org/connect/ttf.

Overview of Aquaculture & Fisheries Funding

The Food and Agriculture Organization of the United Nations reports that the global production of seafood from aquaculture and wild fisheries has quadrupled over the past fifty years, growing at twice the rate of the population growth for the same period.³ Since the late 1980s, global aquaculture production increased rapidly, and seafood production from aquaculture has surpassed wild caught fisheries since 2013. In 2020, a total of 214 million tonnes of seafood were produced worldwide, of which 123 million tonnes were from aquaculture production and 91 million tonnes were from capture fisheries.⁴

Based on grantmaking data from over 200 foundations tracked by EGA from 2016 to 2021, we identified 297 grants totaling \$35,486,484 given to Aquaculture and 1,659 grants totaling \$447,876,871 provided to Fisheries. In other words, **Aquaculture received less than one-tenth of environmental funding to Fisheries, despite contributing to more than half of the world’s current seafood production.** Including additional seafood market strategies grants that did not specify the seafood source, **more than \$518 million was identified in total granted to Aquaculture, Fisheries and Seafood Systems during this timeframe.** This accounts for 4% of the total environmental funding tracked by EGA during this period. **Wild fisheries are historically considered as deeply connected to biodiversity, ocean health and coastal community livelihoods;**

Figure 1: Aquaculture & Fisheries Funding by International Region, 2016–2021



3 Food and Agriculture Organization of the United Nations. "The State of World Fisheries and Aquaculture: Towards Blue Transformation," 2022. [fao.org/3/cc0461en/cc0461en.pdf](https://www.fao.org/3/cc0461en/cc0461en.pdf), accessed April 2024.

4 Our World in Data. "The world now produces more seafood from fish farms than wild catch." <https://ourworldindata.org/rise-of-aquaculture>, accessed April 2024.

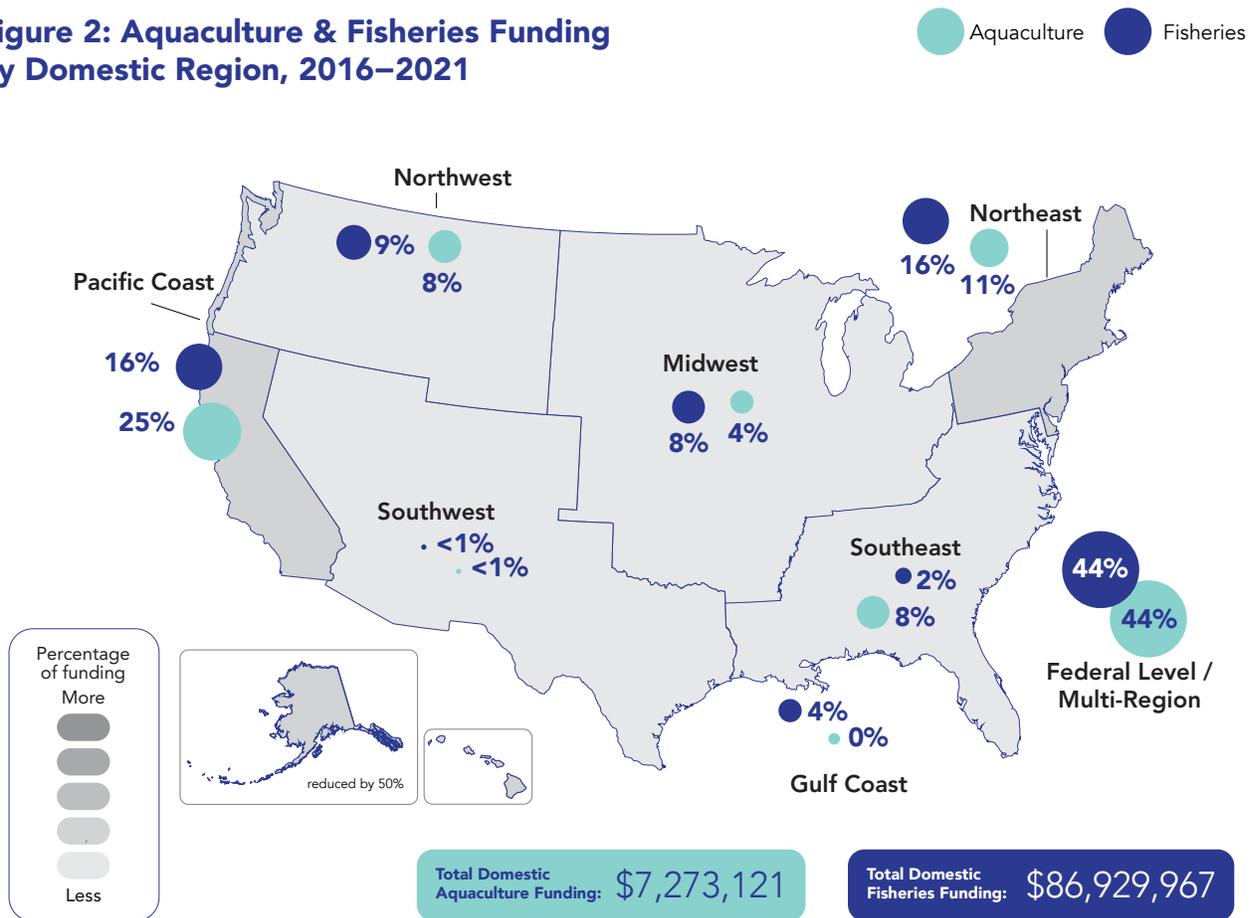
and Fisheries issues continue to call for attention from environmental funders, especially under the challenges of the changing climate. Aquaculture on the other hand, seems to be an issue largely overlooked by environmental philanthropy.

EGA recorded a total of 144 funders contributing to Aquaculture & Fisheries between 2016 and 2021. A few major funders, including The David and Lucile Packard Foundation, Walton Family Foundation, and Gordon and Betty Moore Foundation, contributed more than half of the total funding. EGA members can access the list of top funders and grantees of Aquaculture and Fisheries in the full report.

Geographically, the majority of funding for both Aquaculture and Fisheries supported international initiatives (80% and 81% respectively), with the rest about 20% supporting domestic initiatives in the U.S. A large share of total funding supported Global / Multi-Region programs for both Aquaculture (44%) and Fisheries (43%). For Aquaculture, North America (excluding the U.S.) received the most funding among all international regions, accounting for 12% of the total funding, followed by Asia (10%) and South America (8%). For Fisheries, Asia received 14% of the total funding, with South-eastern Asia alone receiving 10% of the total funding, followed by North America (excluding the U.S., at 7%) and South America (6%). The Arctic, Central America & Caribbean, Europe, and Oceania combined received a fraction of the total funding for both Aquaculture (3%) and Fisheries (8%). Figure 1 details the percentage shares of support for each international region.

Domestically, almost half of the funding supported Federal Level / Multi-region programs, 44% for both Aquaculture and Fisheries. For Aquaculture, the Pacific Coast was the most-funded individual region (25%), followed by the Northeast (11%) and Southeast (8%). For Fisheries, the Pacific Coast (16%) and Northeast (16%) again took the top spots in terms of total funding, followed by the Northwest (9%). The Southwest was the least-funded region, receiving less than 1% of the total funding for both issues. Detailed percentage shares of the funding for each domestic region are shown in Figure 2.

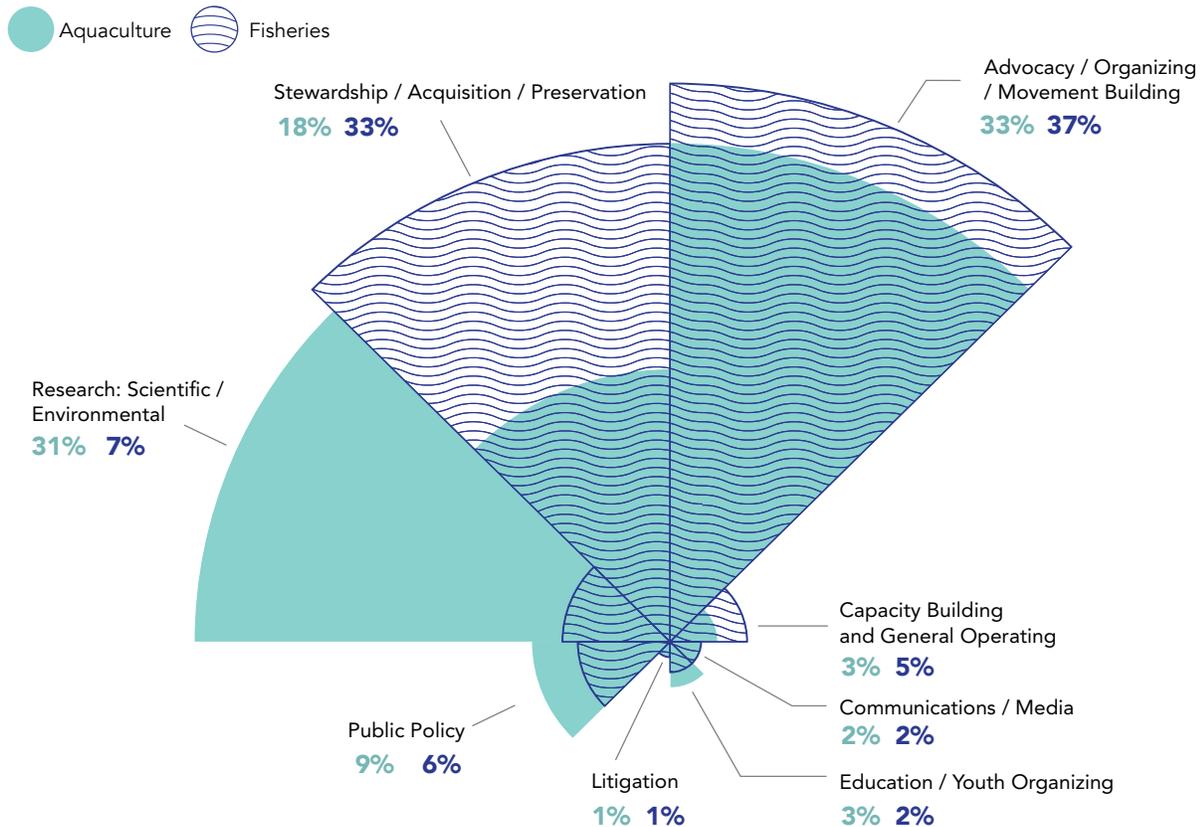
Figure 2: Aquaculture & Fisheries Funding by Domestic Region, 2016–2021



Turning toward grantmaking strategies, “Advocacy / Organizing / Movement Building” was the most funded grantmaking strategy for both Aquaculture (33%) and Fisheries (37%). For Aquaculture, a significant share (31%) of the funding supported “Research: Scientific / Environmental” efforts, while for Fisheries, 33% of the funding supported “Stewardship / Acquisition / Preservation.” This data indicates that **Aquaculture grants tended to focus more on research & technology, while Fisheries grants tended to have a strong focus on conservation.** Despite the significant increases in “Capacity Building and General Operating” funding observed across all environmental grants since the COVID-19 pandemic, accounting for 21% of total environmental giving in 2021,⁵ only 3% and 5% of Aquaculture and Fisheries funding was for general operating. This difference is likely because general operating grants support the grantees’ overall mission and are less likely to be focused specifically on Aquaculture and Fisheries. “Litigation” and “Communications / Media,” “Education / Youth Organizing” were some of the least-funded strategies for both issue areas. Figure 3 compares program strategies for Aquaculture and Fisheries.

Among the Aquaculture grants, we identified \$2.3 million (6%) given specifically to freshwater aquaculture. Among the Fisheries grants, we identified \$35 million (8%) supporting freshwater fisheries. The rest of the report dives into specific topics within Aquaculture and Fisheries. For Aquaculture, we will examine funding given to different aquaculture methods, including Open-Ocean and Near-shore Aquaculture, Pond & Lake-based Aquaculture, On-land Recirculating Aquaculture and emerging topics such as Restorative Aquaculture. For Fisheries, we will break down funding to various aspects of sustainable fisheries management, including Fishing Community Engagement, Fisheries Management Policies and Fisheries Management Research. We will also take a granular look at funding specifically targeted Tribal Fisheries & Indigenous Aquaculture Projects and funding to Seafood Market Strategies & Supply Chains covering seafood production from both Aquaculture and Fisheries.

Figure 3: Aquaculture & Fisheries Funding by Grantmaking Strategy, 2016–2021



5 Environmental Grantmakers Association. “Tracking the Field: Volume 8 Executive Summary.” https://ega.org/system/files/restricted/pub/reports/EGA_TTFv8_FINAL_WEB.pdf, accessed April 2024.

Mariculture

The Mariculture funding analyzed in this section includes grants supporting initiatives related to open-ocean and near-shore aquaculture in marine waters. We identified a total of \$16,616,983 given to Mariculture during the years of 2016–2021, which accounted for 47% of the total Aquaculture funding. Sixteen percent of Mariculture funding specifically focused on Open-Ocean Aquaculture and 28% focused on Near-shore Aquaculture.

Open-Ocean Aquaculture



TOTAL FUNDING:

\$2,658,613

TOP-FUNDED GEOGRAPHIC REGIONS:

INTERNATIONAL: 84%

South America (52%), North America (24%), Eastern Asia (19%)

DOMESTIC: 16%

Northwest (70%), Federal / Multi-region (24%), Pacific Coast (6%)

Funding Overview

Open-ocean Aquaculture is the mass cultivation of finfish in marine waters in underwater or floating net pens, pods, or cages. This method is also called offshore finfish farming. There are a lot of discussions about the potential environmental risks of this method, including the free exchange of parasites, waste, and disease between the farm and the surrounding waters, genetically modified and non-native fish escapes;¹ and pens attracting marine mammals that can then be injured or killed.²

We identified a total of \$2,658,613 in funding specifically directed towards open-ocean aquaculture during the years 2016–2021. South America received more than half of the total international open-ocean aquaculture funding (52%), followed by North America (24%) and Eastern Asia (19%). Domestically, 70% of the funding supported initiatives in the Northwest region, followed by Federal Level / Multi-region (24%), and the Pacific Coast (6%). Three-quarters of the total open-ocean aquaculture funding targeted salmon farming, mainly in South America, Canada, and the Pacific Northwest. These grants addressed the negative impacts of farming salmon in open sea cages on wild salmon populations and local ecosystems.

All the grants identified in this category specifically supported anti–open ocean aquaculture initiatives, except for one grant given to [Stronger America Through Seafood](#) for advocating for more investments in open-ocean aquaculture technologies and the growth of America’s off-shore aquaculture industry.

The major funders of this issue included the Global Greengrants Fund, with a focus on Chilean ecosystems and salmon aquaculture; The David and Lucile Packard Foundation, for sustainability research on open-ocean aquaculture in China and Chile; and Anonymous, supporting activism campaigns against open water salmon farming in the U.S. Northwest and globally.

- 1 Johns Hopkins Center for a Livable Future. “Ecosystem and Public Health Risks from Nearshore and Offshore Finfish Aquaculture.” <https://clf.jhsph.edu/sites/default/files/2019-09/ecosystem-and-public-health-risks-from-nearshore-and-offshore-fish-aquaculture.pdf>, accessed March 2024.
- 2 NRDC. “Let’s Determine the Risks of Open Ocean Finfish Aquaculture.” <https://www.nrdc.org/bio/rebecca-loomis/lets-determine-risks-open-ocean-fish-aquaculture>, accessed April 2024.

Near-shore Aquaculture



TOTAL FUNDING:

\$4,585,747

TOP-FUNDED GEOGRAPHIC REGIONS:

INTERNATIONAL: 73%

North America (64%), Southeastern Asia (14%), Northern Europe (9%)

DOMESTIC: 27%

Northeast (36%), Northwest (23%), Southeast (22%)

Funding Overview

This section covers aquaculture that is near-shore in marine water bodies, rather than in the open ocean. Major species farmed include shellfish (such as oysters and mussels grown on suspended ropes, trays, or bags nearshore) and seaweed (such as kelp and dulse). Grants given to this issue supported the cultivation of both restorative and harvestable shellfish farms, particularly near low-income coastal communities as a sustainable source of income, and advancing methods to use seaweed to mitigate ocean acidification and sequester carbon-dioxide.

We identified a total of \$4,585,747 given to near-shore aquaculture grants. North America received nearly two-thirds of the total international open-ocean aquaculture funding (64%), followed by Southeastern Asia at 14% and Northern

Europe at 9%. Domestically, 36% of the funding supported initiatives in the Northeast region, followed by the Northwest (23%), and the Southeast (22%). Gordon and Betty Moore Foundation contributed 45% of the total funding to this issue, supporting research on shellfish aquaculture and the carbon-dioxide-removal potential of seaweed. Overall, the top strategies employed by funders in this area are Research: Scientific / Environmental (56%), Stewardship / Acquisition / Preservation (17%), and Education / Youth Organizing (12%).

Pond & Lake-Based Aquaculture



TOTAL FUNDING:
\$8,329,388

TOP-FUNDED GEOGRAPHIC REGIONS:

INTERNATIONAL: 91%
Global / Multi-region (97%), Eastern Africa (1%), South America (1%)

DOMESTIC: 9%
Pacific Coast (70%), Northeast (14%), Federal Level / Multi-region (12%)

Funding Overview

This category includes funding supporting freshwater and saltwater aquaculture based in ponds or lakes in semi- or fully enclosed bodies of water. While having the potential to be a sustainable aquaculture method, pond and lake-based aquaculture can be destructive to the native habitat unless the discharged wastewater from these farms is filtered and treated.¹ We identified \$8,329,388 in total funding given to Pond & Lake-based Aquaculture. Most of the grants addressed shrimp farming ponds as a cause of coastal mangrove habitat destruction. Only a few grants in this category were identified as lake-based aquaculture that focused on harvesting and farming of fish species.

Nearly all of the international funding we identified for this issue supported Global / Multi-region (97%) initiatives. This international funding was primarily for research on shrimp farming on a Global / Multi-region scale, as well as more place-based grants, such as supporting smallholder farmers in Zimbabwe and the Chilean salmon industry. Domestic grantees made up 9% of the total funding, with 70% of this funding allocated to the Pacific Coast, which comprises Fish in the Fields projects in California and support for Hawaiian fishponds.

Gordon and Betty Moore Foundation gave the majority of the total funding to this issue category, with grants focusing on evaluating the ecological impact of coastal pond-based shrimp farming and accelerating habitat conversion-free production of farmed shrimp. Global Greengrants Fund gave out small grants to organizations around the world, supporting local projects such as establishing tilapia fishponds for food security in Lebanon and promoting women's employment through ecological carp farming in Georgia.

The following are the major sub-issue topics funded within this issue category.

Pond-based aquaculture (\$8M):

- Shrimp is the most common species farmed in ponds, receiving 90% of the total pond-based aquaculture funding.
- While the majority of this funding is allocated to research efforts that have a global impact on sustainable shrimp farming, 6% of this funding went to the Pacific Coast region.
- 4% of the pond-based aquaculture funding supports efforts to preserve and revitalize Native Hawaiian fishponds.

Lake-based aquaculture (\$69k):

- Only 1% of the total funding in this issue category supports lake-based aquaculture.
- All lake-based funding is international, supporting grantees based in Canada, Chile, and Bolivia.

¹ SeaChoice. "Aquaculture Methods." <https://www.seachoice.org/info-centre/aquaculture/aquaculture-methods/#:~:text=%E2%80%9C9CHigh%2Drisk%E2%80%9D%20pond%20farms,leading%20cause%20of%20mangrove%20destruction>, accessed April 2024.

On-land Recirculating Aquaculture


TOTAL FUNDING:

\$980,477

TOP-FUNDED GEOGRAPHIC REGIONS:
INTERNATIONAL: 22%

North America (79%), South America (12%),
Southern Africa (5%)

DOMESTIC: 78%

Southeast (43%), Midwest (22%), Federal
Level / Multi-region (21%)

Funding Overview

The analysis in this category includes grants supporting emerging recirculating aquaculture systems (RAS), including aquaponics. On-land Recirculating Aquaculture is the farming of fish or other aquatic organisms in highly-controlled environments where water is filtered and recycled. It is generally considered a sustainable aquaculture method based on land. Aquaponics more specifically, are systems incorporating the farming of aquatic species, along with plants in a recirculating system. We identified just under one million dollars supporting this emerging aquaculture method, accounting for less than 3% of total Aquaculture funding from 2016–2021. Overall, On-land Recirculating Aquaculture seems to be a novel area that has not received much investment from environmental funders.

Geographically, 78% of the total funding was directed to domestic initiatives, while 22% was international, with locations ranging from urban areas such as

South Sacramento to the Amazon Rainforest. The top funders that supported this issue include the GRACE Communications Foundation and Tides Canada.

Eighty-six percent of this funding supported aquaponics projects. Most notably, funding given to the [Recirculating Farms Coalition](#) supported their work in New Orleans on advocacy, policies, and research around community-based recirculating aquaponic farm projects. Most of the other aquaponics grants had an educational component, engaging youth or training community members on local aquaponics systems.

The rest 14% of the funding to this issue category supported closed-containment aquaculture projects that did not use the aquaponics model. Among them, we identified a few grants specifically supporting economic analyses of the roll-out of land-based closed-containment aquaculture, as a way to combat the risks of open-net salmon farming.

Other Aquaculture Topics

Restorative Aquaculture



TOTAL FUNDING:

\$2,888,206

TOP-FUNDED GEOGRAPHIC REGIONS:

INTERNATIONAL: 66%

North America (60%), Global / Multi-region (26%), Southeastern Asia (11%)

DOMESTIC: 34%

Northeast (38%), Pacific Coast (23%), Southeast (17%)

Aquaculture is defined as restorative when commercial or subsistence aquaculture practices provide direct ecological benefits to the environment or have the potential to generate net-positive environmental outcomes. We identified \$2,888,206 in funding supporting Restorative Aquaculture between 2016 and 2021. The top grantors include Gordon and Betty Moore Foundation, Anonymous, and The David and Lucile Packard Foundation. The top grantees include the University of British Columbia, followed by the Conservation International Foundation and the GreenWave Organization. Two-thirds of this funding supported international initiatives, with the majority of that funding supporting programs in North America (excluding the U.S.). Domestically, the funding is most concentrated in the Northeast, Pacific Coast and Southeast.

Of the funding identified in this subcategory, only 5% focused on freshwater aquaculture; the rest focused on marine-based aquaculture. These grants funded different restorative aquaculture approaches, including using bivalve shellfish to restore coastal ecosystems and filter waters; promoting the potential

of seaweed farming to mitigate climate change via carbon sequestration; vegetable farming using eelgrass and oyster shells; and restocking fish into wild waters. The following are the major species supported by these grants.

- **Shellfish (\$1.9M):** Twenty-three percent of the shellfish funding was utilized by projects restoring oyster habitat through aquaculture or using oyster farming to restore coastal ecosystems.
- **Seaweed (\$557k):** More than one-third of the seaweed funding supported projects in Southeastern Asia; 30% supported Global / Multi-region programs. The domestic grants on this issue focused on the Northeast.
- **Salmon or other fish (\$331k):** This includes projects involving restocking salmon, trout, seabass, and other fish species. It also includes Fish in the Fields projects that farm fish in rice fields, which is discussed in more details in the Pond & Lake-based Aquaculture section of this report.

Animal Welfare Related to Farmed Aquatic Life



TOTAL FUNDING:

\$1,752,564

TOP FUNDED GEOGRAPHIC REGIONS:

INTERNATIONAL: 100%

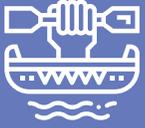
Funding Overview:

There is some funder interest in potential animal welfare concerns related to farmed fish or other aquatic life. In this study, we did not identify many grants specifically calling out animal welfare in the aquaculture process. We found only two grants relevant to this topic, given to the same grantee. All funding went to the University of British Columbia in Vancouver, Canada and all funding was for scientific research on farmed shellfish and how stress reduces their survival.

More information on "animal welfare": Improving the welfare of animals can also relate to improving the ecosystems

within which they live. Of the projects researched in EGA's study, many relate to ecosystem improvement in order to address environmental degradation and therefore, these grants are subsequently improving welfare for wild animals. As mentioned in previous sections, there are controversies over the practice of farming aquatic animals in a contained or semi-contained environment, such as open sea cages, net pods, and near-land ponds, but those grants are mostly concerned about the negative impact of these facilities on the local wildlife rather than on the animals that are being farmed.

Tribal Fisheries & Indigenous Aquaculture Projects



TOTAL FUNDING:
\$14,472,457

TOP-FUNDED GEOGRAPHIC REGIONS:

INTERNATIONAL: 49%
North America (48%), Arctic (23%), South America (21%)

DOMESTIC: 51%
Northwest (65%), Federal / Multi-region (18%), Pacific Coast (15%)

Funding Overview

Food sourced from fisheries and aquaculture is of particular importance to the livelihoods of Indigenous communities. It is estimated that Indigenous coastal people eat nearly four times more seafood per capita than the global average, and about fifteen times more per capita than non-Indigenous peoples in their countries.¹ For the nearly 30 million coastal Indigenous peoples around the world, seafood plays a vital role not only as a food source, but as an important part of their cultural heritage, economic vitality, and worldviews that advocate responsible stewardship of the natural resources that sustain their communities.

Between 2016 and 2021, we identified a total of \$14.5 million in funding supporting Tribal Fisheries & Indigenous Aquaculture Projects. Within this category are grants that address issues of tribal fisheries managed wholly or in part by Indigenous, First Nations and tribal groups; Indigenous aquaculture projects; and fisheries and aquaculture projects that support Indigenous food sovereignty.

About half of this funding supported international initiatives, most concentrated in North America (48%), the Arctic (23%) and South America (21%). This is the only Aquaculture & Fisheries issue where Arctic is one of the three most-funded international regions. Almost two-thirds (65%) of domestic funding focused on the Northwest, with 18% distributed to Federal Level / Multi-region initiatives and 15% given to programs in the Pacific Coast.

The top funders who gave more than \$1 million to this issue category during this timeframe include the Tides Foundation, Gordon and Betty Moore Foundation, and Oak Foundation. Global Greengrants Fund and Anonymous. awarded the largest number of grants across this category. Salmon Nation Trust and the Native American Rights Fund were the top grantees supported, receiving over \$1 million each. The majority of these grants supported Indigenous tribes and

organizations in the Pacific Northwest across North America.

The following are major sub-issue areas funded within this issue category.

Tribal Fisheries (\$14M):

- Tribal fisheries funding consisted of only 3% of total Fisheries funding.
- Almost half (48%) of this funding addressed salmon specifically, with a majority of projects funded in the Pacific Northwest region of the U.S. and Canada.
- These grants also supported tribal fisheries management, ecosystem restoration, actions against mining and drilling, and dam removal.

Indigenous Aquaculture Projects (\$750k):

- Only 2% of total Aquaculture funding was identified as specifically supporting Indigenous aquaculture projects.
- The majority of these grants funded projects on the Pacific Coast of the U.S and in South America.
- These grants are primarily focused on traditional fish ponds and clam and other bivalve gardens. Indigenous aquaculture grants tended to address issues of food sovereignty for Indigenous peoples and explore economic revenue streams that may be derived from aquaculture activities.

Indigenous Food Sovereignty (\$600k):

- Less than 1% of all Fisheries funding supported projects that explicitly mentioned Indigenous food sovereignty.
- The majority of this funding focused on the Pacific Northwest region of the U.S and Africa.
- Top grantees in this area include the Alliance for Food Sovereignty in Africa, the Burns Paiute Tribe, and the Native Conservancy.

1 The New Humanitarian. "For Indigenous Communities, Fish Mean Much More Than Food." <https://deeply.thenewhumanitarian.org/oceans/articles/2017/07/04/for-indigenous-communities-fish-mean-much-more-than-food>, accessed March 2024.

Fishing Community Engagement



TOTAL FUNDING:
\$135,528,147

TOP FUNDED GEOGRAPHIC REGIONS:

INTERNATIONAL: 80%
Global/Multi-Region (43%), South-eastern Asia (13%), South America (12%)

DOMESTIC: 20%
Northwest (31%), Northeast (27%), Federal Level / Multi-region (21%)

Funding Overview

Fishing community engagement is increasingly considered a key component of sustainable fisheries management, with more than \$135 million invested from 2016 to 2021 tracked by EGA. This category encompasses funding to small-scale fisheries, community-based fisheries management, and coastal fishing communities combating oil, gas and mining activities. According to a recent study from the United Nations, small-scale fisheries account for at least 40% of the global fisheries catch and employ more than 500 million people, 40% of whom are women.¹

The top funders, who all gave over \$10 million in funding for this issue area during this time frame, include Margaret A. Cargill Foundation, Oak Foundation, and Walton Family Foundation. Global Greengrants Fund and Anonymous. awarded the largest number of grants in this category across hundreds of small grantees globally. It is worth noting that out of the 465 grantees identified as receiving funding for Fishing Community Engagement, the top 5 grantees (or 1% of grantees) received half of the total funding. Two out of five grantees (41% of grantees) received less than \$10,000 in support of this issue during this timeframe.

The following are major sub-issue topics funded within this issue category.

Small-scale fisheries (\$119 million): Twenty-seven percent of the total Fisheries funding specified targeting small-scale fisheries, including tribal fisheries discussed in the previous section. Several key aspects supported for small-scale fisheries include:

- **Policies (\$16M):** This funding explicitly supported initiatives addressing policies and regulations related to small-scale fisheries. Three million dollars went to support fishery rights and tenure specifically. Less than 1% of small-scale fisheries addressed Illegal, Unreported and Unregulated (IUU) fishing, compared to 27% across all of

the Fisheries funding.

- **Science (\$10M):** This funding supported the science and data aspect of small scale fisheries management. These projects helped assess seafood stocks, enable fishing communities to better track and report their harvest, and monitor ecosystem health.
- **Market strategies (\$6M):** This funding supported projects addressing market strategies related to small scale fisheries, including cooperative agreements, traceability, and fair trade certification.
- **Capacity building & training (\$11M):** This funding was directed towards general support, capacity building and training that helped small scale fishing communities recover from COVID-19, build resilience, and introduce new methods and techniques for sustainable fishing. It accounted for 9% of the total funding supporting small scale fisheries, higher than the 5% across all of the Fisheries funding.

Community-based fisheries management (\$61M): Funding for this issue supported efforts to give fishing communities the primary responsibility for managing their coastal resources.

- This funding included \$48 million given to the Nature Conservancy. According to the [Nature Conservancy's fisheries program description](#), they collaborate with local Indigenous fishing communities in Kenya, Tanzania, Peru, Chile, Melanesia and Micronesia to support community-based, sustainable, and conservation-focused management of fisheries.
- The types of support include engaging local fishing communities in fisheries management by building their capacity, engaging in policy and research, and advocating for water-use rights.

¹ Food and Agriculture Organization of the United Nations. "Small-scale fisheries account for at least 40 percent of global fish catch and support the livelihoods of nearly 500 million people." <https://www.fao.org/fishery/en/news/41387>, accessed March 29, 2024.

Community-organizing work against coastal energy development (\$2M): Grants in this category supported communities in fighting against the harmful effects of pollution from the oil, gas, and mining industries near coastal and in-land water fisheries.

- Three quarters of this funding went to projects supporting coastal fishing communities internationally in combating deep sea mining and coastal oil & gas development.
- Domestically, the funding focused on community organizing efforts defending fisheries and marine protected areas against offshore drilling; and fighting metal and fossil fuel mines near freshwater fisheries.

Fisheries Management Policies



TOTAL FUNDING:

\$92,950,883

TOP-FUNDED GEOGRAPHIC REGIONS:

INTERNATIONAL: 76%

Global / Multi-region (42%), Southeastern Asia (17%), South America (10%)

DOMESTIC: 24%

Federal / Multi-region (47%), Pacific Coast (16%), Northeast (12%)

Funding Overview

Fisheries management policies and regulations are key to preventing overfishing and illegal fishing. From 2016 to 2021, we identified a total of \$92,950,883 supporting Fisheries Management Policies. Internationally-focused funding made up more than three quarters of these grants, with Global / Multi-Region being the most funded region, receiving 42% of the total international funding, followed by Southeastern Asia (17%) and South America (10%). Domestically, Federal / Multi-region projects received just under half of the total funding (47%), followed by the Pacific Coast (16%) and Northeast (12%).

There were a few major funders in this space that each contributed more than \$15 million to the issue during this timeframe, including Oak Foundation, Walton Family Foundation, The David and Lucile Packard Foundation, and Gordon and Betty Moore Foundation. Notable grantees that received more than \$5 million in this issue category included World Wildlife Fund, Environmental Defense Fund, and Nature Conservancy.

The following are major sub-issue topics funded within this category.

Illegal, Unreported and Unregulated (IUU) Fishing (\$25M):

IUU fishing was the major focus of fisheries management regulations and policies, with 27% of the total Fisheries Management Policies funding calling out this issue. IUU funding was much more present among industrial / commercial fisheries than among small-scale fisheries. More than half of this funding supported Global / Multi-region initiatives. IUU funding was allocated among a number of overarching themes, including the following.

- ocean conservation and the creation and preservation of marine protected areas (MSAs) to safeguard against IUU;
- engaging federal governments around the globe as well as the private seafood industry to tackle the problem of IUU by enforcing and bolstering existing IUU policies;
- addressing the intersection of IUU and human rights with the intention to protect workers on these illicit fishing

fleets from exploitation; and

- raising awareness of the significance of IUU and its detrimental environmental impacts.

Catch Shares / Catch Limits (\$9M): This funding supported policymaking and enforcement related to allocating a specific portion of the total allowable fishery catch to individual fishermen, cooperatives, or fishing communities. Sixty-three percent of this funding was directed toward domestic regions, concentrated at Federal Level / Multi-region, the Pacific Coast, and Gulf Coast. Almost half of the international funding to this issue focused on Eastern Asia.

Fisheries Stock Management (\$5M): This funding supported fisheries' stock management policies. Almost all of these grants called out the use of science and data as tools for fishery stock assessments to facilitate policymaking. Two-thirds of this funding was international, with the majority going to Southeastern Asia. Domestically, the majority of the funding went to the Midwest.

Harvest Control Rules (\$4M): This funding supported the development harvest control rules on fisheries and species. More than 70% of this funding supported Global / Multi-Region initiatives.

Subsidies (\$471K): Our study indicates that very little funding supporting fisheries subsidies. Only 1% of the fisheries subsidies funding specifically supported subsidies for small scale fisheries.

Bycatch (\$3M): Grants in this subcategory aimed to protect bycatch species during fishing activities. Seabirds were the focus of the vast majority of grants, along with turtle species and cetaceans.

Rights-based Fisheries Management (\$5M): The majority of this funding supported rights-based fisheries management of tribal fisheries internationally.

Fisheries Management Science



TOTAL FUNDING:

\$84,382,071

TOP-FUNDED GEOGRAPHIC REGIONS:

INTERNATIONAL: 72%

Global / Multi-region (40%), Africa (Continental) (15%), South America (11%)

DOMESTIC: 28%

Federal / Multi-region (45%), Pacific Coast (15%), Midwest (14%)

Funding Overview

Science and data offers essential support to the making of fisheries management policies and strategies. Stock assessments and harvest strategies are especially critical scientific tools for sustainable fisheries management. We identified a total of \$84,382,071 supporting the “science” aspect of sustainable fisheries management. These grants supported work covering data collection & analysis, monitoring, assessing, mapping, modeling, and providing science-based recommendations to fisheries management. Nearly 20% of the funding in this category went toward harvest strategies, stock assessments, and addressing climate-related shifts. Other grants emphasized the broader utilization of science, data, monitoring, and mapping to support fisheries management.

Overall, international funding accounted for a little less than three-quarters of total funding, with Global / Multi-region being the most funded international region, receiving 40% of international funding, followed by Africa (Continental) (15%) and South America (11%). Domestically, almost half of the funding supported Federal / Multi-Region (45%) initiatives, followed by the Pacific Coast (15%) and Midwest (14%). Several major funders contributed more than \$10 million each to this issue from 2016 to 2021, including Gordon and Betty Moore Foundation, The David and Lucile Packard Foundation, Margaret A. Cargill Foundation, and Walton Family Foundation. Three grantees received over

\$5 million for this issue, including the Nature Conservancy, Environmental Defense Fund and Marine Stewardship Council.

The following are the major sub-issue topics funded within this category.

Stock assessments (\$5M): Stock assessments provide data support for stock management policies. Half of the funding supported three major grantees: Nature Conservancy, Environmental Defense Fund and Tetra Tech ARD. See also “fisheries stock management” under the Fisheries Management Policies section of this report.

Harvest strategies (\$5M): Harvest strategies provide scientific and data support to the making of harvest control rules. Two-thirds of this funding was given to the World Wildlife Fund and International Seafood Sustainability Foundation.

Climate-related shifts (\$6M): These grants funded research and science dedicated to understanding the impacts of a changing climate on aquatic species and fisheries, in support of building climate-resilient fisheries. Two-thirds of this funding supported Global / Multi-region initiatives. The Environmental Defense Fund received over 60% of this funding.

Seafood Market Strategies & Supply Chains



TOTAL FUNDING:
\$79,529,528

TOP-FUNDED GEOGRAPHIC REGIONS:

INTERNATIONAL: 86%
Global / Multi-region (61%), Eastern Asia (14%), North America (9%)

DOMESTIC: 14%
Federal Level / Multi-region (52%), Pacific Coast (26%), Southwest (19%)

Funding Overview

Seafood market strategies ensure responsible consumption, sourcing, and production of seafood by engaging various stakeholders in the supply chain, including consumers, businesses, industry leaders and fishers. This covers seafood produced from both Aquaculture and Fisheries. We identified \$79,529,528 in funding supporting Seafood Market Strategies & Supply Chains from 2016 to 2021, with the vast majority of funding being given globally (86%). For both international and domestic funding, more than half of the funds supported multi-region initiatives.

The three top funders to this issue included The David and Lucile Packard Foundation, Walton Family Foundation, and Gordon and Betty Moore Foundation, each giving more than \$20 million to the issue during this timeframe. Five top grantees each received over \$5 million in support of the issue, including FishChoice, World Wildlife Fund, Marine Stewardship Council, Nature Conservancy and Monterey Bay Aquarium Foundation.

The following are the major sub-issue topics funded under this issue category.

Seafood Certification / Labeling / Rating (\$29M):

- Thirty-seven percent of the funding in this category focused on seafood certification, labeling and rating initiatives.
- Major seafood certification and labeling projects supported include [FishChoice](#), [Seachoice](#), the Monterey Bay Aquarium's [Seafood Watch](#), the Marine Stewardship Council's [MSC Fisheries Standards](#), [Fair Trade USA](#), and the Stichting World Benchmarking Alliance Foundation's [Seafood Stewardship Index](#).
- These programs span the United States, Canada, and around the globe, and certify sustainability practices regarding seafood retailers, suppliers, fisheries,

aquaculture, and treatment of workers.

Seafood Fraud (\$300k): Seafood fraud involves the mislabeling of seafood to consumers and retailers to disguise the sale of endangered or less desirable species.

- A recent Guardian analysis of forty-four recent studies of more than 9,000 seafood samples from restaurants, fishmongers and supermarkets in more than thirty countries found that 36% were mislabeled, exposing seafood fraud on a vast global scale.¹
- We identified only two grants focused specifically on seafood fraud. Both grants supported documenting the impacts of seafood fraud, with one using the documentation to improve seafood traceability in the U.S.

Transparency & Traceability (\$14M): The top grantees included FishChoice, the World Wildlife Fund, the David Suzuki Foundation and the Nature Conservancy. These grants worked to increase traceability in the seafood supply chain in species such as shrimp, salmon, and tuna, and globally in countries such as Chile, Mexico, Canada, and Thailand.

Seafood Supply Chains (\$12M): Out of this funding, 7% focused specifically on local seafood supply chains. One emerging model of local seafood supply chains is Community-Supported Fisheries (CSF), which offers members weekly shares of fresh seafood for a pre-paid membership fee. We did not identify any grants specifically calling out CSF, but there were similar models supported, such as [Bay2Tray](#), which supplies local schools with fresh and locally-caught seafood. Support to local supply chains was most concentrated in South-eastern Asia.

Responsible Seafood Production (\$14M): Organizations such as the Conservation Alliance for Seafood Solutions and Seafood Business for Ocean Stewardship Initiative engage fishers, business, and industry leaders in

1 The Guardian. "Revealed: Seafood fraud happening on a vast global scale." <https://www.theguardian.com/environment/2021/mar/15/revealed-seafood-happening-on-a-vast-global-scale>, accessed March 2024.

responsible seafood production through research and coalition building.

Import Control (\$5M): The majority of the grants geared toward import control were focused on strengthening the NOAA’s [Seafood Import Monitoring Program](#), which works to prevent illegal, unreported, unregulated, and misrepresented seafood from entering the U. S.

Fishery Improvement Projects (FIPs) (\$3M): FIP’s, such as the global [FisheryProgress.org](#) project, engage private sector stakeholders such as seafood companies and businesses in supporting the certification and sustainability of fisheries.

Partnership Foundation specializes in using SR’s to give different sectors of the fishing industry a platform to collaborate on fisheries sustainability.

Conclusions

Marine and aquatic conditions are essential to an understanding of the myriad ways seafood plays in global food systems and culture. According to the Food and Agriculture Organization of the United Nations, Seafood production through Aquaculture and Fisheries has quadrupled in the past fifty years and is expected to continue increasing in the foreseeable future.¹ Aquaculture and Fisheries practices deeply impact ocean health, biodiversity, food systems, climate resilience, and sustainable communities. Moreover, this global ecosystem informs the lives and livelihoods of Indigenous peoples everywhere. Examining these interactions is crucial to a holistic understanding of the impact of environmental philanthropy as a resource and an intervention to our collective trajectory and survival. This work requires further attention and investigation from the environmental and philanthropy sectors. EGA has just scratched the surface of what is knowable in this ecosystem. Further, we are excited by the abundance of opportunities for collaboration among funders within and beyond our membership to address solutions to these challenges.

The data analyzed in this report reveal the following key takeaways:

Overall Funding:

- Environmental funders invested more than \$500 million in Aquaculture, Fisheries and Seafood Systems from 2016 to 2021, which accounts for 4% of the total environmental funding tracked by EGA. More attention and funding are needed to address Aquaculture, Fisheries, and Seafood Systems in order to support critical solutions for a sustainable and just food future.
- Only 3% of the total Aquaculture and Fisheries funding supported Tribal Fisheries & Indigenous Aquaculture projects, which is insufficient, considering the importance of seafood in the livelihoods of Indigenous communities.

Aquaculture:

- Aquaculture is an area largely overlooked by environmental philanthropy, receiving less than one-tenth of the funding given to Fisheries. The rapid growth of the Aquaculture industry calls for the environmental sector to evaluate and address its ecological impact and invest in sustainable aquaculture methods.
- Some Mariculture methods continue to face criticisms. Ninety-nine percent of the funding given to Open-ocean Aquaculture was directed to efforts fighting against it. Only one grant supported improving the technologies of open-ocean aquaculture. On the other hand, many species cultured in Near-shore Aquaculture, especially oysters and seaweed, have the potential to be restorative to coastal ecosystems and help mitigate climate change via carbon sequestration.
- Emerging sustainable aquaculture methods such as On-land Recirculating Aquaculture received little funding, at only 3% out of the total Aquaculture funding.

Fisheries:

- Funders are acknowledging Fishing Community

Engagement as a key component of sustainable fisheries management. However, this funding is highly concentrated among a few large grantees; resources need to be more equitably distributed among groups working with frontline communities globally. Models like Community-Based Fisheries Management are also receiving a lot of attention. We recommend closely monitoring and evaluating the implementation of these initiatives to ensure communities are given the primary responsibility for managing their coastal resources.

- We identified 27% of the Fisheries funding specifically supporting small scale fisheries. Considering that small scale fisheries account for more than 40% of the world's fishery catch, this support is still insufficient.
- Policies and Science are major pillars of sustainable fisheries management, explicitly addressed by 35% of the total Fisheries funding. Significant efforts have been put into preventing Illegal, Unreported and Unregulated (IUU) Fishing. Funding to science and data continues to support policymaking related to stock assessments, catch shares, bycatch, and harvest rules. The intensifying climate crisis has also generated interest in new support for research on fisheries management related to climate shifts.

Seafood Market Strategies:

- Various market strategies were supported throughout the seafood supply chains for both Aquaculture and Fisheries. Philanthropic investments have primarily focused on ensuring sustainable seafood sourcing and consumption. This includes Seafood Labeling / Certification / Rating (addressed by 37% of the Seafood Market Strategies funding) and the Transparency & Traceability of seafood.
- Aside from the consumer and market side, we also observed increased funding investing in Responsible Seafood Production by engaging seafood companies and businesses.

1 Food and Agriculture Organization of the United Nations. "The State of World Fisheries and Aquaculture: Towards Blue Transformation." 2022. [fao.org/3/cc0461en/cc0461en.pdf](https://www.fao.org/3/cc0461en/cc0461en.pdf), accessed April 2024.

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Paul Einerband, "Fishing for Mussels", 2020, via www.unsplash.com

Thirawatana Phaisairatana, "Fisherman feeds the fish in a commercial farm in Mekong river", 2019, Adobe Stocks