2020 Global Landscape Review of Fishery Improvement Projects

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CEA CONSULTING

About the authors

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Summary findings from the 2020 Global Landscape Review of Fishery Improvement Projects, available in English, Spanish, Japanese, Chinese, and Bahasa Indonesia

https://OurSharedSeas.com/FIPReview

Summary findings from the 2015 Global Landscape Review of Fishery Improvement Projects, available in English and Spanish

https://OurSharedSeas.com/FIPReview-2015

Disclaimer

The findings and conclusions in this report represent the interpretations of CEA Consulting and do not necessarily reflect the view of the study funders or expert stakeholders.

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Terminology referenced in this report

Term	Description
AIP	aquaculture improvement project
AP2HI	*Asosiasi Perikanan Pole & Line dan Handline Indonesia*
ASC	Aquaculture Stewardship Council
BSC	Blue Swimming Crab
CALAMASUR	Committee for the Sustainable Management of the Southern Pacific Jumbo Flying Squid
CEA	CEA Consulting (formerly California Environmental Associates)
COBI	*Comunidad y Biodiversidad A.C.*
COREMAHI	*Comité Regional del Mahi Mahi*
DCF	developing country fisheries
EM	electronic monitoring
FAO	Food and Agriculture Organization of the United Nations
FIP	fishery improvement project
FIP DB	Fisheries Improvement Projects Database
FMI	Fisheries Management Index
GEF (also UN GEF)	Global Environment Facility
GFAST	Global FIP Alliance for Sustainable Tuna
HCR	harvest control rule
HS	harvest strategy
IATTC	Inter-American Tropical Tuna Commission
IFCA	Inshore Fisheries and Conservation Authorities
IMARPE	*Instituto del Mar del Peru*
INP	*Instituto Nacional de Pesca* (Ecuador)
INPESCA	*Instituto Nicaraguense De La Pesca Y Acuicultura*
IPNLF	International Pole and Line Foundation
IUU	illegal, unreported and unregulated
NGO	non-governmental organization

Term	Description
MDPI	*Yayasan Masyarakat dan Perikanan Indonesia*
MSC	Marine Stewardship Council
NOAA	National Oceanic and Atmospheric Administration
OPAGAC	*Organización de Productores de Atún Congelado*
PACPI	Philippine Association of Crab Processors, Inc.
PI	Performance Indicator (MSC)
PRODUCE	*Ministerio de la Producción* (Peru)
PUFKI	Project United Kingdom Fisheries Improvements
QDAS	qualitative data analysis software
RFMO	regional fisheries management organization
RLF	Resources Legacy Fund
SAC	scientific advisory committee
SEDER	*Secretaría de Agricultura y Desarrollo Rural* (Mexico)
SFP	Sustainable Fisheries Partnership
SFW	Monterey Bay Aquarium Seafood Watch
SNP	*Sociedad Nacional de Pesqueria* (Peru)
SPRFMO	South Pacific Regional Fisheries Management Organization
SR	supply chain roundtable
SRP	*Subsecretaría de Recursos Pesqueros* (Ecuador)
TAC	total allowable catch
TED	turtle excluder device
TUNACONS	Tuna Conservation Group
T75	Target 75 Initiative
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
US SIMP	United States Seafood Import Monitoring System
WWF	World Wildlife Fund

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Executive Summary

Executive Summary

The FIP landscape has evolved since CEA's 2015 FIP Review; there are new implementers, new markets, a greater appreciation for governance, and a growing movement for social issues

The FIP implementing landscape has evolved and grown substantially.

The original FIP architects are moving away from implementation or already have: Sustainable Fisheries Partnership (SFP) and Ocean Outcomes (formerly Wild Salmon Center) have ramped down FIP implementation, while World Wildlife Fund (WWF)-US is reevaluating how to best apply the tool. Local seafood companies run more FIPs than any third-party implementer, and many are supported by supply chain roundtables or other NGO efforts. It appears that industry contributes more funding than it did in 2015. The number of third-party (i.e., non-industry-led) FIP implementers has more than doubled as well. Strikingly, most sustainable seafood NGOs are now running or are key stakeholders in FIPs, including The Nature Conservancy, Environmental Defense Fund, Conservation International, Marine Stewardship Council (MSC), and Monterey Bay Aquarium Seafood Watch (SFW). Local conservation organizations have also pivoted to apply the tool to communities in which they have worked (e.g., *Comunidad y Biodiversidad A.C.* (COBI), *ProNatura Noroeste A.C.* (ProNatura)).

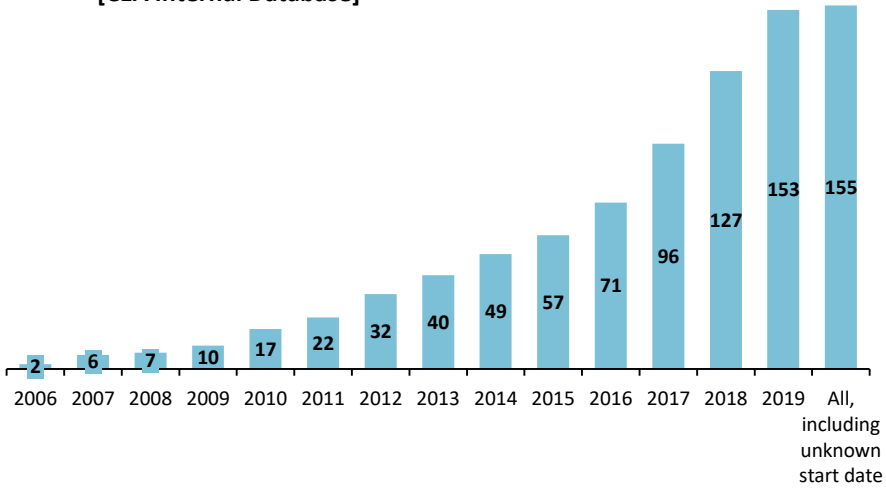
Markets supporting FIPs are growing within and beyond the US, Canada, and Northern Europe.

Most major US grocery retailers and at least six of the top 15 EU grocery retailers use FisheryProgress to source FIP products. NGOs have cultivated new markets demanding sustainable seafood in Spain and Japan. NGOs and certain businesses are trying to develop domestic markets for sustainable seafood in new countries, like Mexico and Indonesia, albeit with limited early success. Participation in supply chain roundtables continues to expand—the number of seafood companies participating in supply chain roundtables has more than doubled since 2015.

Despite the flurry of activity in the FIP universe, many of the reflections in CEA's 2015 FIP Review remain relevant.

Foremost among those reflections is the confusion associated with the proliferation and evolution of the FIP model and how it is applied. FIPs now reflect a broad framework deployed in increasingly different fishery/community/governance contexts to achieve a variety of goals, rather than reflecting an extension of a unified approach with a consistent end. This research largely validated the 2015 Review's reflections on key drivers of success, including the critical role of government engagement and FIP leadership.

Growth in active and completed FIPs, 2006-present [CEA Internal Database]



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FIP thought-leadership looks different than five years ago, with growing emphasis on policy advocacy and community engagement.

Two primary approaches to fisheries conservation are converging: markets-based interventions and policy advocacy. Among private foundations, place-based strategies are increasingly funding FIP-implementing organizations to advance their domestic agendas, while seafood-markets programs are promoting collaborations with policy influencers. FIP implementers and stakeholders, particularly in less developed countries, increasingly recognize the critical role government needs to play to achieve FIP goals and the importance of multi-stakeholder efforts engaging the government.

Among those interviewed, only a few offered distinct visions for different roles that FIPs could play in reforming fisheries globally and their associated communities.

Old guard

- SFP remains the clearest advocate for how FIPs can generate impact at scale globally. Most implementers and other thought leaders are focused on what it will take to succeed regionally, particularly in the less developed nations.
- WWF-US remains committed to the tool but is reassessing how FIPs can be most influential across jurisdictions and environmental threats (e.g., climate change).

New age

- Conservation International has driven the integration of well-being considerations into sustainable seafood and the FIP movement. Based on the Monterey Framework, CI developed the C-FIP model that is being piloted first in Costa Rica. This represents the vanguard of an alternative values-driven approach to seafood reform that focuses on well-being and social equity.
- Ocean Outcomes and Future of Fish are developing triple bottom line FIP approaches that use near-term social and economic benefits to incentivize stakeholder participation, building upon SmartFish's success in Mexico (and Blue Ventures' success in Madagascar).

The quality and availability of data is improving and tells a more nuanced story of how FIPs work: FIPs improve management and overfishing faster than unengaged fisheries, while self-reported changes convey an overly optimistic outlook

New public data platforms make it possible to gain insights into how the FIP model is working. Recent peer-reviewed results are positive.

Only one peer-reviewed study has attempted to test whether fisheries engaged in FIPs improve faster than a control group of unengaged fisheries. Cannon et al., 2018 found evidence that fisheries engaged in FIPs demonstrate a higher likelihood of improvements in fishery management and reductions in overfishing than a control group. While the authors provide associated limitations and caveats, the study provides the first look into the effectiveness of the intervention relative to other fisheries not otherwise engaged.

All other peer-reviewed assessments and research (including CEA 2015) have focused on rate of progress and reported changes among fisheries engaged in FIPs using the reported progression through FIP stages as the primary measure of effectiveness. These data are now more readily accessible through FisheryProgress and are self-reported, mostly self-generated data.

Total FIP coverage continues to grow. While most FIPs report changes within three years of launch, the rate of improvement is slower than expected.

FIPs' interim outcomes are encouraging, as implementation and market uptake continue to grow steadily. Yet long-term outcomes remain elusive in general as reported changes on the water are fewer and FIP completion has been slower than initially anticipated, based on the early examples in Northern European whitefish fisheries.

This likely reflects the challenging on-the-ground reality of fisheries reform in less developed countries and an expected five-year timeline for completion, rather than a failing of the model itself. Travaille et al., 2019 state their "results support recent estimates that fisheries may need up to 10 years to reach the minimum level of sustainability required for MSC certification." Bahamas lobster, Ecuador Mahi Mahi, and Guyana Seabob each entered MSC full assessment within this timeframe (Nicaragua lobster may also enter full assessment by 2022). Accepting the time horizon of Travaille et al., 2019 would meaningfully change the narrative on the effectiveness of FIPs.

A closer look at the data suggests most change occurs within a few years of launch and slows over time.

Of the 396 performance indicator improvements FIPs reported to FisheryProgress (as of May 2019), more changes were reported in the first year of FIP implementation than any other year. FIPs are *less* likely to report improvements in the fishery over time based on public reporting. This suggests most changes FIPs report are generated by identifying data or documentation that clarifies initial fishery assessment scores for the better or efforts by stakeholders to make process-oriented changes in the first year or two of implementation. CEA estimates that 80% of reported Stage 5 (i.e., "change on the water") events reflect FIP activities that clarify current fishery health or fishing practices; only a few reported changes represent new ecological gains generated directly by FIP actions meant to improve fishery deficiencies. Gaining a more accurate understanding of the true state of a fishery is helpful, yet it represents a different type of change on the water than many expect.

FIPs are permitted to report (and are credited for) changes to the fishery regardless of whether stakeholder action contributed to the reported improvements. CEA estimates that a third of Stage 5 changes were due to events unrelated to FIP activities. CEA also found during site visits that some FIPs were further away from achieving their objectives than their public profiles suggested.

Though improved, FIP reporting does not necessarily assess changes in the water.

The data used to evaluate FIP progress and impact relies on self-reported, largely self-generated data. While third-party audits and applying risk-based frameworks are steps in the right direction, the better measure would be semi-regular assessments of stock abundance and ecosystem health for fisheries engaged in FIPs (and a control group), but cost and capacity constraints limit this type of data collection.

Key developments since 2015

- **Development of FisheryProgress**. FisheryProgress is a platform for transparency and consistency in progress reporting that has greatly improved (but not solved) important FIP data challenges.
- **A more than doubling of the number of FIP implementers**, driven by a growth in regional implementers in Mexico, Indonesia, China, Japan, Chile, and Peru.
- **Peer-reviewed research** providing empirical evidence to support or challenge FIPs (i.e., Sampson et al., 2015; Villeda 2018; Cannon et al., 2018; and Travaille et al., 2019).
- **Experimentation with integrating "social"** issues into the model via implementation, new frameworks and tools, and adjacent supporting activity.

Government capacity and engagement in FIPs are essential for success; most FIPs in low-governance settings cannot make progress without government action

FIP success is limited by governmental ability to improve management, which is most apparent in less developed countries.

Government bears responsibility for managing common pool resources. FIPs effectively supplement fisheries management in many fisheries. Where government interests align with FIP goals and the capacity exists to act, significant progress can be made (e.g., Ecuador, Morocco, Nicaragua). Where government objectives for fisheries management are misaligned with the FIP, or where capacity for management and enforcement is insufficient, progress is typically limited to those changes that participants can make on their own, and impact on the water is often minimal.

There is strong statistical evidence that a country's development status impacts the likelihood that FIPs will report improvements and that FIP performance will correlate with the Fisheries Management Index (FMI) and measures of stronger overall governance.[1] Proxies for industry's influence are less apparent, yet those available present mixed signals. Evidence suggests that the number of industry participants is positively correlated with more rapid initial Stage 4 or 5 achievement, but fewer total reported changes over time. There are few examples of foreign supply chain companies directly advocating for policy change, though informants suggest foreign companies have limited influence on national fisheries management bodies and encouraging engagement by domestic industry is more effective.

Some government leaders are emerging to initiate and implement FIPs, but this role is not easily replicable.

The UK's "Project UK" FIPs were initiated to reform domestic market-oriented fisheries, and Indian officials collaborated with assessors to issue five MSC pre-assessments in two weeks. Governments in countries like Morocco and Nicaragua are leading FIP implementation.

Morocco's FIP steering committee, with representatives from industry, government, and research agencies, demonstrates the power of inter-ministerial collaboration. Successful government engagement is country-specific and limited by objectives, capacity, and official turnover; however, it is an important criterion when scoping future projects.

There are many different government agencies that can be involved with FIPs.

Fisheries management agencies who are responsible for setting and enforcing fisheries management rules and regulations, such as input and output controls.

Oceanographic research institutes who are responsible for conducting the scientific research necessary to make science-based fisheries management decisions.

Fisheries monitoring, control, and enforcement agencies: Often overlap with management agencies, but sometimes unique functions are separated into a distinct agency.

Military, navy, and coast guard: Often involved in monitoring and surveillance within the exclusive economic zone. May play additional functions such as search and rescue when fishing vessels are lost at sea.

Administrative support/planning agencies: Play a coordinating role across government agencies, often involved in helping set budgetary priorities between agencies.

Rural development agencies: Involved in economic development for fishing and agricultural communities.

Multilateral governance institutions: Set international laws, standards, or codes of conduct and may support implementation.

[1] Melnychuk et al., 2017

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FIPs need to contribute to national-level reforms to achieve widespread impact—something they are not currently well positioned to do.

The seafood markets movement has made important gains in nearly every important seafood commodity supplied to Western markets. Few fisheries, if any, remain that are "low-hanging fruit." The next tier of target fisheries is primarily in less developed countries, where product is destined for markets outside of North America and Europe, and where the capacity for fisheries management is limited. Many of the highest-volume fisheries left in approachable commodities like tuna and small pelagics are engaged in some way with sustainable seafood (e.g., via ISSF, IFFO-RS). If FIPs continue to take a fishery-by-fishery approach, the model's potential for impact will quickly plateau (against current volume-based targets).

In 2015, CEA recommended that FIPs consolidate efforts to approach government at the national level to address shared deficiencies limiting good fisheries management. Inspired by what eventually became the Seafood Task Force, that review flagged an opportunity for stakeholder collaboration to influence government action. Despite its slow pace, it appears that the dual approach of *Impacto Colectivo* and the Mexican Seafood supply chain roundtable (SR) best reflects a vision for collective action focusing on common issues.

Most other "national"-level FIPs focus on consolidating activities within a specific commodity (e.g., three national FIPs in Indonesia for tuna, snapper, and Blue Swimming Crab (BSC)) and often focus on promoting species-specific fisheries management plans that have limited benefits for other fisheries in the country.

The Global Marine Commodities Initiative led by the United Nations Development Programme (UNDP) represents a promising example of what national-level coordination for FIPs could look like. In partnership with SFP, the Global Environment Facility (GEF)-funded project recently launched in Costa Rica, Ecuador, Indonesia, and the Philippines with the goal of establishing multi-stakeholder platforms at the national level to drive fisheries improvement

Consistent market demand is central to the success of FIPs; stronger and differentiated market benefits are desired at every level of the seafood supply chain

Homogenous benefits and buyer inconsistency limit FIP incentives.

To generalize, Western markets provide a binary benefit to fisheries engaged in sustainable seafood in the form of market access. Almost all FIPs are viewed as equal in the marketplace. Yet sending clear market signals can change behavior: though limited, there are examples of FIPs transitioning from basic to comprehensive in response to buyers' requirements. Some end- and mid-chain buyers report having shifted away from a failing FIP. However, this does not preclude importers from sourcing from poor-performing or unengaged fisheries, sending mixed signals to FIP participants.

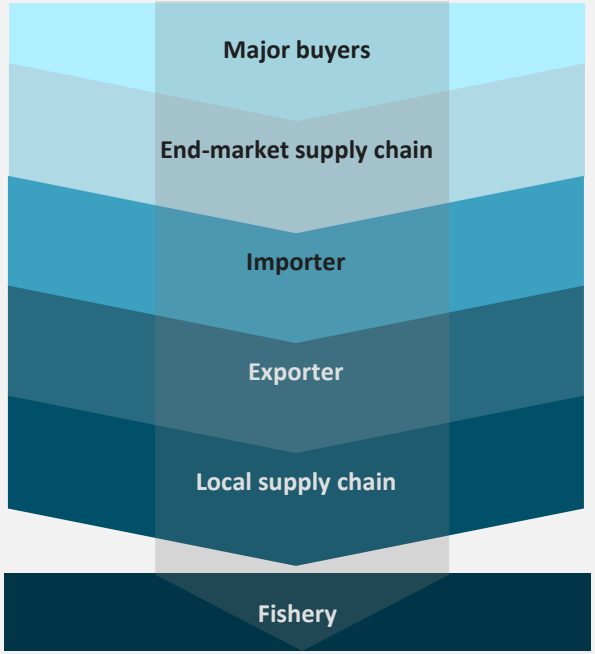
This nuance is not lost on local producers, processors, and exporters, some of whom are vocally critical. On the one hand, buyers require their suppliers to participate in FIPs, but on the other hand, mid-chain buyers (e.g., importers, exporters) may also source non-FIP products, sometimes even in the same fishery, frustrating FIP participants. Few tools are available to hold buyers to their commitments or to confirm their sourcing representations are accurate.

There is money to be made from FIPs for some, but benefits are not explicitly tied to performance.

Many of key informants highlighted the lack of a price premium available for FIP products, especially in the face of higher costs via FIP participation. That said, there is clearly commercial value in participating in FIPs. For most, this value manifests in preserving or gaining customers. One company reported that their US retailer customers grew by 400% over five years of FIP participation total revenue grew by 25-50%.

These commercial benefits reflect neither effort nor improvement, but rather the potential opportunity for FIP-engaged fisheries brokered by supply chain actors that know how to meet end-buyer demand for sustainable seafood. While this anecdote reflects only one company's experience (most participants decline to provide commercial information), these are compelling benefits that should be used to further industry engagement in fisheries and illustrate the need for greater transparency and accountability mechanisms to ensure market benefits are rewards for improvements.

Consistent demand for sustainable seafood is essential at all stages of the supply chain to be able to deliver improvements in a fishery resource.



Non-Western companies seek a familiar differentiator: a logo.

Stakeholders at every level in multiple countries have highlighted a desire to "get credit" for their FIP participation and support through consumer-facing messaging. One retailer reports using in-store, product-specific messaging to highlight its work with FIPs. At one point, a processor stamped its own label, "Supporting the Future of Indonesian Fisheries," on the interior packaging it sends to the US. One key informant suggested there is "big potential for a domestic eco-label" in China for FIP stakeholders in. Even the NFI-Crab Council's international product carries the "Committed to Sustainability" on-product logo that is synonymous with its FIP work. As FIP implementation continues to evolve beyond the Conservation Alliance for Seafood Solutions' members, the ability to police consumer-facing marketing will become more difficult.

Site visits highlight a sense of resource stewardship among local industry.

Many of the local industry representatives CEA interviewed expressed a clear understanding that resources are declining, often based on data collection efforts undertaken by FIP implementers. Local processors in Indonesia and Nicaragua exert leverage by rejecting product that does not meet legal and sustainability criteria or refusing to purchase from boats that do not participate in a FIP. The further away from the raw material, the more diluted the incentive (or ability) to reject unsustainable product. Local industry, which often includes multi-generation fishers or processors, may ultimately have the greatest incentive to improve the state of the local resource, given that their fates are tied to that resource's health.

The US's ongoing trade war with China highlights vulnerability in the markets movement.

The global seafood markets movement is built upon an international trade regime, but US protectionism can disrupt trade flows and dislocate buyer leverage. China is the world's largest producer of seafood, the vast majority of which is not engaged in sustainability efforts. Yet Chinese FIPs highlighted the trade war with the US as their greatest risk.

Faced with new challenges in less developed countries and small-scale fisheries, FIPs are being drawn into the world of human rights, economic development, poverty reduction, and food security—likely for the better—making implementation more intensive and costly

The sustainable seafood movement is expanding to incorporate different values and objectives.

Seafood markets work is first and foremost focused on environmental improvement. Much of the motivation for industry to engage in these efforts to address resource sustainability stems from the belief that conservation can support long-term value creation or, at least, preservation. Many observers' implicit assumption is that long-term value created through sustainability improvements will be good for society in general.

Until recently the seafood markets community has not had to identify, question, or proactively consider how to address these values and their tradeoffs. Several factors are challenging this dynamic. First, most FIPs are now operating in less developed countries and increasingly in small-scale fisheries. As a result, these FIPs face competing objectives for fisheries management (e.g., output, livelihoods, food security, equity) and value-driven rationales for reform. Reconciling different objectives, or being explicit about tradeoffs in intervention approaches, becomes increasingly ethically fraught when livelihoods and security are at stake.

Second, the Associated Press and Guardian exposés on slave labor in 2014 put international seafood buyers on notice with the high-profile revelation that egregious human rights abuses regularly occur in the seafood industry. Thai Union, Nestle, and Costco were sued for benefiting from slave labor in their seafood supply chains. The growing coverage of human rights abuses in seafood is providing traction for long-running efforts by human rights NGOs to address human rights in globalized supply chains and is stimulating new activity to ensure legal compliance and to remedy identified abuses.

Finally, some traditional conservation organizations are more explicitly prioritizing human well-being outcomes as a motivation for conservation. NGOs like Conservation International, Fair Trade USA, FishWise, Future of Fish, Ocean Outcomes, ProNatura, and SmartFish are all seeking to prove new Theories of Change around fisheries improvement. Some see engaging social and economic failures in fishing communities as a greater incentive for resource stewardship that can help achieve sustainability outcomes more quickly. Others see addressing those failures as distinct and equally valued ends. Foundations are also increasingly exploring the diversity, equity, and inclusion dimensions of their grantmaking.

The expansion of the FIP umbrella to address new objectives seems to be drawing in new players, but implementation is just beginning.

Many of the newer, locally led FIP implementers (e.g., ProNatura, COBI, MDPI) and FIP-adjacent organizations (e.g., Fair Trade USA, Blue Ventures) have a deeper understanding of complicated resource-community contexts and see in FIPs a framework to use market incentives to address intractable problems. These implementers draw from the lessons of both the conservation and economic development communities, designing FIPs that tap into fishers' core motivations and partnering with organizations outside the conservation and fisheries universe (i.e., human rights NGOs, economic development agencies, multilateral aid agencies). Yet most of these efforts are in the early years of implementation, and they represent a small proportion of FIP activity globally—~19% of FIPs self-identify as addressing "Social Impact" on FisheryProgress.

Greater community engagement requires greater investment, partnership, and expertise.

There is value and potential in seeking to address additional drivers of overfishing globally, such as failures of rural economic development, social exclusion and marginalization, and the economic underpinnings of globalized supply chains. The overarching question faced by FIPs seeking to address multiple issues, however, is whether they can "have it all" (i.e., deliver on the triple promises of sustainable fisheries, economic development, and improved well-being at a scale that makes a difference for the resource and for people).

Yet others question whether market-based approaches are even fit to address fundamental human well-being issues in fisheries. Given the early stage of these efforts, it may be several years before the community is able to start answering those questions with empirical evidence.

Community engagement is expensive and will require decades to address core deficiencies. While the timeframe may line up with FIP implementation in some geographies, this multi-faceted approach will require substantially more funding, partnerships, and expertise than is currently available in FIPs in order to meaningfully engage individual fisheries and expand globally.

Yuridia Rodrigues Moreno waits for her husband in the company of her two kids, Juan Pablo Lopez Rodrigues (left) and Luis Javier Torres Rodrigues. Husband Francisco Javier Torres Romo belongs to co-op Ensenada de la Palma. Ribereña Ensenada de la Palma Cooperative, Altata, Sinaloa, Mexico. 09/12/2016. Source: Fair Trade USA

Wildan Ramadhan poses with a tuna in Indonesia. Waepure Village, Buru Island, Maluku, Indonesia. 7/12/2014. Source: Fair Trade USA

Introduction & Overview

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Introduction to the Global Landscape Review of Fishery Improvement Projects

Purpose of the Global Review of FIPs

In 2019, CEA conducted the second Global Landscape Review of Fishery Improvement Projects (FIPs). Like with the 2015 Global Review, the David and Lucile Packard Foundation ("Packard"), Walton Family Foundation ("Walton"), and Gordon and Betty Moore Foundation ("Moore") asked CEA to help them better understand the current state of FIPs worldwide. As the primary philanthropic funders of FIPs and the seafood markets movement more broadly, these foundations are using this process to reflect on the state of progress in the space to guide future strategies and investments.

In addition to reflecting on the state of FIP progress, each foundation is planning or currently involved in an evaluation for which this research is relevant. This synthesis provides a contemporary review to help inform those assessments.

The review is also meant to provide insights for the wider FIP field.

Audience for the Global Review of FIPs

The audience for our research is the FIP community, including implementers, buyers, funders, academics, practitioners, and other participants in the sustainable seafood movement. CEA hopes that these findings will support future strategy development across the growing stakeholder community.

Study approach

The approach of the review was to replicate approximately the 2015 review's approach. CEA conducted a descriptive, mixed-methods summative strategic review of the FIP landscape, focusing on five core research questions. The study includes some assessment of "change over baseline," employing roughly similar research questions focused on FIP objectives, FIP implementation, funding structures, fishery management, and FIP non-environmental goals.

Research questions for the 2019 Global Review of FIPs

The 2019 research builds upon questions from the 2015 review and tackles new questions that address the movement's evolution. CEA answered over three dozen questions that nest within the following five core questions:

1. What contributes to FIP progress, impact, and effectiveness?
2. How do FIPs invest their resources?
3. What market incentives motivate FIPs?
4. How do FIPs advance fisheries management?
5. What improvements are FIPs attempting to make beyond environmental improvements (e.g., social, business)?

Advisors to the 2019 Global Review of FIPs

CEA recruited an expert advisory panel comprising academic, industry, and topical experts to help shape the approach and refine findings. The panel represents a change from the 2015 FIP review. CEA is also working with an evaluation expert to support methodological rigor.

Dr. James Sanchirico, academic advisor

Dr. Sanchirico is a resource economist and Professor of Environmental Science and Policy at the University of California at Davis. He was the principal investigator on the 2015 paper, "Secure Sustainable Seafood from Developing Countries," and he co-authored a 2018 paper, "Evolution and the Future of the Sustainable Market" in *Nature*. In particular, Dr. Sanchirico provided guidance on our quantitative research methods.

Jesse Marsh, FIP content advisor

Jesse Marsh, Principal at Scaling Blue, ran WWF's FIP and seafood markets program for nearly six years and has been serving the broader FIP community since 2014. She helped craft the Conservation Alliance for Seafood Solutions FIP guidelines, is the Global Coordinator for FIP community of practices, is a member of the Technical Advisory Committee of FisheryProgress, and advises market stakeholders and organizations on FIP-related matters. Marsh helped produce the first global review of FIPs and was an important resource to ensure our research was comprehensive.

Helen Packer, industry advisor

Helen Packer was Anova Food's science and sustainability coordinator and helped run the Fishing and Living program that initiated and implemented FIPs. She recently began a PhD program at Dalhousie University on corporate social responsibility in the North American and European tuna industry. Packer provided an industry perspective on our work, while also understanding the resource and management realities associated with fisheries reform.

Dr. Jacqueline Berman, methods advisor

Dr. Berman provided additional guidance on how to approach the evaluative questions within our project. Dr. Berman is an independent evaluation consultant, the current Senior Advisor of Strategy, Learning, and Impact with International Centre for Migration Policy Development, the former Director of Impact for Upstream USA, and a former Senior Researcher for Mathematica Policy Research. She is also working with the Packard Foundation to support the evaluation of the global seafood markets strategy.

Approach for the 2019 Global Review of FIPs

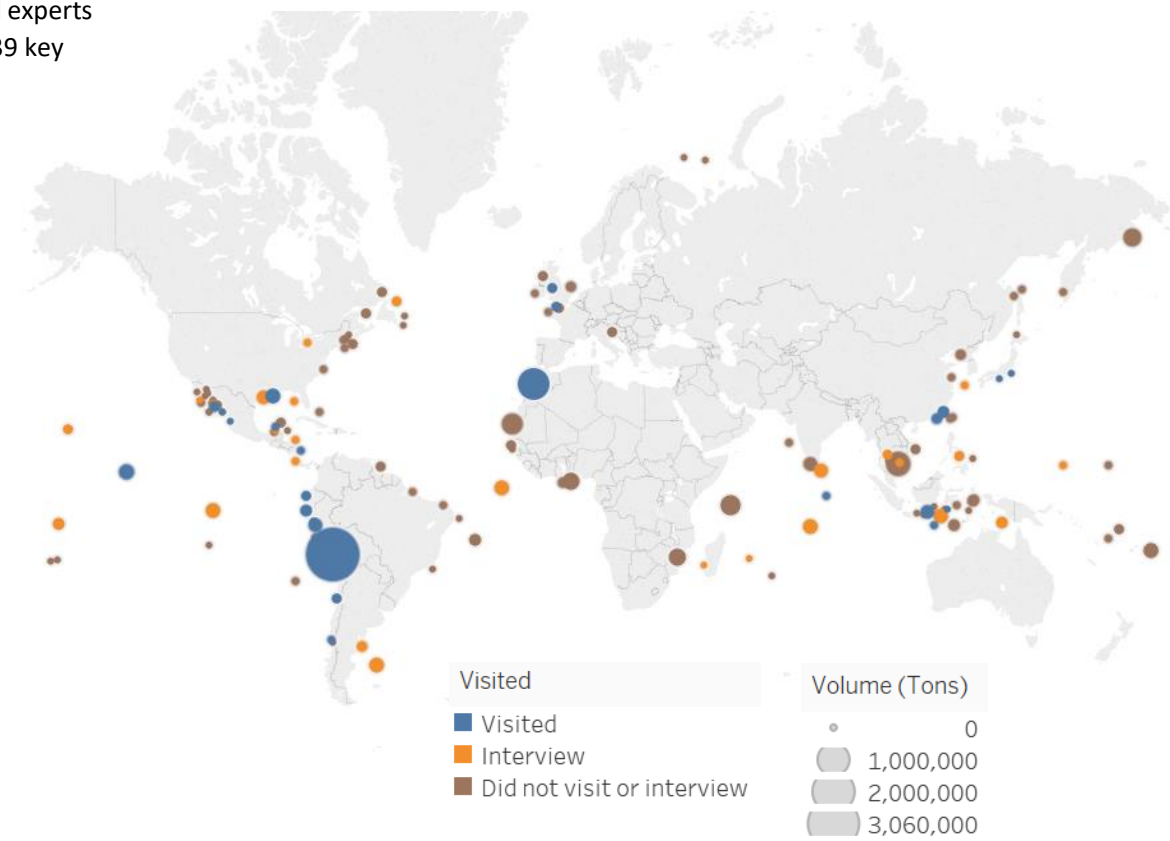
Coverage of key informant and site visit interviews

CEA visited 28 FIPs in 11 countries and interviewed experts in an additional seven countries. CEA conducted 239 key informant interviews.

Key informant characteristics

- FIP implementer interviews as a percentage of total interviews: **19%**
- Industry member interviews as a percentage of total interviews: **26%**
- NGO interviews as a percentage of total interviews: **35%**
- Government official interviews as a percentage of total Interviews: **13%**
- Geography-specific interviews (178 of 239 total): South and Southeast Asia (49), North America (48), South America (44), Northeast Asia (20), Europe (10), Africa (7)

Map of active FIPs reporting to FisheryProgress by location and volume



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Reflections on the FIP Model

Summary

The FIP model is expanding and evolving more quickly now than in 2015

The FIP world has only gotten bigger and more complex since the 2015 review.

- More FIPs are being implemented in more parts of the world, for more commodities, by more implementers, for more reasons, and seeking more end goals than ever before.
- Despite the proliferation, our 2015 reflections on the model and descriptions of how FIPs are implemented differently (e.g., four FIP archetypes) remain resonant. 2020 reflections build upon and complement the 2015 findings.

FIP evolution is driven primarily by market incentives, namely:

- The near-full engagement of fisheries primarily supplying engaged markets (e.g., US, Canada, Northern EU), and the expansion of FIP engagement to fisheries where market-mediated incentives are diluted (e.g., where non-engaged markets, like China, form a large portion of the seafood products' end destination) and supply chain leverage may be less consolidated (e.g., small-scale fisheries).
- New legal and compliance obligations to export into the US and EU markets and greater focus on human rights in seafood supply chains.
- The lack of clear financial benefits to MSC certification or differentiated benefits among FIPs, and the resulting search for alternative means of incentivizing engagement.

Questions of effectiveness and impact, as well as new values and worldviews, are permeating the conversation, posing some difficult questions for the FIP model.

- After almost 20 years of implementation, there is not yet a clear narrative around FIP impact on the water. This reflects the complexity of regenerating fisheries, the diversity of governance and market contexts, and the varying approaches for implementing FIPs. That said, the model has been applied to fisheries in the developing world in the last 10-12 years, while most projects currently operating in the developing world have been started in the last five years.
- FIPs' time-to-success is likely governed by external fishery dynamics more than effective implementation.
- FIPs working in less developed countries are progressing more slowly than expected (relative to earlier successes in highly developed countries), encouraging implementers to test new Theories of Change related to social and business improvements that divert attention from environmental improvements.

Key developments since 2015

- **Development of FisheryProgress**. FisheryProgress is a platform for transparency and consistency in progress reporting that has greatly improved (but not solved) important FIP data challenges.
- **A more than doubling of the number of FIP implementers**, driven by a growth in regional implementers in Mexico, Indonesia, China, Japan, Chile, and Peru.
- **Peer-reviewed research** providing empirical evidence to support or challenge FIPs (i.e., Sampson et al., 2015; Villeda 2018; Cannon et al., 2018; and Travaille et al., 2019).
- **Experimentation with integrating "social"** issues into the model via implementation, new frameworks and tools, and adjacent supporting activity.

Summary

The FIP model's greatest values are its wide-reaching applicability, relative low-cost, and scale of deployment; funders continue to shape the implementer landscape, particularly in priority geographies

The FIP model provides a coherent framework for the vastly different fisheries, countries, commodities, stakeholders, and motivations that now constitute this larger universe of actors and activities. It has accommodated to different Theories of Change, as well.

- FIPs have been implemented in 52 countries. The Conservation Alliance for Seafood Solutions' FIP Guidelines and associated resources, Community of Practice, and FisheryProgress provide guidance and support for stakeholders around the world to improve FIP implementation, especially in challenging fisheries.
- For some fisheries, FIPs are the only means of injecting expertise, capacity, and resources into fisheries management.
- In response to challenges to progress in less developed countries, implementers are testing two new strategies to gain traction:
    - Consolidate FIP leverage throughout a country and focus on improving national-level constraints.
    - Engage fishing communities directly and develop near-term social and/or economic incentives to participate in improvements.

Many of CEA's reflections and recommendations from the 2015 FIP Review remain relevant.

- Specifically, CEA's points on muddled Theories of Change, the need for clear success stories, and local capacity bottlenecks continue to be major sticking points.
- Many material criticisms remain as well, including concerns about impact and greenwashing. The FIP community has largely addressed concerns about reporting transparency and data availability by creating FisheryProgress and the Fishery Improvement Projects Database (FIP DB), though growing pains still need to be addressed.

2020 Reflections

2020 Reflections on the Model

The report makes two overarching observations about the FIP landscape and seeks explanations

	Observation	Question	Assessment
1	The movement continues to evolve	What can explain the evolution of the FIP movement?	Market incentives appear to be the principal driver of changes in FIP utilization, but philanthropic support enables the growth of new approaches. Additionally, a new worldview is emerging in seafood focusing on the need to address human well-being, further complicating the landscape.
2	Some FIPs are working but others aren't	What key factors cause some FIPs to work better?	Effective implementation can partially explain different levels of success, but initial fishery conditions are a major contributing factor affecting time to completion, and this factor is beyond the control of FIPs.

CEA

Evolution of the FIP Movement

Changing market incentives help explain the evolution of the FIP model and the proliferation of approaches

Incentives are critical for understanding behavior. Once it became clear that MSC was unattainable for most fisheries and a transitional intervention was needed, the global seafood markets strategy had a clear, if not explicit, ladder of incentives to engage fisheries and encourage them toward long-term sustainability. In theory, increasing benefits would encourage fisheries stakeholders to progress along a performance standard.

INITIAL THEORY

Near-term	Medium-term	Long-term
FIPs maintain market access	**MSC certification provides greater benefits**	**Sustainable fisheries are stable & profitable**
Buyers demand that fisheries in their source portfolios form FIPs in order to maintain commercial relationships	Initial expectations were that fisheries would access additional markets and receive price premiums	Sustainable fisheries should provide stability and viability across the seafood supply chain, from producers to end-buyers

Progressively increasing incentives are critical, as they provide short- and medium-term incentives that motivate stakeholders to engage immediately and pursue long-term goals. However, a number of developments have led to the dilution of envisioned incentives and a reduction of pressure.

PRACTICAL LIMITATION

Essentially all fisheries that primarily export to traditionally engaged markets are in FIPs or certifications. Many newly engaged fisheries have a growing portion of final product going to non-engaged domestic or international markets. Non-engaged market demand (e.g., China) is displacing engaged market demand for many seafood products, diluting incentives for certain commodities. Many buyers bestow the same benefits on FIPs as certifications (i.e., market access), reducing the incentive to pursue more formalized certification. Legal obligations for companies related to sustainability are limited. Labor laws and human rights standards have more robust legal accountability mechanisms.	More than 12% of the world's best performing fisheries are MSC certified. Certified volumes continue to grow incrementally, but fewer and fewer readily certifiable fisheries remain. MSC is not consistently delivering price premiums across all commodities and products; market access can often be achieved through FIP participation. Buyers are increasingly accepting other forms of certification, based on Global Sustainable Seafood Initiative benchmarking or prescribed by aquaculture certification feed standards. MSC and other certifications are not relevant for all markets, and fisheries may not see that pursuit as valuable depending on where product is sent.	There is growing uncertainty that environmental sustainability alone will deliver enough value to actors across the supply chain (e.g., producers). The sustainable seafood movement was not built with improving producer well-being as an explicit goal, and the notion that benefits accrue equally or equitably across the supply chain does not hold. This awareness is giving rise to an alternative values-driven approach to seafood reform that is now motivating work to improve social and economic conditions of producers and their communities.

CEA

Evolution of the FIP Movement

Changing market incentives help explain the evolution of the FIP model and the proliferation of approaches

In response, a landscape of different approaches is evolving to provide incentives to engage and migrate along a path toward better environmental performance.

RESPONSES TO CURRENT INCENTIVES

Near-term

Bottom-up FIPs

Promise of new market access by starting a FIP and subsequently attracting new commercial opportunities based on buyer demand.

Social and business FIPs

Additional actions and goals that deliver short-term benefits by addressing social, economic, and/or business deficiencies.

Create new market demand for sustainable seafood

NGOs have engaged new key countries to expand demand for sustainable seafood and increase incentives (i.e., Spain, Japan). There is also an **effort to cultivate domestic demand** for sustainable seafood that has been less successful to date (e.g., Mexico, Peru).

Recognition of non-market benefits

Elevate and recognize good performers to promote non-market benefits like pride, honor, and sense of achievement.

Medium-term

The rise of Target 75 (T75)

Instead of relying on MSC to reward the best performers and motivate others to follow, T75 seeks to engage the mass-middle by making the pursuit of sustainability the norm, disincentivizing laggards.

Pursuit of non-MSC end goal

FIPs are seeking an increasing number of certifications and ratings via the FIP process, based on which offers the highest return on investment (e.g., IFFO RS, Fair Trade, SFW yellow/green).

Proliferation of new FIP-like interventions

FIP-like interventions have started to crop up, including the Asian Seafood Improvement Collaborative and Fishery Labor Improvement Project, developed by the Issara Institute.

Social responsibility in seafood is developing rapidly

Efforts to create a socially responsible seafood movement have rapidly developed: there are more than 40 organizations addressing human rights and labor conditions in fisheries. Many of these efforts exclusively focus on social gains.

Long-term

Continued march toward sustainable fisheries

The drive for healthy and sustainable fisheries persists as the dominant, long-term motivation for the sustainable seafood movement, and stakeholders at every level of the value chain point to this shared vision as the goal of these collective efforts.

Human well-being considerations on the rise

FIPs were not designed to directly improve human well-being, and there is concern that this blind spot may be limiting FIP effectiveness or resulting in unintended adverse consequences for producers and fishing communities in the fisheries where FIPs are implemented. While it is currently unclear how this may alter the sustainable seafood movement, if at all, recalibrating interventions to explicitly target human well-being would be a departure from the initially stated long-term vision for the movement.

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Evolution of the FIP Movement

Philanthropy still plays an active role by helping shape buyer demand and supporting new approaches

Industry is funding traditional FIP implementation, while foundation seafood markets programs fund supporting systems

- Traditional funders and established implementers of the FIP movement have largely pulled away from direct implementation, instead recruiting other stakeholders (e.g., industry, government) to take the lead in funding and implementing FIPs.
- Neither the Packard or Walton foundations' seafood markets programs directly fund FIPs at present. Instead, they fund the development of systems (e.g., FisheryProgress, supply chain roundtables) that support the global network of FIPs as well as providing core support to organizations that shape the sustainable seafood movement.
- As seafood markets programs have pulled off the water, foundations' country programs (i.e., Chile, China, Indonesia, Japan, Mexico, Peru) have increasingly funded FIP implementation, including funding FIPs led by organizations that are newer to FIP implementation.
- Implementation is driven by major buyer commitments to sustainable seafood, how those commitments are acted on throughout the supply chain, and the extent to which they are held accountable. Foundation-funded efforts to shape these drivers are still critical to sustaining pressure on the seafood industry and making sustainability the norm.

Emerging approaches in the FIP landscape are primarily supported by new funders of FIPs, promoting evolution and adaptation, but in some cases they are causing confusion in the field

- Direct philanthropic support of FIPs, particularly of bottom-up projects, has generated confusion and in some cases frustration in the field. In Mexico, there was widely shared frustration on the part of older FIPs, which now primarily rely on industry funding, about the rise of more than a dozen small-scale, bottom-up FIPs directly supported by foundations that have ceased supporting established projects.
- Multilateral aid from the GEF through the Global Marine Commodities project has supported FIPs and national policy coordination platforms in Costa Rica, Ecuador, Indonesia, and the Philippines. In Asia, this work appears to be running in parallel to longstanding FIP work, but in Ecuador it was cited as critical to securing government engagement in the small pelagics FIP.
- First-generation marine-focused impact private equity and venture funds have not invested in FIP implementation, but next-generation approaches to FIP financing are under development, including WWF's FIP Fund and the Multiplier Fund.
- The integration of socially responsible seafood into FIPs has been funded in part by new funders, including the Walmart Foundation's support for FishWise's Roadmap for Improving Seafood Ethics (RISE), Conservation International's due diligence assessment tool derived from the Monterey Framework for Socially Responsible Seafood, and Issara Institute's Fishery Labor Improvement Project.

The trade off: support for these different approaches tests new strategies and tactics for improvement, but muddles market signals as to whether industry will ultimately pay for sustainable seafood interventions

- FIP implementation eventually must be paid for by non-philanthropic sources, and steps have been taken to shift ownership to industry. It will be difficult or impossible, however, to truly understand the extent to which industry sees value in these interventions while third-party grants specifically fund implementation.
- Clearer communication about why different FIP approaches receive direct philanthropic support will reduce confusion and may move implementers to pursue strategies that qualify them to receive additional funding.

Evolution of the FIP Movement

Implicit values and assumptions underpinning market-based approaches to conservation are being questioned

Fisheries management has historically been deeply rooted in economic theories (e.g., tragedy of the commons) and interventions (e.g., input and output controls) whose impacts on human well-being are increasingly being questioned, particularly as they relate to fisheries in less developed countries and small-scale fisheries.

- Significant literature exists showing that individual transferable quotas can result in negative social, economic, and equity outcomes including:
    - Consolidation of wealth and supply chain leverage in vertically integrated corporations
    - Negative impacts falling disproportionately on less powerful segments of the industry, including crew, small business owners, and rural communities, such as job losses, flow of capital away from rural areas, exacerbation of class divisions, and shifts in cultural values and identity
- FIPs are not designed to gather data on or address the underlying socioeconomic dynamics in fisheries or their effects on human well-being. As such, FIPs may not be as effective in situations where those factors contribute to resource exploitation, and FIPs could also exacerbate existing inequities. This review is the first global effort to examine the social impact of FIPs.

Different values and goals guide fishery resource management, particularly in less developed countries, impacting FIP implementation.

- Less developed countries may seek to manage fisheries, at least in part, to maximize output to contribute to economic growth (e.g., Indonesia, Peru); to use fisheries policy to remedy historical injustices (e.g., South Africa); to optimize for local food security (e.g., India, Bangladesh, Mozambique); as a political tactic (e.g., Senegal, Mexico); or to maximize rent extraction to generate foreign currency (e.g., Parties to the Nauru Agreement countries, West African countries). Fisheries in these regions are likely not managed to achieve maximum sustainable yield, which presents challenges to long-term resource sustainability.
- FIPs in these countries are confronted with political dynamics that do not entirely align with resource sustainability. As such, FIP implementers and conservation NGOs are seeking new solutions to address what they see as intractable situations, new opportunities, moral imperatives, or all of the above.

The seafood markets movement is reckoning with questions surrounding values and how far foundations, NGOs, and the seafood industry are willing to go to incorporate these concerns into their work.

- There is an effusion of activity (new tools, frameworks, and approaches) designed to grapple with the human well-being dimensions of fisheries, much of it uncoordinated and reactive. The seafood industry remains deeply resistant and entrenched, most traditional FIP implementers do not feel that addressing “social” is within their capacity or mandate, and foundation strategies have largely remained unchanged.
- The emergence of global tools for accountability on the high seas, the drumbeat of media coverage on social issues, and changing import controls on the part of major seafood-importing countries may force the seafood industry to address these issues in some manner sooner rather than later.

Factors for FIP Progress

The dynamics of both the fishery and the intervention affect a FIP's rate of progress or time to completion and should be explicitly considered when assessing effectiveness and impact

In 2015, CEA sought to understand how FIPs as an intervention were implemented. From that research CEA distilled four dichotomous characteristics that helped clarify salient differences among projects in the field. Two characteristics—FIP structure and supply chain engagement—defined a two-by-two matrix that segmented the FIP landscape into four FIP archetypes embodying overlapping Theories of Change. Sorting a FIP by its most important structural and motivational variables provided a coarse sense of how effective it may be and how quickly it could progress. While helpful, the framework ignores the context within which the FIP is working.

FIPs' rate of progress and time to completion are influenced by factors independent of the process. For example, empirical analysis, expert opinion, and site visits all suggest government capacity to manage fisheries is a primary determinant of a FIP's time to completion. When FIPs can advocate for management change within a functioning system, they progress faster. When they must support the development of a functioning system, or try to become a surrogate, they progress slower. Moreover, FIPs working on fisheries in relatively good health require fewer changes to achieve certifiability and thus finish quicker and appear more effective. These factors are independent of how a FIP is structured, what leverage the supply chain has, how engaged stakeholders are, or how well the project is funded, yet they meaningfully affect a FIP's ability to drive change on the water or to achieve certifiable performance for the fishery.

The way FIPs are implemented matters too; rate of progress and time to completion are also governed by factors specific to the fishery. Some factors are easier to measure than others. FIP structure (e.g., comprehensive vs. basic) is publicly reported and a proxy for implementer effort. Individual leadership is regularly cited by implementers and informants as a key factor that explains how well a FIP performs, yet it is difficult to distill characteristics of a successful FIP leader at the start of a project, perhaps except for a preexisting relationship with relevant fishery managers.

Fishery dynamics

Exogenous factors that most impact FIP rate of progress:

1) Government capacity for fishery management
2) Initial fishery status
3) Target species
4) Fleet type

FIP dynamics

Endogenous factors that most impact FIP rate of progress:

1) Leadership
2) Effort level
3) Stakeholder engagement
4) Market leverage

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Factors for FIP Progress

Certain fishery dynamics external to the FIP will alter performance regardless of how a FIP is implemented

Government capacity for fishery management

Enforcement: Governments' ability to enforce regulations is often the most critical barrier impeding recovery and effective fisheries management.

Stability: The greater the turnover in key management agencies, the more difficult it is for external stakeholders to motivate reforms. On the other hand, FIPs offer an external mechanism for retaining institutional knowledge that helps provide continuity across different political appointments.

Management goals: Fisheries management agencies may prioritize aspects other than sustainability (output targets, livelihoods), making it harder for FIPs to deliver on environmental goals.

Science-informed management: If catch limits are established by non-scientific processes, overexploitation is more likely to persist.

Management domain: Fisheries that require coordinated management across relevant jurisdictions are more complex and take longer to reach sustainability.

Initial fishery status

Fishery condition: Fisheries with fewer failing "outcome" performance indicators will progress more quickly. In 2015, CEA designated these as "celebratory" fisheries.

Unit of assessment size: If the unit of assessment is small enough, certain MSC performance indicators default to a passing score, making it easier to complete the project.

Target species

Life history: Travaille et al., 2019 explain that certain species groups are better suited to FIPs based on life history characteristics. FIPs for long-maturing species will recover slower. Meanwhile, very highly fecund species like shrimp and small pelagics are also challenging as their recruitment can vary widely from year to year, and measurement over time may be difficult to map to the FIP process.

Fleet type

Industrial vs. artisanal: Industrial fleets are more consolidated, have fewer actors to engage/regulate, and report progress more quickly than artisanal/small-scale fisheries. Fleet type appears to matter most in less developed countries, where FIPs in industrial fisheries report improvements more frequently than in artisanal fisheries.

Factors for FIP Progress

FIPs can be more effective if they possess certain key attributes

Leadership

Pre-existing connections to fisheries managers or agencies: Government almost always needs to adopt some change for FIPs to succeed. Strong pre-existing relationships between FIP leaders and government staff are credited with regularly contributing to successful projects.

Strong technical understanding of FIP processes, targeted standard (e.g., MSC, other certifications, SFW), and market dynamics: Understanding the FIP's goal and how to achieve it is critical; leaders with stronger understanding are more capable of guiding participants through the process. Having visibility into supply chain dynamics allows leaders to engage the broader market context to aid implementation.

Local: Local FIP leads are quicker to build trust, are more vested in project success, and better understand context. They were highlighted by informants as a key element for success.

Stakeholder engagement

Engaging the "right" stakeholders: FIP stakeholder groups need to match the scope of their aspirations. If a FIP needs to improve national management, it must have enough industry leverage or government relationships to credibly advance those activities. FIPs with less influential stakeholders can make the changes dependent on direct participant activity but shouldn't be expected to drive larger-scale changes.

Effort level

Continuity: Implementers that are successful work on FIPs for several years, maintain project momentum, and provide consistency for stakeholders.

Sufficient funding: Funding is a regulating factor for effort. Maintaining enough funding to continue implementation is essential for progress.

Third-party implementer: Dedicated capacity focused on FIP implementation is important for making progress more quickly.

Market leverage

Supply chain structure: Shorter, more direct supply chains can more easily transmit the demand for reform; vertically integrated supply chains are most effective. Supply chains with many actors, even if highly consolidated, have greater difficulty transmitting clear signals to producers whose actions need to change.

Market destination: Fisheries with a significant share of production destined for engaged markets with sustainability commitments have stronger incentives to make progress than comparable fisheries supplying markets without sustainability commitments, and the former category appears to progress more quickly.

Factors for FIP Progress

Low-hanging fruit are all but gone; FIPs are engaging increasingly challenging fisheries

The FIP model was initially envisioned to intervene primarily in export-oriented fisheries at the primary processor level. Doing so leveraged industry's influence over fishers and kept costs low. FIPs are now being applied primarily in less developed countries, often where product goes to multiple end-markets, and are increasingly operating in small-scale fisheries with smaller volumes and with orders of magnitude more producers. These fishery characteristics present a raft of different issues for FIP implementers to confront—weak capacity for governance, complex community dynamics, limited buyer influence—that slow progress and increase costs. (CEA has also seen FIPs choose not to address these issues, greatly reducing their potential impact, while maintaining C or greater progress ratings).

In a resource-constrained space, addressing these new issues may be important for any individual fishery to improve. Yet without significant additional funding sources, it risks limiting the future scalability of the model.

FIP-fishery Characteristics **Then**

- ✓ Primarily export oriented
- ✓ Focus on industrial fisheries (relatively few fishers, relatively high leverage at processor level), with some artisanal fisheries engaged
- ✓ Higher-volume fisheries
- ✓ Existing governance capacity (Global North)
- ✓ Mostly did not actively engage fishers or address social issues
- ✓ Primarily philanthropically funded

FIP-fishery Characteristics **Now**

- ✓ Mixed markets, many with export component
- ✓ Growing focus on artisanal fisheries (many fishers, complex socio-economic dynamics), few industrial fisheries remain
- ✓ Lower-volume fisheries
- ✓ Lower capacity for governance (Global South)
- ✓ Engaging fishers and social issues
- ✓ Increasingly industry funded

Responses to Working in Harder Geographies

FIPs are making halting progress in the absence of capable management systems to work through. Two divergent solutions are being tested—work at the national level or the community level—with limited results so far.

Prioritize time-to-impact

Start engaging fishing communities directly and develop near-term incentives to participate in improvements

Strengths: more equitable and high-touch, direct engagement

- Working with communities to identify root causes for overfishing and co-developing solutions with near-term incentives is motivating for stakeholders and is more likely to improve compliance in the absence of formal regulation and enforcement. Moreover, well-being as a value-driven motivation for engaging fishing communities is increasingly seen as reason enough to engage fishing communities in reforms.

Weaknesses: cost, scale, capacity requirements, multi-focused

- Working in communities is expensive yet may not address an entire stock and requires certain levels of engagement in every site, which makes cost and scaling a major challenge. If improving lives is a goal, however, addressing broader failures in development, health, education, etc. is likely more effective at rooting out poverty and resource dependence, and likely falls beyond the capabilities of FIPs.

Evidence that this is working:

- Except for a handful of examples (e.g., SmartFish, Fair Trade USA), there is limited evidence that a multi-focused approach to fisheries reform leads to greater fisheries health sooner. There is robust literature on what makes co-management effective, yet challenges around scale, costs, and timeframe persist.

Prioritize time-to-scale

Consolidate FIP leverage throughout a country and focus on improving national-level constraints

Strengths: scale, scope, and cost

- Rolling up effort across all FIPs to collectively lobby national governments to make improvements benefiting all fisheries management is the clearest way to scale FIP impact.

Weaknesses: untested, slow to impact, opportunity-dependent

- While plausible, this approach is still theoretical. National-level coordination is complex, requires significant buy-in from constituents, and assumes a minimum level of governmental capacity for management. Success also depends on windows of opportunity becoming opening; years or decades may pass before a government is ready to meaningfully engage.

Evidence that this is working:

- So far this has only occurred in Mexico (and possibly Thailand via the Seafood Taskforce). There is no evidence yet that the Mexican government has changed its approach to management as a result, though *Impacto Colectivo* is still forming its agenda and approach. In Thailand, the government appears to be responding to collective pressure from civil society and international policies, though the Seafood Taskforce possesses its own challenges.

Reflecting on the 2015 Report

Building upon the 2015 Global FIP Review

Revisiting the FIP framework

In 2015, CEA categorized FIPs according to four criteria, which helped better define the terms of art associated with the FIP movement. This framework remains largely applicable, with some noteworthy potential additions.[1]

2015 Insight

FIP structure	**Basic FIPs** Light-touch, low-cost model aimed at addressing fisheries issues piecemeal over an extended time horizon	vs.	**Comprehensive FIPs** High-touch, resource-intensive model assessing and targeting all 31 PIs[2] aimed at near-term MSC certifiability
Supply chain engagement	**Bottom up** Using a FIP to access end markets and major buyers with sustainability commitments	vs.	**Top down** Major buyers identify problem fisheries within their supply chain and motivate FIP engagement through existing leverage
Fishery condition	**Fix a problem fishery** The fishery requires improvements and seeks to use the FIP to address its issues	vs.	**Celebrate a good fishery** The fishery is in relatively good shape and seeks to use the FIP to highlight its status
FIP implementer	**NGO lead** A dedicated NGO staff member is designated to implement the FIP	vs.	**Industry lead** Stakeholders are left in charge of implementing their own FIP; NGOs often provide strategic advice in these cases

[1] CEA Consulting 2015.
[2] In 2014, when CEA developed this insight, there were 31 PIs. Since then, MSC has revised the standard and there are currently 28 PIs.

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Building upon the 2015 Global FIP Review

The "basic vs. comprehensive" distinction means less today than it did five years ago

2015 Insight	FIP structure	Basic FIPs	vs.	Comprehensive FIPs
		Light-touch, low-cost model aimed at addressing fisheries issues piecemeal over an extended time horizon		High-touch, resource-intensive model assessing and targeting all 31 [sic] PIs aimed at near-term MSC certifiability

Without near-term commitments to achieving certifiability, less now separates basic and comprehensive FIPs structurally

- Achieving certifiability within five years was central to the comprehensive FIP Theory of Change (although it never formally was adopted as part of the Conservation Alliance for Seafood Solutions' definition) and a key differentiator between FIP structures. However, considering the practical challenges and time required to enact fisheries reform in most countries, there is no longer an explicit time component for comprehensive FIPs.
- The remaining difference between the two FIP structures is that comprehensive FIPs are required to (1) have a pre-assessment that covers all MSC performance indicators, completed by a "party experienced with applying the MSC standard" (vs. a self-administered needs assessment); (2) address issues in all performance indicators (vs. a selection of indicators); and (3) have an "independent, in-person audit" of the fishery against the MSC standard.
- The rise of FisheryProgress as the required FIP clearinghouse has increased the rigor of reporting by standardizing structure, content, and frequency of updates for both basic and comprehensive FIPs. For example, all FIPs report progress against the MSC standard every six months. These homogenized standards have improved the level of reporting for all FIPs, but most dramatically for basic FIPs, narrowing the gap between the two types.
- These factors have all contributed to a rise in the number of comprehensive FIPs and some notable conversions from basic to comprehensive (e.g., Indonesia Blue Swimming Crab), though in theory those transitions were supposed to happen naturally over time regardless of the converging of the two approaches.

There appear to be small yet meaningful incentives for FIPs to self-define as comprehensive, and there is some evidence comprehensive FIPs may progress more quickly

- WWF major-buyer partners in the US and Europe purportedly source only from comprehensive FIPs.
- Only comprehensive FIPs can achieve an "A" progress rating.
- The prospect of accessing additional buyers for little marginal effort has contributed to the rise in comprehensive FIPs, particularly among better-funded projects.

"The reality is that FIPs take much, much longer than 5 years."
– Comprehensive FIP Implementer

"Burden of reporting seems to be the same [for both FIP types]."
– Basic FIP Implementer

"Our FIP switched from basic to comprehensive. It required some adjustment of the workplan. In practice things are not different."
– Comprehensive FIP Implementer

"No one [locally] can do a comprehensive preassessment. So it's just a cost questions. I don't think it's a value add, just a requirement for compliance with fishery progress."
– Basic FIP Implementer

Building upon the 2015 Global FIP Review

As demand for sustainable seafood matures, actors beyond the ends of the supply chain are starting FIPs

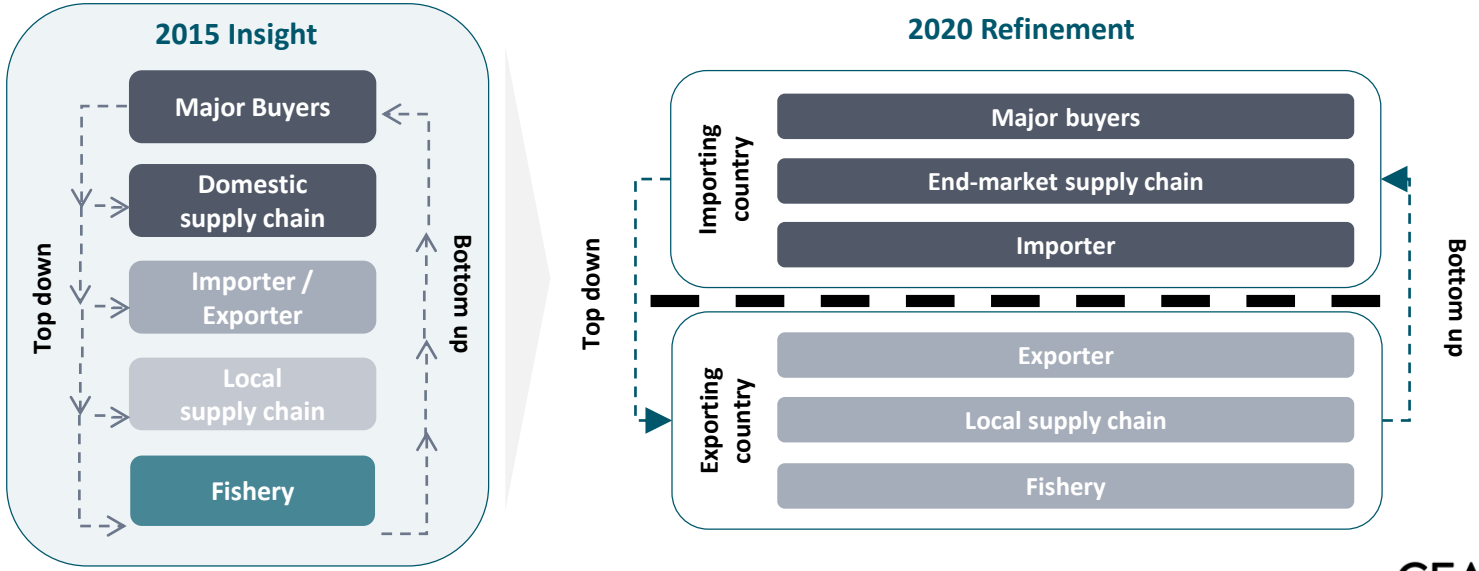
2015 Insight				
Supply chain engagement	**Bottom up** Using a FIP to access end markets and major buyers with sustainability commitments	vs.	**Top down** Major buyers identify problem fisheries within their supply chain and motivate FIP engagement through existing leverage

The breakdown between supply chain engagement continues to provide useful differentiation among FIPs

- The rise of domestic market-motivated FIPs requires additional consideration but may best be represented as a different dichotomy altogether and will be discussed elsewhere.

The initial motivation for starting a FIP can come from anywhere along the supply chain.

- To reflect this evolution, CEA considers the initial pressure coming from anywhere in an importing country to represent a top-down motivation.



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Building upon the 2015 Global FIP Review

Initial fishery condition remains a relevant differentiator among FIPs and is correlated with success

2015 Insight				
Fishery condition	**Fix a problem fishery** The fishery requires improvements and seeks to use the FIP to address its issues	vs.	**Celebrate a good fishery** The fishery is in relatively good shape and seeks to use the FIP to highlight its status

The distinction between FIPs working to improve the health of the fishery versus those looking to highlight high-performing fisheries remains applicable and is potentially important for predicting FIP success

- Differentiating FIPs by initial fishery condition seems to remain an important variable and reflects what CEA observed during site visits. Some FIPs are clearly trying to address fundamental, structural issues (e.g., Indonesian BSC) while others are seeking to promote relatively low-impact fisheries (e.g., handline tuna).
- One untested hypothesis is that “celebratory” FIPs are more likely to have achieved certification (e.g., MSC, Fair Trade). From the limited data available, this appears to be a useful lens for gauging the likelihood of FIP success.

CEA

Building upon the 2015 Global FIP Review

As FIPs evolve, new stakeholders are running FIPs

2015 Insight

FIP implementer

Third-party lead
A dedicated third party (e.g., NGO) is designated to implement the FIP

vs.

Industry lead
Stakeholders are left in charge of implementing their own FIP; NGOs often provide strategic advice in these cases

The number and type of FIP implementers have grown considerably since 2015

- Initially, NGOs implemented all FIPs until SFP helped to empower local industry stakeholders to implement regular FIP operations (e.g., facilitating convenings and stakeholder communications).
- At the time of the last report, there were a handful of independent, third-party organizations running FIPs—WWF, SFP, and a handful of additional implementers.
- Today many different types of stakeholders lead projects. Karen Villeda identified four discrete leads in her 2018 Master's thesis: associations, consultants, industry, and NGOs. Government agencies and multilateral organizations also lead FIPs.

Villeda (2018) further delineated the type of third-party lead and found preliminary evidence that independent consultant-led projects reached higher stages more quickly

- CEA did not find corroborating evidence to suggest that for-profit consultants lead to more successful projects relative to other third-party implemented projects. It is possible that consultants know how to report Stage 4 accomplishments quickly and are incentivized to pursue them first. Ultimately, consultant-led FIPs do not appear more effective than FIPs led by other third parties. It is also hard to draw clear distinctions between industry-led and consultant-led FIPs if the consultant is funded by industry, which is often the case.

Implementer breakout (Villeda, 2018)

NGO lead
A dedicated NGO staff member is designated to implement the FIP

vs.

Government lead
A government agency initiates or serves as one of the FIP co-leads

vs.

For-profit lead
An independent individual without institutional backing

vs.

Industry lead
Stakeholders are left in charge of implementing their own FIP; NGOs often provide strategic advice in these cases

Building upon the 2015 Global FIP Review

New FIPs are testing whether markets not yet engaged in sustainable seafood are ready to support projects

2020 Addition

Target Market

Engaged markets
Motivation for engagement is generated by selling into markets engaged in sustainable seafood sourcing

vs.

Not-engaged markets
Motivation for engagement is generated by buyers with at most an emerging awareness of sustainable seafood

Extending the reach of the seafood markets movement beyond Western demand

- The sustainable seafood movement currently engages the most important countries and commodities relevant to the US and Europe.
- The remaining engagement opportunities for the current movement are identified in SPF's T75 initiative. Many fisheries remain beyond the reach of the international market.
- Many of the newest generation of FIPs are forming to improve fisheries beyond the reach of international markets, particularly in countries where FIPs have been present or where organizations familiar with the FIP model are trying to tailor the approach to their specific context (e.g., Mexico).
- Organizations promoting basic/bottom-up FIPs, such as SmartFish, Conservation International, and *Comunidad y Biodiversidad*, are at the forefront of this new approach.

Emerging-market demand for sustainable seafood is being tested

- To our knowledge, the first effort to cultivate domestic commitments in the Global South was WWF-Indonesia's Seafood Savers program, which persists and may be the motivating factor for the current 20+ FIPs implemented by WWF-Indonesia.
- SmartFish Inc, the for-profit spin-off of SmartFish AC, is cultivating a brick-and-mortar presence in Mexico City selling sustainable product and engaging in fisheries improvement.
- Japan is cultivating a domestic market for sustainable seafood, spearheaded by Seafood Legacy, and is supporting Japan's first three FIPs.
- The Hong Kong Sustainable Seafood Coalition recently formed to create and promote voluntary codes on responsible seafood sourcing.

"The FIP model relies on the market demand and preservation of corporate image. This works in the West, but in Mexico, if you take out small pelagics, tuna, and shrimp (MSC, MSC, and FIP respectively) this represents half of Mexican volume, roughly. The other half (~700 MT) are small-scale, domestic-oriented fisheries. Now the projects that are needed in Mexico are focused on domestic market fisheries, not international market species. These are important projects that need help, but they are not important to T75 initiative, or international NGOs, but are important for Mexicans as a source of income and healthy protein. This is where emergent FIPs will develop."
– Mexican FIP implementer

† - See prior CEA analyses: "Global FIP Landscape Findings," May 2015; "Progress Towards Sustainable Seafood – By the Numbers: 2017 Edition," June 2017.

FIP Data Trends

- Snapshot: 2015 vs. Today
- Trends
- Progress
- Impact

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Summary

- **FIPs continue to be a tool to engage multiple types of fisheries in sustainability,** working on every inhabited continent and in every globally traded seafood commodity. Projects past and present span 52 countries, cover scopes from hyper-local to multinational fisheries, and are led by NGOs, individual consultants, and industry.
- **FIPs are growing in number and scope.** The total number of FIPs depends on who you ask, but CEA estimates that nearly 280 FIPs have reached Stage 2 since the model was created in 2006, with 155 currently active or completed. The scope of FIP- and MSC-engaged seafood has grown to almost one-quarter of global catch—and nearly 38% if you consider fisheries with good management regimes in place. Approximately half of the catch engaged in FIPs since the last review came from areas with relatively good fisheries governance, and the other half from areas with relatively poor governance.
- **FIPs are diversifying in both the types of commodity they work on and the number of implementing organizations.** Since the early days of SFP-led whitefish FIPs, the model has been implemented by a growing set of actors across several other commodities. Tuna FIPs now outnumber whitefish FIPs, and there are more industry-led FIPs than ever previously existed. They are being implemented across the globe, and Asia has seen a dramatic rise of FIPs. Latin America is another growing hotspot for the model.
- **Most FIPs appear to be doing well, but data does not tell the whole story.** More than half of the FIPs tracked by SFP have an A or B Progress Rating and appear to be progressing well. However, not all reported improvements are attributable to actions taken by the FIP, and there is an outstanding question as to whether reporting progress is related to sustainable change in biomass. Conversely, not all FIPs report on a regular basis, and may be making progress without reporting it publicly. Several of the FIPs that reached MSC certification did so from a poor Progress Rating. There are at least three examples of FIPs that stalled and then achieved certification years later.
- **Data has improved substantially, and there is still room for improvement.** Since the last FIP review, the rise of FisheryProgress has provided a wealth of new data to educate the field while tracking and analyzing FIPs. However, it has limitations (e.g., non-verified self-reporting for basic FIPs, no requirement to indicate FIPs' contributions to reported changes in the fishery for which they are credited), and not all implementers report all of their FIPs on the platform, though the vast majority of FIPs globally are reporting to FisheryProgress.

Glossary of Terms

Term	Definition
FIP Stage	Numeric values 0-6 that map to the stages outlined by the Conservation Alliance for Seafood Alliance: (0) FIP Identification, (1) FIP Development, (2) FIP Launch, (3) FIP Implementation, (4) Improvement in Practice or Management, (5) Improvements on the Water, and (6) MSC Certification/FIP Exit
Active FIP	FIP in stage 2-5 (inclusive), or in the active stage of development, implementation, and change
Progress Rating	Rating (A-E) assigned by SFP and also FisheryProgress related to the timing of reporting improvements toward reaching MSC certification
Change Event	Reporting event on FisheryProgress, in which an MSC Principal Indicator changes status as a result of action reported by the FIP
Stage 5 Event	Changes to principal indicators related to change on the water, specifically, 1.1.1, 2.2.1, 2.1.1, 2.3.1, 2.5.1, 1.1.2, and 2.4.1
Stage 4 Event	Changes to principal indicators related to effective management, specifically, 1.2.1, 1.2.2, 1.2.3, 1.2.4, 2.1.2, 2.1.3, 2.2.2, 2.2.3, 2.3.2, 2.3.3, 2.4.2, 2.4.3, 2.5.2, 2.5.3, 3.1.1, 3.1.2, 3.1.3, 3.2.1, 3.2.2, 3.2.3, and 3.2.4
Good Governance	Fisheries within exclusive economic zones for the US, EU Common Fisheries Policy, Australia, and New Zealand, which are generally considered to have high fisheries management capacity

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Reported FIP Volumes

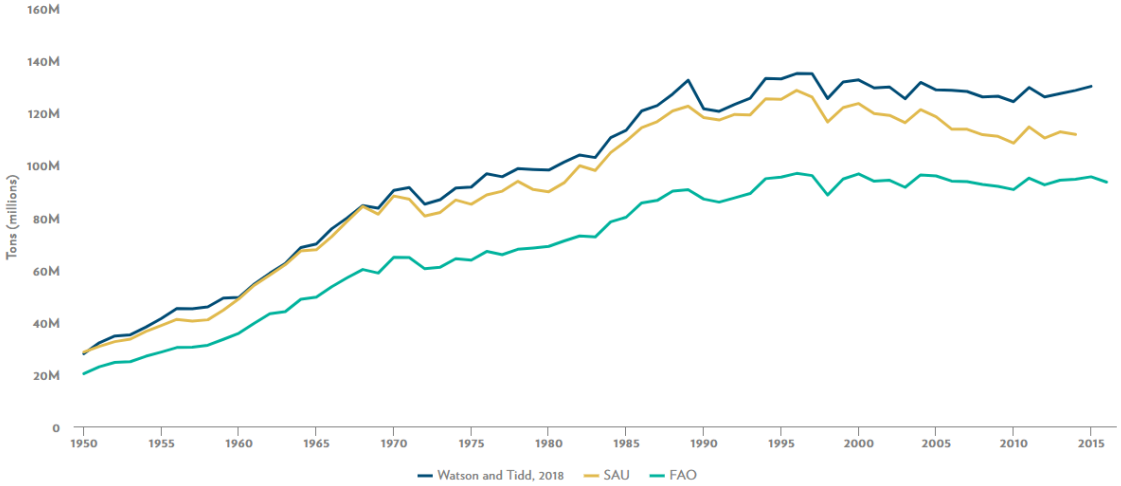
FIPs are showing lower landings than previously reported, a sign of more accurate reporting

Prior FIP analyses often flagged volume inflation, so this adjustment appears to be a step in the right direction. Global catch data and FIP data are perennial challenges limiting our understanding of what progress the seafood movement is making and where there are significant opportunities for improvement.

Official catch data, reported from FAO through FishStatJ, underestimate global catch by as much as 38% according to catch reconstructions such as those by Reg Watson and the Sea Around Us Project (shown at right).

Within the FIP community, **previous analyses flagged that catch volumes are self-reported until formal MSC assessments and often overestimate landings**. Even in 2019, the reporting volumes of FIPs declined, in some cases enormously. The Peruvian anchovy (industrial) FIP, for example, formerly reported landings nearly twice that of the whole fishery (see right).

Accurate reporting of FIPs is critical to enforcement and tracking of the sustainable seafood movement. US shrimp FIPs also formerly reported landings from individual Gulf of Mexico states that collectively exceeded total US landings for the species. The volumes reported in Q3 2019 from FisheryProgress were lower than those reported earlier in the year, which is a sign that FIPs are more accurately reporting their catch volumes.



Fishery	Previously reported FIP volume	Current reported FIP volume	Total fishery volume
Peruvian anchovy (industrial)	6,000,000 ➡	3,060,000	3,322,099 (Peru total)

Catch reconstructions taken from OurSharedSeas.com. FIP volumes reported through FisheryProgress, and total fisheries volume numbers taken from FAO FishStatJ, 2017.

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Reported FIP Volumes

Even still, some FIPs and MSC-certified fisheries report catch at levels higher than national totals

Country	Commodity	Reported National Landings	FIP Volume	MSC Volume	Difference in Landings
Indonesia	Tuna	726,287	905,640	0	(179,353)
United Kingdom	Whitefish	216,286	138,105	111,871	(33,690)
United States	Shrimp	131,888	119,107	23,947	(11,166)
Costa Rica	Tuna-like fish	2,801	3,935	0	(1,134)
Ecuador	Crustaceans	371	408	0	(37)

Even as reporting has improved, there remain instances where combined FIP and MSC reported landings exceed the official catch statistics for the country. For example, in Indonesia, nine active tuna FIPs collectively report landings that exceed the official landings of the country. The problem does not appear to be limited to Global South countries with poor data quality; total US shrimp landings are smaller than combined FIP and MSC reported landings as well. The same can be said for the United Kingdom's whitefish landings.

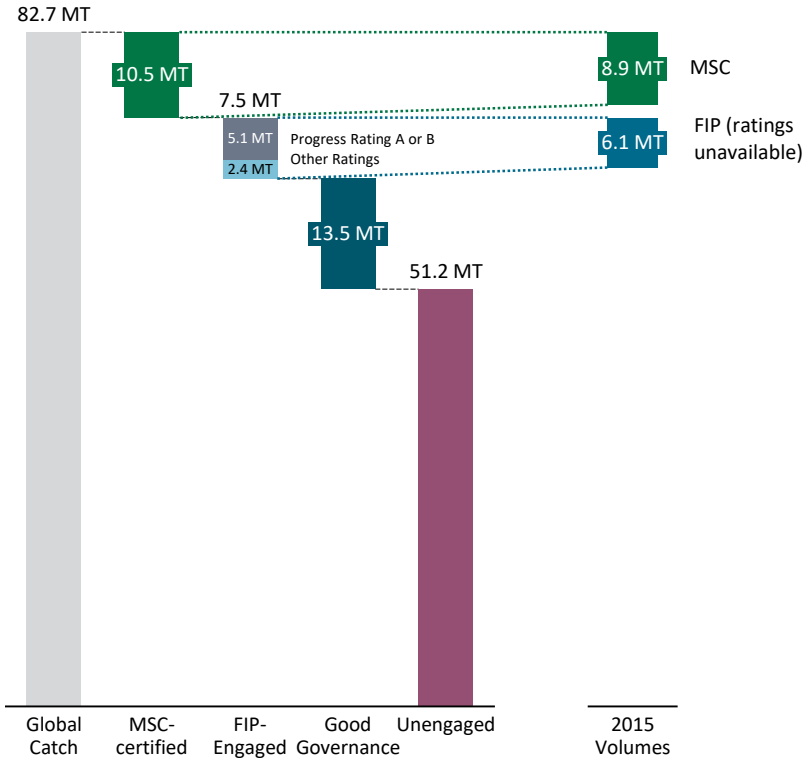
Further work is needed to continue to verify and validate FIP and MSC catch, perhaps through MSC pre-assessment audits or through watchdogs on FisheryProgress. This will help to more accurately track the progress of FIPs and other sustainability efforts against targets.

There are practical implications for over-reporting that limit supply chain leverage. As one key informant explained, if an entire country's volume is reported as FIP-engaged, then all product from any supplier coming out of that country is understood to be a FIP-engaged product. Buyers have no way to reward FIP participants by preferentially sourcing from them, nor are there incentives for others to engage.

FIP volumes reported through FisheryProgress, and total fisheries volume numbers taken from FAO FishStatJ, 2017.

Snapshot: 2015 vs. Today

38% of global catch is engaged in sustainability, with roughly 9% of global catch engaged in FIPs



- **38% of global catch is engaged in sustainability**, either through MSC certification, a FIP, or effective national management.
- **Since the last FIP review, MSC-certified catch has grown to 13% of global catch, and the share of catch engaged in FIPs has also grown**. "Well-performing" FIPs are defined as those having an A or B Progress Rating from FisheryProgress and make up the majority of FIP volume.
- **Of the world's unengaged catch, 16% is still relatively well-managed**, which we conservatively define as coming from fisheries covered by the EU Common Fisheries Policy or from Canada, the US, Australia, or New Zealand.
- **Within the remainder of unengaged seafood, the largest volumes come from China and Indonesia.** Working in East and Southeast Asia will be crucial to expanding the share of global catch engaged in sustainability efforts.

2015 Review used FAO 2013 catch volumes. Current estimates are based on FAO 2017 catch volumes. FIP volumes from FisheryProgress 2020.

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Snapshot: 2015 vs. 2019

Seafood engaged in sustainability continues to rise for almost all commodity groups

	2015				2019			
	FIP	MSC*	Combined Tonnage	% Global Landings	FIP	MSC	Combined Tonnage	% Global Landings
Crabs, lobsters, and crustaceans	157	296	453	18%	201	254	455	18%
Mollusks	-	330	330	13%	26	1,089	1,115	48% ↑
Major tuna species	1,115	1,019	2,134	44%	1,550	1,224	2,774	60% ↑
Miscellaneous fish	29	746	775	3%	127	931	1,058	3%
Salmon and diadromous fish	10	475	485	53%	14	587	601	69% ↑
Shrimp	207	316	523	15%	378	365	743	21% ↑
Small pelagics	3,397	1,312	4,709	24%	4,235	1,704	5,939	30% ↑
Snapper/grouper**	-	-	0	0%	4	-	4	0%
Squid/octopus	227	48	275	6%	371	0.03	371	8% ↑
Other tunas, bonitos, billfishes	101	5	106	4%	258	4	262	9% ↑
Whitefish	846	4,347	5,193	53%	332	6,382	6,714	65% ↑
Total	6,089	8,894	14,983	19%	7,496	12,544	18,652	26% ↑

*Includes certified landings and landings in MSC full assessment
**Not a separately delineated category in 2015 review

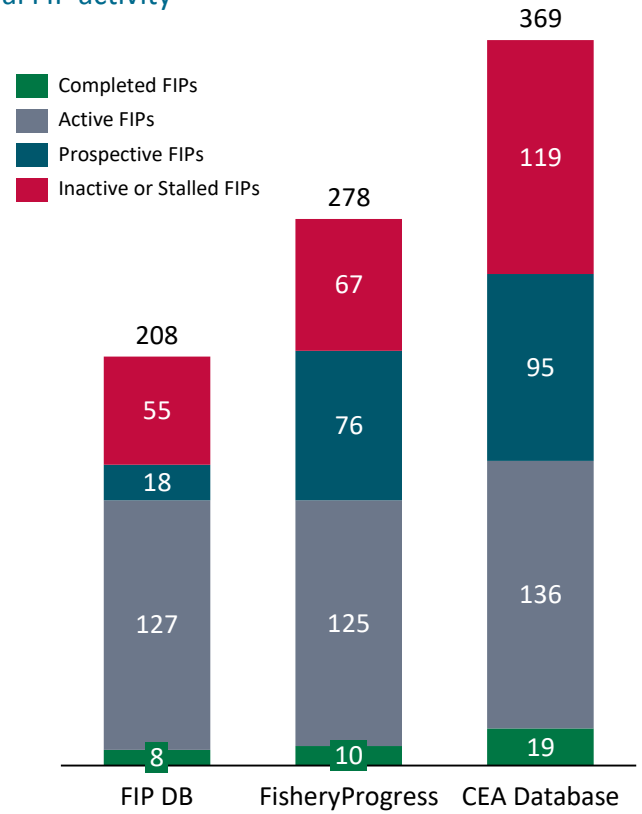
The share of catch that is engaged in FIPs and MSC-certified has increased. Overall catch engaged in FIPs and MSC are up both in volume and as a share of global catch compared to 2015. In some cases, as with Peruvian Anchoveta, "we believe that the volume reported from the FIP is more realistic to what is actually being caught, suggesting that even more catch has been engaged than the numbers suggest.

2015 Review used FAO 2013 catch volumes. Current estimates are based on FAO 2016 catch volumes. MSC data provided to CEA on 7 February 2020.

Snapshot: 2015 vs. 2019

Centralized FIP reporting has improved over time but does not fully capture global FIP activity

- **The number of FIPs depends on who you ask.** The publicly available data sources FIP DB and FisheryProgress may still underestimate the number of active FIPs globally. CEA collects information from FisheryProgress and engages in direct outreach to implementing organizations to collect additional information on FIPs globally.
- **Informants offered multiple reasons for not reporting on FisheryProgress, with overly burdensome reporting requirements foremost among them.** Implementers cite the onerous reporting requirements and lack of flexibility around data types as reasons for not submitting information.
- **Most FIPs report to FisheryProgress, but some operate without reporting to the site.** It is unclear exactly how many "FIPs" operate without reporting to FisheryProgress, but CEA identified at least 13 projects that self-identify as FIPs that remain off the website. In addition, WWF-Indonesia operates more than 20 additional FIPs that serve a local market. The biggest challenge in identifying the universe of FIPs operating outside of FisheryProgress is verifying whether (1) the project meets the Conservation Alliance for Seafood Solutions' requirements for market recognition and (2) the project or fishery is receiving market benefits for self-identifying as a FIP.



Numbers current as of December 31, 2019. "Prospective" defined as Stage 0 or Stage 1. "Inactive" defined as Stage 2 or greater and labeled as "inactive" in the database.

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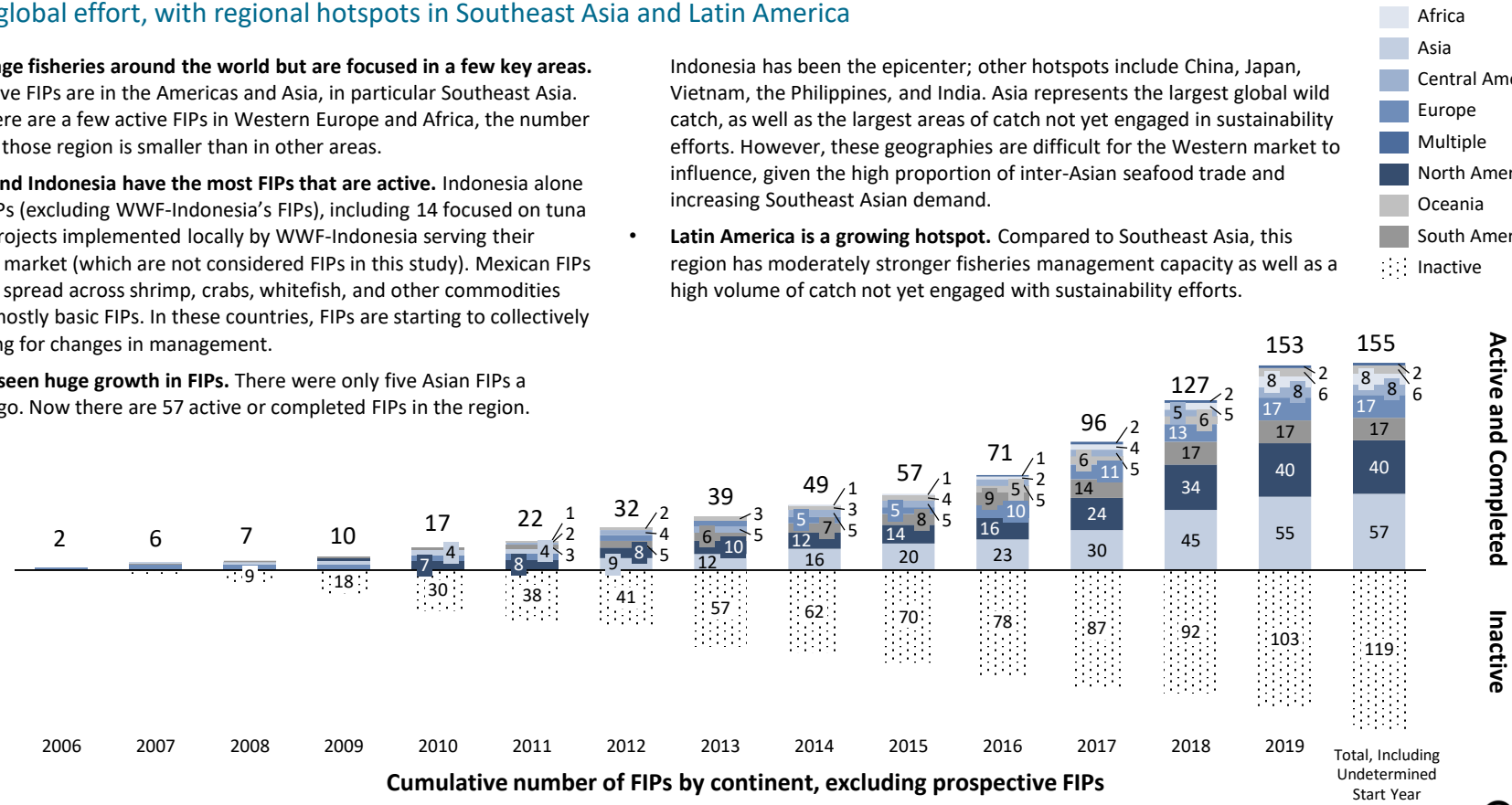
FIP Trends

FIPs are a global effort, with regional hotspots in Southeast Asia and Latin America

- **FIPs engage fisheries around the world but are focused in a few key areas.** Most active FIPs are in the Americas and Asia, in particular Southeast Asia. While there are a few active FIPs in Western Europe and Africa, the number of FIPs in those region is smaller than in other areas.
- **Mexico and Indonesia have the most FIPs that are active.** Indonesia alone has 19 FIPs (excluding WWF-Indonesia's FIPs), including 14 focused on tuna plus 21 projects implemented locally by WWF-Indonesia serving their domestic market (which are not considered FIPs in this study). Mexican FIPs are more spread across shrimp, crabs, whitefish, and other commodities and are mostly basic FIPs. In these countries, FIPs are starting to collectively advocating for changes in management.
- **Asia has seen huge growth in FIPs.** There were only five Asian FIPs a decade ago. Now there are 57 active or completed FIPs in the region.

Indonesia has been the epicenter; other hotspots include China, Japan, Vietnam, the Philippines, and India. Asia represents the largest global wild catch, as well as the largest areas of catch not yet engaged in sustainability efforts. However, these geographies are difficult for the Western market to influence, given the high proportion of inter-Asian seafood trade and increasing Southeast Asian demand.

- **Latin America is a growing hotspot.** Compared to Southeast Asia, this region has moderately stronger fisheries management capacity as well as a high volume of catch not yet engaged with sustainability efforts.



From CEA Database. FIPs in Stage 2 – Stage 5, FIPs that have gone to certification, and FIPs that have become inactive or stalled. Excludes WWF-Indonesia projects. See page 185 for cumulative FIP count method.

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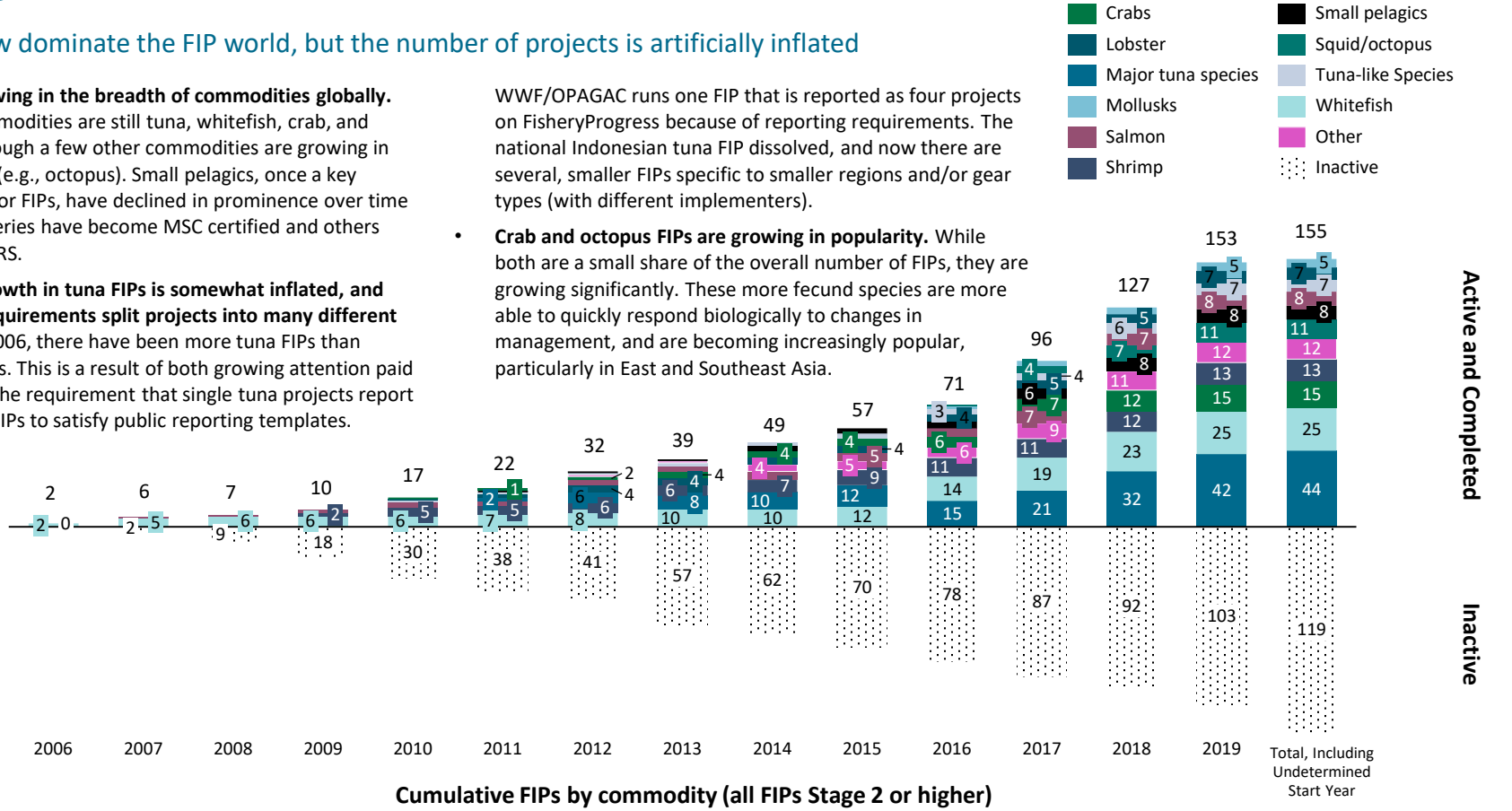
FIP Trends

Tuna FIPs now dominate the FIP world, but the number of projects is artificially inflated

- **FIPs are growing in the breadth of commodities globally.** The key commodities are still tuna, whitefish, crab, and shrimp, although a few other commodities are growing in prominence (e.g., octopus). Small pelagics, once a key commodity for FIPs, have declined in prominence over time as some fisheries have become MSC certified and others pursue IFFO RS.
- **The huge growth in tuna FIPs is somewhat inflated, and reporting requirements split projects into many different FIPs.** Since 2006, there have been more tuna FIPs than whitefish FIPs. This is a result of both growing attention paid to tuna and the requirement that single tuna projects report as separate FIPs to satisfy public reporting templates. WWF/OPAGAC runs one FIP that is reported as four projects on FisheryProgress because of reporting requirements. The national Indonesian tuna FIP dissolved, and now there are several, smaller FIPs specific to smaller regions and/or gear types (with different implementers).
- **Crab and octopus FIPs are growing in popularity.** While both are a small share of the overall number of FIPs, they are growing significantly. These more fecund species are more able to quickly respond biologically to changes in management, and are becoming increasingly popular, particularly in East and Southeast Asia.



From CEA Database. FIPs in Stage 2 – Stage 5, FIPs that have gone to certification, and FIPs that have become inactive or stalled. Excludes WWF-Indonesia projects. See page 185 for cumulative FIP count method.

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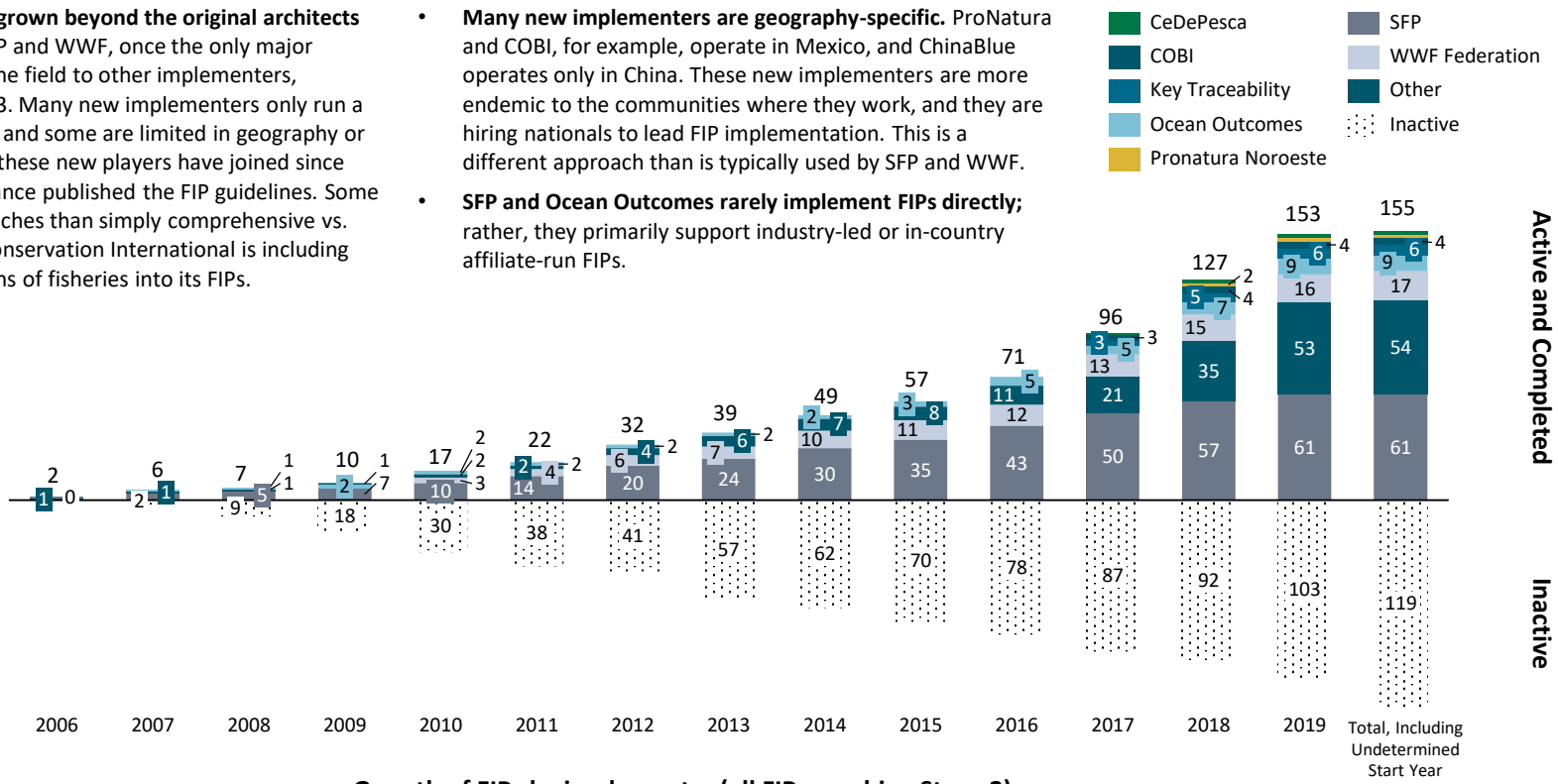
FIP Trends

Industry now runs more FIPs than any third-party implementer

- **Implementation has grown beyond the original architects of the movement.** SFP and WWF, once the only major players, have ceded the field to other implementers, particularly since 2013. Many new implementers only run a small number of FIPs, and some are limited in geography or commodity. Many of these new players have joined since the Conservation Alliance published the FIP guidelines. Some have different approaches than simply comprehensive vs. basic; for example, Conservation International is including more social dimensions of fisheries into its FIPs.
- **Many new implementers are geography-specific.** ProNatura and COBI, for example, operate in Mexico, and ChinaBlue operates only in China. These new implementers are more endemic to the communities where they work, and they are hiring nationals to lead FIP implementation. This is a different approach than is typically used by SFP and WWF.
- **SFP and Ocean Outcomes rarely implement FIPs directly;** rather, they primarily support industry-led or in-country affiliate-run FIPs.



Growth of FIPs by implementer (all FIPs reaching Stage 2)

From CEA Database. FIPs in Stage 2 – Stage 5, FIPs that have gone to certification, and FIPs that have become inactive or stalled. Excludes WWF-Indonesia projects. See page 185 for cumulative FIP count method.

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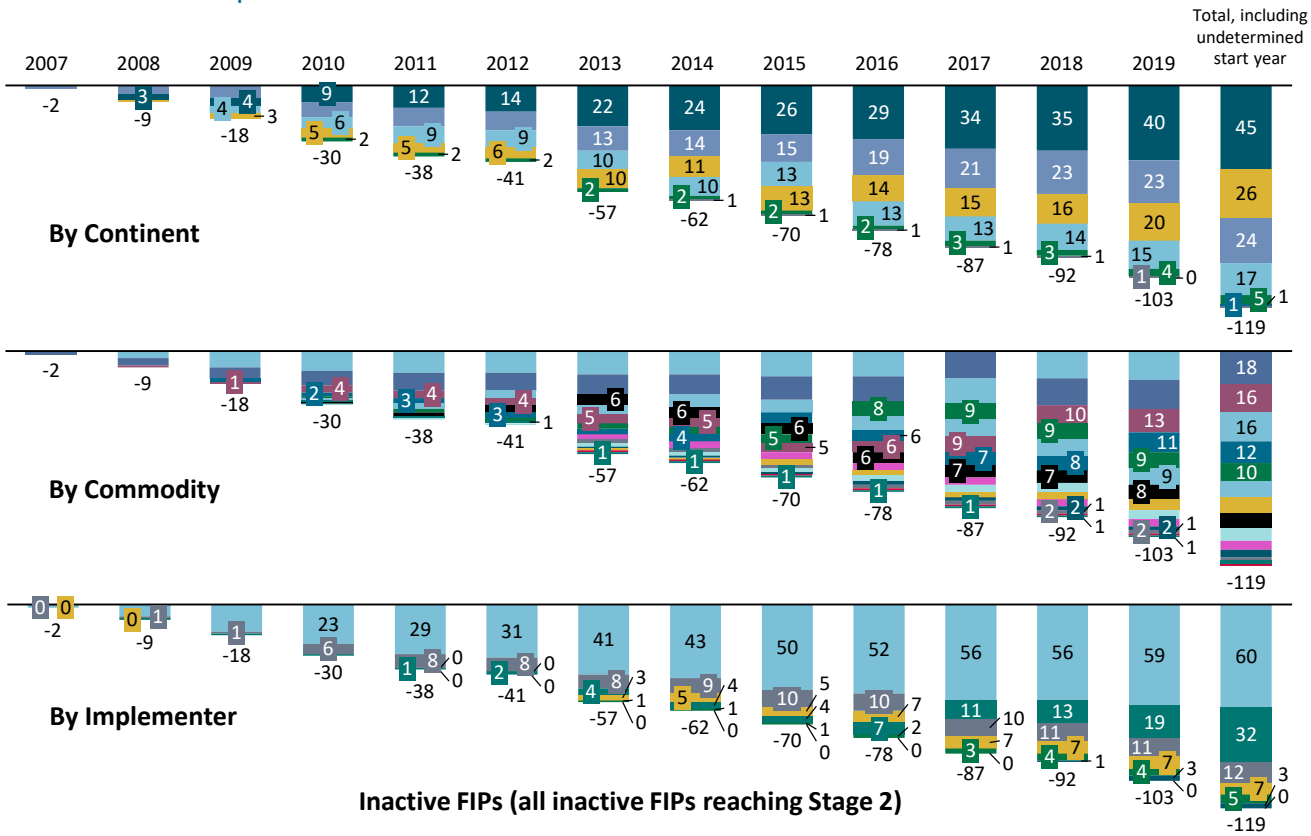
FIP Trends

Inactive FIPs look more or less the same as active ones, suggesting the main reporting characteristics of geography, commodity, and implementer are not predictive of success rates



CEA analysis suggests that the stalled FIPs do not statistically vary from those that are active by continent, commodity, or implementer.

- Africa
- Asia
- Central America
- Europe
- North America
- Oceania
- South America

- Crabs
- Lobster
- Major tuna species
- Miscellaneous fish
- Mollusks
- Multiple
- Other crustaceans
- Salmon
- Shrimp
- Small pelagics
- Snapper/grouper
- Squid/octopus
- Tuna-like Species
- Whitefish

- COBI
- Key Traceability
- Ocean Outcomes
- SFP
- Sustainability Incubator
- WWF Federation
- Other

From CEA Database. FIPs in Stage 2 – Stage 5, FIPs that have gone to certification, and FIPs that have become inactive or stalled. Excludes WWF-Indonesia projects. See page 185 for cumulative FIP count method.

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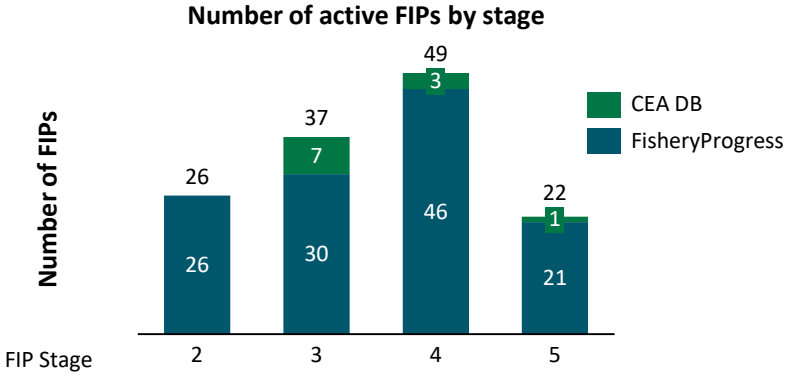
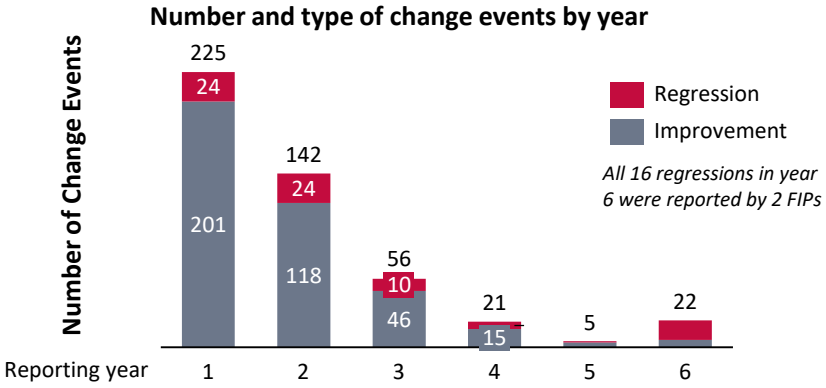
FIP Progress

Most active FIPs report making a change in the fishery; most changes are reported in the first two years





- **More FIPs are reporting changes than not,** as the majority of active FIPs are in Stage 4 and 5 with the plurality in Stage 4. This is consistent with prior reporting from CEA and FisheryProgress on the stages of FIPs.
- **There is more diversity of commodities across the stages.** In the 2015 analysis, few FIPs that had reached Stage 5 were non-whitefish. Today, there are more commodities at the higher stages.
- **New data allows for more insights on specific improvements.** For the first time, our analysis looks at FisheryProgress improvement events quantitatively. Out of 478 individual change events reported by active FIPs, 397 (83%) were improvements, while the balance were reported regressions.
- **Half of the change events occurred in Year 1 of a FIP**, reflecting that many of these FIPs began before FisheryProgress launched and reported their cumulative changes in Year 1. When looking at FIPs that have started since the FisheryProgress launch, 60% of changes have occurred in Year 2. This also reflects a significant bias toward the fact that many FIPs reporting on FisheryProgress are only in their first three years of reporting or existence, and many pre-existing FIPs reported changes in Year 1.

Includes “Active” FIPs, including prospective FIPs but not completed FIPs. Excludes WWF-Indonesia projects. Stage 4 and 5 events taken from FisheryProgress.

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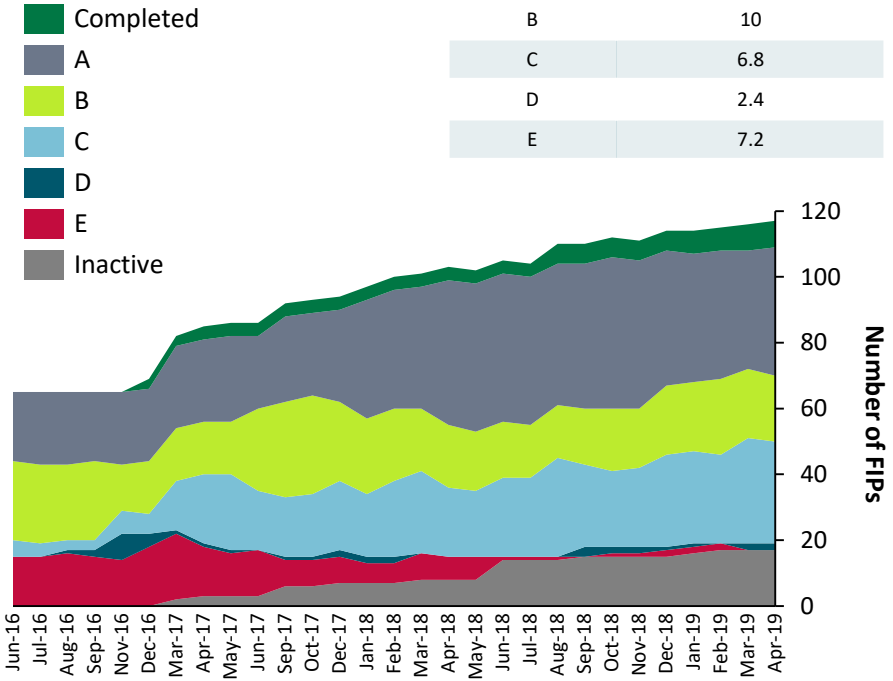
FIP Progress

Almost none of the FIPs on FisheryProgress are failing (as defined by Progress Ratings)

- **The majority of FIPs have Progress Rating A or B.** This measure of a "well-performing FIP" comprises nearly two-thirds of active FIPs reporting on FisheryProgress. A-rated FIPs alone make up 42% of those reporting.
- **Nearly all of the remaining FIPs have Progress Rating C.** FIPs rated D and E, which made up 34% of FIPs in 2016, have declined to almost none in 2019, with only two reporting as D and none reporting as E. FIPs stay the shortest amount of time at a D Progress Rating. The dataset suggests that FIPs listed as E are switched to inactive after two missed reports.
- **FIPs demonstrate the ability to improve their Progress Rating after scoring poorly.** Of the FIPs that have moved out of a C Progress Rating, 10 moved to B and 6 moved to D, suggesting that despite the small sample size, FIPs rated C are more likely to begin improving than they are to stall. Furthermore, of the 8 FIPs that have been "completed," 1 was previously rated E and 3 were previously rated D, suggesting that FIPs can recover from slow periods and still complete project objectives.
- **All but two FIPs are making sufficient progress, suggesting either "grade inflation" or that all FIPs are "good enough."** In other words, FIPs are either reporting in a way that ensures that they maintain a passing Progress Rating or Progress Ratings are not fine-tuned enough to reflect certain FIPs' lack of progress. That said, "good enough" may be just that: SFP does not necessarily seek to push each individual FIP to make progress as rapidly as possible (e.g., pursue A rating), rather prioritizes continued individual FIP engagement while pushing for more fisheries to initiate FIPs. In this way, Progress Ratings may be doing what they were designed to do by encouraging FIPs to either perform up to a certain standard or go inactive.

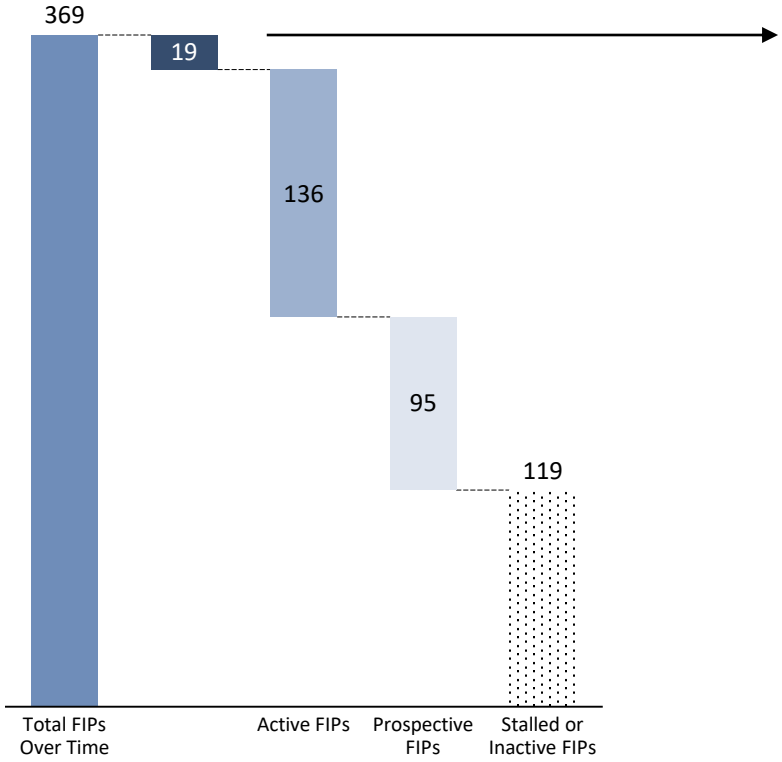
Rating	Avg. Months Spent in Progress Rating
A	15.6
B	10
C	6.8
D	2.4
E	7.2



Data provided by FisheryProgress through its monthly data digest email, updated June 2019.

FIP Impact

Roughly 8% of historic and currently active FIPs became MSC certified. After improving in a FIP, some whitefish fisheries are no longer certified, due to unrelated factors including climate change.



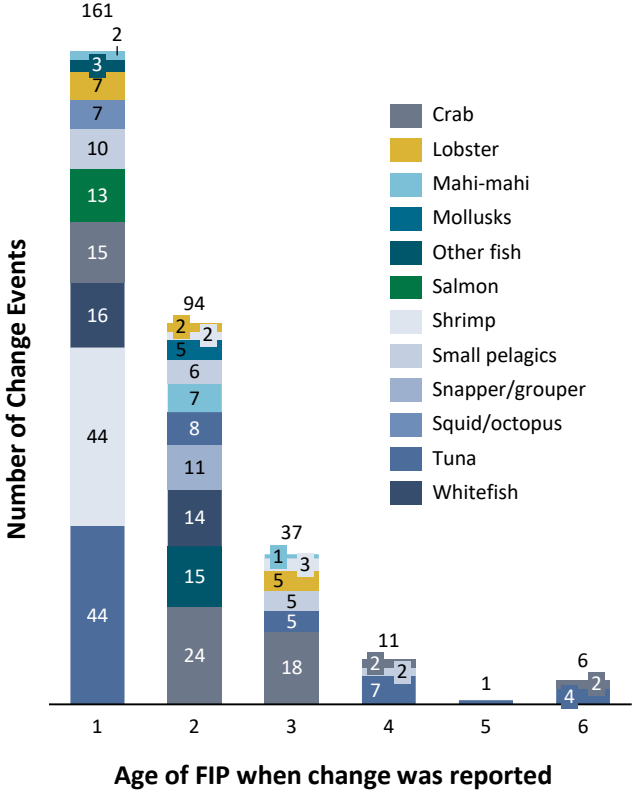
Former-FIP engaged fisheries	NGO Partner	Current MSC Status
Argentine hoki	SFP	Certified
Barents haddock	SFP	Certified
Bahamas spiny lobster - trap/casita	WWF	Certified
SZLC, HNSFC & CFA Cook Islands EEZ South Pacific Albacore longline	SFP	Certified
Western Kamchatka salmon	Ocean Outcomes	Certified
Russian SOO pollock	SFP	Certified
Maldives pole and line yellowfin	IPNLF	Certified
Guyana Atlantic Seabob trawl fishery	SFP	Certified
Barents cod	SFP	Withdrawn
Canada/Newfoundland 3Ps cod	WWF	Suspended
East Baltic cod (otter trawl)	SFP	Withdrawn
East Baltic cod (longline)	SFP	Withdrawn
Küstenfischer Nord eG Heiligenhafen Germany Eastern Baltic cod	SFP	Suspended, withdrawn
Northeast Sakhalin Island Pink Salmon trap net	Ocean Outcomes	Withdrawn
Ozernaya River Sockeye Salmon	Ocean Outcomes	Withdrawn
Pink Salmon - Aniva Bay	Ocean Outcomes	Withdrawn
Russian Navarinsky pollock	SFP	Withdrawn
Russian WBS pollock	SFP	Withdrawn
SPPO Baltic Herring and sprats	SFP	Withdrawn

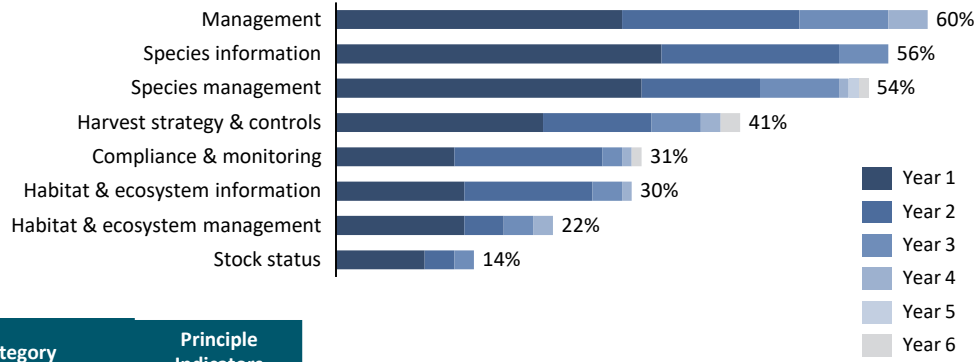
*Chilean Jack Mackerel, Chilean Southern Hake, and US Menhaden were both certified after their FIPs stalled

Taken from CEA Database. “Active FIPs” are defined as those stages 2-5 and “Active.” “Prospective FIPs” are all FIPs stages 0 and 1. Excludes WWF-Indonesia projects.

FIP Impact

Most Stage 4 events are triggered by changes in information or management





Category	Principle Indicators
Management	3.1.1, 3.1.2. 3.1.3, 3.2.1, 3.2.2
Species information	2.1.3, 2.2.3, 2.3.3
Species management	2.1.2, 2.2.2, 2.3.2
Harvest strategies & controls	1.2.1, 1.2.2, 1.2.3
Compliance & monitoring	3.2.3, 3.2.4
Habitat & ecosystem information	2.4.3, 2.5.3
Habitat & ecosystem management	2.4.2, 2.5.2
Stock status	1.2.4

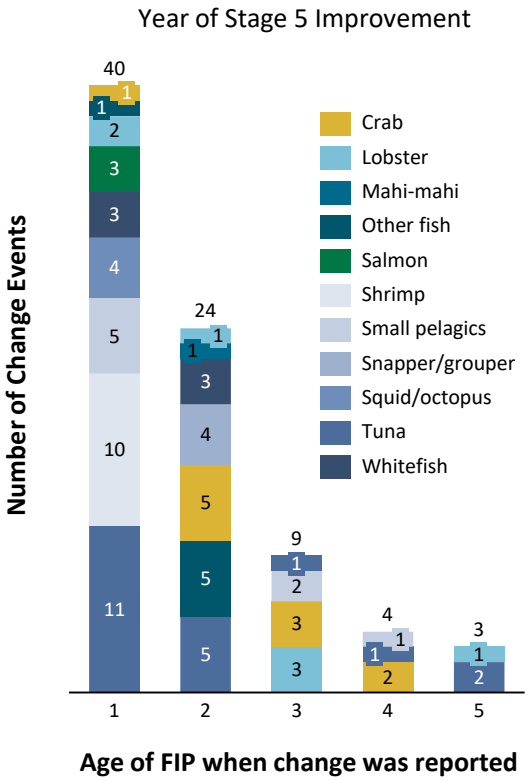
- **The largest share of Stage 4 events are related to management**, including legal, governance, and decision-making responsibilities. Nearly as many events are related to species information and management.
- **Most of the management and information changes occur in year 1.** In contrast, monitoring information is mostly years 2 or later.
- **15 FIPs have instituted a harvest strategy** and have reported it on FisheryProgress. All but two of these reported a harvest strategy within the first two years. The two exceptions are Indonesia Blue Swimming Crab (year 3 of the FIP) and Indonesia Western Central Pacific Ocean handline yellowfin tuna (year 6).

FisheryProgress changes database compiled by CEA from FisheryProgress information online, June 2019.

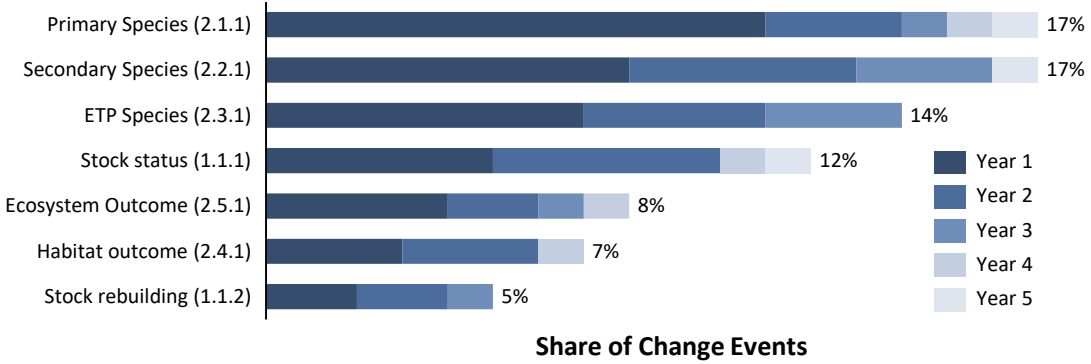
CEA

FIP Impact

The largest share of Stage 5 events are related to target species



Age of FIP when change was reported



Share of Change Events

- **The largest share of Stage 5 events relates to primary and secondary species outcomes.** While some of these events are related to FIP actions (e.g., data collection resulting in new understanding of stock health), many are a result of desktop research on documents that existed before the FIP existed. This is consistent with most of the change events occurring in Year 1, as opposed to later in the FIP. More attribution analysis will need to be completed in order to identify the percentage of change events that are likely attributable to the FIPs' actions, as this information is not currently captured on FisheryProgress.
- **There no longer appears to be a clear connection between Stage 5 events and commodity type.** Previously, Stage 5 events were limited mostly to whitefish, as the initial vehicle of the FIP model. As FIPs have evolved into other commodities, so too have Stage 5 change improvements shown for other species groups, including lobster and tuna.

FisheryProgress changes database compiled by CEA from FisheryProgress information online, June 2019.

CEA

FIP Impact

Change on the water: Not all changes are attributable to the FIP

Under current Conservation Alliance guidelines, changes reported for the fishery do not have to be attributable to the FIP for the FIP to show progress. CEA's subjective analysis of Stage 5 changes finds that most are not directly attributable to the FIP. The sample below identifies a variety of changes, some of which are attributable to the FIP and some not, to give examples of each type.

FIP	Performance Indicator	Change	Rationale Given for Change on FisheryProgress	Attributable to the FIP?
Argentina Onshore Red Shrimp - bottom trawl	2.3.1	Yellow to Green	New on-the-water data generated by observer program	Yes—the new data are collected through FIP activities
Indonesia Blue Swimming Crab - gillnet/trap	2.1.1	Red to Green	"No primary species identified in the fishery [so] no management strategy necessary"	No—there was no change in the fishery, but rather a change in the MSC methodology
Japan Albacore Tuna - longline	2.1.1	Red to Yellow	Desktop research completed as part of the FIP	No—the report that supports this claim predates the FIP
Morocco sardine - pelagic trawl and seine	2.3.1	Red to Yellow	Implementer completed the actions of the FIP workplan	Yes—the stakeholder survey was completed as part of this FIP
Peruvian Jumbo Flying Squid - jig	2.1.1	Red to Green	Re-benchmarked the FIP using a pre-assessment instead of the needs assessment (which were done concurrently)	No—this does not constitute a change on the water, but rather a rescoring of the fishery
United Kingdom European Plaice & Lemon Sole - seine/trawl	2.2.1	Red to Yellow	The FIP commissioned a catch composition study by the Centre for Environment, Fisheries and Aquaculture Science, which reported change	Yes—this study was commissioned as part of the FIP activities and shows true change on the water
Vietnam Yellowfin Tuna - longline/handline	2.5.1	Red to Yellow	Desktop research and modeling completed	Likely not—this appears to have more characteristics of a Stage 4 change

Stage changes taken from FisheryProgress.org; attribution to the FIP based on CEA best professional judgment.

Site Visits & Country Reflections

Asia
- China
- Indonesia
- Japan

Africa
- Morocco

North America & Europe
- United Kingdom
- United States

Latin America
- Chile
- Ecuador
- Mexico
- Nicaragua
- Peru

CEA

Countries visited show an increasingly complex FIP universe

Country	High-Level Takeaways
Asia	
China	• FIPs are on the rise. Six FIPs have launched since 2015. To date, they have focused on data collection and relationship building in fisheries. • The challenges with China's fisheries likely go well beyond what FIPs are suited to address, namely the massive excess fishing capacity in the country and significant and rising domestic demand for seafood. • Industry is leading the way in China, funding the majority (upwards of 80%) of FIP activities at the three sites CEA visited.
Indonesia	• There are examples of FIPs influencing harvest strategies and control rules (e.g., BSC, archipelagic tuna). Increased meaningful policy engagement by the seafood industry, especially from local industry representatives, will be needed to test if the FIP model can meaningfully improve fisheries' governance in Indonesia. • More energy, money, and effort is focused on FIP implementation in Indonesia than anywhere else CEA visited, which has implications for how Indonesia could be used as a case study for FIP implementation in other countries.
Japan	• The recent passage of the National Fisheries Policy is the most significant update to fisheries management in the country since the 1940s. • FIPs might serve as pilots of various elements of the National Fisheries Policy in the future by providing local capacity and champions to aid in its implementation, but sustainable seafood efforts in Japan are currently too small in scale to serve as a platform for policy implementation.
Africa	
Morocco	• Enabling conditions in Morocco are strong and appear amenable to market influence, suggesting a ripe environment for future FIP efforts. These conditions are: (1) a supportive government with decent management efforts that track to the MSC standard, (2) industry that is familiar with the FIP process and sees benefits in terms of EU market access, and (3) a successful FIP (sardine) that can serve as a roadmap for how other FIPs can be successful in the country.
North America & Europe	
United Kingdom	• UK FIPs benefit from a highly capacitated and well-funded community of experts that have been working together closely for decades. This includes fisher representatives, government agencies, seafood buyers and retailers, civil society, and academics. • MSC has been a driving force behind an initial preassessment of inshore fisheries and the subsequent selection of eight fisheries for inclusion in a FIP process. MSC's guidance throughout the process has allowed FIPs to focus on key gaps in their fisheries.
United States	• The majority of whitefish and all shrimp caught in the US are engaged in either FIPs or MSC. Shrimp fishing effort is declining domestically as the unit economics of shrimping make it more challenging to compete with imported product. • To combat low prices, crab, mussel, and shrimp fisheries are focusing on lower-volume, higher-value FIPs seeking product differentiation in domestic markets.

Countries visited show an increasingly complex FIP universe

Country	High-Level Takeaways
Latin America	
Chile	• The Common Hake FIP is in its 12th year of implementation and only engages the industrial fleet, yet the artisanal sector's actions contribute to overfishing. • Newer FIP projects are focused on implementing the 2012 Fisheries Law by supplementing government capacity through research and management planning. • The Southern Hake fishery, which previously had a FIP that stalled, achieved MSC certification in 2019; the Spanish market's recent engagement is likely a key factor.
Costa Rica	• Implementation of two efforts led by UNDP/SFP and Conservation International will test new Theories of Change—national-level engagement and the social FIP model—and will be important to watch in the coming years.
Ecuador	• Ecuador's Mahi Mahi FIP is on the verge of MSC certification after nearly a decade of FIP engagement and is credited with building significant institutional capacity within the management agency, SRP. It is a clear example of a FIP succeeding in a small-scale fishery in need of significant improvements. • New FIPs in tuna and small pelagics are well designed, have significant government and industry buy-in, and have financial commitments to enable a robust set of activities. The tuna FIP, led by TUNACONS, entered the full assessment process less than three years after the FIP started. • The recently awarded EU yellow card for insufficient effort to control IUU fishing may divert attention from FIP implementation, but it is too soon to tell.
Mexico	• The number of implementers (and FIPs) in Mexico has grown significantly (21 FIPs as of Dec. 9, 2019); nearly all new projects are basic, and most are bottom up. • Most new FIPs in Mexico are small-volume fisheries primarily destined for non-engaged markets, representing a newer type of application for the FIP model. • There appears to be a very small but growing demand for sustainable seafood in Mexico, with SmartFish Inc. serving as a growing proof of concept.
Nicaragua	• The spiny lobster FIP seems to be a prototypical case of how FIPs could succeed in less developed countries, in terms of realistic timeframes, levels of stakeholder engagement, meaningful direct engagement with fishing communities, connection to engaged international markets, and clear roles of various stakeholders (e.g., NGOs, industry, government). • Nicaragua's success illustrates how important engaged government is to FIP success. This is particularly evident when compared to neighboring Honduras's spiny lobster FIP, which has produced fewer results even though it launched earlier, was also implemented by WWF, and had similar fishery characteristics.
Peru	• Industrial fisheries in Peru appear to be on the verge of some major breakthroughs, in large part due to long-standing NGO engagement with the government to build technical research capacity. Limited progress from government continues to hinder FIP progress related to P3 indicators, particularly in artisanal fisheries where vessel registrations and understanding capacity still have not been achieved. • Peru struggles to effectively monitor and manage artisanal fisheries, including the artisanal and small-scale anchoveta fishery, for reasons ranging from technical limitations to lack of political will or enforcement capacity. Substantial value is lost due to inefficiencies in management and production across all of Peru's artisanal fisheries, harming fishers and companies alike.

Asia

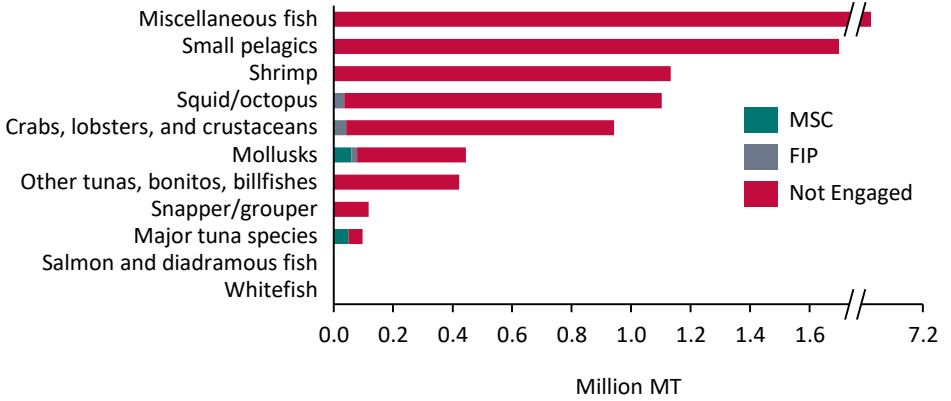
- China
- Indonesia
- Japan

China

Summary Reflections

- **The challenges that FIPs in China face reflect the complexity of its fisheries, most notably the sheer size of its overcapacity and rising domestic demand.** It is not clear that FIPs can overcome the challenges associated with reforming Chinese domestic fisheries, but they can effectively supplement fisheries management capacity. In the near term, FIPs are well positioned to improve the understanding of fisheries health in partnership with research institutions, to engage local stakeholders and cultivate champions, and to build relationships with government.
- **The trade war with the US was cited as a threat to FIP progress because FIPs rely on the incentive of Western market demand.** As one implementer mentioned, "your President" is the major threat to FIP progress in China.
- **Future success is contingent on cross-province collaboration and management, which is rare.** Furthermore, for some transboundary fisheries (e.g., squid) multiple countries will also need to adopt better management to achieve sustainability.
- **Industry appears to be the primary source of FIP funding** among the FIPs CEA visited.

Engaged fisheries landings[1]



Summary Data	
# FIPs on FisheryProgress:	8
# Stage 4+ FIPs:	3 of 8
Sites visited:	Shantou-Taiwan Chinese Common Squid – jigging/single trawl Shantou-Taiwan Short-Arm Octopus – jig Fujian Zhangzhou Red Swimming Crab – bottom trawl & pot/trap

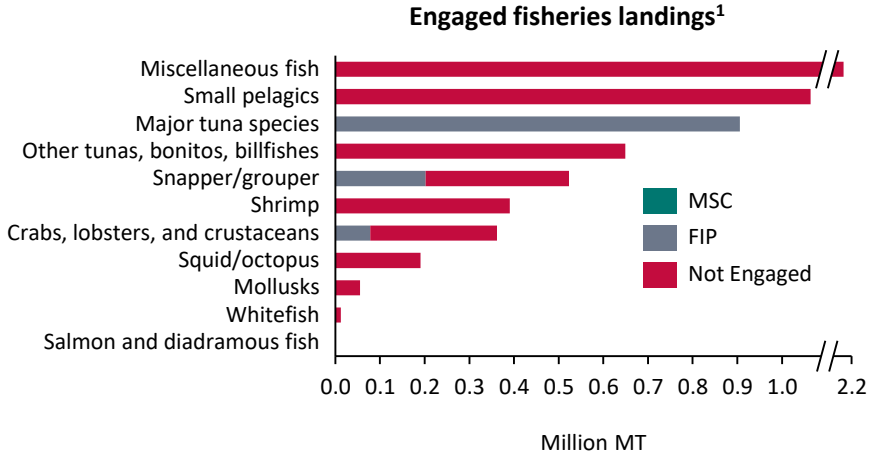
[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

CEA

Indonesia

Summary Reflections

- **There is more FIP activity in Indonesia than in any other country.** Most (9/17) of these FIPs are comprehensive and have good progress ratings. CEA's review identified 40 FIPs, only 17 of which report on FisheryProgress; WWF-Indonesia runs 21 FIPs focused on domestically relevant fisheries.
- **FIPs are focused on a few high-value export commodities (i.e., crab, tuna, snapper/grouper) and reach 15% of Indonesia's seafood production**. Shrimp (mostly farmed) is by far the most valuable seafood export commodity in Indonesia, followed by tuna and crab. Small pelagics, shrimp, and miscellaneous fish appear to be almost entirely unengaged. The One-by-One Indonesia Tuna Alliance is a national platform where IPNLF, AP2HI, and MDPI work together to achieve common objectives for tuna policy reform.
- **Success in Indonesia requires change in government management, but management is just the first step in a longer process of fishery recovery**. Nearly every FIP implementer, industry stakeholder, and fisher felt that government entities, specifically the Ministry of Maritime Affairs and Fisheries (MMAF), needed to do more to set harvest strategies that would enable stocks to be managed sustainably. But management change alone is insufficient for fisheries to recover; Indonesia must also enforce regulations that will lead to lower production.
- **Many of the policies implemented by former Minister Susi Pudjiastuti are popular among fishing communities and have had a demonstrated effect on the resource**. Specifically, the ban on foreign fishing fleets was cited as leading to recovery in the Arafura Sea, and most fishers CEA spoke to knew of the Minister and supported her policies. Industrial tuna fishers are an exception, and industry is highly critical of her blanket transshipment ban.
- **The new fisheries minister brings uncertainty to the future of management in Indonesia.** President Joko Widodo replaced Minister Susi with Edgy Pabowo, a political rival, to create a more unified government. There was a backlash from fishers, and observers suggest this could indicate a deprioritization of fisheries reform within the government.



Summary Data	
# FIPs on FisheryProgress:	17
# Stage 4+ FIPs:	13 of 17
Sites visited:	Handline Tuna – Buru Blue Swimming Crab – Gresik Snapper – Makassar Strait Longline tuna – Benoa

[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

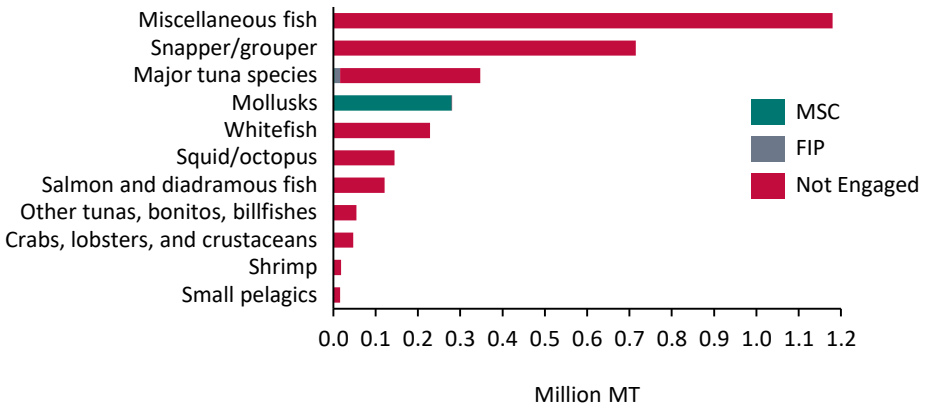
CEA

Japan

Summary Reflections

- **Positive change is coming to Japan. In 2018, a new National Fisheries Law was passed.** The national policy mandates stronger science-based management, allocation of quotas, the creation of transition finance support, and more. This is the most significant change to national fisheries policy since the 1940s.
- **Currently, FIPs in Japan demonstrate that the model is viable domestically rather than explicitly seeking to produce specific reforms.** In the last three years, Seafood Legacy Foundation (and previously Ocean Outcomes) has launched the first four FIPs in the country. The seafood markets movement is young and growing in Japan, and the FIP concept has only recently been introduced.
- **The biggest gains may be found in more intentionally linking FIPs with implementation of the new national policy.** With only three small projects, there is little expectation that Japanese FIPs will directly change fisheries management in the next five years. Similarly, the initial implementation of the new policy is scheduled to be enacted in the next year, and FIPs are unlikely to drive broader design choices for this phase of implementation. FIPs could, however, potentially serve as pilots for various aspects of the reform program (e.g., catch documentation systems, allocation in locally managed fisheries) by providing local capacity and champions to aid in its implementation.
- **Industry partners are passionate about their projects**. Perhaps more than in any other country CEA visited, the Japanese industry participants are enthusiastic about the need for their work on sustainable seafood.

Engaged fisheries (by '000 mt)[1]



Summary Data	
# FIPs on FisheryProgress:	4
# Stage 4+ FIPs:	2 of 4
Sites visited:	Japan Albacore Tuna – longline Tokyo Bay Sea Perch – purse seine

[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

Africa

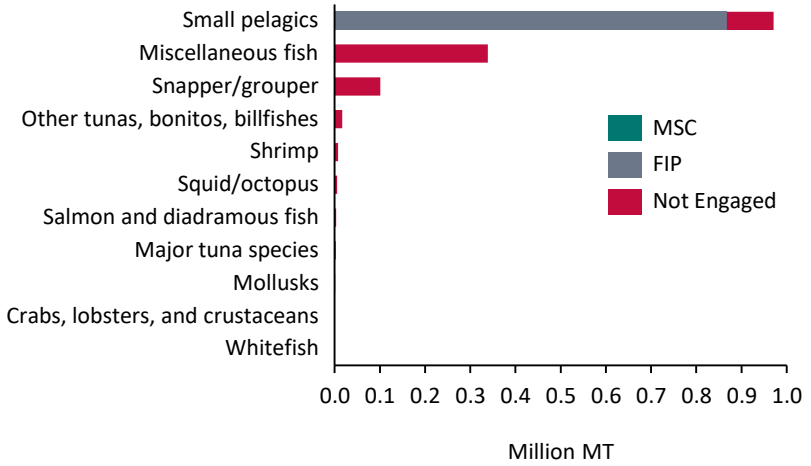
- Morocco

Morocco

Summary Reflections

- **Morocco is home to one sardine FIP that exports mainly to the EU.** The sardine fishery is on track to certification after five years in a FIP.
- **The EU demand for sustainably sourced canned sardines was a major driver in mobilizing the Moroccan industry to enter into a FIP.** In particular, pressure was brought to bear by Aldi South, Lovering Foods, Clama GMBH, and Otto Frank (all German retailers). Informants cited SFP as an important force in bringing these groups together, and industry now plays a major role across most FIP activities.
- **The FIP contributed to formalizing Morocco's process for setting total allowable catch (TAC)**. Early FIP activities surfaced harvest control rules (HCRs) as a missing link to MSC certification. The HCR process has been formalized through the FIP, and the management framework significantly improved in the southern and central zones.
- **MSC certification is in reach but sardine may be classified as a keystone species**, which could lead to a difficult decision: precautionary management or no certification.
- **Unrelated to this FIP, Morocco was one of several countries identified by SFP's Global Octopus Supply Chain Roundtable as a likely area to see sustainability initiatives emerging** due to existing interest, market leverage, and availability of national connections with different stakeholders.

Engaged fisheries landings[1]



Summary Data	
# FIPs on FisheryProgress:	1
# Stage 4+ FIPs:	1 of 1
Sites visited:	Morocco sardine – pelagic trawl and seine

[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

CEA

North America & Europe

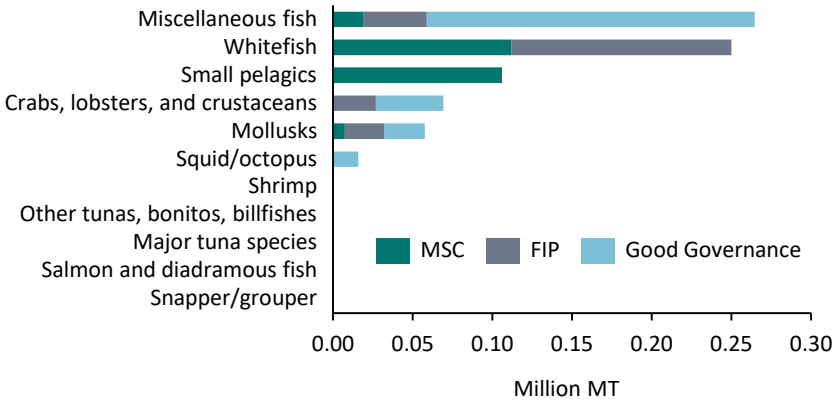
- United Kingdom
- United States

United Kingdom

Summary Reflections

- **Project UK Fisheries Improvements (PUKFI) is a model for industry-led FIPs in a region with strong governance.** PUKFI builds upon the foundation of Project Inshore, a project that ran from 2012 to 2014 and sought to map and present key data on English inshore fisheries and undertake MSC preassessments of those fisheries. MSC focused on eight fisheries with varying degrees of readiness for MSC certification and developed management improvement plans. Each FIP action plan is designed to ultimately improve the fishery's sustainability to a point where it can enter full MSC assessment. Although PUFKI is in its early stages, it's a promising example of industry leadership.
- **The existence of co-ops, industry authorities, and local enforcement agencies were essential to generating interest and launching the FIPs.** Fisher co-ops (e.g., the South Western Fish Producer Organization), governmental industry authorities (e.g., the non-departmental Seafish) and local enforcement agencies (e.g., IFCA) were key to channeling MSC and retailer interests up the supply chain and to creating the necessary buy-in of fishers to form part of a FIP process.
- **PUKFI benefits from a single time zone, a common language, and strong institutions.** Supply chain actors with experience in non-UK FIPs called out the benefit of a FIP "at home" where willingness to participate is generally high (with some exceptions), cultural gaps hardly exist, and strong networks of universities exist to jump in and support analyses for free.
- **Despite this strong supporting context, challenges remain in achieving desired outcomes**. Specifically, changing market dynamics are shifting product to Asia in some cases; in other cases, current gear configurations preclude meeting MSC requirements.

Engaged fisheries landings[1]



Summary Data	
# FIPs on FisheryProgress:	6
# Stage 4+ FIPs:	0 of 6
Sites visited:	UK Brown Crab and European Lobster-pot/trap UK English and Western Channel Great Atlantic Scallops - dredge

[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

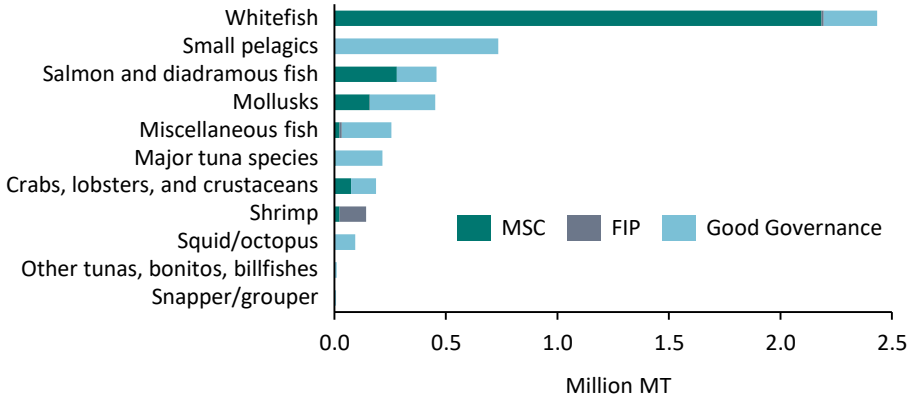
CEA

United States

Summary Reflections

- **The US's largest fisheries—whitefish—are mostly MSC certified.** Only 10% of the 2.4 million tons of US whitefish remains uncertified.
- **Gulf of Mexico shrimp illustrates how a differentiated market demand affects FIP implementation.** The formerly-unified Gulf of Mexico shrimp FIP split into state-based projects in response to buyer demand. Louisiana and Texas have transitioned to comprehensive FIPs because their large retailer customers now have sourcing policies that require seafood to be certified or in a comprehensive FIP. Meanwhile, Alabama and Mississippi remain in basic FIPs as their buyers do not require similar specifications.
- **Key informants credit the Gulf of Mexico shrimp supply chain roundtable with compelling state government to make needed policy changes.** In Louisiana, the state passed turtle excluder device and tow time reforms and is helping commission a bycatch study. These changes should allow the fishery to consider MSC certification.
- **To combat low prices, FIPs are promoting a higher-value, lower-volume strategy.** For Gulf shrimpers, higher-quality shrimp come from shorter trawl times, which also reduce bycatch mortality. Besides Gulf of Mexico shrimp, North Carolina blue crab and Maine blue mussel fisheries are also trying to differentiate themselves in the domestic market as high quality and sustainable.

Engaged fisheries landings[1]



Summary Data	
# FIPs on FisheryProgress:	6
# Stage 4+ FIPs:	4 of 6
Sites visited:	Louisiana shrimp – otter / skimmer trawl Mississippi shrimp – otter / skimmer trawl

[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

Latin America

- Chile
- Ecuador
- Mexico
- Nicaragua
- Peru

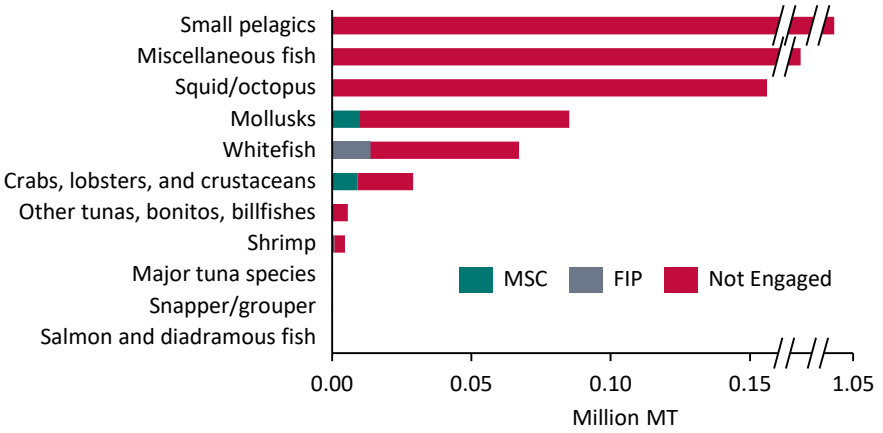
CEA

Chile

Summary Reflections

- **The second generation of FIPs in Chile is smaller in scale and more diverse in sector types.** SFP and CeDePesca ran seven whitefish and small pelagic FIPs launched between 2007 and 2012. These FIPs comprised the first generation of Chilean FIPs, of which only Common Hake remains active. The second generation of FIP activity is led by ECOS Research Center, WWF-Chile (through multiple fishery conservation projects), and CeDePesca.
- **The primary role of new FIPs in Chile is to aid in implementing the 2012 Fisheries Act.** Chile benefits from a good management regime, established civil society, and a government open to collaboration. New FIPs seek to expedite the development and implementation of management plans required by the Fisheries Act.
- **In addition to the Chilean Common Hake FIP, five other organizations are working to reform Chile's most iconic fishery.** CeDePesca continues to engage the industrial fleet, though consensus opinion is that the fleet is likely operating at MSC's level of performance. The balance of effort is focused on key issues regarding the artisanal fleet and management enforcement. Several groups are also pushing for a ban on bottom trawling, which would strongly affect the hake fishery.
- **Market dynamics are different than in 2015, as Spanish buyers are demanding sustainable seafood.** The Southern Hake FIP stalled in 2015 from lack of Spanish supply chain engagement; now the fishery is certified.
- **The Aquaculture Stewardship Council (ASC) feed standard is seen as critical to engage small pelagics, and frustration is growing as its release is further delayed.** The farmed salmon industry looks to the ASC feed standard for what is required, and clear guidance from the ASC will guide how those companies engage small pelagic FIPs.

Engaged fisheries landings[1]



Summary Data	
# FIPs on FisheryProgress:	3
# Stage 4+ FIPs:	1 of 3
Sites visited:	Chile Common Hake – bottom trawl Chile Stone Crab – trap Chile Southern Sardine (WWF FCP)

[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

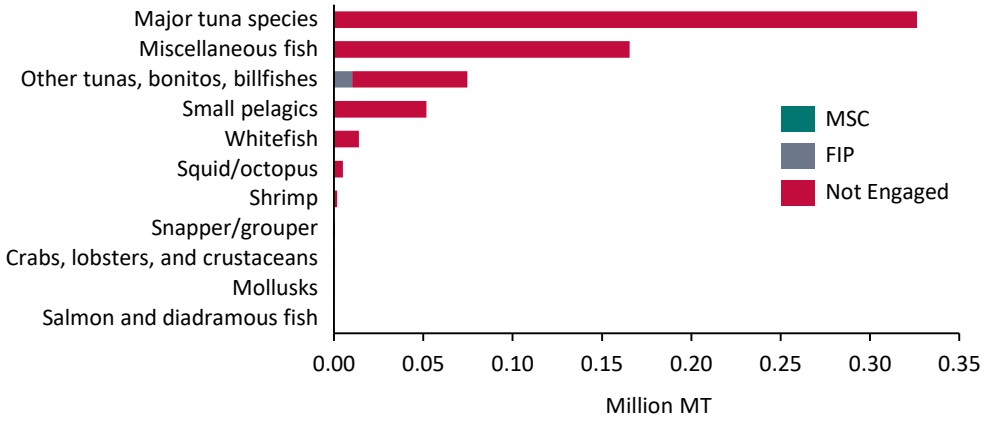
CEA

Ecuador

Summary Reflections

- **FIPs have made significant progress in Ecuador, providing several good examples of what "success" can look like for FIPs outside of northern Europe and the US.** The mahi longline FIP has entered MSC full assessment after 10 years and is likely to pass with conditions. An industry-run tuna FIP started in 2016 has already entered full assessment, and SFP's small pelagics FIP has already informed the extension of a closed season and encouraged industry and government to invest significant resources into the FIP.
- **Although the Ecuador mahi FIP took twice as long as intended to enter the full assessment process, the FIP is widely viewed as having laid the groundwork for more effective fisheries management in different commodities**. That model includes developing a national plan of action and aligning FIP goals and objectives with that plan. Technical and financial support to government likely also played a key role in making progress, as did working with a core group of industry players who have gone on to initiate their own FIPs (TUNACONS, Transmarina).
- **Political instability remains a barrier to progress**, with turnover at SRP cited by all key informants as the key limitation for FIPs moving forward. A recent yellow card by the EU related to IUU fishing may encourage or undermine FIP work.
- **COREMAHI (*Comité Regional de Mahi Mahi*) is a new regional effort to align producer interests and advocate nationally and regionally. It seems to be active in Ecuador, but it is too early to judge its effectiveness.** The group has participated in Inter-American Tropical Tuna Commission (IATTC) meetings and has helped elevate the artisanal fishers' issues to management and scientific authorities domestically and at the regional fisheries management organization (RFMO).

Engaged fisheries landings[1]



Summary Data	
# FIPs on FisheryProgress:	3
# Stage 4+ FIPs:	2 of 3
Sites visited:	Ecuador Mahi Mahi – longline (completed) Eastern Pacific Ocean Tropical Tuna – purse seine (TUNACONS) Ecuador small pelagics – purse seine

[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

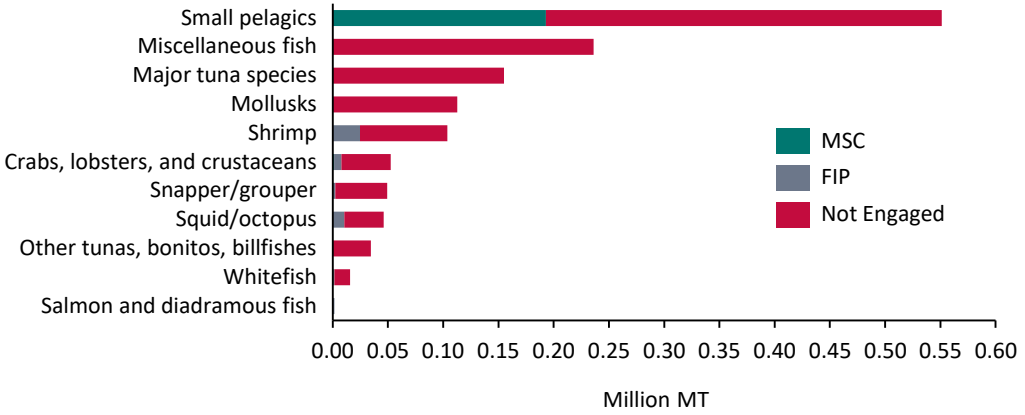
CEA

Mexico

Summary Reflections

- **In the last three years, more than a dozen FIPs have launched in Mexico,** many of which are led by Mexican implementers (e.g., COBI, ProNatura, SmartFish). Of the 21 FIPs reporting on FisheryProgress, 17 are basic, and all but one of 15 FIPs on the Pacific/Gulf of California are basic.
- ***Impacto Colectivo* is the first national platform to consolidate FIP activity toward government engagement,** but it is slow-moving. Stakeholders appear to have mixed feelings, acknowledging that collaboration is worthwhile but lamenting the pace at which the coalition is developing.
- **Companies and NGOs are trying to develop the domestic market for sustainable seafood.** SmartFish is supplying four outlets in Mexico City with certified or FIP-engaged product. WWF and others are pursuing more traditional buyer commitments with hotels, restaurant chains, and retailers.
- **Stakeholders voiced concern that the new national government is not an ally for fisheries reform.** For example, one informant explained that the government delayed issuing landing permits for most of 2019, increasing the number of unreported and undocumented landings. National-level fisheries agency representatives interviewed expressed little knowledge of FIP activities in Mexico.
- **Industrial and artisanal shrimp FIPs have made notable environmental progress**, specifically on elements related to MSC Principles 1 and 2. But engagement with government remains a key barrier to MSC certification.

Engaged fisheries landings[1]



Summary Data	
# FIPs on FisheryProgress:	21
# Stage 4+ FIPs:	12 of 21
Sites visited:	Marismas Nacionales White Snook Yucatan Red and Black Grouper Mexican Pacific Shrimp – bottom trawl (industrial) Mexico/Sinaloa artisanal blue shrimp – drift/cast nets

[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

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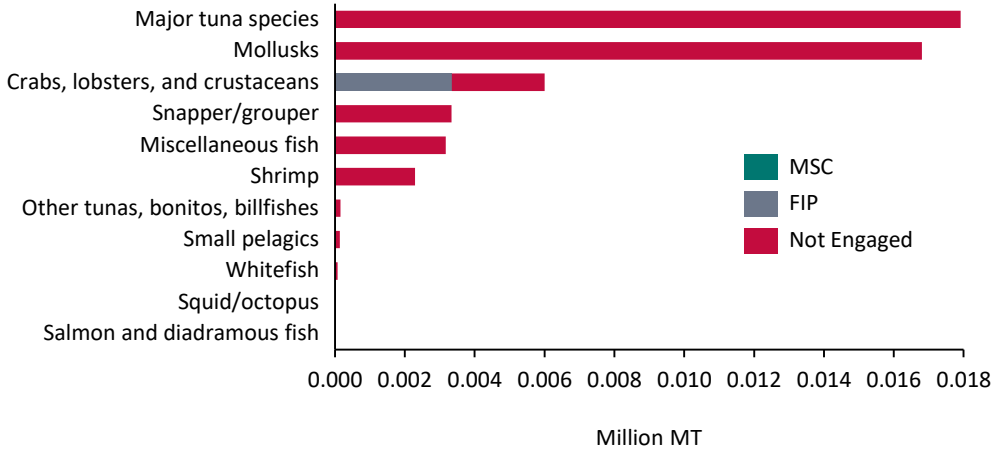
Nicaragua

Summary Reflections

- **Nicaragua may provide the best example for how a FIP can work in a less developed country.** The FIP has slowly but surely executed its action plan. "This has been a long process, and important progress has been achieved for fishery improvement . . . there is no indicator scoring below the minimum accepted pass (<60)" (FIP Action Plan 2018, MRAG).
- **The spiny lobster FIP is an archetypical WWF FIP**. The comprehensive FIP is motivated by the prospect of MSC certification. The export-oriented fishery primarily services the US and Europe, though an increasing portion heads to Asia.
- **The national fisheries agency's willingness and ability to improve management, monitoring, and enforcement is central to the FIP's success.** INPESCA has taken numerous steps to improve management of the lobster fishery, some of which predated the FIP.
- **Stakeholder impact extends beyond Nicaragua.** The FIP has established a bi-national working group to coordinate improvement work with neighboring Honduras, which has the only other industrial lobster fleet in Central America. INPESCA staff also conduct capacity-building trainings for other countries that fish the same lobster stock (e.g., Belize).

Engaged fisheries landings[1]



Summary Data	
# FIPs on FisheryProgress:	1
# Stage 4+ FIPs:	1 of 1
Sites visited:	Nicaragua Caribbean Spiny Lobster – trap

[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

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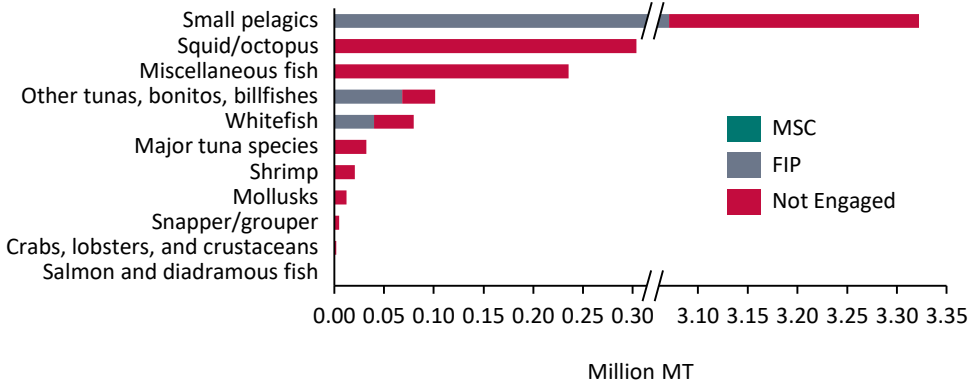
Peru

Summary Reflections

- **Peru is a hotbed of FIP activity with strong enabling conditions.** Factors supporting success include several experienced implementers, strong technical and research capacity in civil society and in the oceanographic research institute (IMARPE), industry leadership, and products connected to export markets that prioritize MSC certification.
- **Given the unique dynamics of the Humboldt Current ecosystem, gains for conservation are not entirely clear.** Peruvian researchers see "variability as the norm" in their region, and teasing out the impacts of fishing compared to changing environmental factors like El Niño is a consistent challenge across almost all marine fisheries in the country.
- **Political instability is the key barrier to progress.** Corruption scandals continually rock the central government. Changing executive leadership cascades down the chain, resulting in significant staff turnover at PRODUCE (including Vice Ministers who last for months at a time) that impedes FIPs' ability to make progress on outcomes related to MSC Principle 3.
- **While industrial fisheries like hake and anchoveta appear to be largely moving in the right direction, Peru still struggles to manage its artisanal fleet effectively.** Industrial anchoveta and hake fisheries are considered well-managed, demonstrating the potential for good management in Peru when there is political will, engaged industry, and resources. The process of "formalization" has been—by most accounts—unexpectedly detrimental. Although well-intentioned, implementation of regulations to register vessels and integrate artisanal fleets into official records has created perverse incentives that have increased the size of the fleet and resulted in inequitable benefit capture.

Engaged fisheries landings[1]



Summary Data	
# FIPs on FisheryProgress	6
# Stage 4+ FIPs/progress ratings	5 of 6
Sites visited:	Peruvian anchovy – industrial purse seine
	Peruvian anchovy – small-scale purse seine
	Peruvian hake – industrial bottom trawl
	Peruvian Jumbo Flying Squid – jig
	Peru Mahi Mahi – longline

[1] CEA Analysis based on FishStatJ 2016 Production Data. Major tuna species include yellowfin, bluefin, skipjack, albacore, and bigeye.

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Findings by Core Research Question

- What contributes to FIPs' progress, impact, and effectiveness?
- How do FIPs invest their resources?
- What market incentives motivate FIPs?
- How do FIPs advance fisheries management?
- What improvements are FIPs attempting to make beyond environmental improvements (e.g., social, business)?

FIP Progress, Effectiveness, and Impact

Summary

Fisheries engaged in FIPs are generally improving, but there is not enough data to say whether they are improving more than non-FIP fisheries.

CEA's statistical analyses corroborate the Cannon et al., 2018 findings that fisheries engaged in FIPs are, in general, improving. But despite conducting analyses to test for causality, CEA is unable to determine whether FIPs improve stock health or management faster than non-engaged fisheries. An investment in better data quality is needed to determine the impact of the intervention, as the current lack of data on non-FIP fisheries limits understanding of the counterfactual.

Most reported Stage 5 changes are clarifications of the actual state of the fishery that resolve precautionary or outdated red scores, rather than new change on the water brought about by FIP activities.

These clarifications are helpful for both markets and governments as FIPs are regularly supplementing aspects of fisheries management (e.g., research, monitoring, data collection, and analysis). Most of these clarifying Stage 5 events are reported in the first year or two of FIP implementation. Over time, Stage 5 changes increasingly reflect the outcomes associated with FIP activities, but these represent a small minority of reported Stage 5 changes.

Country management capacity is a key determinant of FIPs' rate of progress and time to completion.

Several studies have tried to determine how much a FIP's host country matters.[1] Our results indicate that they do; FIPs in higher-income countries are more likely to report improvements, and MSC-certified fisheries are more likely to be in high-income countries located in the Global North. The strongest predictor of higher FIP stage achievement is the country's fishery management capacity, as measured by the FMI. These results raise questions about expectations of FIPs to drive far-reaching change in countries with low governance capacity in the near or mid term.

Individual leadership, more than implementing organization or type, is linked to FIP success.

Attempts to quantitatively determine which organizations best drive change were largely inconclusive, but site visits consistently highlighted the importance of committed individuals to driving a project forward. This is consistent with findings from literature looking at co-management interventions. These individuals tend to be locals with pre-existing relationships with fisheries managers or government officials, who have strong technical understanding of FIP and MSC components, and who are engaged for years.

Non-whitefish commodities are improving, too, but some species groups' life history makes it challenging to track change over time.

CEA's analysis traced the rise of whitefish fisheries but also suggests that other commodities are able to improve through FIPs. While previous analyses have pointed out that only moderately fecund species (like whitefish) are well suited for FIPs,[2] CEA's analysis suggests that more fecund species, such as lobster and shrimp, are also improving. Species groups with long life history characteristics and little market differentiation among products from different species, like snapper and grouper, are more challenging to reform using market-based conservation initiatives, at least in their current construction.

[1] Sampson 2015; Villeda 2018; Travaille et al., 2019.
[2] Travaille et al., 2019.

Data, Literature Review, and Methods

CEA combined data from two publicly available databases with CEA-collected data for more comprehensive analyses

To answer questions concerning progress, effectiveness, and impact, CEA summarized relevant peer-reviewed literature and analyzed publicly available FIP data. The objective was to advance the field's current understanding. The key papers and datasets are outlined here, and key findings from literature are described on the next page.

FIP datasets used in CEA analyses

Dataset	Source	Information contained
FIP DB	Created by SFP, now managed in tandem with the Hilborn lab at the University of Washington	FIP DB contains information about historical and active FIPs, the fisheries in which the FIPs are active, and the implementing organizations of the FIP. There is also limited information regarding fisheries where FIPs are not present. A full explanation of FIP DB, including its sources and uses, is available in Appendix A: Overview of FIP DB.
Gear-flag profiles	SFP	Information about the FishSource score(s) regarding the health and management of fisheries for both those engaged in FIPs and a subset of those not engaged in FIPs.
FIP progress ratings	SFP	SFP reports monthly progress ratings for FIPs, allowing users to examine changes in ratings over time. This dataset was shared in a monthly newsletter email by SFP.
FIP profiles	FisheryProgress	FisheryProgress tracks the stages and progress of FIPs, historical and active. This dataset provides the most updated publicly available information on the stage and progress of FIPs.
Performance indicator change events	FisheryProgress	FisheryProgress tracks rationales for each of the changes of stage for key FIP indicators. While this data is available on FisheryProgress, it was not easily exportable. CEA manually transcribed FP.org to extract this information into a usable dataset on May 12, 2019.
FIP budget information	FisheryProgress, but modified for anonymity	Implementer expenditure information for 35 FIPs, shared anonymized with CEA for this analysis. In some limited cases, funding information is also provided.
CEA FIP Database	Created by CEA using FisheryProgress data and information about FIPs shared directly with CEA	Contains much of the same information as FP.org, in addition to a few other dimensions such as bottom-up/top-down. Dataset is not currently public but could be made so as part of this analysis.

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Data, Literature Review, and Methods

Since the 2015 Sampson et al. publication, peer-reviewed findings have been more positive about FIPs

Year	Lead Author	Title	Data Sources	Methods	Key Findings
2019	Kendra Travaille	"Key attributes related to fishery improvement project (FIP) effectiveness in promoting improvements toward sustainability"	• FisheryProgress dataset	• Random forest classifier and Boruta wrapper algorithm	• The best predictor of effectiveness of a FIP is its duration/age • FIP effectiveness was higher in fisheries in an RFMO compared to those not • Moderately vulnerable species (e.g., whitefish) showed the highest rate of improvement • Improvements were not related to market incentives, project scope, baseline fishery performance, or socio-economic standing • 5-year timeframe may be unreasonable; fisheries may need up to 10 years to reach MSC-level sustainability • Does not support Sampson et al., 2015 finding that DCFs underperform Global North ones
2018	James Cannon	"Fishery improvement projects: Performance over the past decade"	• FishSource data library • 57 FIPs of 2+ years data, covering 470 fisheries	• Star plots of FishSource scores at beginning and end of a FIP • Linear regressions	• FIPs were more likely to improve in the areas of management and overfishing than those fisheries not in FIPs • Components of the fishery remained the same or improved, particularly those with critical issues, in all categories except stock health • Harvest strategies improved or remained the same in 93% of fisheries
2018	Karen Villeda	"Fishing for market solutions: Measuring the global performance of fishery improvement projects"	• Dataset of 127 "credible FIPs" collected through FisheryProgress and direct outreach to implementers	• Summary statistics of FIPs • Welch's T-tests and analysis of variance	• Does not support Sampson et al., 2015 finding that FIPs in DCFs spend more time in FIPs • FIPs without market incentive or industry player progress at the same rate as those with • FIPs run by consultants move more quickly through stages than other implementer types • FIPs launched after the publishing of 2012 guidelines progressed more quickly • No concrete evidence that DCFs are gaining market access without delivering improvements
2015	Gabriel Sampson	"Secure sustainable seafood from developing countries"	• FishSource data library • SFP FIP stage dataset of 111 FIPs, covering >130 fisheries	• Summary statistics of FIP country management status and time spent in each stage	• Developing country fisheries make up a much smaller share of MSC-certified fisheries than those in the developed world • However, nearly half of FIPs are in developing countries • Nearly two-thirds of FIPs in developing countries have access to Western markets without delivering improvements • FIPs in developing country fisheries spend more time in early stages • NB: FishSource data library was substantively refreshed after this publication

CEA

Data, Literature Review, and Methods

Comparing CEA findings to those reported in the literature

Year	Lead Author	Key Findings	Compare to CEA Findings
2019	Kendra Travaille	• The best predictor of effectiveness of a FIP is its duration/age • FIP effectiveness was higher in fisheries in an RFMO compared to those not • Moderately vulnerable species showed the highest rate of improvement • Improvements were not related to market incentives, project scope, baseline fishery performance, or socio-economic standing • Improvements are measured as binary (yes/no) • 5-year timeframe may be unreasonable; fisheries may need up to 10 years to reach MSC-level sustainability • Does not support Sampson finding that DCFs underperform Global North ones	• CEA also found that FIP age is a strong predictor of performance • Did not test whether engagement with an RFMO impacts effectiveness • Did not examine species vulnerability, but did find whitefish to be the only statistically significant commodity to be at a higher stage • Improvements were related to baseline fishery performance • Development status of a FIP's country impacted its number of reported PI improvements; CEA did not test characteristics such as market incentives or baseline fishery performance • CEA analysis also suggests many fisheries will not reach MSC after 5 years
2018	James Cannon	• FIPs were more likely to improve in the areas of management and overfishing than fisheries not in FIPs • Components of the fishery remained the same or improved, particularly those with critical issues, in all categories except stock health • Harvest strategies improved or remained the same in 93% of fisheries	• Using similar methods, CEA analysis supports the finding that FIPs remained the same or improved in all areas except for stock health
2018	Karen Villeda	• Does not support Sampson et al., 2015 finding that FIPs in DCFs spend more time in FIPs • FIPs without market incentive or industry player progress at the same rate as those with • FIPs run by consultants move more quickly through stages than other implementer types • FIPs launched after the publishing of 2012 guidelines progressed more quickly • No concrete evidence that DCFs are gaining market access without delivering improvements	• Villeda uses time spent in each stage as the primary dependent variable, whereas CEA used FIP stage and PI changes • CEA results suggest that industry presence matters, particularly in lower-middle income countries, and that FIPs with greater industry participation are generally at a higher stage • CEA results do not find a difference in stage between implementer types
2015	Gabriel Sampson	• Developing country fisheries make up a much smaller share of MSC-certified fisheries than those in the developed world • However, nearly half of FIPs are in developing countries • Nearly two-thirds of FIPs in developing countries have access to Western markets without delivering improvements • FIPs in DCFs spend longer time in early stages	• CEA also found MSC-certified fisheries are likely to be in more developed countries than in less developed countries • CEA did not find a statistical difference between more and less developed countries in terms of FIP stage, but FIPs in developed countries report more changes in performance indicators than FIPs in less developed countries

CEA

Original Database Analyses to Assess FIPs' Impact Globally

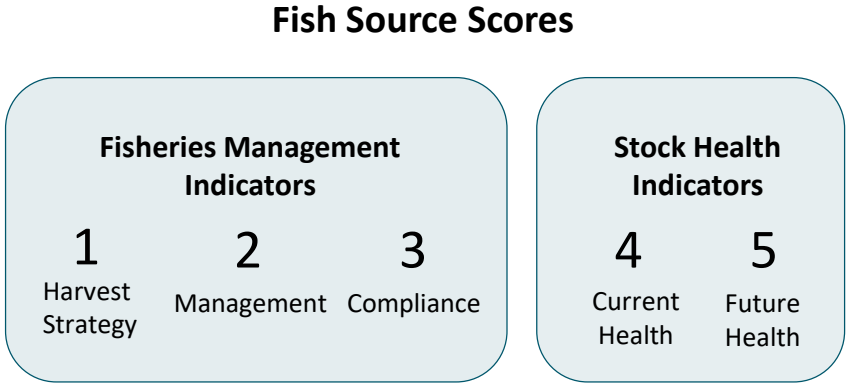
Methods to understand whether fisheries engaged in FIPs perform better than similar non-engaged fisheries

To date, only Cannon et al., 2018 attempted to compare improvements over time between FIP fisheries and non-engaged fisheries. CEA replicated Cannon et al., 2018 to confirm that their findings held with updated data and then attempted to advance their analysis through causal analyses. These measures look primarily at MSC Principle 1 (status and management of target species).

To do this, CEA used publicly available data from FIP DB, compiled by SFP and the University of Washington, which contains information on the health of fisheries, including those engaged with FIPs and some of those not engaged. These data were provided to CEA by SFP directly. Our analyses included:

1. Replicate the Cannon et al., 2018 methodology with the same data set used in their analysis to validate methods and findings. Cannon et al., 2018 only looked at ~18% of fisheries in FIP DB because of data quality constraints.
2. Expand their analysis using the same methodology on the full universe of FIP and non-FIP fisheries data available on an updated version of FIP DB.
3. Use statistical methods that move beyond *correlation* (Cannon et al., 2018 methodology) toward those that indicate *causality*. To do this, CEA employed a difference-in-difference ("diff-in-diff") methodology along with more traditional regressions (ordinary least squares, OLS).
4. Apply these methods to ask whether FIPs perform better than their peer fisheries with similar characteristics using cluster analysis.

To determine the progress of the FIPs, each of the five Fish Source scores were used to measure the components of the fisheries' health (below):



CEA

Original Database Analyses to Assess FIPs' Impact Globally

CEA replicated the Cannon et al., 2018 study using the same dataset and methods and confirmed that FIPs were correlated with improved management and overfishing more than non-FIPs. When the same methods were applied to the entire FIP Database, statistical significance no longer held.

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Fishery improvement projects: Performance over the past decade

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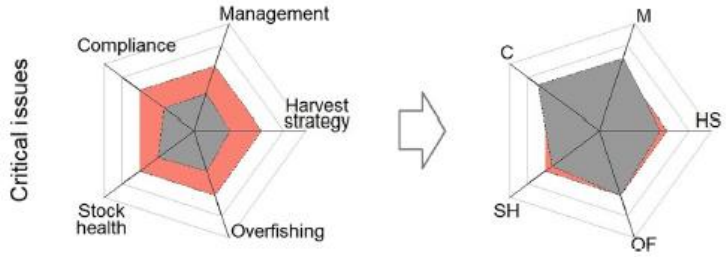

- The first step in CEA's effectiveness analysis was to replicate SFP's published work, using a regression analysis, both to validate that CEA used data correctly and to understand their methods.
- Using the publicly available FIP Database and their methodology, CEA replicated the Cannon et al., 2018 methodology and confirmed those findings, which show that while all fisheries appear to be improving in health, FIPs perform better than non-FIPs in the areas of harvest strategy and stock health—the key indicators of health.
- To complete their analysis, the Cannon et al., 2018 relied on data-rich fisheries with a long data history. This strengthened the analysis, but also excluded most fisheries in the dataset. CEA estimates that Cannon et al., 2018 used roughly 18% of available data, thus introducing a bias in favor of fisheries that had good data available, and that might have had a propensity to score better due to correlations with better capacity to manage (CEA did not test this relationship).
- CEA then expanded the inquiry to cover any fisheries that had multiple data points and included them in our regression analysis. This included data shared by SFP, data available on FishSource, and data on FisheryProgress, which all were combined to compile the most robust dataset possible. When evaluating the entire dataset, the difference between FIPs and non-FIPs was statistically eliminated, but our sample of non-FIP fisheries was limited.
- Beyond a simple regression analysis, CEA attempted a suite of additional statistical tests using FishSource data to look for evidence that FIPs were helping (or hindering) fishery progress. Despite multiple attempts to test for causality, including a differences-in-differences on the FIP-DB dataset and other publicly available datasets on global fisheries, the results remained inconclusive. The most significant limitation was the availability of fisheries health data for non-FIP fisheries relative to the number of FIP observations. While the universe of FIP data has improved dramatically since the 2015 study, the lack of availability of non-FIP fishery health data from the same sources constrains our understanding of how well FIP fisheries compare to their peers.

CEA

Fishery and FIP Dynamics Impact FIPs' "Success"

Factors external to FIPs impact rate of progress or time to completion and should be explicitly considered when assessing effectiveness and impact

In 2015, CEA sought to understand how FIPs as an intervention were implemented.[1] From that research CEA distilled four dichotomous characteristics that helped clarify salient differences among projects in the field. Two characteristics—FIP structure and supply chain engagement—comprised the defining two-by-two matrix that segmented the FIP landscape into four types of FIPs embodying overlapping Theories of Change. Sorting FIPs by their most important structural and motivational variables provided a coarse sense of how effective FIPs might be and how quickly they could progress. While helpful, this is insufficient to estimate a FIP's time to completion and thus its perceived success, as it ignores the context within which the FIP is working.

FIPs' rate of progress and time to completion are influenced by factors independent of the process.

For example, empirical analysis, expert opinion, and site visits all suggest governmental capacity to manage fisheries is a primary determinant of a FIP's time to completion. When FIPs can advocate for management change within a functioning system, they make progress faster. When they have to support the development of a functioning system or try to become a surrogate, they progress slower. Moreover, FIPs working on fisheries in relatively good health require fewer changes to achieve certifiability and thus finish more quickly and appear more effective. These factors are independent of how a FIP is structured, what leverage the supply chain has, how engaged stakeholders are, and how well the project is funded. Yet these factors meaningfully impact a FIP's ability to drive change on the water or to achieve certification for the fishery.

The way in which FIPs are implemented matters, too; rate of progress and time to completion are also governed by several dynamics of the FIP, such as leadership and structure. Some factors are easier to measure than others. FIP structure (e.g., comprehensive vs. basic) is publicly reported and serves as a proxy for implementer level of effort, in particular because comprehensive FIPs have higher reporting and improvement requirements. Individual leadership is often cited as a/the key factor that explains how well a FIP performs, yet it is difficult to distill characteristics of a successful FIP leader *a priori* save for a preexisting relationship with relevant fishery managers.

[1] CEA Consulting 2015.

Fishery dynamics

1) Government capacity for fishery management
2) Target species
3) Fleet type
4) Initial fishery status

FIP dynamics

1) Leadership
2) Effort level
3) Stakeholder engagement
4) Market leverage

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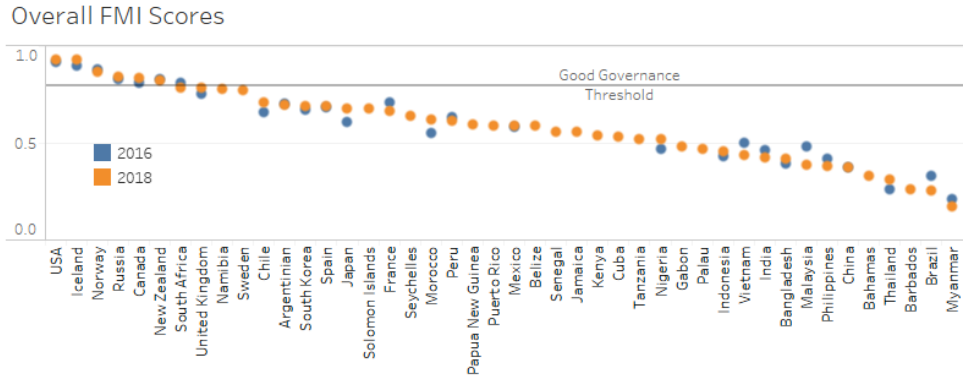
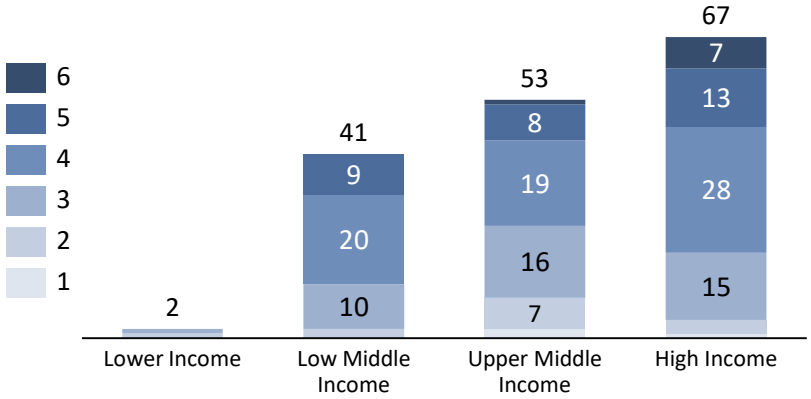
Fishery Dynamics Impact FIP Progress and Time to Completion

Government capacity is a significant contributing factor to FIP progress and is independent of FIP activities





- **At least three studies have sought to determine whether a country's development status impacts a FIP's progress** since Sampson et al., 2015's assertion that FIPs in developing country fisheries (DCFs) underperform those in developed countries. Travaille et al., 2019 and Villeda 2018 use statistical methods and more robust datasets. They differ in their findings, with conflicting indications as to whether DCFs underperform their more developed peers.
- **CEA's 2019 analysis suggests that development status does matter.** Using reported changes in performance indicator scores to inquire into FIP effectiveness, our results support prior findings[1,2] that development status is unrelated to FIP stage achievement. However, **development status is highly correlated with improvements in performance indicators**: FIPs in higher-income countries (a proxy for capacity) are more likely to report improvements in PI scores, suggesting that a country's development status does impact a FIP's ability to make improvements.
- **FIP performance is also strongly related to a country's fishery management capacity.** FIP performance is correlated with Melnychuk et al., 2018 Fisheries Management Index.[4] This analysis shows that FIPs in countries with better governance perform better than those in countries with poor governance. This finding is likely highly related to the finding about development status.
- **Travaille et al., 2019 found that engagement with an RFMO is correlated with a FIP's performance.** While this was a key finding of Travaille et al., 2019, CEA did not test to validate this finding.

[1] Travaille et al., 2019; Villeda 2018.
[2] Villeda 2018.
[3] FIP DB.
[4] Melnychuk et al., 2018.

CEA

Fishery Dynamics Impact FIP Progress and Time to Completion

Finding the right government partner is essential

To succeed, FIPs must compel governments to adopt changes needed to reform the fishery.

This is more straightforward (though certainly not easy) in countries with better capacity to manage fisheries; Melnychuk et al., (2018) Fisheries Management Index and a country's development status (which are strongly colinear to each other) are two of the best predictors of how quickly a FIP will improve. In countries where this management capacity exists, FIPs are better able to facilitate changes, as confirmed both statistically and anecdotally.

"Government is essential and the gating factor to [FIP] progress in many cases, even with strong engagement."

"The most determinant factor has to be having the government on-board of the process. Comparing Mahi Mahi FIPs in Ecuador and Peru the major difference is the level of involvement of the Ecuadorian authorities has had and it has paid off as they are soon to enter a full assessment."

However, this is more difficult in countries with weaker capacity to manage fisheries. In these cases, recruiting a champion within government is key.

In these contexts, FIPs have been most successful when they have recruited government officials to lead or co-lead the FIP (e.g., Ecuador mahi), or they have marshalled sufficient pressure from domestic industry to compel them into action (e.g., Indonesia Blue Swimming Crab). A former Director General in the Indonesian Ministry said that *"organizations operating without an MOU with the government were undercutting those that did."*

"The strength of your management plan does not matter without the authority's political will."

Working with the fishery at the right scale for management is linked with success.

Working at the stock level of a fishery, as opposed to a subset of the fishery, is positively correlated with reported Stage 5 improvements—change on the water. In addition, Travaille et al., 2019 found that involvement with an RFMO was positively correlated with progress. In these cases, FIP stakeholders are working at the level of management where government and other participants can influence the management of the resource. Once exception CEA encountered in the field was in very small-scale fisheries with heavy implementer roles, such as in Fair Trade, where other governance regimes can exist as a surrogate for government management.

Fishery Dynamics Impact FIP Progress and Time to Completion

Many species are reporting improvements, but moderate- to high-fecundity species are best suited for FIPs

Whitefish consistently achieves higher stages than others, though other species are now reporting improvements more frequently.

Whitefish is the only commodity with a higher than average FIP stage. Whitefish has been widely recognized as the most successful commodity engaged by FIPs. However, other species are reporting improvements: salmon, small pelagics, shrimp, and demersal fish are all positively correlated with reporting a greater number improvements than average.

Moderately vulnerable species (e.g., whitefish, tuna) are best suited to demonstrated improvements within the FIP framework given their life history.

This key finding of Travaille et al., 2019 suggests that species that are moderately vulnerable, such as whitefish, are good candidates for FIPs. Travaille et al., 2019 suggest that species with low vulnerability and high fecundity, namely crabs and shrimp, usually have less baseline data and require more resources for active stock monitoring, which may require additional improvement activities or time to show meaningful progress in data. On the other end, species such as snappers and groupers with longer life histories are particularly vulnerable because they can take up to 20 years to reach sexual maturity. Travaille et al., 2019 also note that these FIPs may take longer to show change on the water than the FIP model currently allows.

CEA agrees that slower maturing species like snappers and groupers are ill-suited for FIP engagement and that highly fecund species' stocks will be difficult to assess and manage given reproductive cycles and must rely more heavily on interim outcomes that may lead to healthier stocks in the long run (e.g., policy reform, enforcement). However, FIPs have effectively improved the management of shrimp and crab through improved management policies, seasonal closures, and minimum size requirements. In fact, CEA's quantitative analysis shows that **lobsters are the only species correlated with Stage 5 changes, and shrimp are positively correlated with Stage 4 changes.** This may be due to the introduction of risk-based approaches for scoring data-limited fisheries by MSC. In the Bahamas lobster FIP, for example, the fishery was able to end FIP-based data collection efforts in favor of using MSC's risk-based methods.

Tuna FIPs are not reporting many changes on FisheryProgress; they're instead moving quickly to certification.

Tuna is unique in several ways, complicating the FIP story. First, there are essentially three archetypes of tuna FIPs divided by gear type: (1) one-by-one fisheries that only need to change issues that are within their stakeholders' control because conformity assessment bodies consider them too small to impact the stock, (2) large-scale purse seine producer associations, and (3) longline vessels. When discussing tuna FIPs, these additional segmentations should be applied. Second, recent decisions by conformity assessment bodies have made certification significantly more achievable than before for the following reasons: (1) RFMO management shortcomings are now considered a minor condition, (2) fad-set fisheries are certifiable with a fish-aggregating device management plan in place, and (3) 5% observer coverage is sufficient to ensure bycatch compliance. If target species biomass and fishing pressure are at or above target levels, FIP stakeholders can make all the necessary improvements themselves to be certifiable and are not reliant on the other participating producer groups, which is unique to tuna.

CEA analysis used FIP DB compiled by the University of Washington and FishChoice, as well as a database of stage changes reported on FisheryProgress.

Fishery Dynamics Impact FIP Progress and Time to Completion

Initial condition of the fishery and unit of assessment impact how quickly a fishery can be eligible for certification

Fisheries that start in relatively good shape or only require changes that FIP stakeholders can make themselves will progress more quickly.

In 2015, CEA identified these "celebratory" fisheries that were distinct from fisheries requiring more significant improvements.[1] Informant perspectives and the success of the limited cohort of celebratory fisheries identified in 2015 supports the theory that these fisheries will improve more quickly. Examples of successful "celebratory FIPs" include the following:

- Mexico Sinaloa artisanal blue shrimp – drift/cast nets (Fair Trade Certified)
- Indonesia Maluku Islands yellowfin tune – handline (Fair Trade Certified)
- Sri Lanka blue swimming crab (promoted to Seafood Watch yellow)
- United States Gulf of Mexico shrimp (multiple FIPs) – otter trawl (promoted to Seafood Watch yellow)
- United States Gulf of Maine Jonah crab – pot/traps – (promoted to Seafood Watch yellow)

If a unit of assessment is deemed to be too small to impact the overall health of the stock or ecosystem, it appears that certain MSC PIs are automatically scored as green.

The habitat outcome PI (2.4.1) for Tokyo Bay Sea Perch, for example, was promoted to green because "[t]here is evidence that the [unit of assessment] is highly unlikely to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm."

Fleet type appears to matter in less developed countries

For FIPs operating in less developed countries, industrial fisheries report more improvements and Stage 5 changes than in artisanal fisheries. This suggests that FIPs may more easily engage industrial fisheries in this less-development context, supporting intuition. However, fleet composition does not appear to impact reported progress in more developed countries.

[1] CEA Consulting 2015.

FIP Dynamics Impact FIP Progress and Time to Completion

Leadership, more than implementer, is one of the key factors of a FIP's success

Leadership is a key to FIP success. This doesn't necessarily mean the "FIP lead."

Key informants consistently highlighted the role that individual leaders play in FIP success. This is related to the implementing organization, but specific individuals, sometimes affiliated with the associated industry or government agency, can be the difference between success and stagnation of the FIP. This is also reflected in Gutierrez et al., 2011, which examined what characteristic led to successful co-management interventions and "identified strong leadership as the most important attribute contributing to success." Predicting who will be a strong FIP leader without prior experience is difficult. None of these individuals is a direct implementer, but each in their role advanced the work of the FIP and were critical to its success.

Supporting quotes:

- "People like Jimmy are key to implement these kinds of projects."
- "You need leaders to sustain the process."
- "The key is good 'interlocutors' with the government, more effective liaisons to get the government on board."
- "We need to find the champions in the market, without the champions things don't move forward."

Characteristics observed in successful FIP leaders include:

- Strong **technical understanding** of FIP processes and MSC standard and/or other certifications
- History or strong pre-existing **connection with the right government agencies**
- **Local** to the community or region in which the FIP intervenes
- Capacity & willingness to provide sufficient **level of effort** to work on the fishery for several years

Finding these groups or individuals can be difficult, and not scalable without regional and local capacity building for technical components of MSC and FIPs. Finding dedicated individuals affiliated with or adjacent to FIPs and empowering them to make change can help to advance the work of the FIP.

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FIP Dynamics Impact FIP Progress and Time to Completion

Level of effort is difficult to quantify, but was cited by key informants as critical to success

Component of "Level of Effort"	Continuity	Sufficient Funding	Third-Party Implementation
Description	Continuity means making a long-term investment in the FIP and health of the fishery. Implementers that are successful work in a fishery for several years, maintain project momentum, and provide consistency for stakeholders.	Funding is a regulating factor for effort; meeting a threshold level of funding is required for implementation. Beyond a certain level, though, additional funds do not seem to contribute to progress.	Having a third-party implementer, independent of industry, that is able to dedicate full-time resources to the project, is associated with more effective FIP implementation.
Supporting quotes	"The [government] heads are changing not even in a year. And everybody new comes and changes the staff. It is difficult to have continuity on the actions, on the commitments, and that makes people more resistant to the authorities."	"FIP progress and advancement is not [just] an issue of money; it's about what improvements need to be made in the fishery. If you have huge problems that are environmental and social and are complex and have lots of money, you still won't progress."	"You need an independent FIP implementer, not government, not industry; they will just pursue their own interests. The coordinator must be independent and be able to stand up to fishermen and to government."

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FIP Dynamics Impact FIP Progress and Time to Completion

Greater downstream industry engagement is correlated with rapid Stage 4 or 5 achievement, but fewer changes over time

Market demand for sustainable seafood provides the most consistent incentive for progress.

While it is possible for FIPs to accomplish their goals without selling into markets that demand sustainable seafood, supply chain pressure remains the dominant motivator for FIP stakeholders and is a critical incentive for ongoing engagement. Top-down FIPs are more likely to be industry funded, whereas bottom-up FIPs tend to be philanthropically supported.

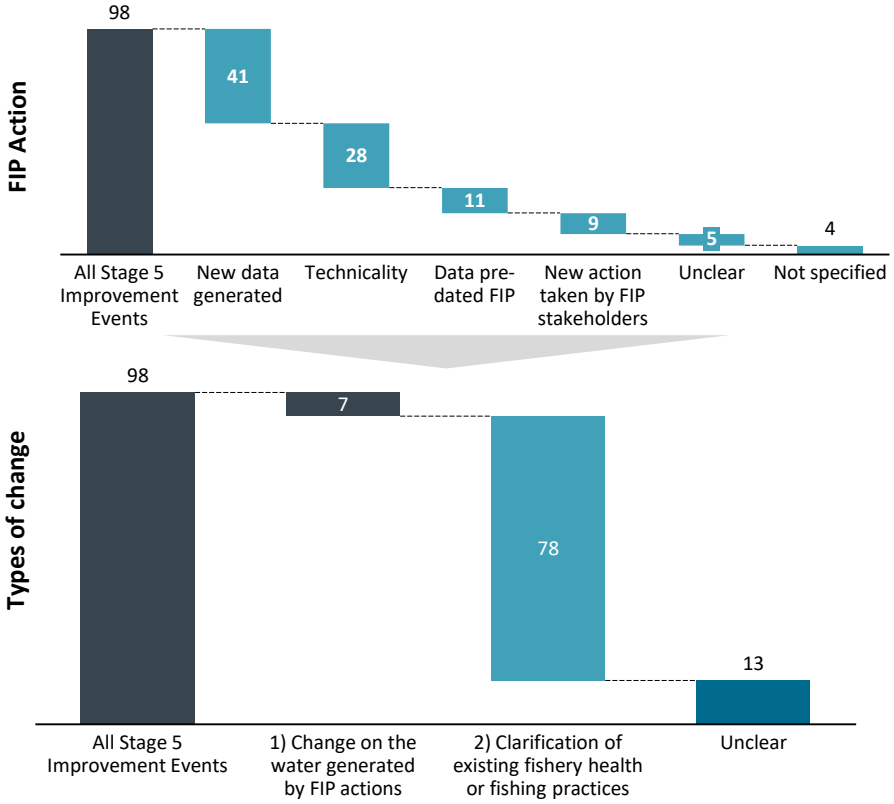
Fisheries with vertically integrated supply chain can more easily implement reforms throughout the fishery.

Vertically integrated supply chains are more effective at implementing market demand than highly consolidated supply chains, even with less relative market share. The Bahamas exporter association is an example of a supply chain actor that has taken fisheries sustainability to heart and become a champion for local fisheries reform.

The number of industry participants is correlated with rapid initial reported change. After the initial push, however, FIPs with a higher number of industry participants report few changes over time. The number of industry participants in a FIP is correlated with FIPs achieving Stage 4 or 5 more quickly than average and with more reported improvements in the first year. But after the first year, a greater number of industry participants is associated with fewer reported changes. It is easy for industry to “participate” in FIPs, and this finding may suggest that projects with the most industry participants work on fisheries where companies need to join to secure access to “sustainable” product for commercial reasons but are less interested in the ongoing reform process, indicating a potential risk for greenwashing.

Change on the Water

Most Stage 5 events reflect FIP activities that clarify the existing fishing practices or fishery health; only a few reported changes that represent new ecological gains generated directly by FIP actions seeking to improve fishery deficiencies



Stage 5 improvements reflect two outcome types:

1) Change on the water
2) Clarification of existing fishery health or fishing practices that are better than were initially assessed.

Most Stage 5 events reported by FIPs occur in the first two years of reporting and often clarify the reality on the water as opposed to generating improvements on the water. These clarifications are generated passively (e.g., examining historic logbooks or considering externally generated stock assessments) or actively (e.g., implementing observer programs or initiating new studies). Gear changes and fishing modification were the most common actions generating ecological gains.

Examples of Stage 5 changes that are a direct action of the FIP

FIP	Action
Vietnam Blue Swimming Crab	Stock enhancement by the FIP
Indonesia Blue Swimming Crab	Gear modification contributing to stock improvement

Note: Catalytic event and attribution analysis was conducted subjectively by CEA and is not reported on FisheryProgress.

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FIP Financing

Summary

FIPs' budgets are significantly better than five years ago, but they still vary from professional and comprehensive to informal and uninformative. The lack of consistent reporting hinders our ability to draw substantive conclusions or for donors to hold implementers accountable on how they are spending their money. Budget structures range from detailed line items for specific indicators to one-line annual estimates. Standardizing budget structures and reporting could help to provide additional insights about how FIPs are spending their money and how spending is tied to effectiveness.

FIPs cost between $22K and $1.7M per year to administer, based on a review of 25 budgets provided to FisheryProgress and shared anonymously for this analysis. Some FIPs may cost even more: one key informant reported that their FIP spends ~$4M annually.

- **Scale and unit cost are inversely related.** Intuitively, smaller-volume projects cost more to run on a per-unit basis by as much as two orders of magnitude. High-volume, small pelagic fisheries are expensive but are the cheapest to implement on a per-ton basis. Meanwhile, artisanal clam FIPs are the most expensive by weight among the reported budgets. Fishery size is important to consider if engaged volume is a success metric.
- **Tuna, snapper, and mahi FIPs cost the most.** These FIPs are generally high-volume, high-unit-cost fisheries and cost the most on both a total and per-unit cost to implement.
- **Almost half the cost of a FIP, on average, is directed to personnel,** including staff, consultants, and overhead, as FIPs are process-based interventions. One-third of funding supports monitoring, research, and assessments. Operations account for much of the remaining cost, with gear improvements representing a small portion of total spending.

Funding is diversifying in source but not in structure, and attempts to innovate FIP financing have made little progress in five years. Visibility into FIP funding is limited, but key informant interviews and data provided by the Resources Legacy Fund's Sustainable Fisheries Fund provide a window into a sample of FIPs. CEA's analysis suggests that philanthropic funds provide, on average, one-third of the funding for FIPs funded by Resources Legacy Fund (RLF). The projects are successful at leveraging other funds and in-kind support from governments, industry, and implementing NGOs. New multilateral funders to FIPs, such as UNDP and USAID, are also providing a new stream of funding revenue for projects. However, CEA did not encounter new return-seeking funding schemes, although organizations continue to explore and model alternative revenue models.

Philanthropic seafood markets topped out at more than $50M annually in 2016 but will likely recede in the future. The Packard, Walton, and Moore foundations make up 80% of known annual foundation grantmaking to seafood markets strategies and interventions. Funding is focused across supply chain interventions from demand cultivation to FIP implementation globally. Seafood markets programs at these foundations have transitioned from supporting individual projects to investing more heavily in global NGOs, their work in multiple continents, and systems that support FIPs (e.g., FisheryProgress.org, FIP Community of Practice workshops). Like other marine conservation philanthropy, the largest share of geography-specific seafood markets funding went to the US. Multilateral aid, like USAID Sustainable Ecosystems Advanced and UN GEF, has been directed for the first time into the FIP space and could offset transitioning foundation funding if value is seen in those investments.

FIP Budget Analysis

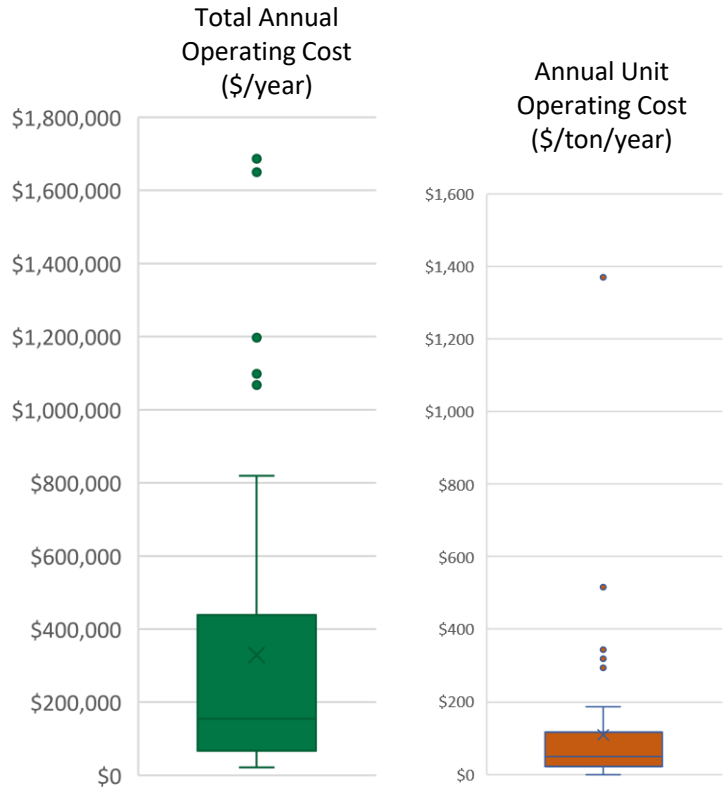
A lack of standardized budget reporting significantly limits understanding of how FIPs spend money

FIP budgets have no standard structure or reporting requirements, which limits understanding of how much FIPs cost. Currently, implementers are not required to report annual operating cost or how they spend money. In addition, there is no standard protocol for which costs should be included and which are viewed as external to the FIP. For example, some FIPs may include the cost of research cruises in their budgets even if they are funded by government, while others would view this as external to the direct work of FIP implementation and exclude it from their budgets. This provides flexibility in reporting and operations to the implementers, which would feel burdened by additional reporting requirements. Yet it limits researchers' ability to understand how FIPs spend money. The analyses presented here are from voluntarily reported budgets, which ranged from complete, multi-sheet spreadsheets broken out by expenditure type and PI to a single annual dollar value provided in email or word processing documents. Our analysis here is an attempt to standardize those data.

Within the budgets that were reported, the total and unit costs of operation vary significantly. These numbers, shown at right, range in total cost from $22K to just under $1.7M per year. Similarly, unit costs vary from less than $1 per ton to more than $3,000 per ton. Each has several outliers on the high end. It is also important to note that unit costs are derived from volumes reported on FisheryProgress, which is likely flawed, although improving.

Most reporting FIPs operate at between $70K and $420K per year, with half of FIPs costing less than $150K per year to run. Most FIPs cost between $24 and $118 per ton of catch to be completed.

Percentile	Total Cost	Unit Cost
1%	$22,007	$1
25%	$70,136	$24
Median	$154,593	$52
Mean	$328,762	$209
75%	$420,375	$118
99%	$1,666,013	$3,311



Anonymized data were summarized by FIP-year and therefore may bias FIPs with more years reporting.

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FIP Budget Analysis

Per-unit FIP costs are inversely related with FIP scale

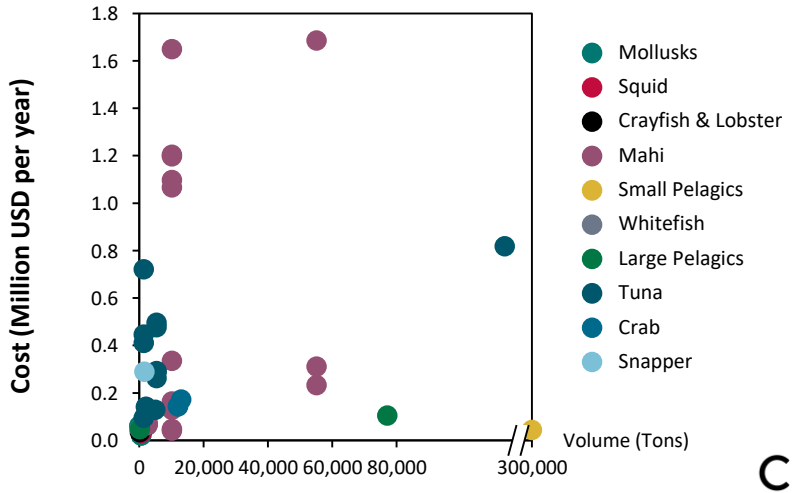
With limited data, two trends in costs emerge. Annual and per unit operating costs seem to be related to commodity and scale, with larger fish costing more annually.

Commodity. High-value, high-volume fish species such as mahi were the most reliably expensive (>$500K per year), followed by tuna and snapper. High-value but low-volume products, such as clams, had the highest per-unit cost. High costs are likely associated with gear and vessel type (see next slide). Without additional information, it is unclear if these costs are expected to be borne by consumers or by industry and whether price differentials between commodities mirror costs.

Scale. Six of the cheapest FIPs by gross cost reported under 1,000 tons of production annually, but their per-unit cost was high. Nine of the top ten FIPs by unit cost have production under 1,000 tons. This highlights the difference between small-scale, high-value commodities and national, high-volume ones. A large FIP focused on small pelagics costs only $0.14 per ton, whereas a FIP of high-value clams costs $5,600 per ton. Economies of scale likely exist for large, national FIPs. In particular, this is true where government is participating in management, as opposed to smaller, subnational FIPs where implementers are working on compliance and enforcement of HCRs and management plans. These economics are important for budget-constrained foundations seeking to achieve high volume-based targets.

Level of engagement with fishers may be a factor, but CEA could not explore this. CEA's site visits and key informant interviews suggested that the extent to which a FIP engages directly with fishers, such as active data collection, could affect overall cost. While this is an area to explore in future analyses, the available data did not permit exploration of this question.

Commodity	Avg Annual Cost	Avg Annual Cost per Ton	# FIPs Reporting
Crab	$153,565	$38	4
Crayfish & Lobster	$77,647	$88	3
Large Pelagics	$76,496	$172	1
Mahi-Mahi	$586,048	$50	3
Mollusks	$34,393	$1,454	2
Small Pelagics	$43,855	$0.15	1
Snapper	$290,000	$179	1
Squid	$32,500	$50	2
Tuna	$363,372	$131	6
Whitefish	$48,000	$1,371	2



Anonymized data were summarized by FIP-year and therefore may bias FIPs with more years reporting.

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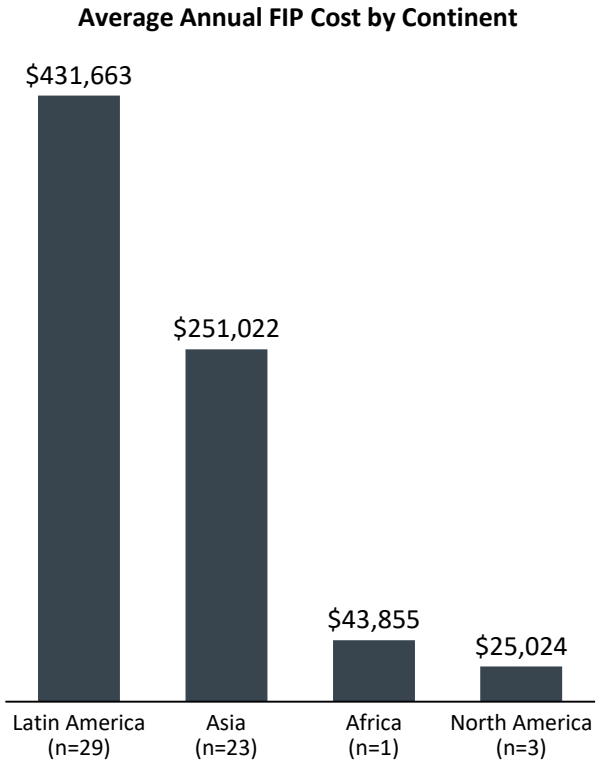
FIP Budget Analysis

Costs by implementer and gear type are derivative of commodity and scale



The commodities that implementers work on likely impact their overall costs. NGOs that work on higher-value commodities appear to have higher average operating costs. There are not enough budgets from each implementer to compare across commodities. More data are needed to control for this.

More global budgets are needed to evaluate differences in cost between geographies. While there is a statistically sound number of observations in Latin America and Asia to provide some insights, there are not enough observations from other continents, notably North America and Europe, to discern signal from noise. Additional budget data are needed to provide robust findings.

Cost by Gear Type

Note: this is the cost to implement the FIP, not the amount used on gear

Gear Type	Avg Annual Cost	Avg Annual Cost per Ton	# FIP Years Reporting
Dredge/Rake	$25,024	$45	3
Jig	$32,500	$50	1
Casitas	$35,000	$167	1
Handline	$110,214	$159	3
Pot/Trap	$141,397	$73	4
Not Specified	$293,136	$862	7
Purse seine	$431,428	$4	2
Longline	$513,044	$92	22

Organizations with only one budget are not reported here to protect their anonymity.

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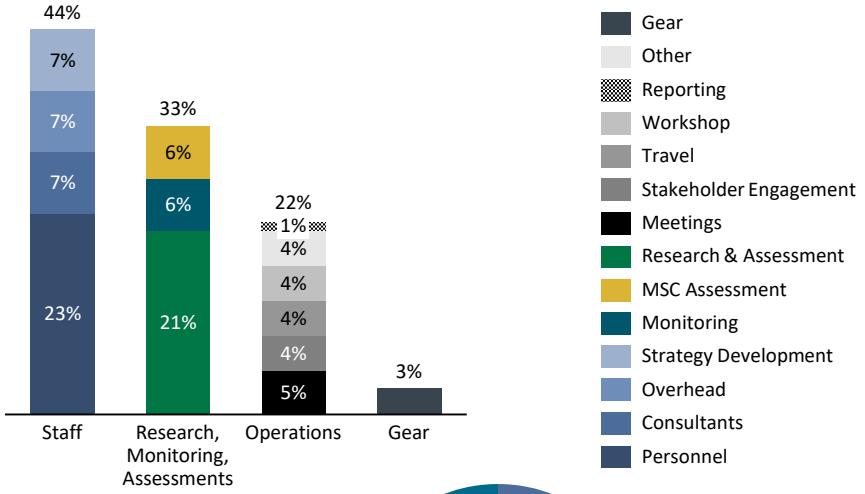
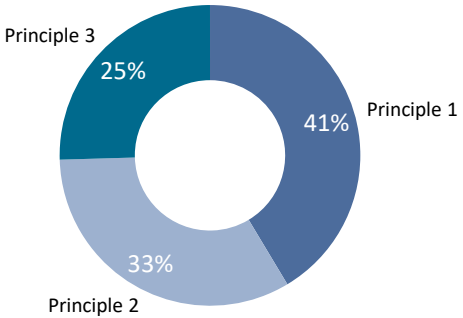
Prototypical FIP Budget

FIPs spend the largest share of their funds on personnel





While there is significant variation in the size and level of reporting for FIP budgets, expense categories were relatively constant across reporting groups.

- **Personnel, consultants, overhead, and strategy development** together account for the largest share—roughly 44%—of a typical FIP budget. Because strategy development can include both personnel and external collaborators, it is broken out separately here. Also included in this category is data collection (if the salary of enumerators is included in the budget).
- **Research, assessments, and monitoring** contribute another 34% to costs. This includes stock assessments, scientific studies on the species, and MSC assessment.
- **Meetings, workshops, travel, and stakeholder engagement** make up most of the remaining share of the budget.
- **Gear** is a noticeably small share of the overall FIP budget, although advocating for government funding of gear could be part of the FIP's initiative.

Only four FIPs reported their budgets by Performance Indicator (1-3), but those that did were relatively uniform in their reporting. The largest share of budgeting went to Principle 1 (fish stocks), then Principle 2 (minimizing environmental impact), and then Principle 3 (effective management).

- **Principle 1 was frontloaded** and had higher relative costs in earlier years, with declining costs in later years.
- **Principle 2 had the highest variation,** making up as little as 4% to as much as 84% of a FIP's annual budget.
- **Principle 3 consistently had the smallest budget,** never reaching more than half of an annual budget.

Anonymized data were summarized by FIP-year and therefore may establish a bias in favor of FIPs with more years reporting.

Funding for FIPs

FIPs successfully leverage other, non-philanthropic resources

	Direct Grants			In-Kind Support		
Funder	% of FIPs receiving funding	Median grant Size	Relative to RLF grant	% of FIPs receiving funding	Median in-kind contribution	Relative to RLF grant
NGO	31%	$25,000	50%	3%	$19,539	40%
NGO (self)	10%	$60,000	120%	52%	$40,892	90%
Foundation	14%	$126,975	160%	3%	$20,000	53%
Government	24%	$50,000	100%	3%	$28,800	192%
Industry	31%	$54,500	78%	7%	$23,906	54%
Industry (self)	7%	$81,930	84%	17%	$60,754	82%

Data from RLF show that, on average, RLF grants make up only a third of a FIP's budget. Other sources, including matched funding from the recipient NGO, industry, other foundations, and government provide funding and in-kind support equivalent to twice what RLF has contributed.

In most cases (70%), the FIP implementer contributed in-kind support to the FIP. This is outside of the money provided by the donor, implying that implementers are using other resources to get the work of the FIP done.

Industry provided support (in-kind or grants) in more than half of FIPs analyzed. On average, this support was an additional 90% of the value of that already put in by RLF, almost doubling support to the FIPs.

Foundations were the most sizeable donors. While additional foundation funding was only received in 4 out of 29 FIPs analyzed, and only to small NGOs, it more than doubled the amount of funding going to the FIP in almost each case.

When government is a partner, it gives substantially. A quarter of FIPs analyzed received government funding. The median amount given by national governments was equal to RLF funding, but some government grants were as much as three times larger than RLF's grant.

Data provided by Resources Legacy Fund, September 2019.

Alternative Funding Schemes

Actors have been pursuing alternative funding schemes, but no significant new model has emerged

"That's the problem with this space. Everyone is talking about this in theory and no one is doing it in practice."

Multiple NGOs have explored alternative models for financing FIPs, but the movement continues to be largely financed through non-return-seeking capital. Several of these plans have included stacking philanthropic, public-sector, impact capital, and/or traditional return-seeking capital to finance new FIPs and reach MSC certification. While these plans exist on paper and several impact funds have attempted to make in-roads into financing FIPs, CEA is not aware of any return-seeking opportunities in practice in the FIP community, outside of an impact-capital funded improvement to an Indonesian tuna processing plant. The continued and unsuccessful search for collaboration with return-seeking capital signals that the market fundamentals are not present for directly investing in fisheries improvement. The Walton Foundation-supported Multiplier Fund and WWF's forthcoming FIP fund are next-generation solutions that will be tested in the coming years.

Multilateral and development funders are investing in FIPs. Multilateral funders like GEF, the World Bank, and UNDP are starting to invest in FIPs. National development funders, including USAID, are also entering the space, particularly with an eye toward socially oriented FIPs. In addition, the growth of national funds (e.g., in Peru, Chile) is providing additional funds to FIPs and other fisheries reforms. While these funds are providing more capital for the movement in general, the large scale of grants paired with the lack of granular project-level tracking could be fueling the growth of low-quality projects. There is opportunity to have philanthropic funders collaborate more with multilaterals across the board with fisheries issues and with regard to tracking and measuring FIP outcomes.

FIP Financing Themes from Key Informant Interviews

Theme	Quotes
More money is not linked to greater progress. FIPs need enough to capital to operate, but success is not mediated by additional funding.	"FIP progress and advancement is not an issue of money; it's about what improvements need to be made in the fishery. If you have huge problems that are environmental and social and are complex and have lots of money, you still won't progress. Also more than money, the capacity of the supply chain's ability to negotiate with the government to move policy reform forward is important to progress." – **NGO Implementer in Latin America** "Really big projects with big NGOs and finance, they can actually still get stuck. They can get to a certain point and go in a circle or hit a wall with government. It's more about how everyone cooperates. Doesn't matter how much money you have here (up to RFMO)." – **NGO Implementer in North America** "[Question: What leads to an effective project?] It unfortunately comes down to cooperation of all stakeholders, good financing, and cooperation with government. Increasingly for pelagic fisheries, we need RFMOs to be supportive as well, which is not an easy one." – **NGO Implementer in North America**
Industry leadership is important, as is a model that creates clear value and incentives for all stakeholders independent of philanthropic support.	"Industry leadership/ownership of FIPs is essential to FIP progress and, from a long-term funding perspective, it's needed—but how realistic are expectations around industry leadership?" – **Consultant** "FIP work is funded by donors. Fair Trade is paid by industry. If we want to finance FIPs with donor funding, that would create an artificial market benefit that wouldn't last once the donor funding left. Fair Trade might be more expensive in total, but the cost is borne across willing actors." – **NGO Implementer in Asia**
While industry is increasingly contributing to FIP implementation broadly, willingness and ability to contribute varies by project.	"Our FIP is only funded by industry." – **NGO Implementer in South America** "Originally, we paid 70% and our industry partner paid 30%. Now we pay 30% and industry partner pays 70%." – **Industry implementer in Asia** "Industry will never be able to cover the full cost of transitioning." – **NGO Implementer in North America** "Still a low willingness to pay from industry." – **Consultant**

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FIP Financing Themes from Key Informant Interviews

Theme	Quotes
The "business case"—how the FIP creates measurable financial value for individual companies—still seems to be vague. Key stakeholders expresss mixed opinions about the ability of this model to be financially viable on its own, though on balance they were doubtful.	"The initial premise that FIPs will get you a better price and extra profits has not been fulfilled, and this extra is therefore not transferred to improvements on the water." – **NGO Implementer in Latin America** "Yes, I think FIPs can bring change on the water. FIPs are still a resource-intensive model and [we are] trying to find new ways to finance them." – **NGO Implementer in Oceania** "I believe a FIP needs to be generated like a business. I need to generate revenue based on the FIP, and then I can reinvest in it. I'm in these projects because I want to." – **Seafood Buyer** "I think FIPs and MSC can be investable. But will depend on the business case, which depends on the product and market. It's becoming clearer that there must be a way for the investment to go in, and then for the investment to come back out and meet the requirements. If the economics don't work, then the economics don't work.' – **NGO Implementer** "I'm not seeing investment opportunities that relate to the management of FIPs. Philippines investment example: Meliomar. The proceeds were not meant to finance the FIP. It was complementary (not the actual harvest activities) but linked to sustainable sourcing. This is maybe the best way to invest, since it's through an intermediary. Best example of a sustainable fisheries investment made to date." – **NGO Implementer** Examples where there may be a proven business case: Norpac; Meliomar; Anova Seafood; SeaPact; ISSF
Export tariffs on FIP products are an increasingly popular way for industry to finance FIP activities for high-value or high-volume fisheries.	"The funding we receive comes from industry actors on an imports %-based fee. But they only cover coordination costs, M&E, and some small activities that we try to leverage with other sources." – **NGO Implementer in Latin America** "Majority of funding comes from industry themselves, through the buyers. In the case of Project UK, government agency funds as well. We use the model of the Crab Council." – **NGO Implementer in Europe** "First got a small grant from NFI Crab Council (primarily industry funding)—tax on buyer based on volume imported, 2 cents per lb." – **Industry Representative**

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FIP Financing Themes from Key Informant Interviews

Theme	Quotes
There is a shift toward diversifying funding away from the traditional foundations' seafood markets programs and toward industry, multilateral, and potentially government funding streams.	"Historically, [FIPs were] funded by international donors. Now, seems to be moving into national industry, local stakeholders." – **Multilateral Observer** Examples of multilateral funding we heard of: • Global Octopus SR supported by GIZ and MSC • Fish for Good Project funded by Dutch Postcode Lottery • Fair Trade's expansion to North Maluku funded by USAID Sustainable Ecosystems Advanced • UNDP Global Marine Commodities project in four countries funded by GEF "I can only share that we had an interest to keep costs low and be effective with results." – **Retailer** "We partner with WWF-US for a couple of FIPs. We contribute funding. WWF works with suppliers and government. We don't have boots on the ground for these two FIPs, but we provide input, etc. Lots of the work is contingent on government cooperation at this point. Our role is primarily to help finance the FIP." – **Industry Representative** "We need to raise money for this research, because the government doesn't plan to do that for squid fisheries." – **NGO Implementer in East Asia**
There are a few ideas for alternative FIP funding models, but almost none have been implemented. • WWF Fund • Fee for Service • Pooled Funds (e.g. RLF's Sustainable Fisheries Fund) • PricewaterhouseCoopers blueprints. Coalition for Private Investment in Conservation investment manual.	"We're trying to look at current and past FIPs (graduated to MSC) and then see if we can make some generalization about progress, budget, etc. to help us understand how big the fund would be… Only looking at [certain NGO-led] FIPs—tuna, blue swimming crab, lobster, and mahi. [Potential investors] want to see what potential returns are and figure out who is best to approach on this." – **Seafood Markets NGO** "Global Fisheries Sustainability Fund supports some fisheries improvements. There was a pool of funds people can access, although usually not certified fisheries. Improvements have to be of relevance to an MSC indicator (i.e. wouldn't have to do with plastic)." – **Seafood Markets NGO** "There is a potential of a fee for service model for NGOs, but there are drawbacks. For example: How are NGO fee-for-service models going to impact their willingness to collaborate (e.g., how much are they willing to share with others to help scale any successful approaches?)" – **Consultant**

CEA

Market Incentives

Summary

There is a range of motivations for stakeholders to participate in a FIP, reflecting a range of value propositions.

End buyers, the mid-chain, and producers all have different circumstances that make FIPs more (or less) attractive. Some of the incentives identified range from "harder" incentives (e.g., access to market, compliance with retail sourcing policies, compliance with government regulation) to "softer" incentives (e.g., personal relationships, information sharing, alignment in values).

Buyers source from FIPs to "source sustainably" while still prioritizing other attributes.

Buyers require suppliers to source product compliant with sourcing policies but acknowledge that these policies are subservient to price, quality, and product availability. Snapper seems to be a particularly problematic example, as local processors report that US buyers demand whole "golden sized" (i.e., plate-sized) snapper, which is definitionally undersized.

Some supply companies clearly derive financial benefits from FIPs, but many see little to no benefit in the process other than compliance.

Membership in SeaPact continues to grow as does grantmaking, both indications that co-branding with sustainability is beneficial. Some exporters shared examples of how revenues have grown substantially since joining a FIP. Yet most industry stakeholders, particularly domestic processors and producers, expressed frustration about the lack of additional compensation given the effort (i.e., time, capital) required compared to peers not engaged in FIPs.

Lack of market differentiation between FIP and non-FIP product and between well-performing and poorly performing FIPs limits incentives for improvement.

Some in-country producers are critical of what they see as over-promising around price premiums and are frustrated by end-buyer sourcing policies. Yet they seem to have few options, given that Western markets tend to be more consistent and higher value. **Market benefits appear to be bestowed on FIPs upon public launch in particular**. The key benchmark for retailer sourcing seems to be whether a fishery is in a FIP reporting on FisheryProgress, except for WWF's corporate partners that preferentially or exclusively source from comprehensive FIPs. Beyond that, there is little distinction among FIPs based on performance.

FIPs are seeking domestic markets in new geographies (e.g., Japan, Mexico), forging new ground.

Site visits surfaced examples that are both promising and challenging. While some bottom-up FIPs are hoping for new markets or price premiums, the best example we encountered was SmartFish Inc.'s efforts to sell sustainable seafood directly to consumers in Mexico City. A similar social enterprise, Bali Sustainable Seafood, launched in Indonesia in 2017 and sources domestic certified and FIP-engaged seafood for Balinese businesses, though limited insight is available into the detail or success of the business.

End Buyers

Retailers and foodservice buyers create demand that shapes sustainable seafood engagement globally

End-buyer demand shapes market incentives, motivates supply chain action, and influences FIP structure and goals.

Market access is still the most prominent market benefit, and sustainability commitments determine who's in and who's out. There are now multiple examples of FIPs converting from basic to comprehensive in response to buyers ratcheting up their sustainability requirements.

Creating demand is essential, clearly influencing how FIP stakeholders engage fisheries, but retailers' direct engagement with FIPs is limited.

Retailers' roles are critical but light touch. Aside from articulating what counts as part of their sustainability standards, they provide limited funding to FIPs (with exceptions), demand action from their suppliers without requiring proof of engagement or ensuring product provenance, and rarely engage directly with FIPs beyond an occasional joint letter. Given this limited role, retailers are most effective when their sourcing policies are clearly articulated and consistently communicated to suppliers; some key informants flagged that (some) retailers are not clear and consistent with their communications to the mid-supply chain.

End buyers benefit the most from the sustainable seafood movement.

Downstream buyers have the most favorable perspective on FIP effectiveness and most strongly agreed with the statement, "Overall, my company benefits from supporting FIPs." Maintaining business as usual without product costs increasing while also reducing reputational risks and largely externalizing the burden of engagement contributes to this overall positive perspective. One supplier noted their retailer customer makes a 40%-50% margin on its prepared fish product (much higher than mid-chain or local processors).

End buyers are growing concerned about labor abuses in their supply chains but are unsure how to proceed (if at all) in the near future.

Even though many companies have separate social responsibility standards, these generally remain separate from sustainable seafood policies. Many buyers are more interested in social audits that provide risk and liability mitigation than more complicated improvement processes in their global supply chain networks. The human rights community and academics have expressed concern that these audits do not provide real worker safeguards and may prove ultimately ineffective at improving the well-being of workers in these supply chains.

FIPs continue to be relevant to US, Canadian, and Northern European retailers. Some Spanish and, to a lesser extent, Japanese buyers are supporting FIP-engaged fisheries.

Beyond that, WWF-network partners in Indonesia, South Africa, and Australia may also source from FIPs, but they aren't driving demand pressure and, at least in the case of Indonesia, don't adhere to the global FIP standards.

End buyers report having shifted away from poor performing FIPs, but key informants suggest this only occurs if product is otherwise available.

Buyers may switch to other sources of the same or sufficiently similar product to meet customer demand, but available evidence does not show that any have pulled product off shelves.

Progress Ratings rarely impact end-buyer sourcing decisions.

Some retailers do not include Progress Ratings in their FIP sourcing commitments, and retailers that do so include A-C rated FIPs, which compose >95% of active FIPs. As a result, Progress Ratings are not contributing to market differentiation as they are intended to, instead bestowing blessings on the whole movement.

End Buyers

Insights from site visits and key informant interviews

Theme	Quotes
Motivations for FIP participation typically are about meeting internal sustainable sourcing commitments.	"They [buyers] can't meet this demand [for MSC-certified product] for the UK and Europe. There is a huge incentive for companies to find a way to help the fishery move to certification, and FIP is a way to frame that improvement as a more standard package." – **European FIP Implementer** "We have committed to responsibly sourcing seafood and are trying to meet internal targets. We are interested in maintaining healthy stocks for long-term access to the resource." – **European Retailer** "FIPS and MSC improve market access [for the buyer]. However, there is no certainty that our FIP efforts buy us long-term access to the fishery as a buyer. In fact, the purchasing agreements are entirely independent of the FIP engagement. These are different departments and they are not particularly coordinated. While the sustainability department tries to meet sustainability commitments, the sourcing department tries to source fish with the right product specs." – **European FIP Implementer** "[Mid-supply chain company] got involved because [end buyer] wants to source from FIPs. [The domestic processor] is involved because [its mid-supply chain company] sources from them. None are really in touch with the fishing reforms that are needed. They want a market benefit." – **Asian FIP Implementer** "Why are we supporting FIPs and AIPs? To support and promote Japanese sustainable seafood movement. FIPs and AIPs are one way as a retailer that [we] can contribute to this progress. If this means working with existing suppliers, this is a method they can use. It's not always promoting the projects, but business success is an important component as well. It's a big project sometimes, to achieve sustainability and make revenue!" – **Asian Retailer**
FIP performance or progress does not seem to matter to end buyers. Lack of shareholder value creation was cited as a reason to no longer support FIPs.	"What happens when FIPs don't perform? What do buyers do? Do they step away? Do they help engage? I haven't seen how that issue is being addressed within the buyer partnerships." – **North American NGO** Speaking with a sustainability representative about a major retailer: "As long as we can drive revenue to shareholders, I will support your work. But if there isn't value to our shareholders, I'll leave." – **Latin American Mid-Supply Chain Company**

CEA

End Buyers

Insights from site visits and key informant interviews

Theme	Quotes
Social responsibility audits are an emerging fact of life but are more about mitigating risk than implementing proactive solutions to improve livelihoods.	"After we did the social audit, sales increased by a lot. We needed all three [social audits] for Western supermarket. For hotels, we don't need it." – **Asian Exporter** "We started with 1-2 supermarkets [in 2014]; now 7-8 supermarkets. We also have to pass sustainability credential (FIP), food safety audit, and now social audit. [European and America retailers] and others are all demanding social audits." – **Asian Exporter** "For end buyers I feel that what could motivate them is a story behind products and that their purchase decision is having a positive impact on the ground. This would apply to more developed markets in which buyers have a higher sense of sensibilization [sic] and are willing to be influenced by these aspects." – **Latin American NGO** "Working with FIPs helps with their storytelling initiatives about fishermen. [Asian Retailer] wants to figure out how to promote FIPs to the consumers." – **Asian Retailer**
There is substantial interest in FIPs from domestic buyers but little yet to show for domestic market engagement work, and many markets just may not be ready.	**Japan**: "There is definitely a movement towards developing their sustainable sourcing policy and thinking on messaging to consumers. In the next 5-year timeframe, that means FIPs and AIPs; within 5 years, the goal is to have them reach ASC or MSC level. It's important to create success stories of FIPs and AIPS to ASC and MSC, and communicate this to consumers, and spread the awareness of sustainable seafood more widely to consumers. In the next 5 years it's about creating these success stories and examples."– **Asian Retailer** **Japan**: "Support for sustainable seafood in the domestic market is premature and inadequate. Market awareness is low. Quality and freshness are recognized more than sustainability." – **Asian FIP Implementer** **Mexico**: "All of the major export fisheries are already engaged in FIPs [in Mexico]. The challenge in the future are domestically focused projects." – Latin American FIP Implementer **Indonesia**: "There is a growing domestic market for MSC-certified production in Indonesia." – **Asian Consultant** **US:** "Most [of our] retailers say 'we don't really care about FIPs, you just keep up what you are doing and be transparent.' They continue to support the FIP, but it's not required." – **North American Supplier**

CEA

Mid-Supply Chain Companies

The sustainable seafood community has focused on engaging the mid-supply chain since 2015 with success

Mid-supply chain companies feel pressure to engage with FIPs from customers and from the need to maintain quality supply.

Survey results illustrate that supply chain companies are motivated by both ends of the chain, but low margins and competition limit what mid-suppliers can do. In some cases, they are unwilling to put additional pressure on fishers to implement reforms for fear that they will lose their supply.

The ability of most mid-supply chain companies to motivate FIP progress is unclear. The largest-volume and vertically integrated companies may have greater influence.

Vertically integrated companies and those that buy significant volumes perceive themselves to have more power in the supply chain. “The mid-level supplier has an immense amount of power and can engage with the local suppliers, especially when things are vertically integrated.” “What do you do to motivate FIPs? Tell them to do better… we buy a lot.” But most supply chain companies feel like they’re squeezed and have little ability to drive change. Until they can pass along costs to their customers, supply chain companies have limited leverage over most fisheries.

Funders and NGOs have substantially increased their focus on engaging, empowering, and supporting the mid-supply chain since 2015.

Key NGOs and traditional FIP funders have focused on supporting the growth of pre-competitive collaborations to scale FIP deployment globally. SFP’s SRs are the precompetitive collaboration most focused on supporting FIPs. There were 151 companies participating in 16 active SRs as of February 2019, supporting 69 FIPs. Conservation Alliance members are increasingly pushing their corporate partners to direct their suppliers into SRs.

Verifying that products are sourced from FIPs is exceedingly difficult and rarely required.

For non-vertically integrated seafood companies, ensuring product provenance is challenging in the absence of traceability systems. Many do what they can; some supply chain companies require evidence that products came from participants named in a FIP while other companies simply demand that their product comes from a FIP. But there really isn’t a way for supply chain companies to verify that their product came from a FIP except by using full-chain traceability tools, which are not required and are rarely deployed in FIPs. End buyers don’t usually ask for proof either.

“First, most of the forms we get from our corporate customers are questionnaires that ask 1) is this in a FIP and 2) is the FIP on FisheryProgress. We never get follow-up questions, no feedback. We think this language comes straight from the NGO. If we get any kind of Peruvian mahi - we just say it is in a FIP. We have no idea what is sufficient - we never have strategic conversations with our customers. To be honest, I don’t even know who looks at it. It's a lot of effort. Our customers don't really know what they are asking for.” –North American supplier

“Customers don't usually ask questions or require proof that product comes from a FIP. Depends on the customer, and even comes down to the buyer. Some do ask about who is involved or how. They don't really ask for any proof that the fish comes from a FIP. [Our company’s] standards are higher and more proactive than our customers’.” –North American supplier

Mid-Supply Chain Companies

Supply chain roundtables (SRs) are now well-established platforms, yet could do more

SRs are the predominant precompetitive platform supporting FIPs and the best current means of collectively engaging supply chain companies.

Company participation in SRs has more than doubled since 2015, from 71 to 151 in February 2019. T75 uses SRs as aggregators of corradiated buyer influence and is increasingly accepted by the seafood market community as the means for organizing the supply chain to engage fisheries globally.

Aside from educating participants, SRs' engagement and activity levels vary considerably.

Key informants widely acknowledged the value of SRs as an effective means of recruiting new companies to the movement and getting them up the knowledge curve on sustainable seafood. Beyond that, perception of SR value differs considerably. Some are initiating new FIPs (e.g., Global Squid SR) and funding FIPs through pooled investment (e.g., Global Octopus SR). The Gulf of Mexico (US) SR is credited as the driving force behind its FIPs' engagement, particularly with government agencies. One key informant found the SR was "a good place to be to have conversations we don't get to have usually. SRs end up focusing on specific difficult issues. It is a forum to have those conversations." However, there were as many apathetic or skeptical perspectives shared about the lack of action. Outside the US, SRs do not appear to effectively engage with management reform processes beyond referring local companies to FIPs; letter campaigns were not perceived as effective. Some in-country key informants expressed frustration that the SRs they engaged with aren't "doing anything tangible for [our country's] fisheries," while others suggested that the market benefits associated with sourcing from FIPs were significantly greater than the "couple thousand dollars" in annual funding they provided.

SR facilitators apply limited pressure to participants to take action beyond what companies are comfortable doing.

SRs are "deliberately a loose association, because rigor and formality disincentivizes industry participation." Companies only commit to participating in one or two calls/meetings a year and actively working on initiatives of interest—which may or may not translate into tangible action. In SRs with more engaged companies, more action occurs, but it does not appear to be pushed by facilitators. "There is individual action motivated by participation within the SR, but not commonly done at a group level. Often active engagement starts with a single company effort. Focus [is] usually applied to the supply chain, processors, and producers. In some instances that includes funding aspects of the FIPs." "Could SFP set objectives and require action? Definitely, [currently] all you have to do is sign on and chat… There is a lot of space to do more."

A third-party agitator or incentive is needed to compel greater action; SR facilitators are hamstrung by needing to keep companies at the table.

Despite a common sentiment that SRs could be doing more to drive action, key informants acknowledged that may not be the right role for the facilitator, whose primary responsibility is to recruit and retain participants in the SR. "Roundtables are a means to talk about how great FIPs are, but not to differentiate high performers that is motivating to buyers. And I can understand it, they don't want to be negative because the do need as many people in the room as possible. So you need positive agitators that advocate for higher rewards." By creating alternative sources of pressure from within or perhaps by creating external incentives to motivate greater action, SRs may be able to realize more of their current potential.

Mid-Supply Chain Companies

Insights from site visits and key informant interviews

Theme	Quotes
In-country supply chain companies feel that buyers are not offering enough support, and that their sourcing policies are hypocritical, as many continue to source from non-FIP fisheries.	"The buyer doesn't appreciate that the biggest challenge for improvement is here [in Indonesia]. Buyers are also buying from non-FIP sources. Buyers are not going out of their way to source FIP product. FIP product is not traced very well in the market." – **Asian Boat Owner and Exporter** "USA buyers need to be consistent with their requirements [for buying undersize crab], otherwise people will cheat." – **Asian FIP Implementer** "How do you push us to do all of this, but some of your members [NFI CC] are sourcing from non-members [of APRI]?" – **Asian FIP Implementer** CEA spoke with an Asian FIP implementer who noted that in-country processors keep asking US importers to stop sourcing from non-participating processors. "As long as [US buyers] still buy," the implementer said, the local processors "don't care."
Stability of retail relationships was cited as an important by-product of FIP participation but did not hear much about other benefits specific to the mid-chain.	"Supermarkets are not the most profitable customers, but they are good for continuity. Supermarkets give long-term contracts. We know in advance what product is needed." – **Asian Exporter** Was [Asian Exporter] able to find new buyers besides [US Retailer] for the squid product since joining the FIP? "Very few. It still takes time; we are a small company. Maybe in 10 years, or another 10 years." – **Asian Exporter** If business stays the same for the next 10 years, would [Asian Exporter] still participate in the FIP? "Hard to say. It keeps us at the table." – **Asian Exporter**
Some in-country, industry perspectives on SRs are not positive.	"[Considering companies sourcing product] in the [US], it is frustrating to see how FIPs are being approached. I took part in a roundtable with Mexican product importers. It became clear that the Mexican SR isn't doing anything tangible for Mexican fisheries." – **Latin American Exporter**

CEA

Local Stakeholders

Producers and processors are most critical for success, benefit the least, and are at greatest risk if FIPs fail

In-country stakeholders are the lynchpin for driving change and FIP effectiveness. For some, there is an abiding sense of "unfairness" at being asked to shoulder the burden of fisheries improvement, often with minimal support and few options if exporters or importers switch to other sources or sourcing regions.

Local processors are the closest to producers and, while they don't have direct sway over producer actions, their activities provide the strongest signal for change on the water: "[Company] has its own fleet of lobster vessels - we can force our own vessels to comply all of the rules. We refuse to buy the illegal lobsters at landings sites." We also heard several instances where governments were more open to sustainability messages from local industry than from importers or large multinational retailers. However, local industry does not necessarily feel supported by those demanding FIPs: "The buyer doesn't appreciate that the biggest challenge for improvement is here [in Indonesia]. Buyers are also buying from non-FIP sources. Buyers are not going out of their way to source FIP product. FIP product is not traced very well in the market." Governments may be more receptive to their own industry, rather than exporters.

That frustration may partly be due to lack of differentiation for efforts in the market and a lack of financial support. Local industry almost always hopes for access to new buyers/markets or premium prices as a result of engaging in FIPs, but few have seen that emerge beyond market access and customer continuity. For many, the benefits of FIP participation are more intangible, like improved government relations and better communication with stakeholders.

There are few examples of price premiums associated with FIPs, except for Fair Trade sites and a handful of companies that pay fishers more to encourage them to participate in the FIP. "Benefits don't seem to reach that much to fishers, and this is something worrisome for me. Benefits can be maybe indirect, but still are long term, while fishers' expectations are short term." Lack of support emerges as a consistent trend: "There is frustration from processors that the buyers want FIPs but they don't fund them."

Local producers and processors are often multi-generational and businesses are family-owned. As such, they have significant monetary and cultural investments in their fishery, and long-term incentives such as healthy stocks and sustainable management resonate with them acutely. However, in-country collaborative efforts are very young and could benefit from guidance and structure, which often falls on FIP implementers.

"My company is my baby. Who else is going to save my baby if not me?"; "We have the FIP because we think the resources need to be well-managed. Not only market-oriented, but also improvements for the future. We need to work together with the NGOs, not just government. Of course we need to comply with all the government regulations."; "The reason we are in COREMAHI is because of [SFP]."

Local Stakeholders

Producers and processors are most critical for success, benefit the least, and are at greatest risk if FIPs fail

Actual producers are rarely engaged in the FIP process, but fishers are increasingly engaged in the sustainable seafood movement more broadly, with some referencing exchanges to other countries and participation in efforts like Brussels and the Boston Seafood Show as formative experiences.

Five years ago CEA's site visits found fishers to be aware only of the FIP in the MDPI/FT tuna fishery. That is no longer the case, as we identified multiple examples of fishers being aware of FIP processes and attempting to advocate for their interests. Many cited exposure to trade shows and exchanges with other countries as leading to improved awareness and a desire to pursue certifications: "Maybe the best way for them to understand is to see things in real time." Yet the sustainable seafood movement is seen as exclusionary: "What are we supposed to do, what can we do? We fish selectively… why are we excluded from this process… why do they dismiss us?" asked one cooperative member.

A variety of costs are associated with FIPs including the opportunity cost of time. While this is more often cited by business, it can also significantly impact local producers as well.

Fishers in Fair Trade fisheries and FIPs alike mentioned time spent in meetings as time lost fishing, with direct implications for their income. These time costs were cited as key barriers to participation. Beyond the cost of time, producers bear a variety of other costs in and out of the FIP processes. One of the more shocking examples CEA encountered was in Peru, where fishers mentioned that they have to pay the Peruvian Coast Guard to conduct search and rescue missions when boats are lost at sea.

Local Stakeholders

Insights on mixed market benefits from site visits and key informant interviews

Theme	Quotes
Benefits to FIP participation identified include: • Increased sales • Market access • Communications • Improved government relations	**Increased sales:** An Asian processor who is selling 25-50% more than five years ago to the US said, "We've done quite a good job." **Market access:** An Indonesian processor explained that the benefit of the FIP is the ability to sell to retail, rather than just restaurants. An Asian processor commented that the processor had the same importers as 2014, but four times more supermarkets now. **Industry communication around benefits:** An Indonesian boat owner said that the the lack of a price benefit was the owner's "first complaint after starting the FIP." After a few years, he said, "price is a big concern." But he noted that other considerations were also important. He explained he wanted the customer "to know us better because they get more information from the NGO on who [they] are." **Improved government relations**: • "There isn't much immediate return [to FIP participation]. By launching this project we left a good impression with the government. We hosted a workshop and invited government officers to join the discussion, so they are aware that [the company is] doing good things." – **Asian Exporter** • An Asian processor commented that the effort did not produce an "immediate business return," but launching this project led to an improved reputation with the government. They carried out a joint workshop. – **Asian Processor**
The larger group of key informant commentary is around the overall <u>lack</u> of benefits from FIP participation, specifically: • No price premiums • No additional revenue for fishers • Limited additional sales • No market differentiation	"[Asian Exporter] used to have a picture they shared with their customers – we will take these steps in the next few years. [Our FIP implementer] made the timeline of steps. The final target is getting MSC certification. [Asian Processor] didn't sell more squid product; the fishermen aren't making more money. We are not selling the product at a higher price. " – **Asian Exporter** An Indonesian boat owner said that the FIP had not yet generated benefits because of the market price. It didn't depend on the FIP, he said. The owner expects "the price they sell to the market can be different than non-FIP product, but actually not different." "I'd say the most obvious answer [to why stakeholders are engaged in FIPs] would be a sustainable fishery which thrives and gives them livelihoods, but it seems to not be enough for fishers and other stakeholders. Benefits don't seem to reach that much downstream for fishers and this is something worrisome for me. Benefits can be maybe indirect, but still are long term, while fishers' expectations are short term." – **Latin American FIP Implementer** "We need a lot of effort to improve. The market doesn't give any benefit. It is useless. [It's] better to work with NGO, government, associations to push improvements." – **Asian Boat Owner** An Asian processor explained that they want to ensure both crabs and the industry itself are sustainable. The FIP had not influenced the price, he said. "[Asian Exporter] head of company wants to create a logo to tell customers that [their] product is different. This would help us differentiate ourselves. But if not, why are we doing all of this effort? We want to know what benefit the fishers and the processors will get from this participation. Otherwise, why are we doing this?" – **Asian Exporter**

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Local Stakeholders

Insights from site visits and key informant interviews

Theme	Quotes
Motivations for FIP participation at the local level seem to include a mix of the following: 1. Retailer requirements and access to markets from the US and EU	• **CEA note** from the perspective of an Asian Processor: They joined the FIP to try to open up new markets. After a year, they felt they could help to collect the squid data, which is beneficial for the region. They then started to feel the responsibility to participate. He started to realize that the project is very important and that he has a responsibility. • Who asks you to participate in FIPs? "US, Canada, Europe encourage MSC. They are negotiating with a company in France. FIP is the path to MSC. The customers in America, the big retailers, have requirements for them to participate in FIPs." – **Asian Processor** • "I'm interested in the FIP for sustainable resources. Also because of the market, because of America. Retail and supermarkets need it." – **Asian Processor** • "Demand is very high for the FIP product." – **Asian Boat Owner and Exporter**
2. Compliance with government regulation	• Why did they implement the BSC control document? "First, because it was required by the [regional] government. Second, because they wanted to see the volume they are producing backed up with data." – **Asian Processor**
3. Long-term value creation	• "Raw material prices are increasing but US partners are not paying more. Volume is also going down because more product is staying domestic. [Asian Processor] wants more fish in the sea and for the product to be more sustainably managed [so there is more supply for both the export and domestic market]." – **Asian FIP Implementer** • "I know bigger crab is an advantage, so I implement the control document, but I'm not sure about other fishermen or landing sites." – **Asian Processor** • "They think of it as part of their social responsibility. If the squid is more sustainable, their company will be more sustainable. They wanted to have more product, to make their product more special." – **Asian Processor** • **CEA note**: [Indonesian Processor] sees long-term business value in the FIP, primarily in terms of resource stewardship, demonstrating responsible practices, improving their understanding of the fishery through data collection, and using that data to make recommendations around management to MMAF. There do not seem to be any direct legal or production implications of leaving the FIP.

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Local Stakeholders

Insights from site visits and key informant interviews

Theme	Quotes
4. Resource stewardship	• "We have the FIP because we think the resources need to be well-managed. Not only market-oriented, but also improvements for the future. We need to work together with the NGOs, not just government. Of course we need to comply with all the government regulations." – **Asian Boat Owner and Exporter** • "We feel the decline [of the resource]. We can't have high composition of colossal and jumbo crab anymore. The low season has changed." – **Asian Processor**
5. Personal relationships and reputation	• Originally, the folks at [processor] have been a long-time family friend from his father and mothers' generation. There was an idea that they had to do something and they decided to do it together." – **Asian Processor** • Why join the FIP? "First because it [the industry association] is a good organization. Second because it is a requirement to join for sustainability. [There are no] real obligations but [they] want to contribute to sustainability of the BSC. Also [to] control not just quality but also quantity from suppliers." – **Asian Processor**
6. Media exposure	• Fishermen check the news a lot, and seeing media exploding about what they are doing, about what is happening with the revitalization of longline fisheries [vs. purse seine] are also strong motivations." – **Asian Processor**

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Local Stakeholders

Insights from site visits and key informant interviews

Theme	Quotes
Local industry recognizes the need for better-managed fisheries.	In responding about how they got a commitment for a seasonal closure, an **Asian processor** explained that government endorsement is needed. "We think we can influence the government to endorse it." "Another challenge is how to leverage the government influence into this project. [They] have been trying really hard in the past years but still need luck on this. [They] would like to see the government provide some technology support to the fishermen, and some subsidies or compensation when they ask the fishermen to get rid of some gears or decrease fishing times. [They] need the government to provide some technical or financial compensation. [They] also want the government to regulate the market better and more efficiently (i.e., around sourcing quality, size – these sorts of policies)." – **Asian Processor**
Local industry still faces common pool resource challenges when taking action to promote sustainability.	"We [as APRI] are part of the management. We know the situation but we have no power. We can stop buying but others will still buy." – **Indonesian Processor** An **Asian processor** expressed that as a processor, "[they] are passive, [they] need to buy the fish or the fish will go bad and the fishermen won't have an income." The processor "hopes that the fishermen would fish less and the resources can be more sustainable, and then the business would be more sustainable and [his son] could maybe inherit the company." "Even if [FIP] members strictly adhere to the management plan, fishers will always have a market for ALL of their crabs with other picking stations and other processors that are not part of [the FIP]. What happens now is that the regulations don't work that much." – **Asian FIP implementer**
Including local fishers as part of "local industry" may help address challenges of lack of progress on the water.	"Industry leads the FIPs and fishers have to be part of industry. If you're trying to make ecological improvements and fishers are affecting the fishery significantly and there are restrictions, they will be upset. But if they can participate in the discussion—versus cheating, finding ways around, or protesting—they can be part of the conversation and be part of the problem that they face. I think it's more effective if they're part of the debate." – **FIP Implementer** "APRI needs to work with the government. APRI can only work in the cooking stations. We need to make the fishermen understand to throw back." – **Asian Processor**

CEA

Local Stakeholders

Insights from site visits and key informant interviews

Theme	Quotes
Local stakeholders have seen both tangible and intangible benefits from FIP participation. Demonstrating these benefits is critical to keeping stakeholders engaged.	What are benefits of the FIP? "Communication with other companies, opportunity to give input to government about the resource. Educate stakeholders around sustainability of crabs." – **Asian Processor** "There needs to be proof that you can make a profit through this effort, and this hasn't been proven yet. This is a big challenge that [he] still sees. There has not yet been profitability associated with this work. There needs to be a business reason for this work." – **Asian Government Official** "The company benefits from this project. There is better communication with the fishermen and with [] clients in the US and Europe." – **Asian Processor** "It all comes down to marketing, and there needs to be more recognition for what we are doing. It doesn't come cheap to be sustainable." – **Latin American Processor and Exporter** "We have to show the benefits for the businesses and the people from the income from the standard." – **Asian Consultant**
Local industry has exerted leverage to promote sustainable practices in certain circumstances.	BSC: "In the cooking station they don't buy the undersize crab. But sometimes it is difficult not to receive it, so they just make the price lower." – **Indonesian Processor** **CEA note** reflecting commentary from an Asian processor: He enters the auction and prioritizes the [Producer's] fish. He places a higher bid for the vessels' fish. Some of [Producer's] landed fish is not part of the FIP. He probably pays for about 50% of [Producer's] landed fish. An **Asian processor** has tried to implement more strict rules on the size of sourcing (trying to encourage larger squid). "This is a challenge though. The domestic market doesn't have leverage or a requirement on the squid size." **CEA note** on Longline Tuna FIP meeting recap from participants: At this FIP meeting several large tuna companies with dozens of boats committed to joining the FIP, in large part due to a processor saying she would stop buying if they did not join the FIP (note: SFP feels that because she is younger she is more aware about sustainability issues). This was an important threshold because Asosiasi Tuna Longline Indonesia (ATLI) said if four companies signed up they would lead the FIP. Now six companies have signed up.

CEA

Market Survey – Summary Findings

FIPs appear beneficial for all, but more so for downstream actors than those making changes upstream

Companies expressed positive sentiments about FIPs but were more ambivalent about their ability to produce changes in management. The statement survey respondents agreed most strongly with was about FIPs' ability to produce changes in sustainability (e.g., ensuring sustainable stocks, minimizing environmental impacts, supporting effective management). However, when pressed, they were less certain about FIPs' role in changing management. Furthermore, respondents agreed that FIPs should play a role in addressing social dimensions of the fisheries but were less confident in their ability to do so. The most ambivalent survey result was whether fisheries had better management after the company joined a FIP. Respondents cited the FIPs' inability to produce change in the fishery as their primary frustration.

Actors further down the supply chain felt more positively about FIPs. Downstream actors such as retailers and consumer brands felt most positively about FIPs, and the fishers and processors closest to the water were most pessimistic. Actors in the middle of the supply chain had strong motivation to participate in FIPs, likely because it provided them the most flexibility to sell to a wide variety of customers without having to bear significant costs of compliance. Furthermore, retailers and consumer brands were most confident about FIPs' ability to produce change on the water, changes in social dimensions, and changes in management.

Market access, rather than price premium, continues to be a primary motivation to participate in FIPs. Almost no survey respondents indicated that FIPs helped them garner a premium in the market. Rather, respondents indicated that consistent access to quality products and to quality markets were the primary reasons to engage with FIPs. One source suggested that access to new customers is granted more immediately (i.e., upon launch/Stage 2) rather than first requiring a change (i.e., Stage 4 or 5) to be made in order to satisfy sourcing policy requirements.

Sustainable sourcing commitments seem to vary, but they remain a critical component in sourcing FIPs. Three of seven retailer respondents cited Progress Ratings as part of their sourcing plans, with remaining retailers using internal sourcing policies. However, all of the actors in the lower-mid supply chain cited those sourcing policies as a primary motivation to source FIPs, which continue to fill a gap between MSC or green/yellow rated fish and their sourcing goals.

FIP-engaged seafood appears to comprise a minority share of the overall volume sourced by buyers. According to a market survey of 53 seafood buyers, FIPs appear to contribute less volume sourced by seafood buyers than MSC-certified or SFW yellow or green rated product. "We do support FIPs, but it wasn't as much as I thought, about 5% of our total sourcing." – Business. This snapshot in time does not reflect the volumes that have transitioned from FIPs to MSC certification or higher SFW ratings over time. For example, a decade ago significant volumes of whitefish that is now certified were engaged by FIPs. Without a prior baseline, it is impossible to know what sourcing trends have been.

Other Insights from Site Visits and Key Informant Interviews

SFP Progress Ratings

Theme	Quotes
Contribution questions around FIPs hinder the ability of progress ratings to reflect progress advanced by FIP actions or actors.	A **FIP consultant** said that "no collective progress had been made on FIP attribution." When asked if any groups were working on this individually, the consultant said: "Based on past conversations with NGOs, [it] was not a high priority. I agree it's difficult to do but [it's] essential to attempt to understand this in order to link outcomes to the FIP. FIPs [are] getting rewarded in the marketplace for outcomes they may have had nothing to do with (via SFP progress ratings)." "If you report on something but aren't responsible for it…. How is this helpful? I have a negative reaction to reporting on things I hear about for a FIP, but things that I wasn't a part of. This is a failure of the system. I haven't been doing this reporting at my own detriment and my client's detriments." – **FIP Implementer** "I applaud the process and the attempt to put more validation to FIPs. I worry that the auditing of the elements that make up a progress score is lacking. The experience of auditors that do this is also lacking. It's relatively simple to game the system, like it is simple to game the time bound elements of a workplan… I think gaming directly correlates to who watches over it – grades are strong for the fisheries going into McDonalds." – **FIP Implementer**
Progress ratings may be useful as a marketing tool to offer some differentiation between FIPs and non-FIP fisheries.	When asked what benefits have been associated with the improved progress rating from C to A, an **Asian FIP implementer** said he was excited about being part of the progress—in fact, he said he was "ecstatic." He said he was unsure how much word was being spread externally, though there were some examples, like university professors, of people spreading this information into his network.
At least one major industry advisor is not using progress ratings to influence buyer sourcing decisions.	"We don't use FIP ratings or use ratings language in commitments as guideposts for partners in their sourcing decisions. We do support FisheryProgress. We haven't informed them of the ratings and what they mean. If a FIP is basic, we don't recommend get rid of the project, we tell them to move the FIP to comprehensive." – **FIP Implementer** "Do end buyers distinguish among FIP type and FIP progress? Often about price. FIPs fish are cheaper." – **Buyer** A **FIP consultant** said that, "It shouldn't be enough to source from a FIP (either comprehensive or basic)," it is important to "ensure there is progress being made within FIPs. All major buyers should be using progress ratings [as a] way to incentivize progress. If not using, why not?"

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Other Insights from Site Visits and Key Informant Interviews

Risks

Theme	Quotes
FIPs are perceived as low-risk by industry.	Are there risks associated with [Asian exporter], [Asian processor] participating in the FIP? " For [Asian Exporter], I don't think so. It's a good thing, even if there is not business benefit at the end. It is still something good. It doesn't hurt anybody. And for [Asian Processor], it doesn't feel like a risk. It might become a burden later on if they don't get benefits. I haven't thought about this too much." – **Asian Exporter** Are there risks from participating in the FIP? "No risks." – **Asian Processor**
There is a disconnect between the expectations of FIP benefits (price premiums) and the reality, especially for bottom-up FIPs.	"[The] market does not give any effect [for a FIP]. Even MSC [] does not give any effect."– **Asian Boat Owner** "Bottom-up FIPs [are] starting up between NGOs and fishing communities with [the] goal of identifying a market partner later in the process. [It's an] unproven approach. Are expectations unrealistic and therefore eventually fishers won't want to engage in the FIP because their market expectations weren't met? [It] may be too early to tell. Are there examples of FIPs other than India oil sardine where this approach worked?" – **FIP Consultant**
There is an open question as to whether FIPs can exert the leverage required to enact meaningful change.	"Where does the money come [from] to do this management? We need a lot of effort to improve. The market doesn't give any benefit. It is useless. Better to work with NGO, government, associations to push improvements." – **Asian Boat Owner** **CEA note**: There is a sense that industry dialogues can sometimes be slow. Especially in this FIP, with the ban on transshipment several industry players clearly feel that there is no point to participating in the FIP.

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FIPs and Fishery Management

Summary

National governance structures for fisheries management vary significantly. No two countries have the same institutions, accountability structures, technical capacity, underlying fishery resources, motivations, or available tools.

CEA identified seven different types of government entities engaged in fisheries management through FIPs:

Government entity	Examples
Fisheries management agencies: Responsible for setting and enforcing fisheries management rules and regulations, such as input and output controls.	SRP (Ecuador), MMAF (Indonesia), CONAPESCA (Mexico)
Oceanographic research institutes: Responsible for conducting the scientific research necessary to make science-based fisheries management decisions.	INAPESCA (Mexico), IMARPE (Peru), NOAA (USA), IFOP (Chile)
Fisheries monitoring, control, and enforcement agencies: Often overlap with management agencies, but sometimes unique functions separated into a distinct agency.	SERNAPESCA (Chile)
Military, navy, and coast guard: Often involved in monitoring and surveillance within the exclusive economic zone. May play additional functions such as search and rescue when fishing vessels are lost at sea.	Navy (Peru, Mexico, Indonesia), police (Nicaragua)
Administrative support/planning agencies: Play a coordinating role across government agencies, often involved in helping set budgetary priorities between agencies.	BAPPENAS (Indonesia)
Rural development agencies: Involved in economic development for fishing and agricultural communities.	SEDERMA (Mexico), DARD (Vietnam)
Multilateral governance institutions: Set international laws, standards, or codes of conduct and may support implementation.	UNDP, FAO

In this section, "government" is shorthand for the many different entities and agencies involved, their authority, and their relationship to other government entities.
Examples of two countries' governmental fisheries management structures:

Peru Fisheries Management Structure

- **Ministry of Production (PRODUCE)** oversees fishing and commerce (not including mining, oil & gas). PRODUCE sets TACs and issues regulations consistent with the National Fisheries Law.
- **The Instituto del Mar del Perú (IMARPE)** is the government oceanographic agency, which conducts research on ocean conditions. It also conducts stock evaluations to understand the status of key resources, often in collaboration with industry or external researchers and consultant experts. IMARPE makes recommendations to PRODUCE on the appropriate level of the TAC to achieve management objectives and also responds to research needs from PRODUCE.

Indonesia Fisheries Management Structure

- **The Ministry of Marine Affairs and Fisheries (MMAF)** is responsible for managing Indonesia's fisheries, including marine, fresh, and brackish-water fisheries, and aquaculture. MMAF's priority is to support the sustainable exploitation of marine and coastal resources while also protecting the coastal environment.
- **The Coordinating Ministry for Maritime Affairs (CMMA)** is responsible for planning and policy coordination across MMAF, the Ministry of Energy and Mineral Resources, the Ministry of Transportation, and the Ministry of Tourism.
- **The Ministry of National Development Planning (BAPPENAS)** is responsible for formulating national development planning and budgeting (annual, five-year, and long-term).

Summary

FIPs can effectively supplement and even fill gaps in fisheries management to help improve fisheries performance. FIPs are limited in their ability to enforce compliance with regulations and sustainability norms, perhaps the most critical role of all.

- FIPs can supplement and sometimes even act in place of fisheries managers, including through research (data collection, stock assessments, science-based recommendations for management policy), policy development (e.g., development of fisheries management and recovery plans, HCRs), monitoring apparatuses (e.g., increasing observer coverage, deploying EM, improving documentation), and extension services (e.g., capacity building, community-based engagement). These findings echo emergent findings in literature on FIPs and fisheries governance (Crona et al., 2019).
- FIPs cannot effectively and consistently replace two critical functions of government, without which overexploited fisheries will likely be unable to recover: FIPs cannot adopt policy on behalf of a government and FIPs cannot enforce rules and regulations upon unwilling participants. Of course in theory, surrogate governance structures could overcome government deficiencies (and some examples of this exist, such as Barents Sea Cod), but CEA did not find compelling evidence that FIPs can create these conditions beyond small communities.

Government participation in FIPs varies greatly in nature and intensity, but engagement can be bucketed into three general roles: leaders, participants, and independent actors. These represent different likelihoods that FIPs will achieve policy goals within expected timelines.

FIPs employ various strategies to encourage meaningful government participation and collaboration. Each may be situationally effective, but no strategy is consistently effective. In most cases, it comes down to whether a government is receptive and willing to collaborate with and integrate third-party input into fisheries management.

- Certain external dynamics are associated with a government's willingness to work with FIPs, including management agency priorities, fishery value or importance, and pre-existing relationship with lead FIP implementers or stakeholders.
- Unfortunately, it comes down to the idiosyncratic nature of what each government finds compelling. The EU card system (e.g., yellow cards) is slow to wield but the most consistent at compelling government actions in exporting countries. In many ways, sustainable sourcing policies function as a targeted yet less consequential form of national import control.

Though uncommon, there are examples of the beneficial impact of changes in policy and management extending beyond the specific FIP-engaged fishery, including spillover management reforms to other fisheries in the same country, building management and enforcement capacity, relationships and knowledge-building, and multi-country impacts through change at the level of RFMOs.

FIPs and Fishery Management

Government entities can play a range of roles in FIPs, from a leadership role to no role at all

Governments are the most important FIP stakeholder for long-term change, as they ultimately hold jurisdiction over fisheries and can implement and enforce the policies and regulations that are required to achieve change on the water.

Government agencies are implicitly the most consequential stakeholder and the largest funders participating in a FIP, with investments in personnel, research, policy development and implementation, and enforcement. FIPs rarely account for the cost and value of activities undertaken by governments (as they may not be provided by government entities), but regularly report these costs (e.g., observer coverage, data collection) when they are borne by other stakeholders (e.g., industry). This is confirmed by the few budgets that attempt to account for government's investment in fishery management. In theory, these activities are supposed to exist in fisheries management systems, but they may not exist at the level required for sustainability, or they may not exist at all.

Governments engage with FIPs in three generic ways: as leaders, as participants, or as independent actors.

- **Leader**: When government agencies take active leadership roles in FIPs, projects tend to progress more quickly and are more effective than in FIPs without government leadership. This does not necessarily mean officials operate at the pace external observers desire. Their progress, however, is more consistent and less uncertain. Observation suggests government leaders emerge when FIPs fully align and advance immediate goals of fisheries agencies and when government officials are willing and able to integrate FIP work into their existing responsibilities.
- **Participant**: Participation levels vary considerably, but the effect of participation is largely the same. Participation comes in many forms, including joining FIP meetings, regularly receiving input from stakeholders, and providing in-kind support (e.g., time, facilities). What distinguishes participants from leaders is that participants do not actively generate actions or execute activities, but rather often wait to receive requests or recommendations from the FIP process. Response rates to key requests for action are slower and less predictable. There are many reasons why governments participate, but FIP work is perceived by government stakeholders as supplemental to their existing management responsibilities.
- **Independent actor**: With or without FIPs, governments have jurisdiction over their fisheries and will manage them according to their capacity, mandate, and desires. Since it is the responsibility of fisheries agencies to manage the fisheries that FIPs target for improvement, it is hard to clearly delineate where job-motivated behavior ends and FIP-motivated behavior begins. Some government agencies do not participate in FIP processes, either by choice or because they are not approached. Whatever the reason, clearly this is a bad sign for FIP effectiveness, especially if management change is needed. It is reportedly harder to recruit meaningful participation by government agencies later in the process, as officials do not feel as bought in and are often unreceptive, at least initially, to external stakeholder groups informing them how to do their jobs better. In rare instances, governments can be hostile toward FIP activities and stakeholders, but more often independent actors are benignly disengaged.

FIPs and Fishery Management

Examples: Government roles in FIPs

Leader

The Nicaragua and Honduran industrial spiny lobster FIPs are very similar and offer a good observational experiment that illustrates the impact fisheries agencies have when leading FIP activities. Both FIPs are facilitated by WWF-Central America with essentially the same buyer partners, both engage the industrial sector of their shared spiny lobster stock, both launched in 2012, and both receive similar amounts of funding. Government engagement and capacity was highlighted as the primary difference between the two neighboring projects. Nicaragua has completed 73% of its FIP actions, but Honduras has completed only 13%. Depending on the results of a shared stock assessment, Nicaragua should be in position to move into MSC full assessment in the next year or two, whereas MSC is not on the horizon in Honduras.

Participant

Mexico's *Marismas Nacionales W*hite Snook FIP features government participation of CONANP (Mexico's national parks agency, and specifically the sub-directorate involved in managing the *Marismas Nacionales* reserve) and SEDERMA (the State of Nayarit's Rural Development Agency). Although listed as FIP leads on FisheryProgress, we found these groups to operate more as strategic partners to the lead implementer, *ProNatura Noroeste A.C.*, offering some financial and in-kind support. A constellation of additional government actors also participate in biannual FIP meetings, including CESANAY (the state-level agency responsible for implementing sanitation standards set by the national agency, SENASICA), as well as the municipal departments of Agriculture, Livestock, and Fishing Support that exist in many of Mexico's larger towns. A stated goal of these agencies is to harness CONAPESCA's participation and financial support for the FIP, without which the FIP likely won't succeed.

Independent Actor

In Mexico, there are multiple examples of the government acting in parallel to the FIP process, to the detriment of the project. In the Yucatan grouper FIP, the state government disbanded the established forum for industry and civil society to provide input into fisheries management after FIP-related recommendations were initially presented. Competing priorities and a change in administration have challenged FIP efforts to engage CONAPESCA for the industrial and artisanal shrimp FIPs. MSC and FIPs are largely driven by demand for sustainability in export markets, and the new administration is seeking to explicitly focus on cultivating Mexican seafood production for domestic consumption, without a focus on sustainability. At the same time, staff turnover as a result of the shift in administration has resulted in changing government contacts who may not be familiar with existing FIP efforts, thus slowing progress by requiring FIP stakeholders to forge new relationships.

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FIPs and Fishery Management

FIP implementers employ four main strategies to encourage government involvement in FIPs

Weak fisheries governance is a primary reason FIPs are implemented. Therefore, to be effective, FIPs must interact with some level of government. FIP stakeholders engage with governments in different ways, using various tactics to differing degrees of effectiveness. Most engagements are specific to the situation and personnel, but efforts tend to fall into a few different approaches that are not mutually exclusive:

1) Relationship builders that seek to gain trust and collaboration

- Hosting meetings, trainings, workshops (including capacity-building initiatives)
- Educating staff about associated market opportunities
- Celebrating success in international forums

2) Advocates pushing for change

- Industry lobbying for improved management measures
- Letter writing on behalf of a consortium of corporate stakeholders
- Engagement in RFMO convenings

3) Surrogate capacity that supplements government activities and is fed back into and sometimes helps improve the capacity of formal management processes

- Research - data collection, defining reference points, logbook and literature review and analysis
- Monitoring - observer programs, traceability systems, landings documentation, vessel registration
- Management policy - developing fishery management plans and fisheries legislation

4) Externalized institutional knowledge and project managers that mitigate disruption between political administrations

- Bridging transitions during turnovers
- Consistent, documented workplans and priorities for improvement over time

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FIPs and Fishery Management

Examples: FIP strategies to encourage government participation

Approaches	Making Progress	Facing Challenges
1. Relationship builders	**Ecuador Mahi Mahi:** WWF Ecuador made the strategic decision to centralize all key activities of the FIP within the fisheries management authority, SRP. This required significant financial and human resource investments to enable SRP to implement and manage the FIP. However, this high-touch model seems to have had significant success. According to one FIP implementer (not WWF), "We have transformed the administration of fisheries in Ecuador. And all of that is because it is based in the SRP."	**Peru Mahi Mahi:** Political instability in Peru—specifically, regular turnover within PRODUCE—has frustrated FIP progress. In the early years of the FIP, PRODUCE was not receptive to discussions about certifications due to political considerations. Although there has been more receptivity recently, Peru has seen five Vice Ministers of fisheries in 18 months, and each minister must develop new relationships and approaches. Said one FIP implementer in response to a recent change in minister: "I don't know what my next steps should be."
2. Third-party advocates	**Indonesia Blue Swimming Crab:** APRI, an industry association, liaises directly with all four Director Generals at MMAF, providing information and advocating for regulations relevant to Blue Swimming Crab fisheries management. These relationships (among many other factors) contributed to national policy changes in 2016 that established a minimum landing size of 10 cm, banned mini-trawls, and banned landing berried females.	**Mexico industrial shrimp:** Although 75% of the fleet (which produces 90% of export volumes) is engaged in the FIP, alongside the main importers into the US, the industrial shrimp FIP in Mexico has not been successful in lobbying the national government. The FIP needs the government to support robust, transparent, and updated stock assessments by a fisheries research institute. Yet efforts to advocate for stock assessments have been unsuccessful, even after securing nominal commitments at the North American Seafood Expo. An implementer describes this as the FIP's inability to influence the willingness of the national government.

FIPs and Fishery Management

Examples: FIP strategies to encourage government participation

Approaches	Making Progress	Facing Challenges
3. Surrogate capacity for government	**Indonesia Yellowfin Tuna:** MDPI has been collecting data on fisheries landings and ETP interactions for almost a decade. The data is shared with fishers and with government agencies and has been used to inform national and RFMO fisheries management for tuna, including the development of a harvest strategy and HCRs applicable to all Western and Central Pacific Fisheries Commission tuna (in partnership with other tuna FIPs). The HS and HCRs have not yet been formally adopted, however. The FIP also funded experts from Commonwealth Scientific and Industrial Research Organisation (CSIRO) to assist in the HS and HCR process for the first three years and paid for Indonesian scientists to be trained internationally.	**Indonesia Aru and Arafura demersal fish:** The industry-led multi-species snapper/grouper FIP has operated since 2012. The project continues to take episodic action, including piloting an e-log book (discontinued due to cost), installing 10 vessel tracking systems on artisanal vessels, and conducting one on-board observation voyage. Each year the FIP submits landing and vessel tracking data to its technical assistant partner but doesn't think the government does anything with them. Currently, the FIP believes it "cannot do much more," indicating that the government needs to conduct a stock assessment before any further action can be taken.
4. Externalized institutional knowledge	**Honduras spiny lobster:** Government turnover has plagued the spiny lobster FIP in Honduras, stymieing progress. In response, WWF facilitated multiple meetings between FIP stakeholders, including bringing together government officials from Nicaragua and Honduras, to keep the project alive. Now, WWF is forming a binational working group to explicitly tie the two countries together, in part to overcome challenges with Honduran consistency. The FIP continues to limp along, but efforts would have likely stalled without the external support from WWF and Nicaragua.	**Mexico artisanal shrimp:** This FIP is industry run and relies heavily on the expertise of external consultants to implement the FIP, rather than hiring capacity in-house. As such, once those consultants moved on to new opportunities their accrued knowledge went with them, and new consultants had to build that knowledge base again, slowing down FIP activities.

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FIPs and Fishery Management

Given the diversity of fisheries management contexts, it is hard to draw generalizable lessons about effective engagement strategies

In terms of approaches effective in securing government engagement, it is difficult to identify trends since each FIP is dependent on its unique context.

At a minimum, having a relationship with the relevant government agencies is essential for any FIP seeking to address governance deficiencies. Beyond that, CEA cannot yet draw conclusions about the comparative effectiveness of approaches to government engagement. There are examples of some approaches that are effective in some cases but ineffective in others.

- Industry letter-writing campaigns and government advocacy can also contribute to FIP engagement and progress, but in many cases this strategy is not effective.
- While education and capacity building is an important function of FIP implementers, when there is political instability and government turnover, institutional knowledge of FIP implementers is often insufficient to bridge the gap between regimes.
- Industry leadership is limited by a government's willingness to engage with FIPs as well as its willingness to accept outside support, expertise, and recommendations. In some cases, market leverage compels governments to engage, but in others it isn't enough.

FIPs within the same country typically face similar challenges around engaging government. More intentional assessment of opportunities, learning from past challenges, and strategic collaboration to address similar deficiencies among FIPs could improve effectiveness in geographies with a significant number of disparate FIP efforts (e.g., Mexico, Indonesia, Peru, China, Chile). We have not, however, seen an efficient and effective model emerge as an example for others to follow.

FIPs do seem to be effective at building capacity for management, albeit more often within NGOs and the seafood industry. In the absence of political will, these efforts are often the only bulwark against general lack of management. Even if they are not effective at driving government engagement, this surrogate management role is an important role for FIPs. In some cases, this capacity benefits the government both directly (e.g., an Ecuador small pelagic FIP funds salaries of an oceanographer, a biologist, and a data scientist within INP, the National Fisheries Research Institute) and indirectly (e.g., in Peru when a CeDePesca implementer Arturo Gonzalez was hired by PRODUCE).

FIPs and Fishery Management

Government is more likely to engage deeply with FIPs when certain factors are present

There are many commonalities among FIPs with the strongest government support

It is unlikely that all of these shared factors contributed to their respective governments' engagement, but they are all components CEA identified in successful FIPs, as discussed in the Reflections on the Model section. Across comparable fisheries in similar regions, the best performing fisheries have engaged governments in management efforts.

FIPs with strong government support:	Government role:	FIP Strategies employed:
• Nicaragua spiny lobster	• Leader	• 1 – Relationship builder
• Morocco sardine	• Leader	• 3 – Capacity; 4 – External institutional knowledge
• Ecuador Mahi Mahi	• Leader	• 1 – Relationship builder; 3 – Capacity; 4 – Ext. institutional knowledge
• Louisiana shrimp	• Participant	• 1 – Relationship builder; 3 – Capacity
• Vietnam Blue Swimming Crab	• Participant	• 1 – Relationship builder

Commonalities of FIPs with <u>strong</u> government support include:

- Among the highest-value fisheries in state/country
- Government engaged at the onset of the process
- FIP priorities directly in line with government agency priorities
- Stable central government with relatively high capacity for fisheries management
- Fisheries comprised of highly fecund species
- Product primarily destined for engaged markets and buyers with sustainability commitments
- Working toward third-party certification and/or meeting the MSC standard

Commonalities of FIPs with <u>weak</u> government support include:

- Governments engaged later in the process
- FIP priorities run counter to government priorities
- Weak government management capacity, disinterested leadership
- Product with diffuse and un-concentrated demand from sustainability-engaged markets; concern around export vs. local consumption
- Government leaders and bureaucrats unsupportive of MSC or other certifications or end goals

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FIPs and Fishery Management

Engaged government stakeholders appear to make a difference in how FIPs progress

Among the FIPs visited, these are examples of how government support and engagement made an apparent difference in progress:

Commodity & Region	Making Progress	Facing Challenges
Mesoamerican lobster	**Nicaragua spiny lobster:** This FIP exemplifies the critical role government plays in FIP progress; INPESCA works directly with WWF to engage industry and other stakeholders in the FIP to cultivate buy-in and create the foundation for durable fisheries management. CEA identified three key reasons why the government likely closely engaged with the FIP: (1) interest in fisheries management (and a 2005 national fisheries law that was implemented by 2010), (2) high-value fishery (specifically the country's most valuable fishery), and (3) high capacity of government staff with 15-25 years of experience in their work.	**Honduras spiny lobster:** Although run by the same implementer, with similar buyer partners and funding, the Honduras spiny lobster FIP has suffered from low government engagement and significant government turnover. A national spiny lobster working group was formed in response. The FIP coordinates a marine studies center, a national research university, two main industry companies, independent researchers, and FAO to make recommendations to DIGAPESCA for how to best advance the spiny lobster fishery.
Reduction fisheries	**Morocco sardine:** This FIP aligned well with government priorities, which contributed to its success. In 2009, the Moroccan Fisheries Department launched a 10-year plan whose principal axis was the sustainability of marine resources. Independent of the FIP, this plan led to the formulation of 15 science-based management plans that replaced more generic management measures. The FIP started at a time where management plans had recently been formulated and was able to benefit from these structures that were in place.	**Peru anchovy – industrial:** Although PRODUCE and IMARPE have made significant progress in their understanding of FIPs and certifications, their lack of leadership continues to hinder the anchoveta FIPs' progress. A lack of political will in addition to political instability and government turnover have led to a loss of institutional knowledge.
Latin American Mahi Mahi	**Ecuador Mahi Mahi:** This FIP credits strong government engagement via SRP, the fisheries management authority, as critical to its progress and to its ability to drive changes in that fishery, including regulations like a minimum landing size and a closed season. However, an October 2019 yellow card from the EU's IUU carding system may have implications for that FIP and for furthering FIP priorities. (CEA has found that in Sri Lanka and Thailand, national governments prioritize addressing yellow cards over FIP objectives.)	**Peru Mahi Mahi:** A FIP implementer mentioned that, when "comparing Mahi Mahi FIPs in Ecuador and Peru the major difference is the level of involvement the Ecuadorian authorities (having a National Action Plan, specific resources, IATTC commission with clear regional goals) has had and it has paid off as they are soon to enter a full assessment." Unfortunately, although the Peru Mahi Mahi FIP started in 2013, the FIP is lacking both industry and government leadership.

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FIPs and Fishery Management

Engaged government stakeholders appear to make a difference in how FIPs progress

Among the FIPs visited, these are examples of how government support and engagement made an apparent difference in progress:

Commodity & Region	Making Progress	Facing Challenges
Gulf of Mexico shrimp	**Louisiana shrimp:** Louisiana and Mississippi shrimp are strong case studies for comparing the differences in market incentives and government engagement. In Louisiana, the state agency (Louisiana Department of Wildlife and Fish) has been engaged in the FIP and the SR since its inception. The state agency has been instrumental in assisting the state legislature to pass state-level trawling policies that have allowed the FIP to reach Stage 5.	**Mississippi shrimp:** In contrast, the Mississippi government has not engaged in the FIP, and the lack of legislation has limited the FIP's progress. As a result, the national FIP splintered into state-level FIPs, and the Louisiana FIP transitioned to comprehensive and may go for certification soon. Mississippi, meanwhile, is a basic FIP that requires new legislation to reach certification.
Southeast Asian Blue Swimming Crab	**Vietnam BSC (DARD):** Up until 2017, this FIP was making steady progress and reporting real change on the water and maintained an A Progress Rating. Unfortunately, a large pollution event destroyed the recruitment age class, requiring the rebuilding of stocks. Key informants familiar with the FIP noted that the close working relationship with the provincial Department of Agriculture and Rural Development (DARD) was critical for the successful implementation of FIP actions, including providing new gear and promoting community awareness of the new gear type criteria (i.e., increased minimum mesh size) and minimum landing size for crabs, which contributed to stock biomass increases (before the pollution event).	**Philippines BSC (PACPI):** This FIP suffers from a lack of data, making stock assessments impossible. The nature of BSC landings and cooking stations are not conducive to collections on the part of the Bureau of Fisheries and Aquatic Resources. In addition to data collection challenges, the Bureau does not enforce regulations on minimum size required to export the product, creating a lack of incentive for PACPI members to strictly adhere to this management plan. One key informant stated, "Enforcing the regulations is difficult and is pretty minimal at the moment…They don't have enough people to do spot checks or enforce the regulations."

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Governance

Industry could be playing a more active role in promoting sustainability reforms in the countries where they are involved in FIPs

Foreign supply chain companies do not effectively or regularly advocate for policy change in source countries.

CEA did not find evidence that foreign supply chain companies directly advocate for policy changes in an impactful or meaningful way. The most common tactic utilized by foreign companies and industry collaborations is sending letters to national governments, which both companies and implementers regard as ineffective. As with anything, there will be exceptions that prove the rule, but the overall sense is that letter writing is an ineffective approach to motivating government action. Crona et al. (2019) offers a counterpoint to CEA's findings, although those findings do not distinguish between foreign and domestic supply chain actors, which informants highlighted as a key delineation.

Foreign supply chain advocacy challenges

- "Are supply chain companies advocating [for governance reforms]? Not that I am aware of. There were several that worked behind the scenes. It's challenging for them to get involved in governance reform and lobbying [and be effective]." – **NGO**
- "There are letters written and sent to governments, but its unclear that it's meaningful." – **Industry**
- "The advice I was given was to have [buyers and processors sign onto] a letter [to the national government about the FIP] and host a workshop, but the letter writing didn't do anything." – **FIP Implementer**

Domestic industry is viewed as the more effective conduit to engage governments.

More recently, foreign companies and implementers have encouraged domestic industry to make advocacy asks. The examples of effective industry advocacy for policy reform comes from domestic companies engaging their own governments.

Domestic industry advocacy successes

For Indonesia BSC, APRI (the industry association, not NFI Crab Council industry platform) engages MMAF directly to advocate for policy change.

- "First [APRI/FIP leadership] needs to convince all APRI members, then with that commitment [APRI] can go to MMAF to work our how to implement and enforce [a closed season]. Currently producing during the [proposed] closed season is inefficient. We think we can influence the government to endorse it."
  – FIP Stakeholder

For Ecuador Mahi Mahi, industry advocated for policy changes in the FIP specific to bycatch requirements.

- "The companies were demanding for specific changes. They went directly to the Ministry. For example, 6 months to 1 year ago the SRP increased the percentage of bycatch for the industrial fleet. At the beginning it was 2% allowed when there was a closed period. Then they got to 10%. And the industry complained to the Ministry about this. Why are you increasing this without consulting us? What is the scientific information you're using to increase the percentage? So [the ministry] reduced [the bycatch limit] back to 2% [for the industrial fleet]. Processors went to industry [directly about this]. Sometimes they send letters. But here in Ecuador it's better to go face to face." – **FIP Stakeholder**

FIPs and Fishery Management

SRs are a growing and important tool to coordinate buyer influence on fisheries policy

supply chain companies and SRs tend to make requests of in-country partners to participate in FIPs, and as part of that process, industry stakeholders are asked to advocate for policy changes in source countries.

SFP's 16 active SRs are wide ranging; the exhibit little consistency and lack a unified approach. We have heard both positive and negative feedback on their structure and effectiveness. Although they are broadly viewed as good platforms to educate about key issues and coordinate supply chain companies, there are mixed reviews on how SRs ask buyers to engage with FIPs and governments in source countries. Key informants suggest many SRs are not effectively engaging with FIPs to advocate for policy changes.

- "How can mid-chain company motivate progress? It depends, on this tuna conversation in Indonesia, we don't really have an influence and we rely on the people in country." – **Industry Representative**
- "There are letters are written and sent to governments, but its unclear that it's meaningful." – **Industry Representative**

An example of an SR utilizing government advocacy: Gulf of Mexico Shrimp

The Gulf of Mexico Shrimp SR is an example of a FIP where engaged SR participants are working to improve fisheries in the US, a country that has a high capacity for fisheries management. This SR has been successful in engaging the US government through letter-writing campaigns specific to TED compliance and effectiveness:

- "Overall the roundtable has allowed the industry to come together as one voice to really push NOAA and the government industries to release the data and be timely with reporting, and increase observer coverage. Before this work NOAA could be a year late on releasing [relevant] data." – **Industry Representative**
- "Changes are happening on the water, but they're attributable to government and the SR, not the FIP." – **Industry Representative**

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FIPs and Fishery Management

Industry seems to be comparatively more effective at engaging with RFMOs rather than national governments

RFMO engagement is different—companies are likely to engage more directly.

FIP stakeholders play a variety of key roles with RFMOs:

- Providing technical support to scientific advisory committees
- Creating new vendor groups
- Advising industry participants and influencing direct engagement with RFMOs
- Lobbying RFMO member representatives

There are a multiple examples of supply chain companies and FIP stakeholders advocating for policy changes directly at RFMO meetings and through their national representatives on the RFMO council. Travaille et al. (2019) found that RFMO engagement is a key factor contributing to FIP effectiveness.

Example	Description
Mahi Mahi	WWF Peru, WWF Ecuador, and WWF US pooled funding to support the time of Juan Valero to undertake a stock estimation for Mahi Mahi for the IATTC. He published the first stock synthesis method to enable an assessment and also proposed HCRs. IATTC has since contracted him under its own budget. This helped the scientific advisory committee (SAC) put forward science-based recommendations.
Squid	CALAMASUR has become a new voice at the South Pacific Regional Fisheries Management Organization (SPRFMO): A FIP implementer stated that “squid would have been on the [SPRFMO] agenda without CALAMASUR. It’s just been highlighted more, it’s another voice in the SPRFMO meeting.”
Tuna	A group of NGOs working on tuna in Indonesia submitted a white paper to the Western and Central Pacific Fisheries Commission on data-poor fisheries. The FIP helped bring together the MMAF and the fisheries research institute in Indonesia to coordinate the HCR strategy discussion. The Indonesian government was able to bring recommendations to the floor specific to HCRs for both handline and pole-and-line tuna as a result.
Tuna	In Indonesia, MDPI coordinated with WWF Philippines around a strategy for recommendations to support handline FIPs in both countries at the Western and Central Pacific Fisheries Commission . They then communicated these recommendations to industry representatives who advocated for them at the RFMO.

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FIPs and Fishery Management

Attributing policy influence to specific FIPs is difficult; there are mixed views on how to operationalize that, and why it matters

FIP implementers express frustration with questions asking them to indicate the extent to which their actions contributed to reported changes in the fishery, considering it onerous or difficult to determine. Others suggest that it is ultimately unimportant as long as positive changes occur. Yet it is important to understand to what extent FIP actors and actions contribute to reported changes as an indication of the intervention's potential effectiveness. Even the coarsest efforts to indicate attribution would provide meaningful clarity into what changes FIPs help create, instead of simply what changes they report.

FIPs and Fishery Management

Successful policy changes resulting from one FIP can translate into policy changes benefiting other fisheries, but this is not common

There are a few of examples of FIP reforms improving the management of non-target fisheries, but in general these reforms only directly benefit the fisheries or species engaged by the project.

CEA identified policy benefits extending to other fisheries beyond the FIP-engaged fishery in less than 10% of active FIPs that report making a Stage 4 change. For the most part, FIPs promote fishery-specific improvements and we do not see policy changes resulting from FIPs improving the management of multiple fisheries simultaneously—except through catalyzing the creation of new FIPs in-country (e.g., in Ecuador Mahi Mahi, tuna, and small pelagics). To create greater impact at broader scale, FIPs will need to focus on improving capacity in a larger way. The ways in which FIPs influence policy beyond the engaged fishery include:

1. Spillover policy benefits
2. Building national/enforcement capacity
3. Educational and relationship benefits
4. RFMO-level change

Responding to trade policies like the EU card system and US SIMP provide opportunities for FIPs to have outsized impact.

National seafood trade policies, especially the EU card system, motivate national governments to engage in fisheries reform dialogues. FIP implementers should seek to help governments adhere to import controls and respond to international pressure to improve fisheries management. FIP implementers can provide ongoing platforms for national-level improvements needed beyond the immediate changes demanded by delegations.

- The EU's traceability carding program to reduce IUU seafood has caused mixed results for FIP progress. Progress toward FIP objectives stalled in for the Sri Lanka Blue Swimming Crab when the country received a yellow card. Another processor and exporter invested $50,000 to develop an EU-compliant traceability system.
- In the Philippines, the US's Seafood Import Monitoring System (SIMP) has motivated the government to continue to engage with FIPs. An implementer explained that, "The fear of SIMP is a motivator, [since] Blue Swimming Crab could be on the list next time."

FIPs and Fishery Management

Examples: Knock-on policy effects of FIPs

Policy benefit	Illustrative example
1. Spillover policy	Peru's National Fisheries Society and industry association (SNP)—which is co-lead on the industrial anchoveta FIP—advocated for a national law that Peru's management agency, PRODUCE, passed in 2018 and called the interdiction policy. This policy was first piloted in the mining sector to address illegal equipment and mines, and was then extended to promote the destruction of illegal fishing vessels and processing plants. Although implementation is a challenge and the regulation is new, the benefits of the policy extend beyond the country's largest and highest-value fishery, anchoveta, to other important fisheries like Mahi Mahi and squid.
2. Increased enforcement/national capacity	Increased government capacity for management: WWF Ecuador worked very closely with Ecuador's fisheries management authority (SRP) for nearly a decade, helping to mobilize significant government financial contributions to staff and FIP activities. This deep engagement is credited with greatly enhancing Ecuador's management capacity. WWF Ecuador is proud of its work in this FIP, and has gone so far as to say that "current fisheries management in Ecuador is based on this FIP." There is some indication that this is true, since the model of developing a FIP action plan and converting it into a national action plan overseen by SRP and INP has since been emulated by the tuna FIP and is currently underway for the small pelagics FIP. Improved enforcement: In Nicaragua, developing fisheries management plans, increasing enforcement capacity, and conducting training and workshops along the Atlantic coast as part of the industrial spiny lobster FIP has also improved the management of the artisanal lobster fishery. Moreover, lobster is highly related to pink conch and sea cucumber, so implementing actions for the lobster fishery will benefit the cucumber and conch. For example, "the experience gained through this process through the FIP [how to evaluate and set a national TAC in a scientific way] has already [extended to] sea cucumber, for example. It now has a TAC, because of all of the work on the lobster fishery."
3. Educational and relationships benefits	In the case of Sri Lanka, a FIP implementer credits his relationships with government officials as benefitting his work across different FIPs. "I was [already supporting] the Blue Swimming Crab FIP, so I was asked to help with [re-launching of] the tuna and swordfish FIP... I have the [government] relationships that could transfer over to this FIP."
4. RFMO-level change	While we did not identify any formal policy changes by RFMOs associated with the FIPs we reviewed, RFMOs are by definition multi-country efforts, and promoting and supporting FIPs that feed into the RFMO process, such as the Global FIP Alliance for Sustainable Tuna (GFAST), can have ripple effects in multiple fisheries. OPAGAC and TUNACONS have been some of the most active FIP participants in GFAST, which operates as a communication network for FIPs with aligned demands.

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Social and Business Improvements

Social and Business

Context: What do we mean by well-being when it comes to fisheries, and why do we care?

Fisheries and aquaculture are inextricably linked to many facets of human well-being. These include food and nutritional security, employment, economic development and growth, government revenues, and community and social cohesion.[1]

While the seafood industry creates economic value, provides employment opportunities, and feeds billions, it also regularly infringes upon the human rights of those involved in producing that seafood. A recent review (Teh et al., 2019) uncovered a wide range of violations of civil and political human rights, as well as more broadly defined economic, social, and cultural human rights† in fisheries in both developed and developing countries, including:

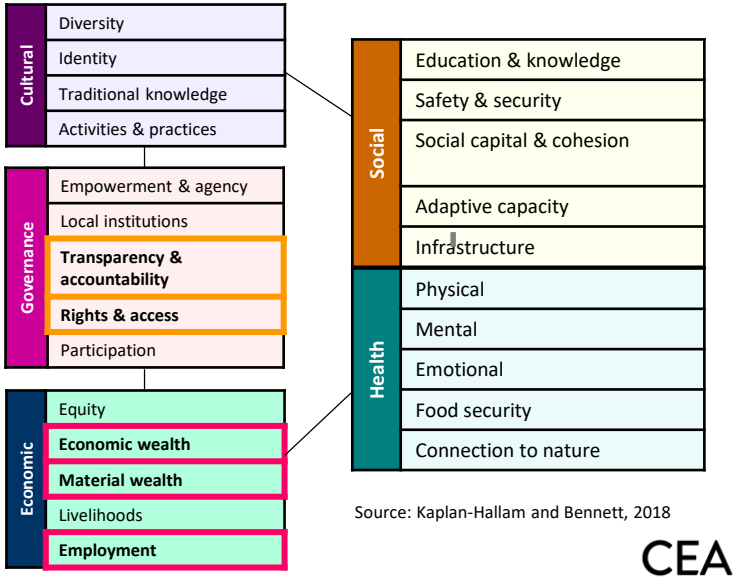
- Human trafficking
- Forced labor
- Health and safety violations
- Child labor
- Slavery
- On-the-job abuses (long working hours, unpaid wages, physical and/or mental abuse, murder at sea)
- Unequal distribution of benefits
- Job and livelihood disruption and losses
- Food insecurity
- Marginalization and exclusion of minority groups, communities, and traditional knowledge from decision-making
- Lack of respect for diversity and customary systems

These impacts of seafood production on human well-being pose urgent moral and legal questions for the seafood markets movement. International human rights laws establish clear obligations for corporations and governments when confronted with violations of civil and political rights.[2] National laws are more varied, but in the markets engaged in sustainable seafood (US, EU), import control rules are tightening. While some FIPs have been working to address "social" issues in small-scale fisheries for over a decade, there has been "insufficient pressure on and motivation from the seafood industry and governments to tackle the problem [of human rights abuses]."[2]

[1] Allison, 2011.
[2] Teh et al., 2019.
† The International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social, and Cultural Rights (ICESCR) jointly form the International Bill of Human Rights that requires the 172 ratifying countries to protect and preserve these rights. Civil and political rights include the right to life and human dignity; equality before the law; freedom of speech, assembly, and association, religious freedom and privacy; freedom from torture, ill-treatment, and arbitrary detention; gender equality; the right to a fair trial; right to family life and family united; and minority rights. Economic, social, and cultural rights include right to work; right to education; right to health; right to social security and social services; right to an adequate standard of living; right to social integration; right to participation in cultural activities; and right to accessible physical and communication environment.

What do we mean by "social"? Dimensions of human well-being and their relationship to FIPs

This figure lays out one framework to understand the dimensions of human well-being encompassed by the term "social." "Social outcomes" would reflect changes to any of these factors. FIPs have historically focused primarily on economic contributions to well-being in the form of employment, material assets, and economic wealth that may result from sustainably managed fisheries, reflected in **pink highlighted areas.** **Orange highlighted areas** are considered under the requirements to achieve MSC certification (PI's 3.1.1 and 3.2.2).



Source: Kaplan-Hallam and Bennett, 2018

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Social and Business

Context: How do FIPs address (or not) human well-being?

As an intervention targeted primarily toward achieving environmental outcomes, FIPs were not designed to examine or make efforts to address the social dimensions of seafood production. Sustainability standards in seafood, including FIPs, predominantly seek to address environmental performance criteria. The contribution of FIPs to well-being has historically been framed narrowly as focusing on improving long-term sustainability of the resource, and on the economic benefits a stable and sustainable resource can provide.[1]

As an intervention seeking to leverage the power of the market, **FIPs are not designed to shift the underlying power distribution inherent in the supply chains of extractive industries**, where post-harvest actors tend to hold disproportionate negotiating and decision-making power, and producers may receive a small overall portion of the value created in the supply chain.[2] A recent study (Crona et al., 2019) found that less than 25% of FIPs studied reported engaging fishers, and that engagement typically involved education and training; fishers are rarely involved in substantive policy dialogues about the rules that affect them. Less than 7% of FIPs report fishers as a lead actor, and no FIPs reported social or economic data collection at the time of the study (2015).[3] These findings mirror CEA's conclusions from site visits and key informant interviews, although site visits suggest fisher engagement and well-being data collection has increased since 2015.

As a result of these baseline conditions in the seafood sector, as well as the design and implementation of the FIP model, those involved in FIPs should be concerned about the potential to exacerbate inequity in seafood supply chains. Specifically, given the low level of involvement of producers and fishing communities and limited understanding of socio-ecological dynamics in these places, FIPs may negatively contribute to procedural equity of fishers among FIP stakeholders—the equitable involvement and inclusion of all stakeholder groups in decision-making.[4] Concerns of procedural equity have implications for FIP effectiveness. There is a large body of evidence that points to incorporating people in planning and management processes as a key success factor for marine resource management, depending on the context.[5] Although CEA found that some FIPs (6, 4% of all active FIPs) do engage fishers and fishing communities extensively and in service of social and ecological outcomes, these FIPs are the exception, not the rule.

At the same time, failing to examine power structures in existing supply chains overlooks concerns of distributional equity—the equitable distribution of costs, benefits, rights, responsibilities, and risks within a group. The inherent risk with such an approach is that any benefits resulting from improved management are likely to be captured and controlled by a small number of powerful entities.[6] There is extensive literature on inequitable value capture in fisheries reform efforts, and this review adds to that by documenting examples specific to FIPs. However, as there is little data collected on socio-ecological dynamics in the places where FIPs work, or any rigorous studies on the well-being impacts of FIPs, CEA is unable to draw conclusions as to whether FIPs contribute more positively or negatively to equity outcomes compared to a business-as-usual scenario.

Across all FIPs, data on human well-being indicators and outcomes are limited. Without that information, it is challenging to find valid comparisons or draw generalizable conclusions about positive or negative effects of FIPs on human well-being beyond case studies. As far as CEA is aware, this review is the first effort to understand the comprehensive impact FIPs have on human well-being globally. While certainly not definitive, the intended purpose of this section is to highlight current blind spots in the sustainable seafood movement, and surface opportunities where further investigation may shed light on issues of strategic importance to the community.

[1] Barr et al., 2019.
[2] Purcell et al., 2017.
[3] Crona et al., 2019.
[4] Friedman et al., 2018.
[5] Gruber, 2010.
[6] Cohen et al., 2019.

Social and Business

Context: What are the emerging Theories of Change for how to improve well-being outcomes via FIPs?

These "blind spots"—impacts on well-being and equity—of the sustainable seafood movement are increasingly being discussed and acted upon, for reasons both reactive and proactive:

Reactive	Proactive
Revelations of egregious human rights violations in 2014 lent renewed vigor and bolstered efforts to address labor and human rights issues in seafood supply chains, especially given the connection to North American retailers. Risk mitigation by industry is seen as a driving force, as are the efforts of NGO advocates.	**NGO- and academic-driven concerns around effectiveness, and support for novel Theories of Change:** The NGO and academic community is pushing philanthropic foundations and the seafood industry to think more critically about the effects of FIPs on human well-being. While some of this work is couched in terms of improving the effectiveness of FIPs by addressing short-term incentives for behavior change, much of it also reflects a different set of values and incentives to engage in improvement of fisheries, and a to whom benefits should accrue. **Diversity, equity, and inclusion learning journeys among foundations and the conservation movement:** Foundations and the conservation movement at large are increasingly reckoning with the impact of conservation on well-being, and examining their portfolios through the lens of diversity, equity, and inclusion.

These motivations result in **two separate Theories of Change** that roughly characterize the landscape of efforts within the seafood markets community:

Identifying social risks and mitigating them is required to sell to a specific buyer or market.

Addressing social issues can create value for fishers, communities, and companies. These incentives can motivate progress. Also, it is the morally right thing to do.

The goal of this section is to understand the extent to which these new Theories of Change, approaches, and FIP implementers have influenced FIP implementation. The term "social FIPs" is the umbrella term we use to characterize the range of approaches.

Perspectives on the evolution of the FIP movement to incorporate human well-being:

"A lot of the cost of the FIP ends up falling on the worst-off people in the chain. Fishers are paying with their time. That is so unfair when you think about money in the chain. Beneficiaries of the FIP are the exporters and the international buyers, and it's the fishers that have to do all the work."
– **FIP Implementer**

"Ten years ago, [NGO] work was completely focused on environmental changes, but we've learned that to be relevant we needed to integrate livelihoods and community work."
– **FIP Implementer**

"If you're trying to make ecological improvements and fishers are affecting the fishery significantly and there are restrictions, they will be upset. But if they can participate in the discussion - versus cheating, finding ways around, or protesting - they can be part of the conversation and be part of the problem that they face. I think it's more effective if they're part of the debate."
– **FIP Implementer**

"Traceability and social standards are known to be coming, but no one is quite sure how they'll be implemented or what the reforms will look like."
– **Industry Association Member**

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Summary

"Social FIPs" is not a term of art; instead, it refers to a broad range of activity by various FIP implementers and adjacent organizations seeking to improve the well-being of fishers and fishing communities that are involved in seafood market interventions.

CEA identified 26 FIPs seeking to address social dimensions of fisheries.[1] Based on CEA's analysis and site visits, six of these FIPs appear to credibly engage producers and communities to address dimensions of human well-being. Reporting is highly inconsistent and is primarily done through an open comment field on FisheryProgress.

These FIPs are motivated by two main objectives: (1) compliance with labor laws, or (2) a desire to forge a new Theory of Change. For the first group, the expressed goal is to meet the minimum requirements to maintain a license to operate. For the second group, there are several slightly different approaches to shift the values of the seafood industry and conservation community to prioritize well-being objectives. Given that many of these efforts are new, there is little alignment on underpinning values and objectives to engage in well-being issues in FIPs, and disparate efforts are uncoordinated. Although the Monterey Framework provides an overarching vision for human rights in the seafood sector, there is not yet widespread buy-in or appreciation for how it can be operationalized in FIPs, although new tools are in development and being piloted.

Implementation is just beginning, and it is too early to infer about effectiveness or opportunity cost. It will likely take at least five years before this work can start to be evaluated with any rigor given the lack of baseline data on socio-ecological dynamics in FIP fisheries, inconsistencies in reporting, and the early stage of development and implementation of most efforts. **The exception is for fisheries involved in Fair Trade**, where audits provide clear and transparent evidence of outcomes for well-being of the fishers and communities involved (positive and negative), and there is some independent literature examining impacts. Examples from Indonesia and Mexico suggest that Fair Trade could potentially be an on-ramp to FIPs and MSC in fisheries where community engagement is critical, but examples are too limited to draw generalizable conclusions.

Site visits, key informant interviews, and literature suggest FIPs can have unintended impacts—positive, negative, perverse, and ambiguous—on social, economic, health, and governance dimensions of well-being of fishers and fishing communities. FIPs were not designed to address social issues or to restructure inequitable value chains, which increases the likelihood that benefits will accrue to the most powerful in the supply chain. FIPs largely do not include fishers as active participants: less than 25% of FIPs report fisher participation, only 7% of FIPs having producers as leads or co-leads, and CEA identified only 6 FIPs with substantive engagement from fishers and fishing communities to address social outcomes (Crona et al., 2019). Yet these findings are more positive than CEA's findings from 2015, which identified only one FIP in which fishers knew they were in the FIP. CEA also found very few examples of fishers benefitting directly and financially from FIP participation.

Similar to "social FIPs," "business improvement projects" is not a term of art, but rather refers to the work of 15 organizations CEA identified as seeking to improve commercial aspects of fisheries as a means of incentivizing progress through a FIP. The work remains primarily theoretical, with only a handful of demonstrated examples. Most projects remain in the planning and scoping phases. There is significant overlap in terms of organizations and approaches with FIPs seeking to address social issues in FIP fisheries.

These business improvement efforts seek to address a range of commercial improvements, which have potential to enhance pressure on the resource, so there is a need to ensure they are combined with other interventions to ensure stewardship. Improvements to enterprise operations, product handling and quality, access to new markets, infrastructure, supply chain optimization, traceability, and value addition are all being implemented in various FIPs.

Social

The "social FIP" universe refers not to any standard definition, but rather to a broad array of organizations, tools, approaches, and movements seeking to use FIPs as a tool to improve human well-being

There is no standard working definition of what constitutes a "social FIP." Instead, CEA observed a range of activity on well-being issues affiliated with specific **FIP implementers, frameworks, and certifications,** and utilizing various **assessment tools and methodologies**. There is **no consistent set of indicators used or tracked**, and **no consistent mechanism for reporting on progress** across these different actors, although FisheryProgress does offer a text field under "Additional Impacts" where FIPs can report activities and progress as it relates to well-being dimensions of their work. There is also a universe of **FIP-adjacent activity to address well-being issues** in fisheries, such as the work of multilateral institutions, national governments, research institutions, and NGOs.

Implementers

NGO
- *ProNatura Noroeste A.C.*
- MDPI
- Conservation International
- SmartFish AC
- Sustainable Fisheries Partnership
- Blue Ventures
- COBI

Industry-affiliated
- APRI
- PACPI
- IPNLF
- OPAGAC

Industry
- Del Pacifico Seafood
- Cox's Seafood
- Saravia
- SeaDelight
- Anova Seafood

For-profit
- Sustainability Incubator
- Key Traceability
- BlueYou/Meliomar

Framework & Certification

- Fair Trade USA Capture Fisheries Standard
- Monterey Framework for Social Responsibility
- Responsible Fishing Standard (UK)
- MSC Chain of Custody Labor Guidelines
- Certifications and Ratings Collaborative – Framework for Social Responsibility in the Seafood Sector
- Roadmap for Improving Seafood Ethics – RISE
- AENOR's Responsible Tuna Fishing (RTF) Conform
- British Retail Consortium (BRC)
- IFFO RS Version 2.0

Assessment Tools & Methodologies

- Social Responsibility Assessment Tool (SR Scorecard)
- Ocean Outcomes' Rapid Assessment Tools
- Future of Fish Fisheries Development Model
- Sustainability Incubator's Labor Safe Screen
- Seafood Slavery Risk Tool

Relevant policy agreements

- International Labour Organization (ILO) Work in Fishing Convention No. 188 (November 2017)
- IMO Cape Town Agreement (will enter into force in 2022)
- Southeast Asian Forum to End Trafficking in Persons and Forced Labour of Fishers ("The SEA Forum for Fishers")

FIP-Adjacent Activity

NGO
- Oxfam
- Greenpeace
- Environmental Justice Foundation
- International Labor Rights Forum
- Issara Fisheries Labor Improvement Project
- Verite

Multilateral & Research
- SFW Partnership Assurance projects
- FAO Small-Scale Fisheries Guidelines; Guidelines for Social Responsibility in the Seafood Industry
- International Labor Organization SEA Fisheries Project
- WorldFish Center
- Too Big To Ignore
- University of Technology, Sydney

Industry collaborations
- Asia Seafood Improvement Collaboration
- Seafood Task Force
- SeaBOS (Business for Ocean Stewardship)
- Consumer Goods Forum Social Auditing Framework

CEA

Social

FIPs that self-identify as contributing to "social impact" vary widely in the issues they address and the information they report, with a positive bias in their reporting

Public information on how "social FIPs" address well-being issues is limited and varies widely. FisheryProgress's blank comment field has allowed implementers to provide different kinds of information at various levels of detail on their work to address human well-being in FIPs. For example, some FIPs provide only positive information, seemingly serving a marketing purpose on the one hand, while some FIPs publicly share social audits. The way FIPs report this information varies primarily by implementer, with consistent use of FisheryProgress for reporting seen across all the FIPs of a single implementer.

Type of Reporting	Description	Example	Information reported (i.e., description, indicators, outcomes)	
1. Marketing Information	FIP describes implementer or company's values or perspective on well-being issues, framed positively. No objectives or activities identified. No timelines, supporting information, or links.	US Gulf of Mexico Northern Pink Shrimp (otter trawl) (Cox's Seafood)	"Cox's Seafood uses best management practices of natural resources to ensure environmental, social, and economic well being. We are aware of local market needs and committed to our suppliers and distributors. Cox's is also BRC certified to ensure corporate social responsibility."	
2. Problem Description and Supporting Documentation	FIP identifies at least one well-being issue in the fishery. It may provide supporting documentation (research, cons sultant report), but usually disconnected from workplan activities.	Philippines Blue Swimming Crab – bottom-set gillnet & pot/trap (PACPI)	"Value chain analysis of Philippines Blue Swimming Crab has been conducted by the academe and USAID ECOFISH Project." Mapping study identifies key segments of the supply chain (crab catchers, traders and wet market vendors, and meat processors and exporters).	
3. Activity Description (Proposed and Actual)	FIP describes activities to address well-being issues that may be proposed, actual, or both. May also provide information on problem and marketing, typically framed positively.	Indonesia Blue Swimming Crab – gillnet/trap (APRI)	"APRI is trying to comply with government regulations to improve the sustainability of the BSC fisheries while at the same time trying to analyze measures to minimize socioeconomic impact of these regulations, and integrate the refined measures into workplans."	
4. Progress Reporting	FIP provides public objectives and activities in its workplan and progress updates on those activities set against a timeline. It typically also provides evidence of progress (supporting documentation).	Mexico Bahia de Los Angeles octopus –trap /diver-caught/hand-gathered (Pronatura)	Task: "13.2 Equip vessels to improve the transport of octopus and ensure its quality" (July 2018 – Dec 2022)	Update December 2018: "Fishermen were provided with coolers for the transport of product in the boats."
5. Audit	FIP provides third-party verified information on actions, progress, and impact. Bifurcation between Fair Trade audits and fisheries that have been flagged as having labor abuses (Pacific longline tuna).	Pacific tuna – longline (Key Traceability)	"Thai Union engaged an independent, third-party auditor, Key Traceability, to conduct audits of vessels participating in the FIP. Key Traceability's audit of Tunago 61 did not identify forced labor issues."	

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Social

FIPs addressing human well-being outcomes are prevalent in a range of countries and commodities. More information is needed to determine motivations.

FIPs self-reporting "Social Impact" on FisheryProgress

	FIP on FisheryProgress	Lead Implementer	Motivation
*	Indonesia blue swimming crab - gillnet/trap	APRI	Proactive
*	Mexico Yucatan red and black grouper - longline	CeDePesca/SeaDelight	Proactive
	Mexico Gulf of California giant squid - jig	COBI	Proactive
	Mexico Quintana Roo spiny lobster - casitas	COBI	Proactive
	Mexico Sonora yellowtail - handline	COBI	Proactive
	US Gulf of Mexico northern pink shrimp - otter trawl	Cox's Wholesale Seafood	Unknown
*	Mexico Sinaloa artisanal blue shrimp – drift/cast nets	Del Pacifico Seafood	Proactive
	Indonesia Indian Ocean skipjack tuna - pole & line	IPNLF	Unknown
	Indonesia Indian Ocean yellowfin tuna - pole & line	IPNLF	Unknown
	Indonesia Western and Central Pacific Ocean skipjack tuna - pole & line	IPNLF	Unknown
	Indonesia Western and Central Pacific Ocean yellowfin tuna - pole & line	IPNLF	Unknown
	Mozambique & Mauritius tuna and large pelagics - longline	Key Traceability	Unknown
	Pacific tuna - longline	Key Traceability	Reactive
*	Indonesia Western and Central Pacific Ocean yellowfin tuna - handline	MDPI	Proactive
	Western and Central Pacific albacore and yellowfin tuna - longline	Ocean Outcomes	Unknown
	Atlantic Ocean tropical tuna - purse seine	OPAGAC	Reactive
	Eastern Pacific Ocean tropical tuna - purse seine	OPAGAC	Reactive
	Indian Ocean tropical tuna - purse seine	OPAGAC	Reactive
	Western and Central Pacific Ocean tropical tuna - purse seine	OPAGAC	Reactive
	Philippines blue swimming crab - bottom-set gillnet & pot/trap	PACP	Unknown
	Mexico Bahia de Los Angeles octopus - trap/diver-caught/hand-gathered	ProNatura	Proactive
*	Mexico Marismas Nacionales white snook - hook & line/gillnet	ProNatura	Proactive
	Mexico North Pacific barred sand bass - pot/trap	ProNatura	Proactive
	Indonesia Aru and Arafura demersal fish - longline	PT Inti Lautan Fajar Abadi	Unknown
	Philippines blue swimming crab - pot	Saravia Blue Crab	Unknown
*	Thailand blue swimming crab - bottom gillnet/trap	WWF Thailand	Unknown

- **26 FIPs self-reported on "Social Impact" in the "Additional Impacts" comment field on FisheryProgress as of October 2019.**
- **These FIPs span a range of commodities**, but are predominantly in tuna (12) and crab (4), but also in demersal fish (3), shrimp (2), and squid, lobster, yellowtail, snook, and octopus (1 each).
- **These FIPs occur predominantly in Mexico (8), Indonesia (7), and the high seas (4).**
- **While difficult to assess motivations, CEA's site visits and key informant interviews suggest that a significant portion of this activity is motivated by proactive desires to improve social outcomes** (10), versus reactive motivations to ensure compliance (5). CEA was unable to identify the motivation for 11 of these FIPs, and so it is too early to tell which "Theory of Change" (proactive vs. reactive) is most prominent in practice.

* CEA Site Visit
* Advisor Site Visit

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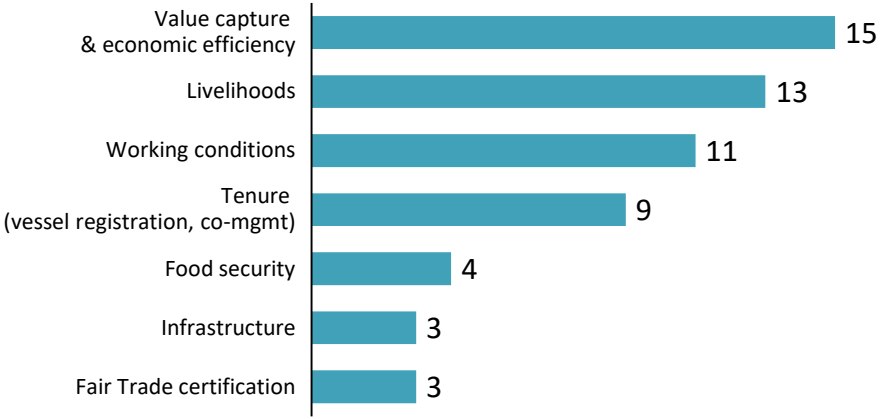
Social

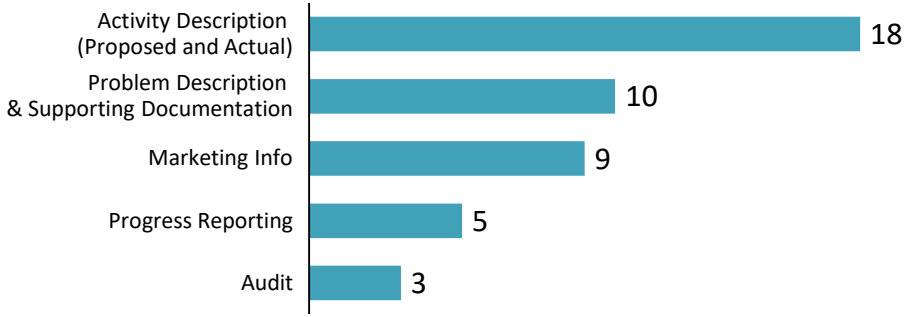
These FIPs focus predominantly on economic dimensions of well-being, but activities and outcomes are challenging to validate based on the limited information provided

Value capture and economic efficiency, livelihoods, working conditions, and tenure were the most common well-being issues chronicled by the 26 FIPs reporting on "Social Impact" through FisheryProgress. However, what is reported on FisheryProgress does not necessarily reflect the reality of implementation. **While most FIPs (18) did report some activity (proposed or actual), only five FIPs set goals and provided updates on progress against those goals**—Fair Trade affiliated FIPs in Mexico and Indonesia, one of COBI's three social FIPs, and two of ProNatura's three social FIPs.

Prevalence of well-being issues addressed by FIPs self-reporting "Social Impact" on FisheryProgress*



Prevalence of types of information shared by FIPs self-reporting "Social Impact" on FisheryProgress*



*Totals sum to more than 26 because most FIPs included information on multiple well-being issues or shared multiple types of information.

Social

Motivations for, engagement in, and outcomes of community engagement in FIPs are as heterogeneous as communities themselves

Values, norms, and concerns about effectiveness are motivations for engaging communities in FIPs. FIPs have explicitly chosen to prioritize values related to cost, scale, and leverage over values that emphasize equity and inclusion. "Social FIPs" seek to marry those two value sets into a broader unified Theory of Change. This theory is based on literature and experience that points to community engagement as a key success factor in initiatives that seek to reform the management of natural resource systems in some socio-ecological contexts. Notably, one of Elinor Ostrom's design principles for common pool resource management points to community members participating in decision-making processes, including designing and changing the rules that affect them.[1]

Communities are not homogeneous. Individuals and groups within a community can have very different interests, priorities, power, resource dependency, and levels of sensitivity to environmental change. When assessing the impact of interventions on human well-being, one must take into account socio-economic considerations such as social class, gender, ethnicity, generational status, educational status, and occupation, and ensure that community-based natural resource management projects are not dominated by elites—a common failure of community-based interventions in general.[2] Awareness of power asymmetries and political dimensions that underpin the potential impacts of interventions is critical; otherwise there exists a risk of exacerbating inequity if the most vulnerable fail to participate or access the benefits of the project.[3]

Clearly defining "social outcomes" is necessary to improve our understanding of the role played by FIPs that seek to engage communities in producing those outcomes. For the purposes of this review, we use the Kaplan-Hallam/Bennett framework (shared on the first slide of this section) that outlines five overarching categories of human well-being: economic, health, social, cultural, and governance. Changes in an individual, household, or community's status in relation to one of these categories would be classified as an outcome.

Principles of good community engagement include:

- Involvement of community members in all phases of decision-making and implementation, from project design through evaluation
- Implementation centered on priorities and processes chosen by the community, where external interests are not placed above those of the community [4]

While these principles may seem like an impossibly high bar given the current status of FIP implementation, it is through this lens that we evaluate how "social FIPs" engage with communities. **Reporting on FisheryProgress alone is not sufficient to determine or verify stated activities around community engagement.** Therefore, CEA's assessment of community engagement was only possible for FIPs CEA visited, where we spoke to fishers and members of fishing communities, or based on multiple, in-depth key informant interviews and supplementary research.

[1] Ostrom 1990.
[2] Mansuri and Rao, 2004; Blaikie 2006.
[3] Cinner et al., 2018.
[4] Schipper et al., 2014.

Social

Some FIPs are engaging communities in profound ways to improve well-being; most are not

CEA identified six FIPs that we believe credibly engage with local communities and fishers to promote social outcomes, three of which we visited.* By "credible" we mean that the baseline information, activities, and progress of these FIPs with respect to social issues and outcomes are public and transparent, that their work on community engagement is consistent with one or more of the principles identified on the previous slide, and that through our site visits we were able to independently verify performance against these criteria. Of the six FIPs that explicitly promote social outcomes, one is implemented by MDPI, one by Del Pacifico Seafood, one by SFP/APRI (in collaboration with EDF/Starling Resources) and three by Pronatura Noroeste A.C. (in collaboration with SmartFish).

While other FIPs on FisheryProgress may be meaningfully engaging fishing communities (e.g., Peruvian Mahi Mahi and jumbo squid, Mozambique & Mauritius tuna and large pelagics), either information was not publicly shared, work is in the planning or design stages, CEA was unable to visit these sites, or information gathered through site visits and key informant interviews proved insufficient to assess credible engagement or to independently verify reported well-being outcomes.

Examples	Engagement Activities	Observed Well-being Outcomes
Indonesia Western and Central Pacific Yellowfin Tuna – handline	• All Fair Trade-certified fishers must progressively comply with the six elements of the standard, including structural requirements (e.g., establishing Fair Trade Fishing Associations), empowerment and community development (e.g., develop a plan for paying out the premiums), fundamental human rights, wages, working conditions and access to services, resource management, and traceability and transparency. • MDPI has worked with communities in the Maluku Islands since 2009, and currently has 12 full-time staff devoted to Fair Trade implementation who are embedded in the communities to educate fishers, register new fishers, and deal with areas of non-compliance; the program costs ~$130k annually to administer.	• **Economic:** ~USD $418k in premiums (cumulative) delivered to participating communities directed to infrastructure, education, and religion projects (among others), as of 12/2018 • **Social**: Improved education and knowledge about the resource (for fishers and communities) • **Governance**: Participation by fishers in Fair Trade Association meetings; representation in management discussions with MMAF; transparency and accountability • **Health**: Fishers participate in safety-at-sea training with the Indonesian Navy to improve practices on-board
Mexico Marismas Nacionales White Snook – hook & line/ gillnet	• The FIP was initiated by fishers to encourage more government support for managing the Pacific Robalo resource, and to find market connections in Mexico City. • Infrastructure and certifications are the two activities defined in the workplan as "additional impacts;" it's not clear what role communities played in setting these indicators or targets. • Cooperatives regularly participate in FIP meetings; activities, outcomes, and resources are reported publicly via FisheryProgress.	• **Governance**: Through the FIP, fishers have successfully lobbied for their interests and needs to government agencies, who are now advocating on their behalf • **Economic**: Proposals to the government to improve infrastructure in landing sites were successful • "They [Pronatura] have established governance through community engagement and are making the case for reforms. Changes in the community from being against the protected area to buy-in to not only in support of the protected area but also the FIP is huge." – Mexican Government Official
Mexico Sinaloa artisanal blue shrimp – drift / cast nets	• Del Pacifico is working with 11 cooperatives in Sinaloa to implement the Fair Trade Capture Fisheries Standard. Fair Trade staff support Del Pacifico with program implementation. • Del Pacifico works with fishing communities involved in the program to generate a list of needs for the premium funds at the start of each shrimp season.	• **Economic:** ~USD $390k in premiums (cumulative) delivered to all 11 co-ops through 12/2018, allocated by sales volumes; funded projects include air conditioning for local schools, an emergency fund for fishers' healthcare needs, support for funeral expenses for families; Del Pacifico pays a very small additional price premium to fishers for participating in the program • **Governance**: Participation by fishers in Fair Trade Association meetings; decision-making autonomy over use of premium funds • **Health**: More fishers now go out with a first aid kit, radio, and cell phone (safety at sea)

*CEA also visited SFP/APRI's Blue Swimming Crab project in Gresik (East Java). The community engagement pilot is underway in Lampung (Sumatra), so we were not able to directly observe outcomes. CEA's research and key informant interviews suggest that FIP is credibly engaging fishers and communities in a process to develop a new governance system for the fishery.

CEA

Social

FIPs are likely to contribute to unanticipated outcomes for well-being, in ways positive and negative

By and large, FIPs do not intentionally consider their impact on human well-being in the communities, supply chains, and markets in which they operate. Of the 158 active FIPs CEA identified through this review (as of December 2019), only 26 (19% of active FIPs) report addressing well-being impacts via the range of approaches previously described. An even smaller proportion of that number (6, or 4% of active FIPs) are credibly engaging on these issues, based on the information reported on FisheryProgress, CEA's site visits, and key informant interviews (although CEA did not visit all 26 "social FIPs"). Fishers are involved as active participants in less than 25% of FIPs, and are only active in the management and implementation of 7% of FIPs.[1]

The predominant theory for how market-based interventions improve human well-being is that a more sustainable resource is a necessary precondition for people to benefit. This sentiment was expressed by FIP implementers, government officials, seafood businesses, industry associations, and fisheries management experts globally. Although there are other emerging perspectives on how FIPs can (or should) address human well-being, these have not yet become a mainstream facet of FIP implementation.

CEA's key informant interviews and site visits, as well as a growing body of literature on the impacts of market-based interventions in fisheries, highlight several limitations with this theory:

1. Distributional impacts: A focus on long-term resource sustainability and future benefits discounts the near- and medium-term costs of fisheries reform and who shoulders those costs. Fishing communities, supply chains, and end markets are deeply heterogeneous, and changes to those systems are not felt equally.
2. Wealth as well-being: Narrowly focusing on economic costs and benefits within a market system overlooks the many other dimensions that contribute to human well-being beyond economic value creation, and the associated tradeoffs. These could include health, education, social relations, subjective well-being, culture and spirituality, and freedom of choice and action, among others.
3. Structural challenges**:** Social and political dynamics can strongly influence fisheries governance, often serving as barriers to implementation of measures narrowly focused on delivering ecological outcomes. FIPs are not designed to influence political movements or social dynamics in the countries and regions where they operate, and these systems may be quite different in Global South fisheries, where the majority of FIPs operate. These socio-ecological interdependencies can present both opportunities and challenges for efforts focused on sustainability.

Given that FIPs intervene in complex systems and do not address these issues, FIPs are likely to result in "unintended consequences"—the outcomes of a purposeful action that are not intended or foreseen.[2] These consequences can be positive, negative, or perverse (making the problem worse), and are often seen when intervening in complex systems, such as the seafood market. While unintended consequences thinking relies on assumptions about causality and counterfactuals that are often impossible to prove without baseline data and rigorous randomized studies, examining them can help to mitigate blind spots and develop a much fuller picture of the full suite of impacts of an intervention.

[1] Crona et al., 2019.
[2] Merton, 1936.

Social

FIPs are having unintended impacts beyond ecological outcomes, consistent with what we would expect from other eco-labels and market-based interventions in global supply chains

To date, unintended consequences in FIPs have mostly been theorized rather than documented through case studies or peer-reviewed literature. Concerns have ranged from potential impacts on food security to over-exploitation of the resource to the expansion of neoliberal ideas around marketization and Western cultural hegemony. A robust literature on the non-ecological impacts of MSC certification articulates many of these criticisms, as summarized in the table to the right.

The FIP Review surfaced examples of positive, negative, perverse, and ambiguous unintended consequences of FIPs on social, economic, cultural, governance, and health dimensions of human well-being. Documented examples were identified through key informant interviews and site visits. Only one of these examples is documented in the peer-reviewed literature.

This list should not be viewed as comprehensive, but rather a first attempt to consolidate existing knowledge and experience. The seafood markets community could benefit from more rigorous research in this area.

Documented non-ecological impacts of MSC certification and FIPs

	MSC[1]	FIPs[2]
Positive	• Government attention and resources • Increased opportunity for participation in management • Legal compliance • Reduced tariffs • Resource sovereignty	• Higher prices for producers • Data and information to improve fishing practices • Increased knowledge and environmental stewardship • Government attention and resources
Negative	• Exclusion of resource-limited, smaller-scale fisheries via units of assessment, costs, and boundary creation • Consolidation of power • Economic losses (time, money)	• Non-tariff barriers to trade • Uncompensated time • supply chain greenwashing • Reduced product volume associated with legal compliance
Perverse	• Exacerbating over-exploitation	• Poorly implemented management changes • Exacerbating over-exploitation
Ambiguous	• Effects on local economies, food security, and nutrition if fisheries shift from domestic to export	• Inequitable benefit distribution • Reductions in prices for producers • Value chain reorganization

[1] Adolf et al., 2016; Bellchambers et al., 2016; Fetherston, 2005; Field et al., 2013; Foley 2012; Foley and McCay, 2014; Gulbrandsen 2009; Pérez-Ramírez et al., 2012; Ponte 2008; Stratoudakis et al., 2016.
[2] Bailey et al., 2015; key informant interviews and site visits for the 2020 Global Landscape Review of FIPs.

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Social

Examples: Unintended impacts of FIPs on human well-being (1 of 3)

Key informant interviews and site visits surfaced 10 active or prospective FIPs that are demonstrating unintended non-ecological impacts. These examples are detailed on the following slides.

How to read:

Type: + (positive impact), - (negative impact), ? (ambiguous impact), ↓(perverse impact)

Intervention: MSC = Marine Stewardship Council, FIP = Fishery Improvement Project, FT = Fair Trade

Attribution: Unknown, unlikely, possibly, likely

Impact: Economic, Social, Governance, Health, Cultural +/-/?/↓refers to the specific type of impact on well-being (positive, negative, ambiguous, perverse). *Note: Impact types and direction (positive, negative) are based on information shared by key informants. Affected stakeholders who were not interviewed may have other perspectives on these impacts.*

Type	Example	Description	Int.	Attrib.	Impact
+	Mexico artisanal shrimp	The processor and exporter pays a nominally higher price to fishers participating in the Fair Trade and FIP program. Participation by fishers in Fair Trade Association meetings is improving social organization of fishers. Premium funds and premium-funded projects have contributed to community well-being (e.g., childhood savings programs, air conditioning in schools) and fisher health (i.e., improved safety at sea).	FIP FT	Likely	+Economic +Governance +Health +Social
+	Nicaragua lobster	The management plan, enforcement agents, and trainings that were developed as part of the spiny lobster FIP were subsequently used to manage pink conch and sea cucumber.	FIP	Likely	+Governance
+/?	Indonesian handline tuna	Fishers involved in the handline tuna fishery in Buru, which has been involved in a FIP, Fair Trade, and now MSC certification, demonstrate a high level of awareness about environmental stewardship. Data collection activities of the FIP were cited as a positive, helping them to minimize bycatch interactions. Fisher organization achieved through the FIP and Fair Trade helped facilitate vessel registration, which is a critical step for MSC certification. The certification itself has rapidly re-organized the local value chain. Fishers are taking more active roles in the value chain due to a sense of resource ownership, reducing the role of middlemen (who both offer benefits to fishers and constrain them). However, the Fair Trade premium may not be able to compensate for the lost role of middlemen (i.e., search and rescue support).[1]	FIP FT MSC	Likely	+/?Social +/?Health +Governance +Economic

[1] Bailey et al., 2015.

Social

Examples: Unintended impacts of FIPs on human well-being (2 of 3)

Type	Example	Description	Int.	Attrib.	Impact
+/?	Mexican Pacific Snook	Situated in a national park and with more than 40 co-ops, Mexico's Pacific Snook fishery recently started a FIP, co-led by two additional government agencies—SEDERMA (State Rural Development) and CONANP (National Parks). There is some indication that coordination through the FIP is bringing attention and resources to the fishery, in the form of greater government participation in management as well as infrastructure support for cold storage.	FIP	Possibly	+/?Governance +Economic
+/↓	Mahi Mahi and squid in Peru	At least one fisher involved in the mahi and squid FIPs in Peru decided to finish high school as a result of FIP participation, which made him aware of the boat certification he could achieve with a degree. Fishers log catches on an app developed by WWF as a means of documenting historical catch, with the goal of ensuring access to quota if it is ever developed for the fishery. Government efforts to register vessels, which the FIP had advocated for, were hamstrung by poor implementation and may have resulted in increased capacity of the artisanal fleets and price manipulation by processors.	FIP	Possibly	+Social +/↓Governance ?Economic
+/-	Ecuadorian Mahi Mahi	The process followed by FIPs in Ecuador to influence and improve management through the creation of national action plans has been followed for additional FIPs and non-FIP fisheries looking to improve management, including tuna and small pelagics. Several Mahi Mahi producers are refusing to pay for MSC certification without assurances from the exporters who will obtain the certification that any price premiums will be shared equitably.	FIP MSC	Likely	+/-Governance
↓	Chilean hake	The Chilean hake FIP is pursuing MSC certification as an objective. However, the fishery will not be able to achieve certification until the artisanal fleet's IUU fishing and excess pressure on the stock is resolved. Since the US and EU markets require MSC certification as a minimum standard for large-volume processed whitefish, industrial fleets are shut out and need to sell more volumes domestically, which depresses local prices for hake. Lower prices add greater financial pressure to artisanal fishers to catch more hake. These fishers are not involved in the FIP. Market dynamics of MSC-certified whitefish are driving domestic over-exploitation, and the FIP is not designed to address those barriers to progress.	FIP MSC	Possibly	-Governance -Social -Economic

Social

Examples: Unintended impacts of FIPs on human well-being (3 of 3)

Type	Example	Description	Int.	Attrib.	Impact
?	Scallops in Peru	A cooperative of scallop fishers that sells entirely to one processor, which in turn sells to the US, is seeking to start a FIP to obtain MSC certification, out of fear that the processor will not pursue the certification and the fishers will be excluded from the US market and face lower prices as a result.	FIP	Unknown	?Economic
?	Sri Lankan Blue Swimming Crab	Producers may be earning more money as a result of FIP participation, as well as an associated price premium. However, supply chain actors indicated premiums were not equitably shared, and instead were captured primarily at the retail level.	FIP	Possibly	?Economic
?	Indonesian longline tuna	As a result of a blanket ban on transshipment, the longline tuna fleet has consolidated from 45 vessels operating on the high seas to 11. Although potentially good from a conservation standpoint, the Indonesian fleet is no longer able to meet its Indian Ocean Tuna Commission quota, affecting the viability of the industry and removing incentives to make improvements through the FIP.	FIP	Unlikely	?Economic
?	Indonesian Blue Swimming Crab	The implementation of the Control Document has resulted in cooking stations (the first point of contact between fishers and the supply chain) rejecting undersize crab, which enables legal compliance from the cooking stations and above in the supply chain. Meanwhile, fishers face the option of not catching undersized crab or selling it locally for lower prices, both of which may reduce their incomes in the short term. At the same time, supply chain key informant interviews suggest that US importers continue to buy undersize crab from non-APRI members. So while the minimum landing size regulation and Control Document implementation may demonstrate legal compliance on paper, it is not yet clear if implementation is improving the resource.	FIP	Possibly	?Economic

Social

Given limited study, there are likely other unintended consequences associated with FIPs that merit exploration

Site visits and key informant interviews surface general unintended social impacts unattributable to specific FIPs as well that illustrate broader dynamics with market-based interventions.

Example	Description
Non-tariff barriers to trade	The cost of FIPs and MSC certification is considered high by many of the fishers, NGOs, and in-country producers CEA interviewed, and is viewed as a barrier to trade for smaller producers. As one key informant queried: "Are there certain segments of the marketplace or production who have now been put in a place where the bar is so high that it's a detriment to try and enter the market? Are there certain segments of the value chain that are better places to pay for fisheries management and the cost falls to the least well-equipped?"
Greenwashing	Key informants relayed numerous anecdotes about FIPs receiving market benefits (compared to non-FIP fisheries) that were "unfair" or not commensurate to the level of effort in implementation. This was expressed in particular by bottom-up FIPs seeking market differentiation. It was also evidenced in Sampson et al. (2015).
Demand for export products enhancing pressure	While CEA's research did not uncover concrete examples of FIPs enhancing pressure on fisheries, market articulation is a strong driver of fishery exploitation in common pool resources. One anecdote surfaced regarding the expansion of the Chinese middle class and decimation of the sea cucumber population, though that was not related to a specific FIP.
Quota allocation processes concentrating wealth in the hands of powerful players, and excluding vulnerable actors	Quota allocation processes in China (unknown fishery), Peru (anchoveta), and Chile (common hake) excluded elderly fishers. In China, one key informant stated, "In the 1980s before the reform the fishing cooperatives were state owned. When the reform came, the boats were redistributed to the private sector – the older fishers are discriminated against and only receive 100 RMB from the government." In the case of Peru, the anchoveta quota allocation process reduced capacity in the fishery by ~50% and disproportionately benefitted members of *Sociedad Nacional de Pesqueria* (SNP), the industry association. Said one key informant: "The benefits [of the quota allocation] were really big for the fishing companies." Several key informants suggested that many of the excluded fishers then shifted to the artisanal fleet and contributed to the expansion of that fleet. There is palpable fear among fishers and fishing communities interviewed that they will be excluded if quotas are established for new fisheries. In Chile, leaders of artisanal fishers acknowledge their role in perpetuating IUU fishing, but report that many fishers that remain unregistered are older and were unaware of the registration requirement that has since closed, which now excludes them from the formal fishery.
Reduced catch volume associated with legal compliance	In some fisheries, total catch must fall to facilitate stock recovery or sustainable yield. If fishers comply with new limits on total catch, some or all fishers will suffer a reduction in catch and thus lost revenue, at least in the short term. Perhaps in the long run market dynamics will allow fishers to catch less and generate the same or greater revenues, but there will likely be a deficit initially.

Social

Fishers participating in FIPs have few mechanisms for accountability in the processes that are affecting them. It is impossible to say if this is due to broader governance challenges or a characteristic of the FIPs themselves.

CEA identified only six FIPs engaging credibly with fishers and fishing communities to achieve well-being outcomes. These FIPs are associated with MDPI, SFP/APRI, and ProNatura as lead implementers, two of which have achieved Fair Trade certification. Fair Trade fishers have a built-in accountability mechanism in the form of the Fair Trade premium. If they sell their fish into the Fair Trade supply chain they receive a premium. This process is well tracked, and fishers can hold buyers accountable if the premium is not delivered. In the case of ProNatura, SEDERMA (the State of Nayarit's Rural Development Agency) is a co-lead on the FIP and ostensibly represents the voice and interests of the state's fishers and fishing communities. SEDERMA is tasked with supporting fishing communities with a range of economic development activities. As a government agency, fishers have some influence via voting and elections, which influence the management of these institutions, and staff at SEDERMA seemed accessible and well-known to the fishers we met with.

Outside of Fair Trade-certified fisheries, CEA's site visits or key informant interviews did not uncover clear mechanisms for fishers to have agency in the implementation of improvements to their well-being. While more mechanisms may exist, this analysis did not identify them. CEA only visited a small number (5) of the 26 FIPs that self-report social impacts. This was because data on social issues in FIPs are limited, and reporting on FisheryProgress is too inconsistent and limited to be able to verify reported engagement activities without site visits, social audits, and direct observation.

In general, FIPs do not seem to offer mechanisms for fishers to shape the rules that affect them if they are not involved in the process. Crona et al. (2019) found that fishers are the least involved of any stakeholder group (except researchers) in intensive policy dialogues that typically result in new management strategies or bodies that set the rules regulating fishing activity. Fishers are only listed as leads or co-leads in 7% of FIPs. Without fisher participation or leadership in the FIP, it is unlikely that fisher interests will be meaningfully represented. However, in FIPs where fishers are active participants, FIPs may offer a venue to elevate their concerns compared to a business-as-usual scenario.

Protests are one way that fishers register their discontent with fisheries management, and government agencies do seem susceptible to these political demonstrations. In the case of Ecuador, for example, the management authority cited fisher protests of a closed season as a reason that the closed season was ultimately overturned. However, that example was not affiliated with a FIP.

National labor laws and international human rights laws are the formal mechanisms that should provide fishers the opportunity to hold implementers, companies, and governments accountable. By and large, however, the seafood industry has been reticent to proactively ensure compliance out of concern for legal liability, except in the most egregious cases (e.g., Thai Union), or in cases where national governments have stepped in (e.g., Tunago 61). At the same time, the guidance from the conservation community is inconsistent and uncoordinated, in spite of the development of the Monterey Framework, and is viewed as burdensome and costly by implementers and the seafood industry alike. US and EU import controls also tend to defer to the laws of the exporting country, which removes incentives for improvement or compliance with labor laws in importing countries and international labor and human rights standards.

Social

There are two main Theories of Change motivating FIPs to address human well-being

There appear to be two driving reasons that FIPs incorporate well-being issues that are consistent with, although not entirely overlapping with, broader Theories of Change around FIPs.

Theory of Change:	**Identifying social risks and mitigating them is required to sell to a specific buyer or access a certain market.**	**Addressing social issues can create value for fishers, communities, and companies. These incentives can stimulate progress. Also, it is the morally right thing to do.**
Motivations:	• Compliance with national labor laws • Ensuring legality • Public pressure and negative publicity	• Promise of access to new markets or price premiums • A desire to improve quality of life for fishers and fishworkers • A belief in the theory that addressing social issues can accelerate environmental awareness and progress.
Examples:	Pacific tuna – longline: To address the Withhold Release Order for Tunago 61, Key Traceability conducted a social audit that found no labor rights violations. OPAGAC FIPs: To ensure compliance with EU regulations and ILO Code of Good Practice 180, OPAGAC members have developed the AENOR standard for social responsibility and seek to comply.	MDPI handline tuna: Anova Seafood saw value in pursuing Fair Trade certification, and its brand reputation in being a "first mover" added additional incentive. Anova continues to pay for Fair Trade implementation, although significant costs have shifted to multilateral aid. Mexico artisanal blue shrimp: Del Pacifico wants to demonstrate its sustainability credentials in the marketplace, and the CEO seems to genuinely care about the well-being of the fishers. Economic motivations likely dominate or at least contribute, but those details were not shared with CEA.

Business

A subset of these FIPs are seeking to improve business practices in tandem with addressing sustainability

Historically, many FIPs have sought to "sell" difficult or costly environmental improvements to FIP stakeholders based on business benefits, such as reduced costs of catch through sustainable management, avoiding collapse through oversupply, leveling the playing field by combating illegal fishing, improving catch efficiency, higher prices for sustainably managed resources, and overt financial rewards for participation (i.e., CSR contributions to local communities).

Some companies, FIP implementers, and NGOs are taking this approach one step further, by seeking to incorporate business improvements as explicit objectives of FIP workplans, alongside and in service to environmental (and sometimes social) objectives. While different organizations have slightly different approaches, the general Theory of Change is that improving the commercial fundamentals of the seafood industry (spot markets, lack of cold chain, processing inefficiencies, inequitable supply chains) can provide short-term benefits that encourage fishers, communities, and the industry down a path toward more sustainable fisheries. Or, as put by one implementer, "In order for environmental improvements to be durable in a FIP, the fishery's commercial relationships need to be economically and financially stable and secure."

Similar to social FIPs, there is no clear or universally accepted definition of a "business improvement project." There is no separate reporting category or comment field on FisheryProgress to be able to track FIPs that seek to promote business improvements**,** and so there is certainly overlap between categories.

There are roughly two categories of groups working on "business improvements": those involved in "triple impact FIPs," and everything else. Although not a term of art, "triple impact FIPs" seek to improve commercial and social aspects of the fishery in tandem with environmental improvements. We are, however, also aware of other efforts to improve commercial aspects of fisheries to achieve environmental outcomes that are not a part of this burgeoning community convened by philanthropy.

CEA is aware of nine groups involved in the triple impact FIP community, as well as six additional efforts:

Involved in "triple impact FIPs"

- Ocean Outcomes
- SmartFish AC/SmartFish Inc
- Future of Fish
- Impact Blue
- BlueYou/Meliomar
- Fair Trade USA
- Conservation International
- Sustainable Fisheries Partnership
- Fish Choice

Other "business improvement" efforts

- OneSkip
- CITE Pesquero (Peru)
- China Blue Sustainability
- PT MDPI*
- Blue Ventures
- NorPac Fisheries

*PT MDPI is a new initiative of MDPI seeking to advise new fisheries on FIP implementation.

Business

Some FIPs are seeking to address business improvements of all kinds, typically within a specific fishery

Improvement Type	Example
Enterprise operations: Improvements in administration, financial management, and other enterprise management efforts for the cooperative, association, processor, or exporter.	CITE Pesquero provides training on financial management to fishing communities in Peru's mahi and squid fisheries, and generally supports small-scale fisheries in Peru with technology transfer (cold chain). As part of the Fair Trade program, fishers receive organizational development trainings to help improve the management of the fishing associations.
Product handling and quality: Provision of equipment (knives, cutting boards, storage boxes), technology (cold chain technology), and training (e.g., on sanitary practices) to improve product quality.	Blue Ventures is working to provide storage boxes on boats and to train fishers on better handling of the catch through transport in Madagascar. Future of Fish is working to provide on-boat flash-freezing technology in mahi fisheries in Peru. Anova Seafood provided training to fishers in the Indonesian handline tuna fishery on sanitation standards.
Access to new markets: Connecting producers to new buyers in order to increase sales or prices. Helping producers overcome barriers to market access.	SmartFish has successfully worked with two fisheries in Mexico to sell higher-quality yellowtail to high-end restaurants and its retail store in Mexico City.
Infrastructure: Physical improvements to landing sites and processing facilities.	SmartFish worked with two fishing cooperatives in Mexico's robalo fishery to apply for funds from the Mexican government to upgrade landing site facilities and secure access to the landing site. Norpac Fisheries contracted a tuna processing facility on the Marshall Islands, creating jobs and generating additional value for the community and government.
supply chain optimization: Reducing middlemen or other "inefficient" actors in the value chain, to shift benefit distribution. Establishing preferential buying partnerships or long-term supplier relationships.	SmartFish tried to work with fishers to sell directly to restaurants, but could not assume the responsibilities (e.g., short payment window for fishers) or the risks (e.g., on-time deliveries to restaurants, in appropriate volumes). BlueYou has struggled to establish long-term supply relationships due to inconsistent quality.
Traceability: Systems to improve transparency and share critical product information between stages of the supply chain.	Anova (with the support of BumbleBee Foods) implemented a blockchain traceability system in the Indonesian handline tuna fishery in order to differentiate itself as a leader in the marketplace, as well as to prepare itself for potential new traceability requirements in the market.
Value addition: High-grading to a different market or developing new products.	In the Philippines, Meliomar sought to high-grade tuna production through quality improvements in the FIP to be able to sell into the sashimi grade market, which could increase fisher earnings by 25-30%.

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Business

Business improvements can create value; they can also exacerbate pressure on the resource

It is too soon to determine what impacts new business improvements are having on environmental performance of the fisheries where they are applied. Given that the handful of newer projects trying to advance business improvements are primarily conceptual, in the planning phases, or very early on in implementation, it is too early to draw general conclusions. It may be several years before this question can even be evaluated. Some form of track record must be established. It may be possible to evaluate some proximate measures, however, such as fisher participation, proportion of the fishery involved, or other metrics about participation and motivation that could help to assess whether business improvements can accelerate progress and effectiveness.

There is general skepticism within the seafood markets community around business improvements, given the potential to increase effort and undermine environmental gains. Said one implementer: "[We] are skeptical of making economic improvements to fisheries because of the potential to increase effort."

The "ideal" business improvement reduces pressure on the fishery and simultaneously improves product quality and value. We identified at least three examples associated with FIPs:

- SmartFish introduced Mexican sandbass fishers to more selective gear and on-boat-processing methods, thereby improving product quality and price while reducing pressure.
- In the Gulf of Mexico, shrimpers are voluntarily reducing drift net set times, which reduces bycatch, improves product quality, and helps shrimpers sell their product at a premium.
- In the Philippines, Meliomar is seeking to expand its presence onto the water in order to deploy Japanese handline fishing and processing techniques to increase the proportion of sushi grade tuna it can process and distribute under the Artesmar brand.

Increasing the value of an unmanaged fishery, however, can lead to increased fishing effort.

The "huge risk of this model is that we will improve price and quality of the fish and product, which can lead to greater pressure," said one triple impact FIP implementer. Despite best efforts to control for this potential risk, this has occurred in at least one fishery associated with a FIP that also addresses business concerns.

Business

A small subset of the FIP universe (<7% of active FIPs) is seeking to advance business improvements beyond traditional efforts focused on sustainable supply, price premiums, or access to new markets

FIPs seeking to advance "business" improvements on FisheryProgress				
FIP on FisheryProgress	**Lead Implementer**	**Supply Chain**	**Type**	**Stage**
Isla Natividad ocean whitefish – trap/handline	COBI (SmartFish)	Bottom Up	Basic	4
Mexico Bahia de Los Angeles octopus – trap/diver-caught/hand-gathered	ProNatura (SmartFish)	Bottom Up	Basic	3
* Mexico Marismas Nacionales white snook - hook & line/gillnet	ProNatura	Bottom Up	Basic	4
Mexico North Pacific barred sand bass - pot/trap	ProNatura	Bottom Up	Basic	4
* Mexico Sinaloa artisanal blue shrimp – drift/cast nets	Del Pacifico Seafood	Top Down	Comprehensive	4
Philippines yellowfin tuna – handline	Meliomar	Bottom Up	Comprehensive	4
* Indonesia Western and Central Pacific Ocean yellowfin tuna – handline	MDPI	Top Down	Comprehensive	5
* Shantou-Taiwan Chinese common squid – jigging/single trawl	China Blue	Top Down	Basic	4
Southwest Madagascar octopus – diving & gleaning	Blue Ventures	Bottom Up	Comprehensive	2
Belize spiny lobster – free diving and casitas	Future of Fish	Bottom Up	Prospective	1

* CEA Site Visit

CEA identified 10 FIPs actively trying to advance business improvements, primarily via key informant interviews and site visits (as of December 2019).

CEA is aware of additional activity that may not yet be reported on FisheryProgress, such as the work of Conservation International or Future of Fish. There also may be other long-running initiatives (e.g., SFP's bioeconomic modeling work) or in development (e.g., the status of Impact Blue's work) not reviewed here.

CEA

Business

FIPs do not appear to be increasing fisher profit or revenue directly

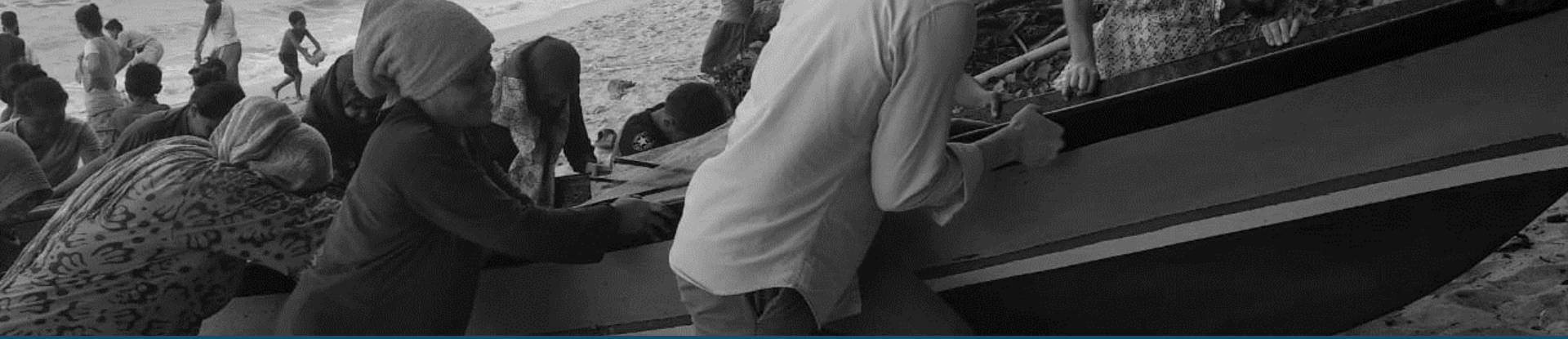
CEA's site visits and key informant interviews surfaced only three examples in which fisher profit or revenue demonstrably increased as a result of participation in the FIP:

- In the Fair Trade artisanal shrimp fishery in Mexico, Del Pacifico Seafood pays a 15 cents/kg premium to encourage participation in the Fair Trade program. This is in addition to the 6% price premium Del Pacifico pays to all participating fishers.
- A processor in Japan bids higher than the market value for tuna from one longline vessel that is involved in the FIP. Because all fish are sold on a spot market, the processor has to offer his FIP participant a premium to ensure he is able to secure a reasonable quantity of that vessel's catch, which serves as a reward for participation in the FIP process.
- A US shrimp processor pays slightly more for product from vessels participating in the FIP because trawl times are shorter and therefore product quality is higher.

The vast majority of CEA's key informant interviews and site visits, however, provided no evidence of increases in fisher profit or revenue as a result of FIP participation. This may be due to limitations of the key informant interviews and site visits, lack of evidence, both, or neither. The topic of incentives and benefits to producers is covered in more nuance in the Market Incentives section and merits further exploration.

CEA also heard some examples that may point to inequitable benefit distribution as a result of the FIP, but was not able to validate these claims without more information on the costs and revenues throughout each supply chain:

- CEA heard anecdotal evidence that a Fair Trade product is being marked up by US retailers significantly more than the premium that is paid to fishing communities.
- CEA uncovered anecdotal evidence that an industry association was funding its price-per-ton contributions to the FIP by paying producers less.
- An Asian processor suggested it benefitted financially from the FIP with no additional effort, without passing those benefits on to producers in the form of higher prices.



Appendices

1. Research questions
2. Approach and methods
3. Key informant and site visit interviews
4. Market incentives survey results
5. Market incentives survey
6. Bibliography

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Appendix 1: Research questions

Research Questions

FIP progress, impact, and effectiveness

Core Question	Sub-Question	Data Sources				
		Data Analysis	Desktop Research/ Literature Review	Key Informant Interviews	Site Visit	Survey
1. What contributes to FIP progress, impact, and effectiveness?	Which FIPs have been most successful in promoting sustainable reforms? Are there any commonalities among these? (2014 Question)	X	X	X	X	
	Which FIPs have transitioned into the MSC program? What common factors are/were shared among these fisheries? (2014 Question)	X	X			
	What FIPs have achieved change on the water? What were these? Where did they occur? Under what pre-existing conditions? (2014 Question)	X	X	X	X	
	What FIPs have achieved changes in policy? What were these changes? (2014 Question)	X	X	X	X	
	What changes have FIPs been most successful at catalyzing (e.g., gear reform, fishing practices, policy creation, social engagement, economic wellbeing)? (2014 Question)	X	X			
	What is the realistic reach of FIPs' scale within the Global South? (2014 Question)	X	X	X	X	
	For what commodities and in which countries in the Global South are FIPs likely to be effective tools? (2014 Question)	X	X	X	X	
	Does the number of industry entities engaged in a FIP contribute to FIP performance?	X		X	X	

Research Questions

FIP progress, impact, and effectiveness

Core Question	Sub-Question	Data Sources				
		Data Analysis	Desktop Research/ Literature Review	Key Informant Interviews	Site Visit	Survey
1. What contributes to FIP progress, impact, and effectiveness?	Does the type of lead implementer (e.g., NGO, industry, for profit 3rd party) in a FIP contribute to FIP performance?	X	X		X	
	Does engagement with fishers and community in a FIP contribute to FIP performance?	X	X	X	X	
	Does the funding source or total amount in a FIP contribute to FIP performance?	X		X	X	
	Does engagement with other (e.g., policy) NGOs in a FIP contribute to FIP performance?	X		X	X	
	Does the inclusion of social issues and/or business improvements in a FIP contribute to FIP performance?	X	X	X	X	
	Does the size (e.g., volume, geographic footprint) of a fishery in a FIP contribute to FIP performance?	X		X		
	Does the fishery type (e.g., artisanal vs industrial) contribute to FIP performance?	X		X		
	Does the species / commodity in a FIP contribute to FIP performance?	X	X	X		

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Research Questions

FIP progress, impact, and effectiveness

Core Question	Sub-Question	Data Sources				
		Data Analysis	Desktop Research/ Literature Review	Key Informant Interviews	Site Visit	Survey
1. What contributes to FIP progress, impact, and effectiveness?	Does the country of the fishery in a FIP contribute to FIP performance?	X	X		X	
	Does the national development level contribute to FIP performance?	X	X			
	Does the FIP type (basic vs comprehensive; top-down vs bottom-up) in a FIP contribute to FIP performance?	X	X		X	
	Does the trade orientation (e.g., destined US/EU markets? Non-engaged export market? Domestic?) of a FIP contribute to FIP performance?	X	X		X	
	Does engagement by SFP supply chain roundtable (or other precompetitive platforms) in a FIP contribute to FIP performance?	X	X		X	
	Does the scope of the FIP (single fishery, national, multi-national) contribute to FIP performance?	X		X		
	Does the governance strength of a FIP contribute to FIP performance?	X	X	X	X	
	Are there any other contributions to a FIP's performance that we may be missing?		X	X	X	

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Research Questions

FIP financing

Core Question	Sub-Question	Data Sources				
		Data Analysis	Desktop Research/ Literature Review	Key Informant Interviews	Site Visit	Survey
2. How do FIPs invest their resources?	Does funding amount or type effect FIP progress, effectiveness, or impact?	X				
	Which stakeholders fund FIPs (e.g., implementers, in-country partners, supply chain companies, major buyers, governments, aid agencies)?		X	X	X	
	How do stakeholders' structure FIP funding (e.g., grants, concessionary loans, market rate loans, equity investments, profit re-investment)?	X	X	X	X	
	How much do FIPs cost to run? How are costs shared among stakeholders? What is the funding mix by FIP and in aggregate?	X	X	X	X	
	Are there examples of non-grant making funding strategies that are utilized? How do those projects compare to grant funded projects?			X	X	
	Are there examples of FIPs that have attracted private, return-seeking capital? Are there examples of cost recovery and repayment models?		X	X	X	

Research Questions

FIPs and market incentives

Core Question	Sub-Question	Data Sources				
		Data Analysis	Desktop Research/ Literature Review	Key Informant Interviews	Site Visit	Survey
3. What market incentives motivate FIPs?	**End-buyers** How do FIP progress ratings inform retailer sourcing? How do retailers respond to FIPs with low grades?			X		X
	End-buyers What end buyers are fisheries able to access as a result of participating in a FIP?			X	X	X
	End-buyers Are end buyers willing to remove product lines from their shelves if they cannot find product that meets their sustainability requirements?					X
	End-buyers Do end buyers distinguish among FIP type and FIP progress?			X		X
	Mid-supply chain How do supply chain roundtables influence FIP progress or impact? Do they initiate and/or fund FIPs? Do they motivate FIP progress? Are FIP implementers aware that there is a supply chain roundtable for the FIP they are working on?			X		X
	Mid-supply chain What do mid-supply chain buyers require from FIPs when sourcing their product?					X

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Research Questions

FIPs and market incentives

Core Question	Sub-Question	Data Sources				
		Data Analysis	Desktop Research/ Literature Review	Key Informant Interviews	Site Visit	Survey
3. What market incentives motivate FIPs?	**Mid-supply chain** How can mid-supply chain companies push FIPs to make greater progress? To achieve MSC certification? What actions can mid-supply chain companies take?				X	X
	Mid-supply chain How are actors in the middle of the supply chain (not end buyers or producers) impacted by FIPs and the demand for sustainable seafood?				X	X
	Project-level stakeholders What are the different incentives for participating in a FIP? Does this increase commensurate with rigor or achievement?			X	X	X
	Project-level stakeholders Are there examples where stakeholders are engaged in FIPs that do not make progress but do receive market benefits?			X	X	
	Project-level stakeholders For FIPs whose product is predominantly destined for non-engaged markets (e.g., non-USA/Canada, Northern EU), what incentive exists to make meaningful progress?			X	X	

Research Questions

FIPs and market incentives

Core Question	Sub-Question	Data Sources				
		Data Analysis	Desktop Research/ Literature Review	Key Informant Interviews	Site Visit	Survey
3. What market incentives motivate FIPs?	**Project-level stakeholders** Why are there multiple FIPs operating in the same fishery? Are they duplicative and/or an inefficient use of resources? If so, what can be done to reduce/address this?			X		
	Project-level stakeholders Which local actors (i.e., fishers, fishing communities/co-ops, processors) receive measurable social and/or economic/financial benefits from FIPs?			X	X	
	Project-level stakeholders Which fisheries have made new market connections or received price premiums from participating in FIPs?			X	X	
	Project-level stakeholders Are there non-market benefits to fishers/local industry as a result of FIP participation?			X	X	

Research Questions

FIPs and fishery management

Core Question	Sub-Question	Data Sources				
		Data Analysis	Desktop Research/ Literature Review	Key Informant Interviews	Site Visit	Survey
4. How do FIPs advance fishery management?	What does government engagement in FIPs look like and what roles do they play?			X	X	
	How do FIPs engage fisheries managers and other government officials? Which approaches seem most effective at securing government engagement in a FIP?			X	X	
	Which FIPs have the strongest government support and engagement? What are the commonalities among those projects?	X		X	X	
	Are supply chain companies advocating for policy changes in source countries? Are there examples of instances where supply chain company advocacy has contributed to policy change?			X	X	X
	For FIPs that report policy changes in their fishery, what role did they play in the policy process? Are there examples of successful processes for driving policy reform or better enforcement through FIPs?	X		X	X	
	Does successful policy reform in one FIP lead to reforms in other fisheries without explicit engagement by actors in other fisheries?			X	X	

Research Questions

FIPs and social and business improvements

Core Question	Sub-Question	Data Sources				
		Data Analysis	Desktop Research/ Literature Review	Key Informant Interviews	Site Visit	Survey
5. What improvements are FIPs attempting to make beyond environmental improvements (i.e., social, business)?	**Social** What are social FIPs? In what ways do they operate differently than traditional FIPs? What indicators are used to track social progress?			X	X	
	Social How many FIPs are addressing social issues? What are the most common issues those projects are seeking to address?			X	X	
	Social Are there examples of FIPs engaging local communities and fishers to promote social outcomes?			X	X	
	Social What are the intended (and unintended) social impacts of FIPs?		X	X	X	
	Social Does FIP type (e.g., top-down vs bottom-up) impact where and how projects integrate social indicators?			X	X	
	Social What accountability to fishers is there if improvements that are agreed upon but are not realized?		X	X	X	

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Research Questions

FIPs and social and business improvements

Core Question	Sub-Question	Data Sources				
		Data Analysis	Desktop Research/ Literature Review	Key Informant Interviews	Site Visit	Survey
5. What improvements are FIPs attempting to make beyond environmental improvements (i.e., social, business)?	**Business** What are business improvement projects? In what ways do they operate differently than traditional FIPs? What indicators are used to track business progress?			X	X	
	Business What are examples of "business improvements?" Do they lead to better environmental performance of the fishery?		X	X	X	
	Business How many FIPs seek to improve commercial aspects of fisheries or their members? What examples are there of FIPs seeking to improve the business models of fishers or fisheries (aside from the promise of sustainable raw materials or traditional market benefits like access to new markets, sustainability premiums, etc.)?			X	X	
	Business Is there evidence that FIPs increase fisher profit or revenue?			X	X	

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Appendix 2: Approach and methods

Approach

Overall approach

To answer the research questions, CEA employed an approach similar to that of our research in 2015 by primarily using three research methods: (1) desktop research (literature review and data analysis), (2) key informant interviews, and (3) site visits interviews and observations.

(1) Study approach:

The approach of the review was to replicate approximately the 2015 review's approach. In 2019, we conducted a descriptive, mixed-methods summative strategic review of the FIP landscape, focusing on changes in environmental progress, funding, market incentives, fisheries management, and social- and market-related outputs, as well as key implementation factors. The study includes some assessment of "change over baseline," employing roughly similar research questions focused on FIP objectives, implementation, funding structures, fishery governance, and FIP non-environmental goals.

(2) Methods:

We used multiple methods to collect qualitative and quantitative data related to FIPs to answer our core research questions.

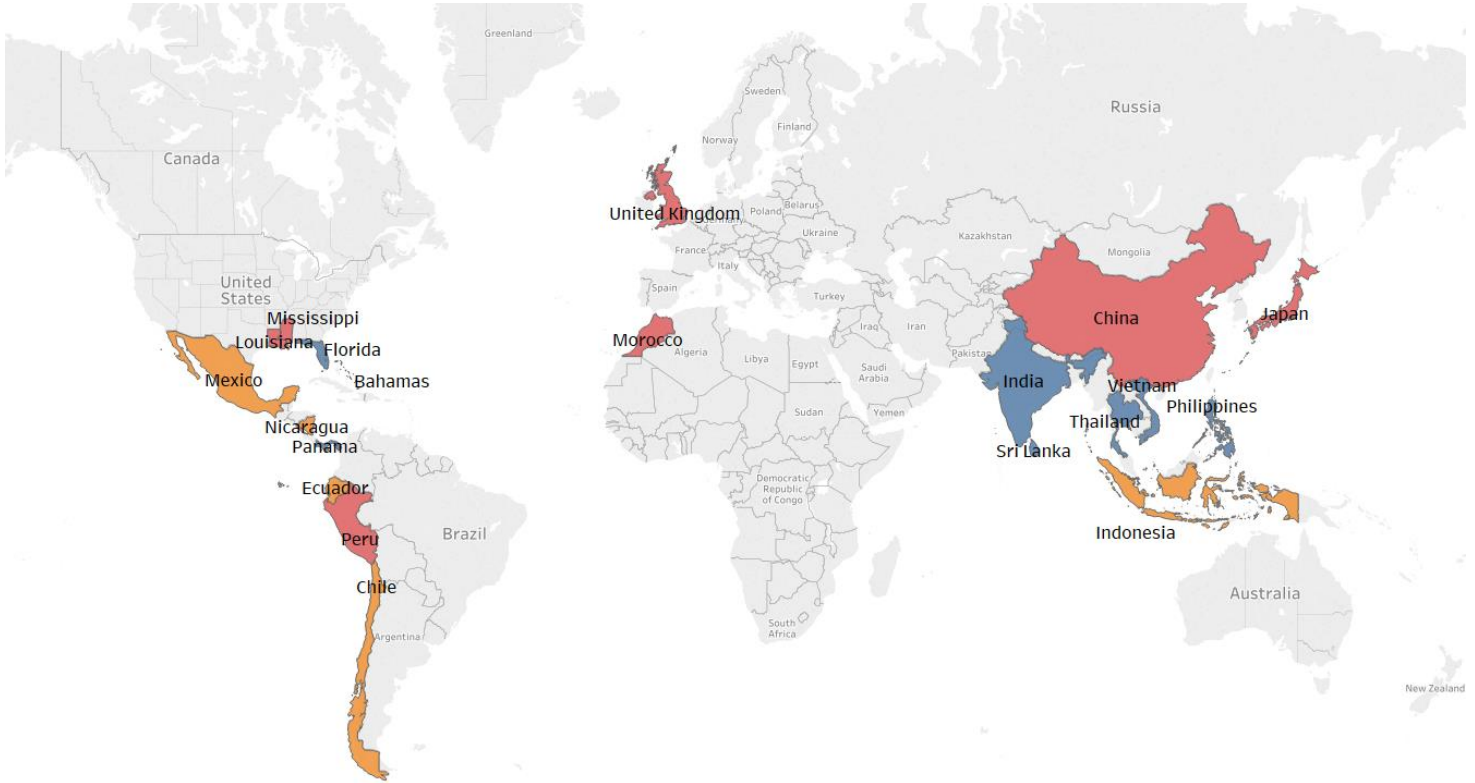
- The data analysis and statistical tests relied on public datasets that allowed us to draw summary inferences about what effects FIPs have had on their target fisheries and what factors have contributed to successful projects and change events. Other statistical analyses allowed us to generate findings that we further tested during key informant interviews and site visits.
- For our review of relevant public materials, we scanned the growing body of peer-reviewed literature associated with FIPs and other seafood market-related interventions as well as the gray literature, implementer publications, and other FIP-related documentation in service of answering our research questions. To find relevant literature, we relied on our own knowledge of the literature landscape, and we solicited additional papers and resources from advisors and key informants.
- CEA relied heavily on key informant interviews with stakeholders and experts in the FIP and seafood markets community to help us answer our research questions. We interviewed 239 individuals in the FIP community, including FIP implementers, seafood markets NGOs, industry, academics, and other key FIP stakeholders based on our understanding of the FIP landscape and recommendations from foundation staff, FIP implementers, and others in the FIP community.
- We employed a convenience sampling technique to select the 28 FIP site visits in 11 countries for this research, which allowed us to revisit a number of sites from the 2015 review, maximize sites per trip, reduce host burdens, and focus on regions of strategic importance to our clients. We sought to visits FIPs across a range of ages, implementer types and organizations, geographies, projects previously visited and not, and projects applying the model in different ways (e.g., to address social issues). Site visits were also contingent upon, and in some cases prevented by, stakeholder willingness to host. We developed unique interview guides for key informant interviews and site visit interviews. Notes generated from site visits were transcribed and digitally uploaded into a qualitative data analysis software (QDAS) for analysis (see below).

(3) Analytical approach:

- Site visits, phone-based key informant interviews, and a selection of email correspondence were documented, stored, and coded using the QDAS Dedoose. Over 2,500 excepts were extracted across 68 codes (described in the appendix). We synthesized these observations and extracted themes and trends within or coded thematic areas. These insights were compared with those observed in published and gray literature and were reviewed by the project's advisors and external reviewers.
- Our quantitative analysis explored questions of correlation and causality using publicly available and CEA-generated data. In general, we sought to understand what FIP characteristics could predict changes in stock health and management indicators and which were correlated with changes in MSC performance indicators. Our methods replicated and attempted to advance those already published in scientific literature on the topic. We also sought to describe trends in FIP implementation over time using descriptive statistics and limited statistical tools.

Approach

Our 2019 travel included revisiting 6 countries from our 2015 review, plus an additional 5 new geographies.



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Approach

Desktop research and key informant interviews

Quantitative research

Data analyses used various public and private datasets (e.g., FisheryProgress, FIP DB, CEA's internal FIP database) that allowed us to infer what effects FIPs have had on their target fisheries and what factors have contributed to improvements. Our goal was to use publicly available data and transparent methods to generate insights about what factors best predict FIP progress and, where possible, to determine whether FIPs are an effective tool to create impact on the water.

Qualitative research

For our review of public materials, we scanned the small but growing body of peer-reviewed literature associated with FIPs and other seafood market-related interventions. These informed our own research on FIPs' progress, impact, and effectiveness. In addition, we scanned the gray literature, implementer publications, and other FIP-related documentation to help answer our research questions.

Key informant and site visit interviews

Throughout the year, we interviewed key stakeholders on Skype, by phone, and in-person. We spoke with FIP implementers, fishery representatives, industry members, academics, and other relevant individuals in the FIP community.

We used a semi-structured interview approach using a pre-scripted interview guide that provides both a degree of comparability as well as the ability to dig deeply into important, additional topics. We worked with Dr. Jacqueline Berman to review and implement best practices for phone interviews and in-person interviews.

From our understanding, we conducted the largest key informant interview sample in the FIP community to date, with 219 interviews completed. Some interviews included multiple individuals, bringing our total number of interviews competed to 239.

Number of Completed Phone Interviews: **77**

Number of Completed Site Visit Interviews: **142**

Total Duration of Interviews: **>267 hours**

FIP Implementer Interviews as a Percentage of Total Interviews: **19% (46)**

Industry Member Interviews as a Percentage of Total Interviews: **26% (62)**

NGO Interviews as a Percentage of Total Interviews: **35% (83)**

Government Official Interviews as a Percentage of total Interviews: **13% (30)**

Geography-specific Interviews (178 of 239 total): South and Southeast Asia (49), North America (48), South America (44), Northeast Asia (20), Europe (10), Africa (7)

Methods

Overview

The CEA research team developed a matrix that aligned each data source with key research questions to ensure the study could address all questions.

Core Question	Data Sources					Overview of Methods
	Data Analysis	Literature Review	Key Informant Interviews	On-Site Observations and Site Visit Interviews	Survey	
1. What contributes to FIP progress, impact, and effectiveness?	X	X	X	X		Reviewed key data sources in addition to original data analysis to answer these questions. Key informant interviews and site visits provided additional perspectives.
2. How are FIPs funded?	X	X	X	X		Reviewed FIP budgets anonymized from FisheryProgress to answer these questions. Key informant interviews and site visits provided additional perspectives.
3. What market incentives motivate FIPs?			X	X	X	Developed market incentives survey, in addition to utilizing key informant interviews and site visits to answer these questions.
4. How do FIPs advance fishery management?	X	X	X	X		Reviewed academic literature and performed data analysis, in addition to utilizing key informant interviews and site visits to answer these questions.
5. What improvements are FIPs attempting to make beyond environmental improvements (i.e., social, business)?		X	X	X		Relied primarily on key informant interviews, site visits, and social and business FIP implementing organization documents to answer these questions.

Methods

Overview

Quantitative data analysis

Our data analysis involved recreating statistical tests from peer-reviewed literature (where possible) using publicly available data sources. In addition, we completed statistical tests of correlation and causation using the publicly available FIP DB and transcribed data from FisheryProgress.org. We also explored trends in data using CEA's proprietary FIP database, which includes FIPs that are not publicly reporting.

Literature review

A component of our approach for the 2019 FIP review included a review of relevant public literature. Our list of peer-reviewed literature included recommendations from our advisors, philanthropic funders, and other NGOs, stakeholders, and academics in the seafood markets and FIP community. Our review of these documents helped us both to better understand the seafood markets and FIP landscape and its broader context and to identify additional experts for interviews.

Key informant interviews

CEA created phone interview guides from the list of research questions and our previous experience from the 2015 FIP review. CEA utilized a semi-structured interview guide for phone and site visit interviews that allowed specific questions to be addressed while providing flexibility for new insights to shape the interview. The majority of interviews lasted 60 minutes.

CEA built upon our 2015 key informant interview list and updated it based on professional experience and knowledge of the space as well as recommendations from foundations, advisors, and other experts in the field. We conducted interviews in person and through video and audio calls. CEA took typed notes, which were not recorded and transcribed. Notes were cleaned and merged (when needed), uploaded, and coded in Dedoose.

On site observations and site visit interviews

CEA determined that a convenience sample approach—selecting sites based on particular criteria—was best because it provided us the opportunity to accomplish the following goals: collect longitudinal data, visit the maximal number of sites, focus on key projects and regions, and minimize burden on implementers. Additional selection considerations included: 1) priority countries for the Packard, Walton, and Moore foundations, 2) availability of FIP implementers, hosts, interpreters, and key stakeholders, 3) seasonal considerations, 4) religious holidays, and 5) distance and flying time.

CEA developed a site visit guide based on the phone interview guide and previous FIP site visit experience. Site visits were coordinated with FIP implementers to interview relevant FIP stakeholders. During site visits, FIP implementers joined CEA during most in-person meetings, providing interpretation as needed, or other interpreters were utilized for consecutive and simultaneous interpretation. Detailed written notes were typed, merged, and uploaded and coded in Dedoose.

Qualitative data analysis

Key informant interviews, site visit interviews, and literature were uploaded in Dedoose. Once reviewed, excerpts were tagged with relevant codes and themes to help answer our research questions and reflect trends in the FIP space. The comprehensive coding and exploration of the qualitative data was then reviewed against relevant literature, survey data, and secondary data.

Market incentives survey

CEA developed and distributed a survey directed at industry members with the support of our advisors to help us answer many of our market incentives research questions. Results were analyzed using descriptive statistics and statistical tests.

Methods

Key informant interviews

Key informant interview guide development

CEA created phone- and site visit-specific key informant interview guides from the list of research questions and our previous experience from the 2015 FIP review. Our advisors reviewed and provided feedback on the key informant interview guide, which was incorporated into the final version.

CEA utilized a semi-structured key informant interview guide for phone and site visit interviews to allow specific questions to be addressed while providing flexibility for new insights to shape the interview. Key informant interviews lasted between 30 minutes and 5 hours, with the majority of interviews lasting about 60 minutes.

Key informant interview methods overview

Key informant selection: CEA built upon our 2015 interviewee list and updated it based on professional experience and knowledge of the space as well as recommendations from foundations, advisors, and other experts in the field. CEA prioritized initial calls to focus on known senior leaders in the field to provide high-level context, before turning to experts on certain geographies, FIPs, and topics.

Key informant interview method: We conducted video calls when possible and audio calls when needed. Interviews were one- or two-person semi-structured interviews with a roughly templated introduction and a series of pre-written questions to provide structure, but CEA interviewers were charged with guiding the interviews in the best direction. CEA took typed notes, which were not recorded and transcribed. Notes were cleaned and merged (when needed), uploaded, and coded in Dedoose. Interview guides can be provided upon request.

Methods

Site visit interviews and observations

Site visit selection

CEA collaborated with our advisors to determine the appropriate approach for selecting site visits for this review. We determined that a convenience sample approach—selecting sites based on particular criteria—was best because it provided us the opportunity to accomplish the following goals:

Collect longitudinal data: A convenience sample permitted us to revisit as many sites as we could, which provided a unique longitudinal data collection opportunity. Part of our mandate was to reflect on what has changed in FIPs over the last five years; revisiting sites was essential to success on this front.

Visit the maximal number of sites: Any type of random selection process would have limited our ability to see projects proximate to one another. Given our limited budget and time, we valued the ability to maximize the number of sites we could visit and perspectives we could collect in a given geography in order to gather as much local data as possible.

Focus on key projects and regions: Our assignment was primarily research in service of our clients' strategies, not a formal evaluation, so retaining the ability to focus on key regions or specific projects prioritized by our clients was more important than the benefits gained from a more restrictive sampling technique.

Minimize burden on implementers: Site visits were hosted by local FIP stakeholders, and these individuals and their projects often had various constraints that limited our ability to visit, especially during a pre-set travel window (e.g., recently hosted other consultants/funders/buyers, out of town/region, busy with other obligations). The flexibility of a convenience sampling approach allowed us to work with willing hosts to visit projects that were within the limits of our travel and budget.

Additional selection considerations included: 1) priority countries for the Packard, Walton, and Moore foundations, 2) availability of FIP implementers, hosts, interpreters, and key stakeholders, 3) seasonal considerations, 4) religious holidays, and 5) distance and flying time.

Site visit approach

CEA developed a site visit guide based on the phone interview guide and previous FIP site visit experience. We coordinated in advance with lead FIP implementers in a given country and requested opportunities to speak with relevant FIP stakeholders such as fishers, fisher cooperatives, local processors and traders, local government, regional government, national government, NGOs and certifications, and academics. FIP implementers arranged meetings with available stakeholders, as well as the general agenda for the visit. CEA coordinated the overall trip itinerary around multiple FIP visits per country, when possible. In advance of the visit, CEA reviewed FisheryProgress documents, such as pre-assessments, scoping documents, workplans, and participant lists, as well as 2015 CEA FIP review notes, where available. In addition to the site visit interview guide, we used a site visit data collection form to identify key information necessary to collect. During site visits, FIP implementers joined CEA during most in-person meetings, providing interpretation as needed, or other interpreters were utilized for consecutive and simultaneous interpretation. Detailed written notes were typed, merged, and uploaded to our qualitative data analysis software, Dedoose, to be reviewed and for excerpts to be tagged with relevant codes and themes. The comprehensive coding and exploration of the qualitative data was then reviewed against relevant literature, survey data, and secondary data analysis.

Site visit interview method

Site visit key informant selection: CEA relied on FIP implementers to coordinate in-person meetings with FIP stakeholders we requested and they suggested.

Site visit interview method: In-person site visit interviews included one to two CEA team members utilizing a semi-structured interview format with a roughly templated introduction and a series of pre-written questions to provide structure. CEA interviewers were charged with guiding the interview in the best direction. CEA took typed notes and did not record and transcribe interviews. Notes were cleaned and merged (when needed), uploaded, and coded in Dedoose. Interview guides can be provided on request.

Methods

Limitations

Topic	Limitation
CEA as a research entity:	• CEA has conducted research pertaining to the sustainable seafood movement for more than 15 years and on FIPs since 2012. Our involvement includes research and projects related to FIPs for each of the three foundations over the years. We have previously been hired by funders and implementers of FIPs to provide strategic guidance and research. This history and engagement in the space is a strength, yet we also recognize that we come into this research with pre-existing knowledge and opinions about FIPs.
Research process:	• CEA has shared pieces of feedback with advisors, as necessary, to validate methods and to interpret findings in a statistically rigorous way. • This FIP review is a strategic research piece, not a formal evaluation. Although we did seek guidance from our advisors, our selected approach and methods are reflective of this.
Phone interviews:	• CEA identified individuals for phone interviews initially through our understanding of the FIP landscape. We identified FIP stakeholders, implementers, and thought leaders we already knew of or were familiar with, in addition to utilizing recommendations from funders and key informant interviews to build our interview list. Because phone key informants were not selected through a random sample, they may not be representative of broader opinions and insights across the FIP community. We aim to create a set of interviews that are reflective of diverse opinions on FIPs. • We found contradictions across interviews by different sectors, levels of expertise, geographies, and other stakeholder differences. This is reflective of the diverse opinions that exist about FIPs around the world. • We took detailed written notes during interviews rather than audio recordings or transcriptions. As such, it is possible that we may not have captured all detail and nuance from each interview.
Site visit selection approach:	• Since a convenience sample is neither representative nor random, we cannot generalize to other FIP sites based on our selected site visits. • Site visit opportunities likely reflect some self-selection by those implementers that have the time, resources, and desire to be visited; and those that did not were not prioritized. • We focused on visiting countries that matched funder priorities as well as where FIPs were reported on FisheryProgress. There may be additional FIPs that did not fit these criteria that would still be important to visit to better understand the FIP landscape. • FIP implementers and other stakeholders may have perceived that they were being “evaluated,” and behavior may have changed as a result. • There was a possible bias toward visiting well-performing FIPs as poor performers may not accommodate a site visit.

Methods

Limitations

Topic	Limitation
Site visit interviews:	• The CEA research team considered it best practice to use interpreters who are unfamiliar with site visit key informants to avoid power dynamics and biased answers, where possible. However, due to the difficulty of coordinating FIP site visits in various countries and budget limitations, CEA often relied on FIP implementers to provide interpretation services to overcome language barriers and to build trust with site visit key informants. We took detailed written notes during interviews rather than making audio recordings or transcriptions, and we may not have captured all detail and nuance from each interview.
Market incentive survey:	• We had limited responses (53) to the survey, and we recognize that survey respondents are likely biased in favor of having a strong opinion about FIPs, particularly a favorable opinion.
Quantitative research and data analysis:	• FIP data bias toward progress: The presence of a FIP in a fishery implies that at least one implementer thought that there was a possibility for reform in the fishery, either because of the actors, management capacity, market orientation, or another reason. Accordingly, comparing FIPs to non-FIP fisheries likely provides a bias in favor of more improvable fisheries. To be able to track a FIP at all implies a level of data that is not present in all of the world's fisheries, although larger, more challenging FIPs have been tackled more in an attempt to reach the T75 goal of sustainability. • Our ability to attribute change to FIP actions is based solely on professional judgment: No characteristics on FisheryProgress assess whether changes made are attributable to the FIP. We worked to determine through document review whether changes made in a FIP are attributable to the actions of the FIP, including such actions as document discovery or taking credit for changes already happening in the fishery. • We assume self-reported progress on FisheryProgress maps to actual progress within the fishery: The analyses completed have used FisheryProgress FIP stage and principal indicator changes reported by FIPs. These are proxies for changes to the fishery and assume that more reported changes and higher-stage achievement represents improving fisheries. • Data on fisheries not engaged in FIPs was extremely limited (10% of available data), so our quantitative analysis is limited in its ability to differentiate changes in stock health, management, and compliance against a counterfactual. This limits the ability to extrapolate quantitative results or to measure the relative contribution of FIPs versus other fisheries reform measures to improving fisheries health.

Methods

Data analysis

To supplement the analyses already completed by peer-reviewed literature, our data analysis sought to answer a number of questions about FIP progress, effectiveness, and impact. Our analysis used some new data sources and relied primarily on multivariable regressions to answer questions about factors that contribute that FIP effectiveness and impact. To ensure replicability, we used only publicly available data sources.

We mapped the data sources to our research questions with the help of our advisors. Where previous analysis has been completed, we used peer-reviewed literature in addition to different data or methods to try to validate, challenge, or contribute to the findings of previous analyses. For most of the statistical tests, we used both FIP DB (developed by the University of Washington) and a FisheryProgress stage change dataset (tabulated by CEA from FisheryProgress) to run analysis of variance and multivariable tests, mirroring the publicly available data used in previous analyses. The results indicated whether several characteristics, including host country, commodity, implementer, or participants, are correlated with progress and impact. In addition, we ran a differences-in-differences test using FIP DB to test whether involvement in a FIP led to better outcomes on the water, using Fish Source scores as measures of fishery health. More specific methodology is detailed in the Progress, Impact, and Effectiveness sub-section.

Note on reporting cumulative FIP counts

Due to timeseries data limitations, yearly FIP count represented in the Data Trends section of this report count the cumulative number of projects by their initiation year and their current status (i.e., active or complete vs inactive). FIP count for a given year is not based on the number of FIPs active in that specific year. For example, the 2 FIPs identified in 2006 were both successfully completed (i.e., MSC certified). The 6 FIPs represented in 2007 include the 2 FIPs from the previous year plus 4 additional FIPs started in 2007 that have since remained active or were completed. FIPs that started but have since gone inactive are designated in the inactive count beginning in the start year because for most FIPs it is impossible to know in what year they transitioned from active to inactive. This means, for example, that if a FIP began in 2014 and went inactive in 2016, it is not represented as active in 2014 or 2015; it is counted among inactive FIPs starting in 2014. In this way, the number of active FIPs represented for each year underestimates the total number of FIPs that were active in that year, because multiple projects active that year have likely since gone inactive and are therefore counted in the inactive count in our data. Active and completed FIP counts are more accurate for recent years and reflect the actual number of active and completed FIPs in 2019.

Methods

Data analysis

Key data sources overview

To answer questions around progress, effectiveness, and impact, CEA both summarized relevant peer-reviewed literature and analyzed publicly available FIP data. Our objective was to advance the field's current understanding of FIPs through this research.

- **Fishery Improvement Projects Database (FIP DB)**: Created by Sustainable Fisheries Partnership (SFP), now managed in tandem with the Hilborn lab at the University of Washington. FIP DB contains information about historical and active FIPs, the fisheries where FIPs operate, and the implementing organizations of the FIP. A full explanation of FIP DB, including its sources and uses, is available in Appendix A: Overview of FIP DB.
- **SFP gear-flag profiles dataset**: Information about the FishSource score(s) regarding the health and management of fisheries for both those engaged in FIPs and a subset of those not engaged in FIPs.
- **FIP budget information:** Provided by FisheryProgress, this anonymized data on a subset of FIP-engaged fisheries was shared with CEA. Implementer expenditure information for 35 FIPs, shared anonymized with CEA for this analysis. In some limited cases, funding information is also provided.
- **CEA Database of FIPs:** Created by CEA using FisheryProgress data and information about FIPs shared directly with CEA by FIP implementers. Contains much of the same information as FisheryProgress in addition to a few other dimensions such as bottom-up/top-down. Dataset is not currently public but could be made so as part of this analysis.
- **FisheryProgress datasets**: Overseen by an advisory committee and managed day to day by FishChoice, the Conservation Alliance for Seafood Solutions developed the guidelines that are the foundation for the dataset. FisheryProgress tracks the stages and progress of FIPs, historical and active.
    - **Fishery Profiles Dataset:** This dataset provides the most updated publicly available information on the stage and self-reported progress of FIPs.
    - **Performance Indicator Change Dataset:** FisheryProgress tracks the rationale for each performance indicator change reported by FIPs. These changes equate to Stage 4 or 5 achievements, depending on the indicator. While this data is available on FisheryProgress, it was exportable. CEA manually transcribed the data from FisheryProgress into a usable dataset on May 12, 2019.
    - **Progress rating database**: SFP collects a dataset on monthly progress ratings of each of its FIPs, allowing users to examine changes in ratings over time. This dataset was shared in a monthly newsletter email from FisheryProgress.

Methods

CEA combined data from two publicly available databases with CEA-collected data for more comprehensive analyses

To supplement the analyses already completed by peer-reviewed literature, our analysis seeks to answer several questions about FIP progress, effectiveness, and impact. Our analysis uses some new data sources and relies primarily on single and multivariable regressions and power correlations to answer questions about factors that contribute to FIP effectiveness and impact. We have used only publicly available data sources to this point.

Generalized questions	Research questions	Data sources
Do FIPs work?	• Do fishery health measures improve more in FIPs than non-FIP fisheries? • Do FIPs work better or more quickly than other types of fisheries reforms? • What is the opportunity cost of engaging with FIPs relative to other types of reforms?	• SFP gear-flag profile dataset • FIP DB • FishSource publicly available data • FisheryProgress health data
Does a FIP's structure matter?	• Does the age of a FIP matter? • Is there a difference in progress between basic and comprehensive FIPs? • Does scale (industrial, artisanal, small-scale) of the fishery impact progress? • Does the scope of the FIP (fishery-level, stock-level) impact progress? • Is a fishery's volume correlated with progress? • Do social or business components impact progress?	• FIPs from FIP DB • FIP scale from FIP DB • FIP scope from FIP DB • FisheryProgress stage change database
Does country matter?	• Does a country's development status impact FIP progress? • Does a country's fisheries governance ability impact FIP progress? • Is a FIP's continent correlated with its progress?	• FIPs from FIP DB • FisheryProgress stage change database • Ray Hilborn Fisheries Management Index • OECD Development Status
Do participants matter?	• Does the number of participants in a FIP impact progress? • Does the type of implementer impact progress? • Does industry engagement impact progress? • Does the participation of NGOs that directly advocate for policy reform impact progress? • Does a FIP's engagement with an SR impact progress?	• FIPs from FIP DB • FisheryProgress stage change database • Participant data from FIP DB • SR participation data from FIP DB
Does commodity matter?	• Does a FIP's commodity impact progress? • Does a FIP's market orientation impact progress?	• FIPs from FIP DB • CEA categorization of commodities based on taxa
How do FIPs progress?	• What is the distribution of FisheryProgress ratings? • Are FIPs with a C progress rating more likely to stall or improve? • What is the average amount of time spent in a stage?	• FIPs from FIP DB • SFP progress ratings dataset • FisheryProgress dataset

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Methods

Known limitations associated with data analysis

FIP data bias toward progress.

A FIP's presence in a fishery implies that at least one implementer thought there was a possibility for market-based reform in the fishery, either because of the actors, management capacity, market orientation, or another reason. For this reason, comparing FIPs to non-FIP fisheries may establish a bias in favor of fisheries that have already been assessed for possibility to improve, and that implementers have shown interest in. To be able to track a FIP at all implies a level of data that is not present in all of the world's fisheries.

Our ability to attribute change to FIP actions is based solely on professional judgment.

No characteristics on FisheryProgress assess whether changes made are attributable to the FIP. We are working to determine through document review whether changes made in a fishery are attributable to the actions of the FIP, including such actions as document discovery or taking credit for changes already happening in the fishery. This is tricky because FIPs do not work in isolation—they often work in tandem with other reform efforts happening in the same or related fisheries.

We assume self-reported progress on FisheryProgress maps to actual progress within the fishery.

To date, the analyses completed have used FisheryProgress FIP stage and performance indicator changes reported by FIPs. These are proxies for changes to the fishery and assume that more reported changes and higher-stage achievement represent improving fisheries. Since the last review, comprehensive FIPs now require third-party assessments every three years, which will help ground-truth self assessments in those fisheries.

Data quality and consistency varies considerably.

Data on fisheries' health is limited, even for fisheries where active interventions are taking place. Our analysis (and the analyses of other scholars in this space) is limited by the number of fisheries that are not engaged with FIPs for which we have health data. Non-FIP fisheries where we have health data are biased in favor of relatively well-managed stocks, and in favor of areas with good governance regimes, where stock assessments and data tracking are possible. Better understanding of FIPs' efficacy (and the efficacy of other fisheries interventions) will continue to be contingent on the availability of fisheries data generally.

Methods

Qualitative data analysis methods

Qualitative data analysis software: Dedoose

CEA's advisors recommended that we use a QDAS to analyze the multitude of phone and site visit interviews we would conduct over the course of the year. Our QDAS of choice was Dedoose. Dedoose is a web-based application for managing and analyzing qualitative and mixed methods research. Dedoose allowed CEA to use named codes to tag excerpts from key informant interview notes, FIP implementer materials and reports, and more to help us better analyze FIP-related themes to answer our research questions. We identified the following codes and sub-codes based on our core research questions and other themes that emerged throughout the project.

FIP Progress	FIP Financing	Governance	Market Incentives	Other Themes	Social
• Challenges • Comprehensive vs. basic FIPs • Duplicative FIPs • Examples of impact • Failed/stalled FIPs • FIPs and MSC • Fishery associations • Policy NGOs • Precompetitive collaborations • Top-down vs. bottom-up FIPs	• Alternative funding sources • Budgets/ expenditures • Commodity-specific • Funding mechanism • Government funding • Implementer type • In-kind contributions • Industry funding • Limits/ requirements • Philanthropic funding • Return-seeking investment	• International • Market as governance • National • Regional and local • RFMOs	• End buyer • Local industry and producers • Market benefits • Mid-chain • Risks • SFP progress ratings	• FIP specific • FisheryProgress.org impressions • Implementer related • Other noteworthy insights • Questions • Reflections on 2015 report • SFP Progress ratings • Small-scale fisheries • Traceability efforts	• Conservation International FIPs • Effectiveness • Fair Trade • Food security • Impact • Jobs/livelihoods • Partners • Tools • Unintended consequences

Methods

Market incentives survey development & distribution

CEA developed and distributed a survey directed at industry members to help us answer many of our market incentives research questions.

The many iterations of the survey incorporated feedback from the CEA team as well as our advisors and other external reviewers. We also worked with numerous stakeholders in the Conservation Alliance for Seafood Solutions community to distribute our survey to as many industry representatives as possible.

We summarized the 53 results of the survey in this report using descriptive statistics and used it to generate insights on incentives for market participation. Additional statistical analyses may be completed with Helen Packer moving forward for scientific publication.

Methodology:

- Initial survey was drafted by CEA with support from our advisor Helen Packer to include questions framed in the negative and positive, to reduce response bias.
- Survey was reviewed and questions were updated to incorporate feedback. Then, survey questions were mapped to research questions and supplementary questions added to fill any gaps.
- Survey was created in Survey Monkey.
- Focus group testing occurred through the support of Jesse Marsh (Scaling Blue), Dave Martin (SFP), Mark McPherson (Anova Seafood), Ashley Greenly (FishWise), Marta Bravo (CEA), Sam Grimley (SFP), and Jacqueline Berman (advisor). Feedback was provided to CEA.
- Focus group edits to survey questions were integrated into the survey.
- Final survey was sent to the following individuals for distribution in May 2019:
  Sam Grimley – SFP (sent to 20+ partners)
  Caroline Tippett & Michael Griff – WWF (sent to 17 partners across North America, Europe, and Australia)
  Ashley Greenley – FishWise (sent to 8 partners)
  Rich Boot – Fish Choice (sent to 300 companies)
  Shawn Cronin – Seafood Watch
  Oliver Tanqueray – Client Earth/SSC
  Kristin Sherwood – FisheryProgress
  Mark MacPherson – Anova Seafood (offered to distribute the survey through his professional network)
  Adriana Sanchez – Fair Trade (distributed the survey to her personal industry newsletter)
- The final survey was translated into Japanese by Chizu Fujii at the recommendation of Eri Oki, Japan Advisor to the Conservation and Science Program at The David and Lucile Packard Foundation. The survey was translated into Spanish by Andrea Moreno (CEA contractor).
- Through the support of Ned Daily of Diversified Communications, CEA hosted a webinar on 6/25/19 that allowed us to distribute the survey to a wide range of >1,000 seafood companies and other stakeholders.

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Appendix 3: Key informant and site visit interviews

Key Informant and Site Visit Interviews

FIP implementers interviewed

Organization Name	Type	Region	New FIP Implementer*
Audubon Nature Institute's Gulf United for Lasting Fisheries	NGO	United States	X
Atlantic Groundfish Council	NGO	Canada	
Blue Ventures	NGO	Madagascar	
Blueyou	Consultancy	Philippines, Mexico	
CeDePesca	NGO	South America, South East Asia	
China Blue Sustainability	NGO	China	X
Comunidad y Biodiversidad, A. C.	NGO	Mexico	X
Conservation International	NGO	Various	X
Ecos Research Center	Consultant	Chile	X
Future of Fish	NGO	Various	X
International Pole & Line Foundation	NGO	Brazil, Ecuador, Indonesia, Maldives	
Key Traceability	Consultancy	Mauritania	X
MDPI	NGO	Indonesia	
Marine Stewardship Council facilitation	NGO	UK	X
Ocean Outcomes	NGO	China, Japan, South Korea	
Ontario Commercial Fisheries' Association	NGO	Canada	X
Pelagikos Private Limited	Consultant	Sri Lanka	
ProNatura Noroeste A.C.	NGO	Mexico	X
Qingdao Marine Conservation Society / Tao Ran	NGO	China	
Seafood Legacy	NGO	Japan	X
Sustainable Fisheries Partnership	NGO	Various	
Sustainability Incubator	Consultant	Various	
The Nature Conservancy	NGO	Various	X
World Wildlife Fund	NGO	Various	

*New FIP Implementer since 2015 Global Review of Fishery Improvement Projects
Note: Key Traceability and Sustainability Incubator are funded by industry.

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Key Informant and Site Visit Interviews

FIP implementers not interviewed (excluding company-led FIP implementers)

Organization Name	Type	Region	New FIP Implementer*
Association of Seafood Producers	NGO	Canada	X
ForSea Solutions	Consultant	Russia	X
Instituto Brasileiro de Desenvolvimento e Sustentabilidade	NGO	Brazil	
Intercultural Center for the Study of Deserts and Oceans	NGO	Mexico	X
Marine Applications	Consultant	Ireland	X
Overseas Fisheries Development Council of the Republic of China	NGO	Taiwan	X

*New FIP Implementer since 2015 Global Review of Fishery Improvement Projects

Key Informant and Site Visit Interviews

Key informant interviews

Name	Organization
Abdul Muis	AP2HI
Achmad Mustofa	WWF Indonesia
Agus Saputra	SFP
Aik Wulandari	APRI
Alexander Ford	FAO
Alfonso Miranda	CALAMASUR
Alfredo Cuevas	Federación Regional de Organizaciones de Armadores Artesanales Pelágicos de la Región de Los Lagos
Alkis Pantelis Palinginis	Santa Monica Seafood
Amnuska Velez	Sub-secretarait de Recursos Pesqueros
Ana Guzman	Conservation International
Ana Maria Frias	Cooperativa La Pobre de Dios
Ana Paola Rivas	Contramar
Ana Victoria Paniagua	National Chamber of Exporters of Fish and Aquaculture Products, Costa Rica
Andrew Bassford	Marine Change
Andy Shen	Greenpeace
Armando Camacho	Contramar
Arturo Gonzalez	PRODUCE (Peru)
Ashley Apel	Fair Trade USA
Bernadion Munoz	CONAPESCA (Mazatlan)
Beshlie Pool	South Devon & Channel Shellfishermen Ltd
Bill Fox	WWF
Billy Evans	BICU
Bruce Beagle	ProMarMex

Name	Organization
Buru FT Fisherman 1	Buru FT FA
Buru FT Fisherman 2	Buru FT FA
Cameron Moffat	Youngs Seafood
Carlos Torrescano	ProNatura
Carmen Guerrero	CeDePesca
Caroline Tippett	WWF
Cecilia Blasco	SmartFish
Chen Wenxiong	Hypo Seafood
Christiane Schmidt	SFP
Christo Hutabarat	SFP
Claire Pescod	McDuff Shellfish
Clarus Chu	WWF-UK
Claudio Barrientos	CeDePesca
Claudio Pichaud	Crab Productive Committee of Ancud
Damon Colella	HelloFresh
Dave Martin	SFP
David Parker	Blue Ventures
David Veal	American Shrimp Processors Association
Deirdre Duggan	MDPI
Derrick Nagle	Big Easy Foods
Dessy Anggraeni	SFP
Dick Jones	Ocean Outcomes
Diego Orellana	UNDP
Duncan Leadbitter	Independent consultant
Eddy Reyes Leiva	Santa Monica Seafood
Edgar Chumoro	INPESCA

Key Informant and Site Visit Interviews

Key informant interviews

Name	Organization
Elena Finkbeiner	Conservation International
Emi Morimatsu	Seiyu
Emma Plotnek	WWF Chile
Eric Knudsen	Ecologists Without Borders
Ernesto Godelman	CeDePesca
Evlin Ramierez	INAPESCA
Fabian Mollet	BlueYou
Fang Mingcong	Zhangzhou Aquatic Processing and Distribution Association (ZAPPMA)
Fernando Arce	DPM Juan Pablo
Fernando Ghersi	TNC Peru
Fernando Rey	WWF Ecuador
Francisco Aravena (President)	Federación Regional de Organizaciones de Armadores Artesanales Pelágicos de la Región de Los Lagos
Francisco Fernandez	COBI
Gabriela Anaya	Impacto Colectivo
Gabriela Buscar	Aquachile
Gayatri Reksodihardjo-Lilley	LINI
Geerry Kosashi	PT Intan
Geoffrey Muldoon	WWF Australia
Giusella Munoz	SUBPESCA
Gonzalo Olea	Ecos Research Center
Guillermo Moran	TUNACONS
Guillermo Rodriguez	Ocean Garden

Name	Organization
Han Han	China Blue Sustainability
Hawis Maduppa	APRI
Hoyt Peckham	Ocean Outcomes
Iain Pollard	Key Traceability
Ibu Rani	PT Hatindo
Indah Rufiati	Blue Ventures
Ivan Martinez	Ocean Outcomes
Jack Kittinger	Conservation International
Jack Whalen	SFP
Jada Anderson	Wilderness Markets
Jake Kritzer	EDF
Jan Yoshioka	Conservation International
Javier Ampuero (President)	Crab Productive Committee of Ancud
Javier Van Cauwelaert	SmartFish Inc.
Jaz Simbolon	MDPI
Jeff Bodin	Maolia
Jen Cole	FishWise
Jeremy Crawford	IPNLF
Jeremy Parker	IPNLF
Jim Cannon	SFP
Jim Portus	SWFPO Ltd
Jimmy Anastacio	Camara Nacional de Pesqueria
Jo Gascoigne	Independent consultant
Jo Pollett	Marine Stewardship Council
John Keeler	Blue Star

CEA

Key Informant and Site Visit Interviews

Key informant interviews

Name	Organization
Jorge Farais	SUBPESCA
Jorge Risi	Sociedad Nacional de Pesquería
Jos Pet	TNC Indonesia
Jose Castro	SERNAPESCA
Jose Luis Carrillo	Federacion Regional de Cooperativas del Centro-Poniente del Estado de Yucatan
Jose Rodriguez	Costa Rican Fisheries Institute (INCOPESCA)
Jose Sornoza	COREMAHI
Joseph Zelasney	FAO
Juan Carlos Sueiro	Oceana
Juan Diego	Altata Cooperative
Juan Jose Montoya	CAF
Juan Manuel Garcia Caudillo	Pesca Responsible
Juan Ramon Flores Ortega	Universidad Autonoma de Nayarit
Julio Moron Ayala	OPAGAC
Julissa Melo	CeDePesca
Juno Fitzpatrick	Conservation International
Jurgen Betzhold	SUBPESCA
Justin Baugh	The Fishin' Company
Karen Villeda	Starling Resources
Katie Longo	MSC
Katrina Nakamura	Sustainability Incubator
Kazu Otsuka	EDF
Kazuhiko Ohno	Kaiko Bussan
Kendra Travaille	Academic

Name	Organization
Kevin Reid	Ontario Commercial Fisheries' Association
Klaas Teule	WWF Indonesia
Kozo Ishii	MSC
Kris Vascotto	Atlantic Groundfish Council
Kristen Baumer	Paul Piazza Shrimp
Lamia Znagui	Federation Nationale des Industries de Transformation et de Valorisation des Produits de la Peche
Laura Deighan	Audubon Institute
Lisa Rende Taylor	Issara Institute
Logan Kock	Santa Monica Seafood
Lucy Holms	WWF US
Luis Bourillon	MSC
Luis Cardenas Dominguez	Federacion Regional de Cooperativas del Centro-Poniente del Estado de Yucatan
Manuel Purizaca	COREMAHI
Maria Jose Espinosa Ramirez	COBI
Mariano Gutiérrez	IHMA
Marinelle Espino	PACPI
Mario Revilla Bernal	FONCOPES
Mark Zimring	TNC
Marlene Timm	Aldi South
Martin Purvis	IPNLF
Martin Salazar Cespedes	IMARPE
Matias Caillaux	TNC Peru

Key Informant and Site Visit Interviews

Key informant interviews

Name	Organization
Maurice Morgan	Pasenic
Mauricio Orellana	UNDP
Mauro Urbina	SUBPESCA
Megan Westmeyer	SFP
Michael Seager	UNDP
Miguel Rousse	ProMarMex
Minerva Alfonso	CeDePesca
Mohammed Bagus Satria	APRI
Momo Kochen	Future of Fish
Mr. Guo	Local fisher administrator (Japan)
Mr. Lee	Haimao (processor)
Mr. Li	Beaver Street Fisheries
Mr. Wang	Local officer (Japan)
Mr. Wu	Shantou Fisheries Industry Association
Nabor	Boca de Camichin Cooperative
Nathan Zetterberg	FishWise
Neel Inamdar	Wilderness Markets
Nicolas Guichoux	MSC
Nicolas Rovegno	WWF Peru
Noah Greenberg	Starling Resources
Nobuyuki Yagi	University of Tokyo
Omar Kharmaz	Fisheries Department (Morocco)
Oscar Aller Rojas	Walton Family Foundation
Pablo Guerrero	WWF Ecuador

Name	Organization
Pak Amin	PT Intimas Surya
Pak Geery	PT Intan
Pak Janu	FairTrade Fisher Association
Pak Saut Tampubolon	MDPI
Pakawan (Mod) Talawat	WWF-Thailand
Patricia Majluf	Oceana
Pedro Baus (Secretary)	Federación Regional de Organizaciones de Armadores Artesanales Pelágicos de la Región de Los Lagos
Peter Mous	TNC Indonesia
Phil Haslam	Marine Management Organization
Pilar Solis Coello	Instituto Nacional de Pesca - Ecuador
Pilar Vasquez	WWF CA
Pramook Takiankam	TFFA
Qing Feng	Qingtao Marine Conservation Society
Reese Antley	Woods Fisheries
Renaldi Barmutty	INPESCA
Renato Gozzer	SFP
Renato Guevara	IMARPE
Richard Banks	Independent consultant
Robert Nunes	Costa Rica Longline Association
Robert Tjoanda	PT Harta Samudra
Rodrigo Polanco	MSC
Ronaldo Gutierrez	INPESCA

Key Informant and Site Visit Interviews

Key informant interviews

Name	Organization
Roxanne Nanninga	ThaiUnion
Ryan Bradley	Mississippi Commercial Fishers United
Sara Ramirez	Guatemala Fisheries Institute
Sarah Clark	Devon and Severn Inshore Fisheries and Conservation Authority
Sari Tolvenen	Marine Change
Satoshi Matsumoto	Japanese Fisheries Co-Op
Sergio Castro	Del Pacifico Seafoods
Shuling Chen	NRDC
Shunji Murakami	Seafood Legacy
Silvia Hernández	SUBPESCA
Songlin Wang	Qingtao Marine Conservation Society
Stephanie Bradley	WWF
Steve Creech	Pelagikos Private Limited
Steve Fisher	Sea Delight
Stuart Green	Packard Foundation
Teddy Escarabay	SFP Ecuador
Timothy Hromatka	Fishery Networks
Tom Kraft	Norpac Seafood
Trevor Eakes	Ecologists Without Borders
Ulises Munaylla	Sociedad Nacional de Pesquería
Ursula Oremno Gordillo	CITE Pesquero

Name	Organization
Víctor Espejo	SUBPESCA
Victor Hugo Vazquez	CONANP
Victor Restrepo	ISSF
Waanto	APRI
Wakiguchi Suisan	Yamasa Wakiguchi
Walter Hubbard Zamudio	CONAPESCA (Mazatlan)
Yemi Oloruntuyi	MSC

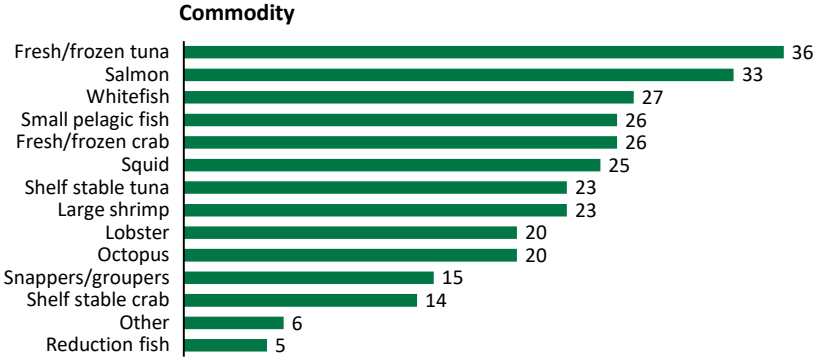
Appendix 4: Market incentive survey results

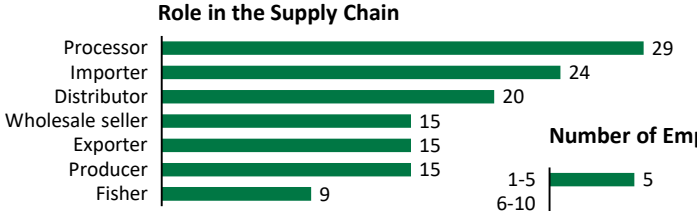
Market Survey – Participant Demographics

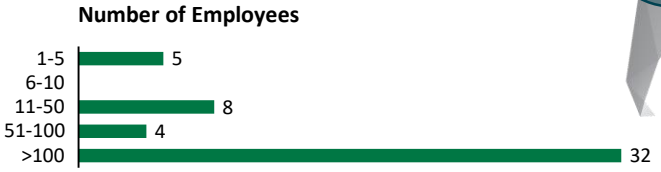
The 53 company respondents were primarily based in the US and EU, and sourced seafood from around the world

CEA had 53 respondents to our market survey, which we sent out in English, Spanish, and Japanese. Our archetypal market survey respondent was a large North American-based processor that sourced its fish (primarily tuna, salmon, and whitefish) from Southeast Asia and North America.

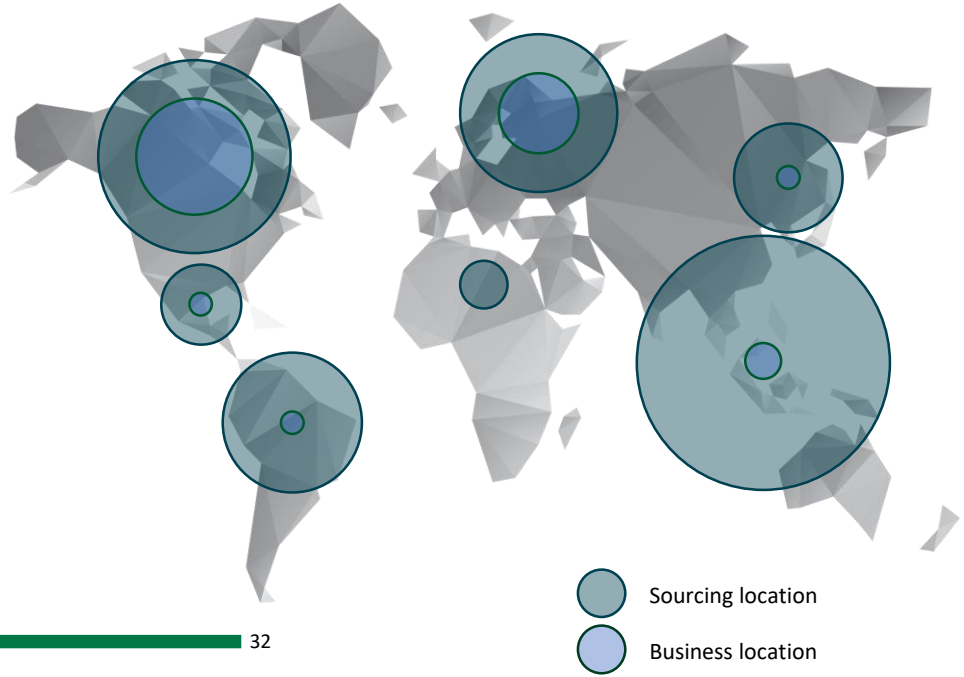
Survey Participants by:







Geography



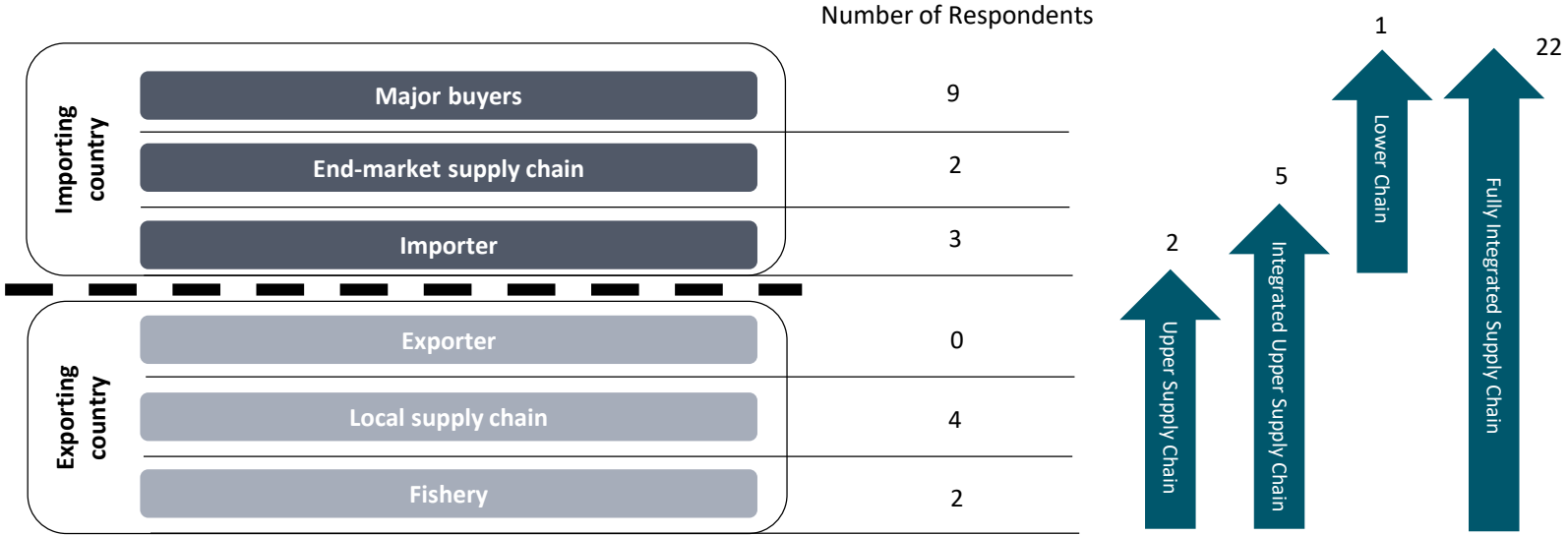
Market survey completed by CEA. Participants could select more than one commodity, location, and type of business to match all that applied to their company.

CEA

Market Survey – Participant Demographics

Almost half of CEA's respondents were fully integrated seafood companies, with the remainder split between integrated producers and major buyers

- Survey respondents are drawn against the schematic of our supply chain mapping below.
- 22 out of 53 respondents were "fully integrated supply chain" companies, meaning they occupied four or more roles within the supply chain, or they occupied roles as far reaching as fishing/primary producer through to retail/brand.
- 20 respondents fit into only one segment of the supply chain, and none was solely an exporter. The most common type of respondent occupying only one rung of the supply chain was retailers and brands.



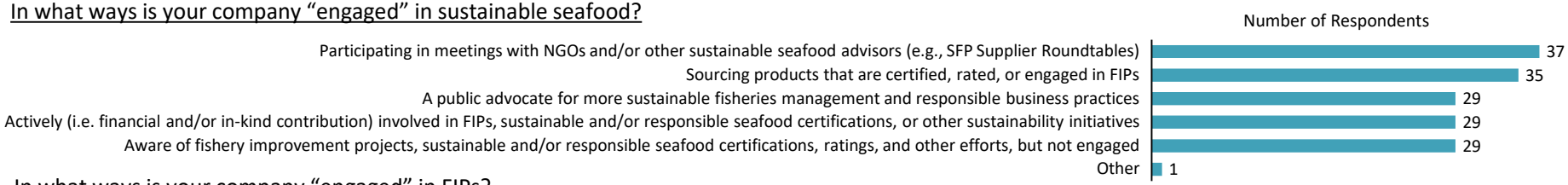
Market survey completed by CEA.

CEA

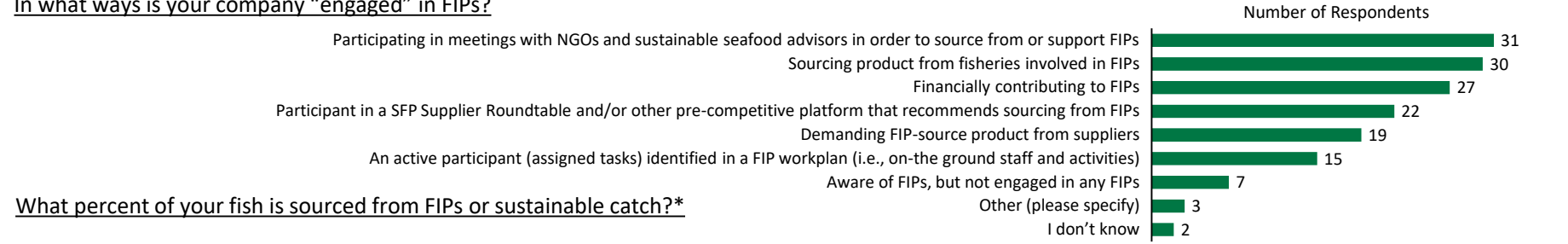
Market Survey – Results

Companies report sourcing more certified or rated seafood than seafood from FIPs, but most "engage" sustainable seafood by meeting with NGOs and seafood advisors in individual and group settings (e.g., supply chain roundtables)

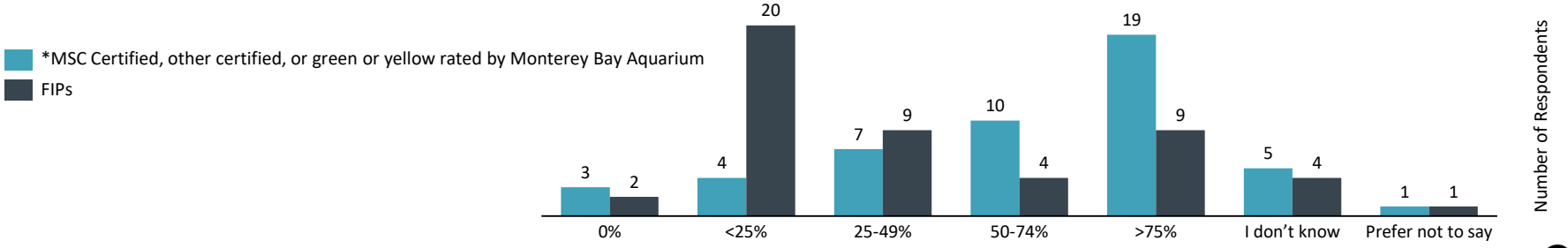
In what ways is your company "engaged" in sustainable seafood?



In what ways is your company "engaged" in FIPs?



What percent of your fish is sourced from FIPs or sustainable catch?*



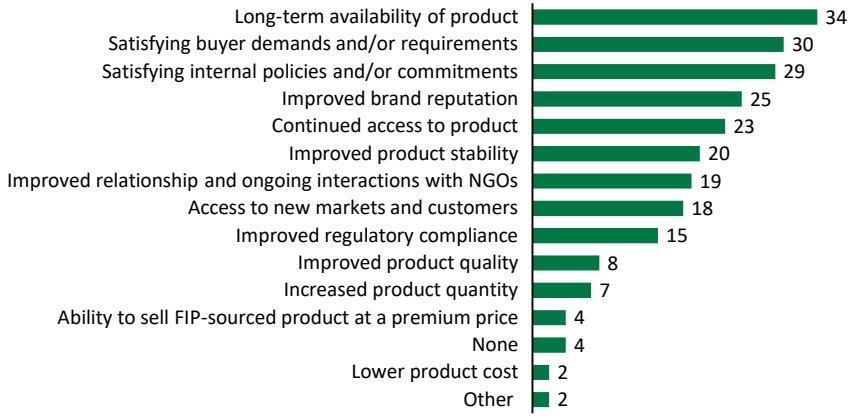
Market survey completed by CEA. Participants could select more than one way in which their company was "engaged" in sustainable seafood and FIPs.

CEA

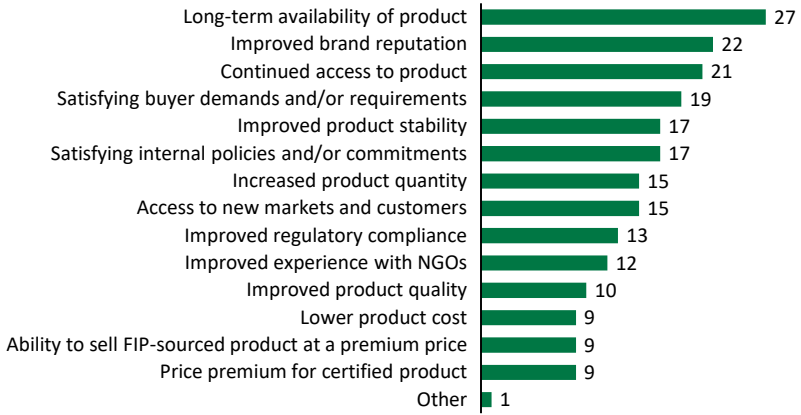
Market Survey – Results

Motivations to participate in FIPs vary, but continued availability of quality product and brand reputation are key

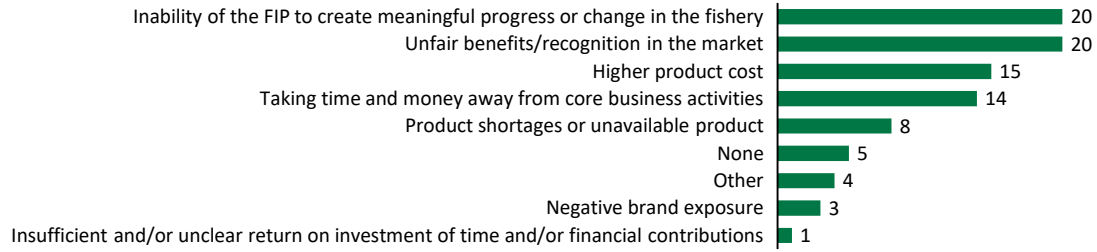
What are the primary reasons that you are working with FIPs?



Are there additional benefits that you expect or anticipate realizing in the future, based on the existence of—and your participation in—FIPs?



What challenges has your company experienced from participating in a FIP?



Takeaways

- Long-term availability of the product was uniformly the chief concern of actors across the supply chain. Satisfying buyer demands and internal policies were identified as next-most important.
- Buyer demands seem to have permeated the supply chain, as actors at all levels (including fishers and processors) reported having internal sourcing policies.
- Motivations were remarkably similar across the supply chain, with no statistically significant differences in motivation across portions of the supply chain.

Market survey completed by CEA. Participants could select more than one answer per question.

CEA

Market Survey – Results

Mid-supply chain actors cited more reasons to engage with FIPs, highlighting pressure from both ends of the chain (i.e., meetings customers' sustainability demands and needing long-term quality supply).
Fully integrated companies identified a more comprehensive suite of concerns.

Motivation	Upstream Actors	Upper-Mid Chain	Lower-Mid Chain	Downstream Actors	Fully Integrated
Long-term availability of product	55%	75%	83%	50%	76%
Satisfying buyer demands and/or requirements	45%	50%	100%	60%	68%
Satisfying internal policies and/or commitments	36%	50%	100%	60%	52%
Improved brand reputation	27%	25%	67%	40%	48%
Continued access to product	18%	0%	83%	50%	52%
Access to new markets and customers	18%	25%	50%	30%	56%
Improved product stability	9%	0%	67%	40%	52%
Improved regulatory compliance	27%	25%	17%	10%	40%
Improved relationship and ongoing interactions with NGOs	27%	25%	0%	0%	48%
Improved product quality	0%	0%	0%	0%	32%
Increased product quantity	0%	0%	0%	0%	24%
None	9%	0%	0%	0%	8%
Ability to sell FIP-sourced product at a premium price	0%	0%	0%	0%	16%
Lower product cost	0%	0%	0%	0%	8%

% of respondents that responded "yes" to being motivated by the factor

Market survey completed by CEA.

CEA

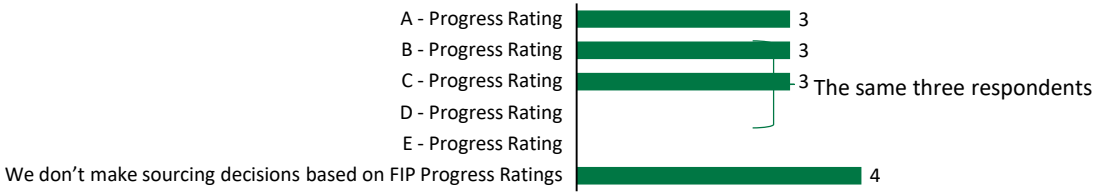
Market Survey – Results

Only US and EU retailers responded to sourcing policy questions and were split on Progress Ratings

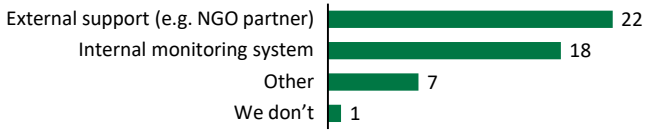
•Companies were split on their use of Progress Ratings; half said that A-C Progress Ratings were acceptable, and the other half said that they did not rely on Progress Ratings for sourcing. This aligns with our understanding of how different NGOs advise their partners on including ratings in sourcing policies.

•Only five respondents said they had ever stopped sourcing from a poorly performing FIP; all five were large retailers.

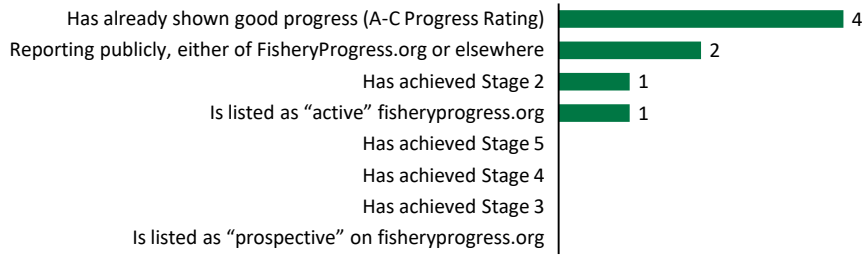
What ratings are acceptable in your company's policy on sustainable sourcing or standard practices?



How does your company track the sustainability profile of production and source fisheries (e.g., health of the fishery, how fish are caught)?



At what stage does a FIP meet your company's sustainable seafood policy or standard?



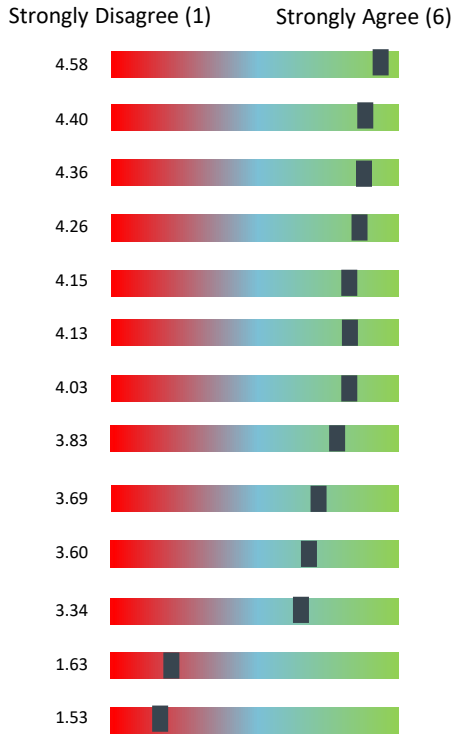
Market survey completed by CEA. Participants could select more than one answer per question.

CEA

Market Survey – Results

Respondents were positive about FIPs in general but ambivalent on whether they can change management and social practices

Respondents strongly agree that FIPs can help improve "seafood sustainability" and will likely continue to source FIP product to help meet sustainability commitments and respond to customer demand. Statements about FIPs changing management and social practices received the most neutral responses.



Market survey completed by CEA.

CEA

Market Survey – Results

Downstream actors feel more positively about FIPs than upstream ones; all are ambivalent about FIPs leading to changes in management

	All Respondents	Upstream Actors	Upper Mid-Chain	Lower Mid-Chain	Downstream Actors	Fully Integrated
"FIPs can help improve seafood sustainability (e.g. ensuring sustainable stocks, minimizing environmental impacts, supporting effective management)."	4.58	4.25	4.33	4.50	5.00	4.62
"I am happy that my company engages with FIPs."	4.40	4.00	4.67	4.67	4.71	4.43
"My company is likely to continue work with FIPs in the future."	4.36	4.13	4.67	4.33	4.71	4.30
"My company views FIPs as a part of achieving our sustainability commitments."	4.26	4.00	4.00	4.33	4.71	4.15
"FIPs should improve the livelihoods of fishers and their communities."	4.15	3.88	4.33	4.00	4.57	4.14
"My company views FIPs as an effective model for improving fishery management."	4.13	3.88	4.33	4.33	4.43	3.95
"Overall, my company benefits from supporting FIPs."	4.03	3.63	3.33	4.17	4.29	4.14
"FIPs can contribute to improving the seafood business and industry (e.g. improved supply chain efficiencies, improved product quality, strengthened supply chain relationships (i.e. loyalty), improve profitability to fishers and local processors)."	3.83	3.88	4.33	4.00	4.29	3.62
"The fisheries with FIPs in place are better managed."	3.69	3.38	3.00	4.00	3.71	3.65
"FIPs can lead to improvements in industry conditions and protections (e.g. protecting human rights and dignity, guaranteed freedom from slave labor, ensuring equality and equitable opportunities, improving food and livelihood security, safe working conditions)."	3.60	3.13	3.33	3.83	4.14	3.57
"Fisheries with FIPs in place have more sustainable fish or seafood since my company got involved."	3.34	2.88	2.67	3.17	3.00	3.58
"It is not worth my or my company's time or investment to engage with FIPs."	1.63	2.25	2.00	1.50	1.29	1.48
"If I could go back in time, I would not have my company engage with FIPs."	1.53	2.00	1.67	1.33	1.29	1.43

Market survey completed by CEA.

CEA

Market Survey – Results

Companies view sourcing from FIPs as having the highest return on investment; giving money without direct involvement is viewed as providing the lowest return

"Sourcing product from fisheries involved in FIPs"

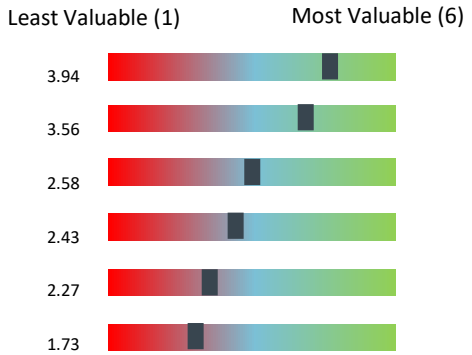
"Demand FIP-sourced product from suppliers"

"Participation in meetings with NGOs and sustainable seafood advisors in order to source from or support FIPs"

"Participant in a supply chain roundtable and/or other pre-competitive platform that recommends sourcing from FIPs"

"An active participant (assigned tasks) identified in a FIP workplan (i.e., on-the ground staff and activities)"

"Financially contributions to FIPs, but not directly involved in the implementation of activities"



Market survey completed by CEA.

CEA

Appendix 5: Market incentives survey

Market Incentives Survey

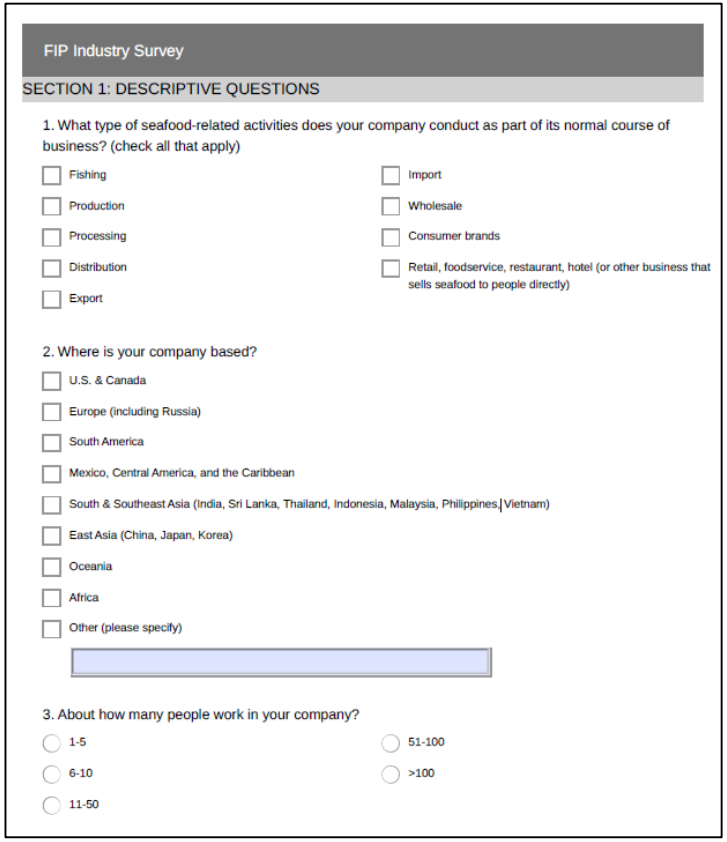
Market incentives survey development & distribution

Thank you for taking time to support CEA's 2019 Global Landscape Review of Fisheries Improvement Projects (FIPs). The seafood industry is critical to supporting FIPs processes and improving the sustainability of seafood globally. Your perspectives are essential to understanding broader needs across the seafood supply chain and to providing inputs on how to design and implement FIPs effectively.

We are interested in learning about your experiences with and perspectives on FIPs. Please limit your responses for this survey to your experiences with wild capture fisheries. Your answers to the below questions will help us better understand and elevate your perspectives on FIPs and integrate them into key funding strategies aimed at strengthening and focusing support for FIPs to increase their effectiveness. This includes developing findings to inform the work of the David and Lucile Packard Foundation, the Walton Family Foundation, and the Gordon and Betty Moore Foundation on sustainable seafood. Responses will also help inform future supporting materials for the wider FIPs community.

There is no requirement that you participate in the survey or answer any specific questions. Your participation will not affect your collaboration or work with FIPs and FIPs funders in any way. We do not ask for your name and your answers will be kept anonymous and cannot be connected to you in any reporting for this project. We hope you will complete the survey so that we can learn more about your experiences and perspectives on the true benefits and challenges associated with FIPs. The survey should take about 20 minutes to complete.

Market Incentives Survey



FIP Industry Survey

SECTION 1: DESCRIPTIVE QUESTIONS

1. What type of seafood-related activities does your company conduct as part of its normal course of business? (check all that apply)

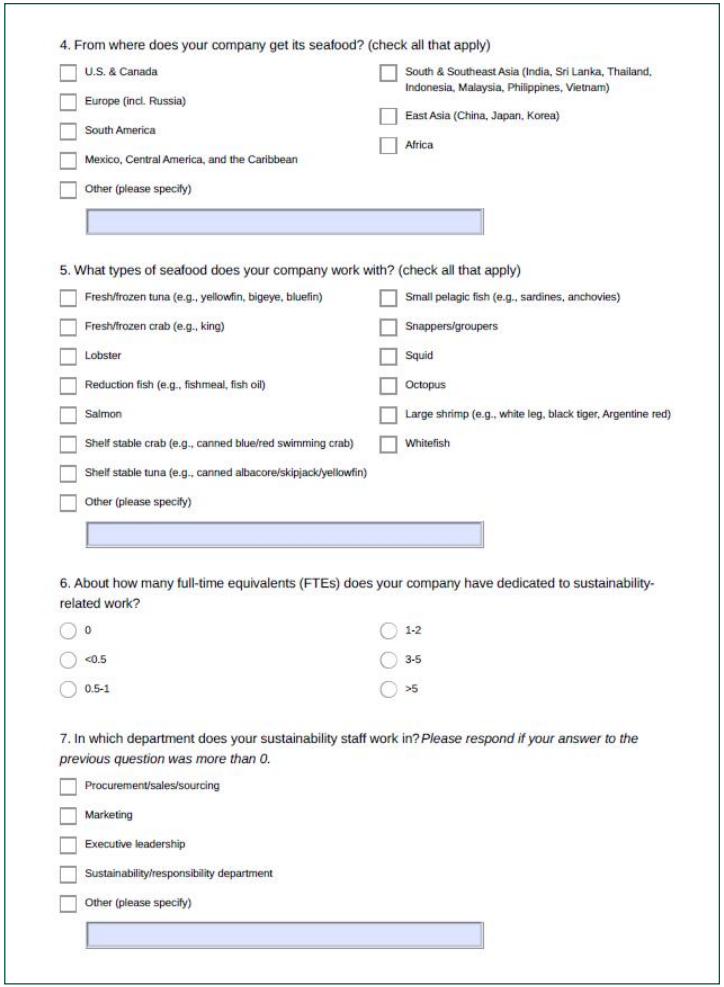
- ☐ Fishing
- ☐ Production
- ☐ Processing
- ☐ Distribution
- ☐ Export
- ☐ Import
- ☐ Wholesale
- ☐ Consumer brands
- ☐ Retail, foodservice, restaurant, hotel (or other business that sells seafood to people directly)

2. Where is your company based?

- ☐ U.S. & Canada
- ☐ Europe (including Russia)
- ☐ South America
- ☐ Mexico, Central America, and the Caribbean
- ☐ South & Southeast Asia (India, Sri Lanka, Thailand, Indonesia, Malaysia, Philippines, Vietnam)
- ☐ East Asia (China, Japan, Korea)
- ☐ Oceania
- ☐ Africa
- ☐ Other (please specify)

3. About how many people work in your company?

- ○ 1-5
- ○ 6-10
- ○ 11-50
- ○ 51-100
- ○ >100



4. From where does your company get its seafood? (check all that apply)

- ☐ U.S. & Canada
- ☐ Europe (incl. Russia)
- ☐ South America
- ☐ Mexico, Central America, and the Caribbean
- ☐ Other (please specify)
- ☐ South & Southeast Asia (India, Sri Lanka, Thailand, Indonesia, Malaysia, Philippines, Vietnam)
- ☐ East Asia (China, Japan, Korea)
- ☐ Africa

5. What types of seafood does your company work with? (check all that apply)

- ☐ Fresh/frozen tuna (e.g., yellowfin, bigeye, bluefin)
- ☐ Fresh/frozen crab (e.g., king)
- ☐ Lobster
- ☐ Reduction fish (e.g., fishmeal, fish oil)
- ☐ Salmon
- ☐ Shelf stable crab (e.g., canned blue/red swimming crab)
- ☐ Shelf stable tuna (e.g., canned albacore/skipjack/yellowfin)
- ☐ Other (please specify)
- ☐ Small pelagic fish (e.g., sardines, anchovies)
- ☐ Snappers/groupers
- ☐ Squid
- ☐ Octopus
- ☐ Large shrimp (e.g., white leg, black tiger, Argentine red)
- ☐ Whitefish

6. About how many full-time equivalents (FTEs) does your company have dedicated to sustainability-related work?

- ○ 0
- ○ <0.5
- ○ 0.5-1
- ○ 1-2
- ○ 3-5
- ○ >5

7. In which department does your sustainability staff work in? *Please respond if your answer to the previous question was more than 0.*

- ☐ Procurement/sales/sourcing
- ☐ Marketing
- ☐ Executive leadership
- ☐ Sustainability/responsibility department
- ☐ Other (please specify)

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Market Incentives Survey

8. Roughly what percentage of your sourcing (in volume) comes from fisheries certified by Marine Stewardship Council (MSC) or another GSSI recognized certification and/or is rated Seafood Watch green or yellow by the Monterey Bay Aquarium?

- ○ 0
- ○ <25%
- ○ 25-49%
- ○ 50-74%
- ○ >75%
- ○ Prefer not to say
- ○ I don't know

9. About what percentage of where you get your fish (in volume) comes from fisheries engaged in a FIP*?

*FIP: Fishery Improvement Projects are efforts to make sure that fishing is practiced and fisheries are managed in ways that don't harm fish stocks or how many fish are in the ocean and the health of the oceans now or in the future.

- ○ 0
- ○ <25%
- ○ 25-49%
- ○ 50-74%
- ○ >75%
- ○ Prefer not to say
- ○ I don't know

10. How does your company track the sustainability profile of production and source fisheries (e.g., health of the fishery, how fish are caught)?

- ○ We don't
- ○ Internal monitoring system
- ○ External support (e.g. NGO partner)
- ○ Other (please specify)

11. What happens if a FIP's Progress Rating is not progressing at a rate deemed sufficient by your company's policy on sustainable sourcing or standard practices?

- ○ We do not change our sourcing
- ○ We stop sourcing from the FIP
- ○ We work with the FIP to make progress
- ○ Other (please specify)

FIP Industry Survey

SECTION 2: SUSTAINABLE SEAFOOD ENGAGEMENT & HISTORY

1. In what ways, if any, is your company engaged with "sustainable seafood"? (check all that apply)

- ☐ Aware of fishery improvement projects, sustainable and/or responsible seafood certifications (e.g., MSC, Fair Trade), ratings (e.g., Seafood Watch), and other efforts, but not engaged
- ☐ Sourcing products that are certified, rated, or engaged in FIPs
- ☐ Participating in meetings with NGOs and/or other sustainable seafood advisors (e.g., SFP Supplier Roundtables)
- ☐ Actively (i.e. financial and/or in-kind contribution) involved in FIPs, sustainable and/or responsible seafood certifications, or other sustainability initiatives (e.g., interoperable traceability)
- ☐ A public advocate for more sustainable fisheries management and responsible business practices
- ☐ Not engaged
- ☐ Other (please specify)

2. In what ways, if any, is your company engaged with FIPs? (check all that apply)

- ☐ I don't know
- ☐ Aware of FIPs, but not engaged in any FIPs
- ☐ Participant in a SFP Supplier Roundtable and/or other pre-competitive platform that recommends sourcing from FIPs
- ☐ Participating in meetings with NGOs and sustainable seafood advisors in order to source from or support FIPs
- ☐ Sourcing product from fisheries involved in FIPs
- ☐ Financially contributing to FIPs
- ☐ An active participant (assigned tasks) identified in a FIP workplan (i.e., on-the ground staff and activities)
- ☐ Demanding FIP-source product from suppliers
- ☐ Other (please specify)

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Market Incentives Survey

3. Please rank the following activities by the greatest return on investment (real or perceived) to your company (e.g., what activities are worthwhile to your company in the long run), with 1 being the most valuable and 6 being the least valuable to your company?

- Participant in a Supplier Roundtable and/or other pre-competitive platform that recommends sourcing from FIPs
- Participation in meetings with NGOs and sustainable seafood advisors in order to source from or support FIPs
- Sourcing product from fisheries involved in FIPs
- Financially contributions to FIPs, but not directly involved in the implementation of activities
- An active participant (assigned tasks) identified in a FIP workplan (i.e., on-the ground staff and activities)
- Demand FIP-sourced product from suppliers

FIP Industry Survey

SECTION 3: FIP INCENTIVES & OPPORTUNITIES

1. What are the primary reasons that you are working with FIPs? (Please check all that apply)

- Continued access to product
- Long-term availability of product
- Improved product quality
- Lower product cost
- Improved product stability
- Increased product quantity
- Access to new markets and customers
- Other (please specify)
- Satisfying buyer demands and/or requirements
- Satisfying internal policies and/or commitments
- Ability to sell FIP-sourced product at a premium price
- Improved brand reputation
- Improved regulatory compliance
- Improved relationship and ongoing interactions with NGOs
- None

2. Are there additional benefits that you expect or anticipate realizing in the future, based on the existence of—and your participation in—fishery improvement projects? (Please check all that apply)

- Continued access to product
- Long-term availability of product
- Improved product quality
- Lower product cost
- Improved product stability
- Increased product quantity
- Access to new markets and customers
- Other (please specify)
- Satisfying buyer demands and/or requirements
- Satisfying internal policies and/or commitments
- Ability to sell FIP-sourced product at a premium price
- Improved brand reputation
- Improved regulatory compliance
- Improved experience with NGOs
- Price premium for certified product

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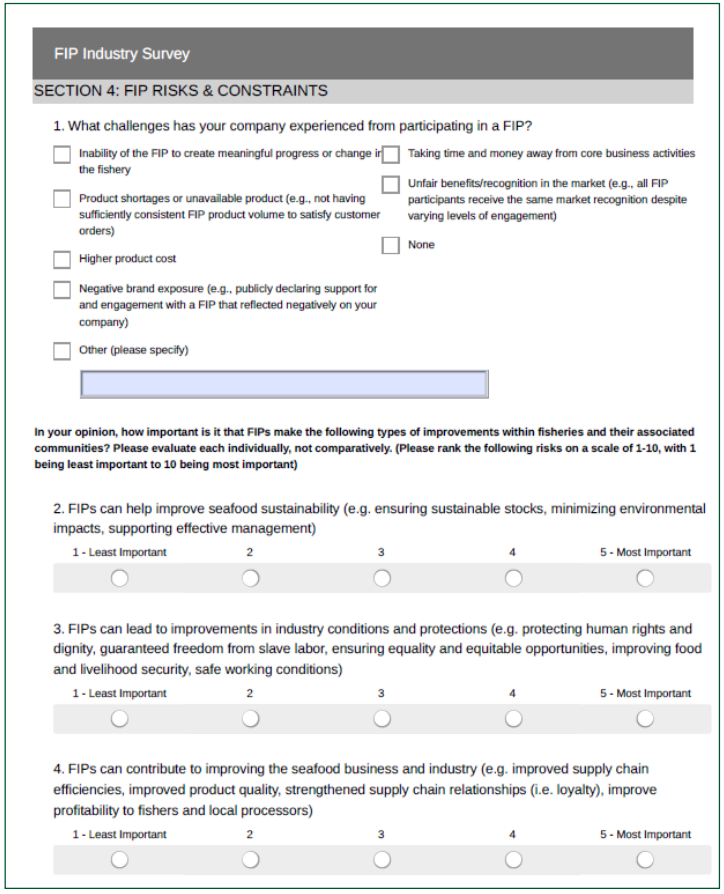
Market Incentives Survey



FIP Industry Survey

SECTION 4: FIP RISKS & CONSTRAINTS

1. What challenges has your company experienced from participating in a FIP?

- ☐ Inability of the FIP to create meaningful progress or change in the fishery
- ☐ Product shortages or unavailable product (e.g., not having sufficiently consistent FIP product volume to satisfy customer orders)
- ☐ Higher product cost
- ☐ Negative brand exposure (e.g., publicly declaring support for and engagement with a FIP that reflected negatively on your company)
- ☐ Other (please specify)
- ☐ Taking time and money away from core business activities
- ☐ Unfair benefits/recognition in the market (e.g., all FIP participants receive the same market recognition despite varying levels of engagement)
- ☐ None

In your opinion, how important is it that FIPs make the following types of improvements within fisheries and their associated communities? Please evaluate each individually, not comparatively. (Please rank the following risks on a scale of 1-10, with 1 being least important to 10 being most important)

2. FIPs can help improve seafood sustainability (e.g. ensuring sustainable stocks, minimizing environmental impacts, supporting effective management)

1 - Least Important	2	3	4	5 - Most Important
○	○	○	○	○

3. FIPs can lead to improvements in industry conditions and protections (e.g. protecting human rights and dignity, guaranteed freedom from slave labor, ensuring equality and equitable opportunities, improving food and livelihood security, safe working conditions)

1 - Least Important	2	3	4	5 - Most Important
○	○	○	○	○

4. FIPs can contribute to improving the seafood business and industry (e.g. improved supply chain efficiencies, improved product quality, strengthened supply chain relationships (i.e. loyalty), improve profitability to fishers and local processors)

1 - Least Important	2	3	4	5 - Most Important
○	○	○	○	○

Please rate how strongly you agree/disagree with the following statements:

5. "I am happy that my company engages with FIPs."

1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
○	○	○	○	○

6. "It is not worth my or my company's time or investment to engage with FIPs."

1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
○	○	○	○	○

7. "Overall, my company benefits from supporting FIPs."

1 - Strongly disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
○	○	○	○	○

8. "If I could go back in time, I would not have my company engage with FIPs."

1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
○	○	○	○	○

9. "FIPs should improve the livelihoods of fishers and their communities."

1 - Strongly disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
○	○	○	○	○

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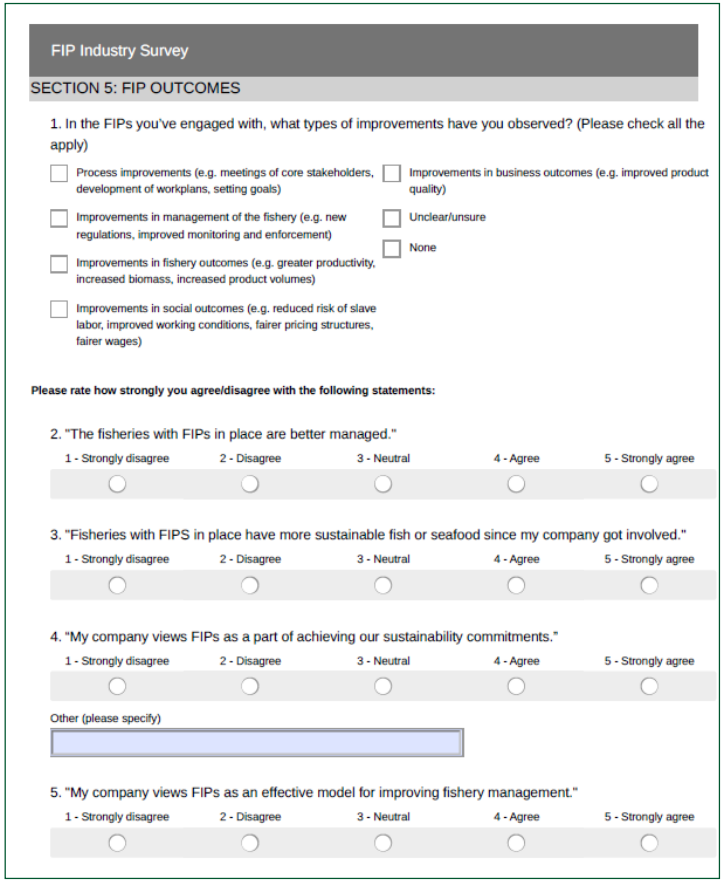
Market Incentives Survey



FIP Industry Survey

SECTION 5: FIP OUTCOMES

1. In the FIPs you've engaged with, what types of improvements have you observed? (Please check all the apply)

- ☐ Process improvements (e.g. meetings of core stakeholders, development of workplans, setting goals)
- ☐ Improvements in management of the fishery (e.g. new regulations, improved monitoring and enforcement)
- ☐ Improvements in fishery outcomes (e.g. greater productivity, increased biomass, increased product volumes)
- ☐ Improvements in social outcomes (e.g. reduced risk of slave labor, improved working conditions, fairer pricing structures, fairer wages)
- ☐ Improvements in business outcomes (e.g. improved product quality)
- ☐ Unclear/unsure
- ☐ None

Please rate how strongly you agree/disagree with the following statements:

2. "The fisheries with FIPs in place are better managed."

1 - Strongly disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly agree
○	○	○	○	○

3. "Fisheries with FIPS in place have more sustainable fish or seafood since my company got involved."

1 - Strongly disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly agree
○	○	○	○	○

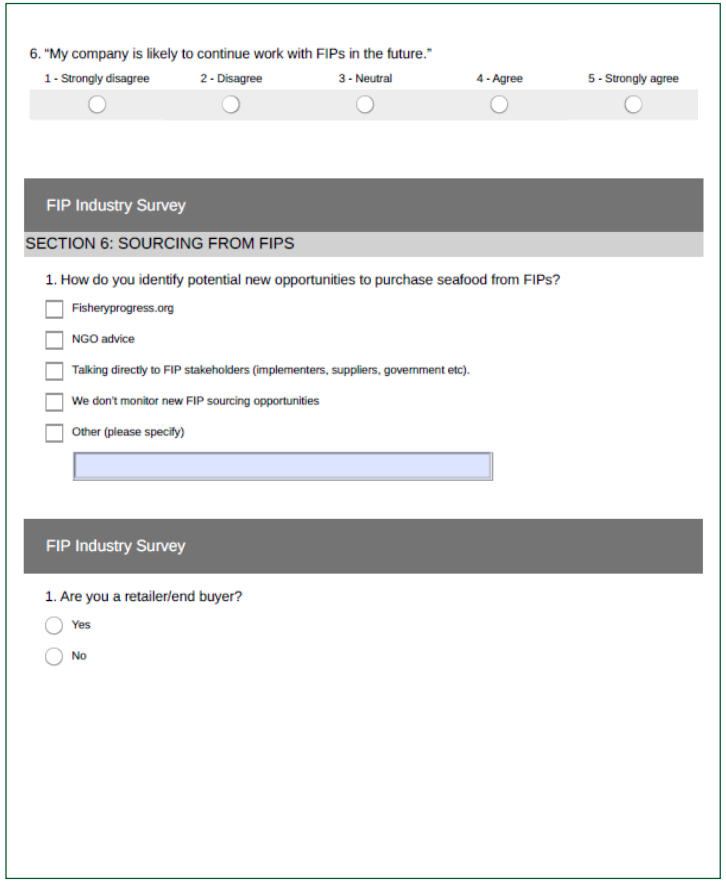
4. "My company views FIPs as a part of achieving our sustainability commitments."

1 - Strongly disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly agree
○	○	○	○	○

Other (please specify)

5. "My company views FIPs as an effective model for improving fishery management."

1 - Strongly disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly agree
○	○	○	○	○



6. "My company is likely to continue work with FIPs in the future."

1 - Strongly disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly agree
○	○	○	○	○

FIP Industry Survey

SECTION 6: SOURCING FROM FIPS

1. How do you identify potential new opportunities to purchase seafood from FIPs?

- ☐ Fisheryprogress.org
- ☐ NGO advice
- ☐ Talking directly to FIP stakeholders (implementers, suppliers, government etc).
- ☐ We don't monitor new FIP sourcing opportunities
- ☐ Other (please specify)

FIP Industry Survey

1. Are you a retailer/end buyer?

- ○ Yes
- ○ No

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FIP Industry Survey

Retailers/End Buyers

1. What types of FIPs do you source from?*(Select all that apply)*

- ☐ Comprehensive FIPs
- ☐ Basic FIPs
- ☐ I do not know
- ☐ Other (please specify)

2. Have you ever chosen to source from a new fishery because it was engaged in a FIP?

- ○ Yes
- ○ No

3. Are you familiar with FIP Progress Ratings?

- ○ Yes
- ○ No
- ○ Other (please specify)

4. *Please skip if you answered no to the previous question.*At what stage does a FIP meet your company's sustainable seafood policy or standard practices (e.g., at what point has a FIP made enough progress to be considered credible for your organization)?

- ☐ Is listed as "prospective" on fisheryprogress.org
- ☐ Is listed as "active" fisheryprogress.org
- ☐ Has achieved Stage 2 - the FIP is publicly launched
- ☐ Has achieved Stage 3 - FIP stakeholders are conducting actions against the FIP's workplan
- ☐ Has achieved Stage 4 - verifiable improvements to practice, policy, or management have been made in the fishery
- ☐ Has achieved Stage 5 - verifiable improvements in stock health or ecosystem impacts have been recorded in the fishery
- ☐ Has already shown good progress (A-C Progress Rating)
- ☐ Reporting publicly, either of FisheryProgress.org or elsewhere
- ☐ Other (please specify)

5. If you are familiar with FIP Progress Ratings, what ratings are acceptable in your company's policy on sustainable sourcing or standard practices?

- ☐ A - Progress Rating
- ☐ B - Progress Rating
- ☐ C - Progress Rating
- ☐ D - Progress Rating
- ☐ E - Progress Rating
- ☐ I don't know
- ☐ We don't make sourcing decisions based on FIP Progress Ratings
- ☐ Other (please specify)

6. Have you ever stopped sourcing from a fishery engaged by a FIP because it was not making sufficient progress?

- ○ Yes
- ○ No

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Market Incentives Survey

7. Does a FIP need to be on FisheryProgress.org to meet your company's sustainable sourcing policy or standard practices?

- ○ Yes
- ○ No

8. Please select all of the following factors that are more important to your company's seafood sourcing decisions than environmental performance.

- ☐ Price
- ☐ Quality
- ☐ Consistency of availability
- ☐ Recommendation by NGO partner
- ☐ Social certification (e.g., Fair Trade)
- ☐ Pre-existing relationship with source company
- ☐ None
- ☐ Other (please specify)

9. Are there any other factors that are important in your seafood sourcing decisions?

FIP Industry Survey

SECTION 7: ADDITIONAL COMMENTS

1. What, if any, additional reflections do you have on FIPs?

2. If you would like to connect with CEA to discuss your survey responses or to share any additional comments on FIPs, please share your email address below; alternatively, you can reach out directly to Max Levine from CEA (mlevine@ceaconsulting.com).

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