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Executive Summary

Overfishing is one of the significant environmental challenges of our time, with the majority of the world's commercially exploited marine fish stocks considered fully exploited, overfished or collapsed. This, in turn, has had a series of considerable and cascading effects on fishers' livelihoods, coastal communities, and global food security. Such impacts are especially relevant for small-scale fisheries, which make up roughly thirty-eight percent of the world's ocean catch and where failing fish populations have direct ramifications for human well-being.

The international community has set a target in the Sustainable Development Goals (SDGs) that all fish stocks should be restored to sustainable levels in the shortest time possible (SDG 14 – Life Below Water). Additionally, at least four other SDGs (SDG 1 – No Poverty, SDG 2 – Zero Hunger, SDG 3 – Good Health and Well-Being, and SDG 8 – Decent Work and Economic Growth) would be advanced through the biological and economic recovery of the world's fisheries. One recent analysis estimates that large-scale recovery of global fisheries would contribute significantly to global food security, yielding an estimated 16 million additional tons of wild-caught fish every year under a scenario of sustainable management (Costello et al. 2016).

While there is no single solution, three pillars have been identified as integral for this transition:

- Securing tenure;
- Introducing or strengthening science-based limits on catch; and
- Robust monitoring and enforcement

Fisheries governance reform often carries significant economic costs that exceed traditionally-available public and philanthropic funds, and creates a finance gap[2] that can stall or prevent reform efforts. While such a financing gap is not the only reason reforms fail or are not attempted, it is certainly one obstacle that experience in other sectors has shown can be addressed and removed. A number of recent efforts have proposed frameworks or blueprints for the role that private capital could play in filling this gap and accelerating reforms. However, despite an increased appetite for the role that private capital could play in the reform process, there remain significant barriers to private capital investment in fisheries reform that require innovative financial structuring to overcome.

Building upon these recent works, this report aims to 1) describe the different categories of investment required to recover fisheries to sustainability, at the different stages of the recovery process; 2) identify where within this framework there is a funding gap; and 3) suggest possible approaches for philanthropic and public capital to leverage private capital to help fill these gaps.

We propose a three-stage framework for conceptualizing the costs of fisheries governance reform:

(i) Policy instrument design;
(ii) Policy instrument delivery (including compensation for revenues foregone from fishing effort reductions); and
(iii) Establishment of, or enhancements to, sustainable seafood value chains in order to capture the economic upside of reform.

Each stage carries different types of economic costs, risks and agents of reform, with varying degrees to which the economic benefits can be monetized and captured to repay investors (and different rates of return). Costs are typically weighted towards the initial stages of the process while the opposite is true of benefits, analogous to the 'J-curve' metaphor applied to startup companies.

2 Throughout this paper, we recognize the difference in meaning between the terms 'funding' and 'financing', with the latter more clearly associated with return on investment. Here, we use them interchangeably unless otherwise mentioned, as core to the fisheries challenges is that capital to pay for reform costs and investments will vary in its ability to generate a return and thus qualify as financing versus funding.

While funding all three stages is essential to a successful reform process, it is difficult and unusual to be able to do so through a single transaction mechanism. Rarely will one investible entity have agency to carry out all three stages of fisheries reform, and thereby incur the range of costs and/or secure the returns for all. Rather, the costs of some stages will be better suited to grant funding and concessional finance from philanthropic organizations and development finance institutions (DFIs), while others may be better targeted by the private sector. Frameworks and strategies have been developed to encourage more private investment in the third stage, typically through impact investment models, but far less so for the first two (where reforms are introduced). Yet without proper funding for these first stages of reform, the sustainability of the underlying resource cannot be secured, and investment in sustainable seafood value chains will be difficult to achieve.

The report defines the core challenge for fisheries finance, or the 'fisheries finance gap', as this **lack of resources available to support the early stages of governance reform (policy instrument design and delivery), where returns are not easily monetizable and private capital is thus less likely to invest.** This report explores opportunities to combine different types of capital – 'blended finance' – in order to create attractive risk-adjusted returns for investors, and increase the total financing available to fund the economic costs of all stages of the reform process.

Blended finance can facilitate an increase in the total financing available through two different routes:

1. **Direct funding from DFIs and/or grant financing facilities to support an investment**
   - pioneering early stage investments (e.g. seed capital) to help address high risks;
   - facilitating investments through higher-risk junior debt in a transaction (i.e. concessional finance);
   - anchoring capital by investing in a transaction at the same terms as private capital in order to increase comfort (e.g. market rate debt or equity).

2. **Supporting mechanisms that signal opportunity to private finance and help prepare subsequent investment**
   - technical assistance facilities to help address risks in new geographies and markets, and to help reduce transaction costs in developing new projects, providing advisory services, incubation, operational assistance, training and other professional services;
   - risk underwriting to help the private sector preserve capital in relation to macro or project-specific risks, often through guarantees that absorb initial losses or insurance policies that provide compensation against negative events;
   - market incentives for sectors that do not support market fundamentals, by providing price guarantees for products (e.g. purchase contracts or advance market commitments, impact bonds, matching funds, challenge funds, etc.).

In particular, three different approaches to blend finance in support of fisheries reform may be possible: (i) a 'blue bond' approach that provides a vertical stack of capital to fund governments' costs across the stages of reform; (ii) an impact investing approach that provides a vertical stack of capital to fund the costs of stage two and three; and (iii) an incremental approach that provides a series of investments throughout the reform process, introducing incremental stage 3 financing by the private sector on the condition that stage 1 and 2 reforms have been implemented.

If we are able to increase the types and amount of capital available to fund fisheries reform - and utilize one to leverage the other where needed - blended capital approaches may send clearer signals to decision-makers that reform is not only possible, but in everyone's best interests. In aggregate, such signals can help move us closer to achieving the suite of Sustainable Development Goals, and as a result, thriving, resilient oceans that support more fish, feed more people and improve prosperity.

Introduction

Overfishing is one of the significant environmental challenges of our time, with the majority of the world's commercially exploited marine fish stocks considered fully exploited, overfished or collapsed (FAO 2016). This, in turn, has had a series of considerable and cascading effects on fishers' livelihoods, coastal communities, and global food security. Such impacts are especially relevant for small-scale fisheries, which make up one-third of the world's catch and where failing fish populations have direct ramifications for human well-being.

The international community has set a target in the United Nations Sustainable Development Goals (SDGs) that all fish stocks should be recovered to sustainability in the shortest time possible (SDG 14 – Life Below Water). Additionally, at least four other SDGs (SDG 1 – No Poverty, SDG 2 – Zero Hunger, SDG 3 – Good Health and Well-Being, and SDG 8 – Decent Work and Economic Growth) would be advanced through the biological and economic recovery of the world's fisheries. Experience worldwide has shown that for many biologically overfished stocks, a reduction in fishing catch allows for net population growth and overall stock recovery (Beddington et al 2007; Worm et al 2009; Longhurst 2010). And more recent analyses estimate that large-scale recovery of global fisheries would contribute significantly to global food security, yielding an estimated 16 million additional tons of wild-caught fish every year under a scenario of sustainable management (Costello et al. 2016).

Ensuring good governance of fishing activity is a foundational step for reducing overfishing and recovering a fishery to environmental, social and economic sustainability. Governance is a broad concept, but refers here to the exercise of control or influence over fishing activity by political, economic and social institutions. Good governance enables a transition to more sustainable harvest levels and practices, and is achieved through changes to the policies, social norms, rules and/or organizations that govern fishing activity. Such transitions often take time and are context-specific, but there are general steps that can be taken to progress towards greater sustainability.

Among these, three pillars have been identified as integral for sustainable fisheries, based on the framework outlined in Holmes et al (2014):

- Securing tenure,[3] consistent with FAO guidelines (FAO, 2012);
- Introducing or strengthening science-based rules, which:
  - Limit catch of fish to levels that prevent overfishing, and
  - Protect supporting ecosystems, in order to ensure sustainable harvests; and
- Providing robust monitoring and enforcement of rules to ensure security of tenure and sustainability of harvests.

3 Defined here as the institutions (i.e. rules, norms and shared strategies) regulating fishing access.

Though the governance reforms needed to transition the world's fisheries to sustainability are likely to be substantial, the net economic benefits are likely even more significant. The World Bank (2016) estimates that the world collectively foregoes US$83 billion in potential revenue that could be captured through more sustainable fishing each year, whereas another study predicts US$53 billion of additional annual profits is possible with improved sustainability (Costello et al 2016). On an individual fishery basis, the economic upside will vary depending on the level of improvement to the underlying resource base and subsequent harvesting productivity, market demand and product prices, and overall efficiency of operations throughout the value chain (Holmes et al. 2014).

The process of establishing or improving fisheries governance to recover fisheries globally is estimated to cost on the order of US$200 billion (Sumaila et al 2012). There are no published estimates of current financial expenditures on fisheries governance to provide a baseline, but high-level conversations in a number of global fora have pointed to a significant gap between current expenditures and the expected reform costs (Global Partnership for Oceans 2014). In particular, many of the tropical geographies where overfishing is most prevalent (and governance reform most needed) suffer from a lack of available financial resources to address governance reform – suggesting a potentially significant fisheries financing gap. This financing gap is not the only factor in achieving sustainable fisheries, but it can stall or prevent governments and stakeholders from undertaking the reforms needed. For this reason, below we explore what this gap actually looks like in more detail, with the aim of contributing towards better understanding of how this obstacle to reforming fisheries governance (and achieving sustainability) could be addressed.

Defining the Fisheries Finance Gap

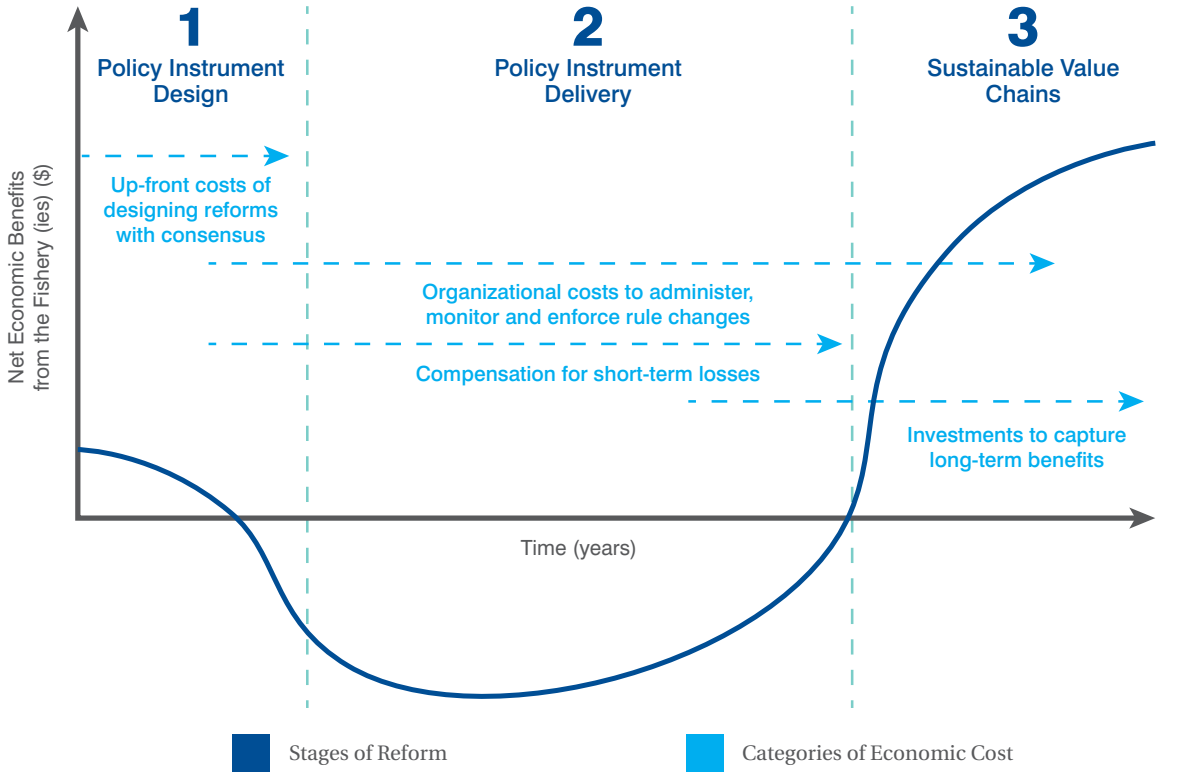
Stages of Reform

A recent review of the World Bank's portfolio of fisheries projects, as well as expert experiences (Band, 2015), suggests three categories ('Stages') of economic interventions throughout the process of fisheries governance reform:

1. **Policy instrument design**, formulation and/or revision of policy instruments, including the up-front process of consultation and consensus-building, as well as development and enactment of rule changes or new rules (typically a multi-year process).
2. **Policy instrument delivery**, including ongoing organizational costs to administer, monitor and enforce rule changes, as well as more immediate implementation costs such as stakeholder compensation for short-term economic losses (e.g. alternative livelihoods to fishing, within or outside the fisheries supply chain).
3. **Capturing long-term economic benefits ('the upside')**, e.g. investment in supply chain businesses and/or the upgrading of supply chain infrastructure.

Though net economic benefits increase from investment in these three stages in aggregate, the economic costs and benefits are not distributed evenly over time or to different stakeholder groups. The costs of reform are typically weighted towards the early stages, while the benefits take longer to appear. This distribution of the costs and benefits has implications for social equity as well as the availability of different types of finance. The process displays similar traits to those of a classic investment

Figure 1. Theoretical Costs and Benefits of Fisheries Governance Reform Over Time: the 'J-curve'



Source: Adapted from Global Partnership for Oceans 2014

turnaround – where upfront investments are exceeded by future benefits generated from more efficient and productive fisheries, providing a real financial return (Holmes et al 2014). This performance turnaround can be visualized as a J-curve (Fig. 1), analogous to the 'valley of death' faced by startup companies (Osawa and Miyazaki 2006), where the three stages of governance reform (and their associated costs) can be mapped against the change in revenue-generating ability as a fishery moves through the reform process.

Every fishery is likely to have a unique cost/benefit profile depending upon its ecological and social characteristics, as well as how (and through what jurisdiction, be it national or local) existing fisheries governance functions in a given country. Some fisheries will have greater economic upside than others, and some reforms will have lower economic costs than others. For example, those fisheries where reforms result in the greatest increase in stock size and hence improved harvesting productivity, would typically be expected to show higher economic upside (even without an increase in the price of the products), while in other cases the market will drive the majority of the return, by rewarding higher-quality and sustainable products with higher product prices and access to more lucrative markets (Holmes et al. 2014).

While the costs and benefits are rarely distributed evenly across the different stages of reform, neither is there often one investor or investible entity throughout the process. Rather, the cost/benefit profile in a specific fishery will impact the investible entity incurring the costs, which means that both the type of investor and type of investee are likely to differ across the three stages of reform. Exceptions are unlikely but possible, especially in cases where a single entity can represent all users in a fishery across the three stages, e.g. a cooperative that can introduce policies followed by its members, support their implementation and invest in enhancing the value chain.

4 In the case of fisheries, the risk-reward ratio is a key barrier to enabling finance to flow. Projects are typically small, with a low expected return, yet high associated risks (many of which are a result of the novelty of the space). This disconnect makes identifying appropriate investors challenging, and is--in part --the impetus for discussion of blended capital for fisheries recovery.

Pinpointing the Financing Gap

Given the different resource requirements and ability to generate a return at different stages of the reform, investments will carry different risk-adjusted returns dependent on where in the reform process they are taking place, which means the appetite from different types of investors for particular interventions will vary[4].

The core 'fisheries finance gap' frequently occurs in the first two stages of the governance reform process where resources are limited, the costs are highest and the benefits not easily monetizable. This is because one constant across the different stages of reform is that the most significant risk for any fishery is the state of the underlying common pool resource, and hence the quality of its governance system and ability to ensure sustainable harvests (Mclurg 2014). The existence or inherent possibility of overfishing at the beginning of the value chain creates a very significant risk that is transmitted into every investment across that value chain. If the risk of over-exploitation and depletion of the resource is not addressed through governance reforms then it can ultimately reduce or destroy economic value along the chain, so investments at every stage face the prospect of diminished, or no, returns (ibid).

Therefore, while private capital is much more easily mobilized to finance the third and final stage of the reform process, the design and delivery of policy reforms to secure a healthy underlying resource – as well as compensation where needed (stages one and two), are pre-requisite for such capital to be deployed (Encourage 2015; Band 2015). Perhaps most challenging, the financial costs to compensate those individuals, communities and companies whose revenues may be reduced as a result of rules that decrease fishing effort are not often funded from either public or private capital, yet without this investment the reform process may not be politically viable, nor consistent with internationally-agreed principles of social equity.

The extent to which various reform costs lead to benefits that can be monetized (and some portion returned to the investor), determines the breadth and depth of capital available to support each stage of a given fisheries reform process. Given the high-risk, low-return nature of unproven fisheries investment opportunities, concessional financing, through credit guarantees or first-loss capital, will prove particularly valuable in the recovery process. Drawing upon the conceptual framework in Figure 1, philanthropic, public and private capital could play a role[5] in helping to fill the finance gap for fisheries reform (Holmes et al. 2014). The next section will explore how these different sources of finance may work in concert to make fisheries recovery more readily financeable.

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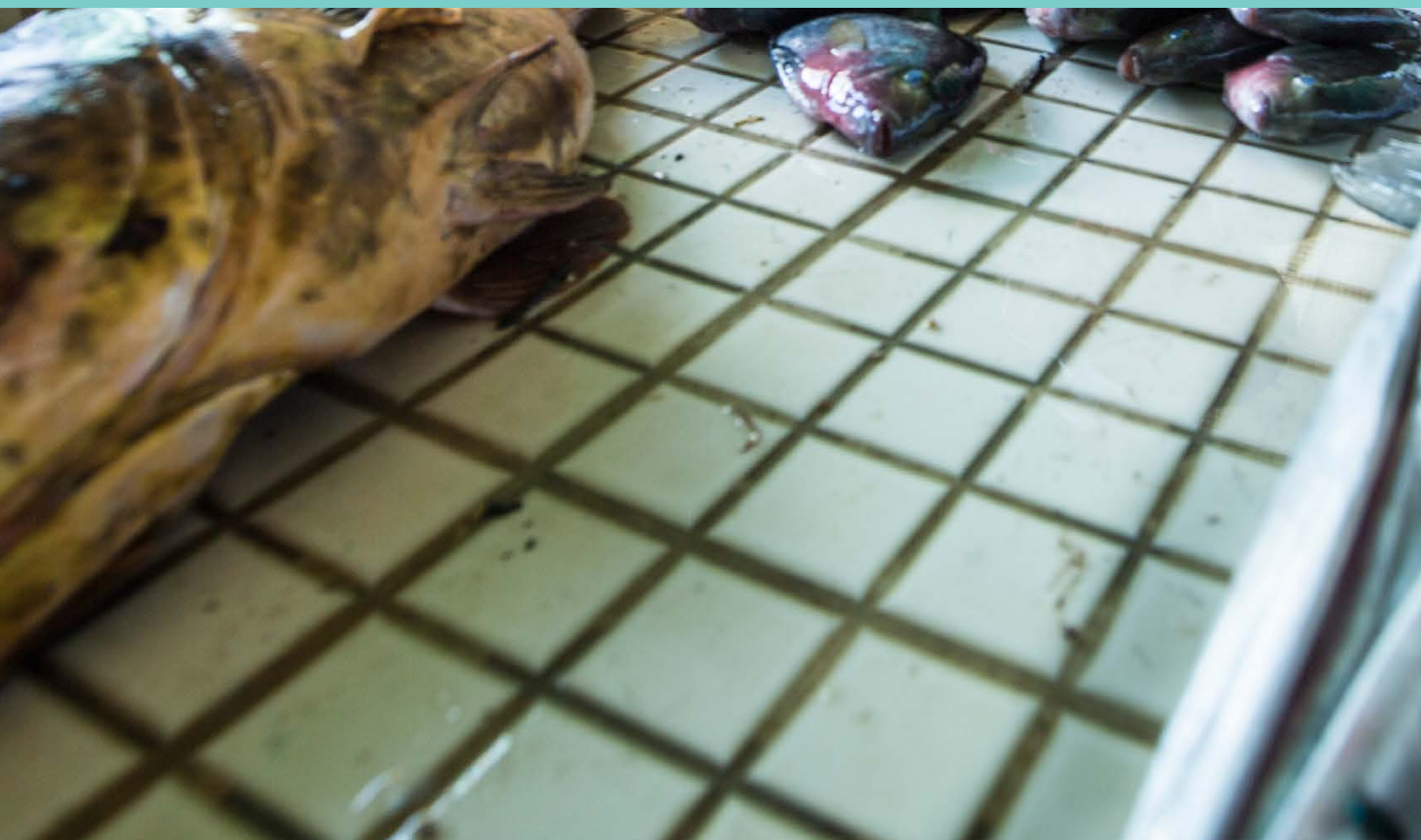
5 Credit Suisse et al. (2016) notes that for projects/investments targeting a conservation impact the potential for attracting needed capital will grow throughout the process, where concessionary capital is required at early stages while private venture capital concepts are proven, and then mature debt and equity crowd in as projects become more mainstream and replicable (though scale will remain a key determinant of access to capital).

Blended Capital Approaches



Blended finance, or blended capital, can help bridge the aforementioned financing gaps by combining different types of capital to improve the risk-return proposition of a project for the private sector, essentially providing catalytic credit enhancement to encourage a greater flow of capital.

Blended finance can therefore facilitate an increase in the total financing available through two key mechanisms:

1. **Directly**, by reducing the risk of investment in the early stages of reform through the use of concessional finance and philanthropic funds.
2. **Indirectly**, through supporting mechanisms such as sending a signal from the private sector to the public and philanthropic sectors that private investment in stage three of reform may be available subject to sufficient progress in stages one and two.

Blended finance should be viewed as a means for different types of capital to work together – it does not attempt to replace development assistance or provide excessive subsidies to private capital (or completely eliminate risk in a transaction), but rather facilitate risk-taking at acceptable levels to incentivize investment without distorting functioning markets (World Economic Forum 2015).

A traditional example of blended finance is a public-private partnership (PPP), where a development finance institution and a private company establish a relationship to pursue similar interests, e.g. public finance of infrastructure that is operated for profit by a private company. In the case of fisheries, Encourage Capital (2015, Box 1) has suggested PPPs could help finance the costs of administration and monitoring, such as conducting fish stock assessments or surveillance of fishing activity, with the government paying a services contract to private providers based on milestones and benchmarks ('paying for performance'). The rest of this chapter explores approaches that might be used to blend different types of capital to fill the core fisheries finance gap in a range of contexts.

Box 1: Encourage Capital: Strategies for Blended Finance of Tropical Fisheries Governance Reform

Encourage Capital is an investment firm aiming for social impact as well as financial returns, that in 2013 began looking for opportunities to invest in fisheries governance reform in the tropics. The firm began by building 6 six investment strategies ('blueprints') in Brazil, Chile and the Philippines, in which private investment is proposed in hypothetical seafood processing companies (equivalent to stage three of the reform) and aggregators for diverse groups of harvesters. This, in conjunction with philanthropic investments in the local delivery of fisheries management services (stage two) and the capitalization of community funds, formed the basis for wider reforms.

In the case of small-scale near-shore fisheries, the blueprints focus on philanthropic investment in community monitoring and enactment of harvesting rules (stage two) where legislation has defined communities' right to manage access in defined areas (stage one), that would supply a hypothetical seafood processing company as the investable entity for the private capital – thereby creating a sustainable sourcing network. The company would add value by investing downstream to reduce waste, and targeting markets that would support premium seafood products harvested sustainably.

Encourage Capital has since made its first investment through Pescador Holdings, a holding company that has taken a stake in Geomar, a vertically integrated seafood company in Chile.

Source: Encourage Capital 2015

There are several ways in which private capital may be blended with other sources to enable financing for otherwise high-risk or low-return projects. The World Economic Forum (WEF) has developed a helpful framework to describe different approaches to blended capital, including various forms of direct financing as well as establishing supporting mechanisms such as technical assistance facilities (World Economic Forum, 2015).

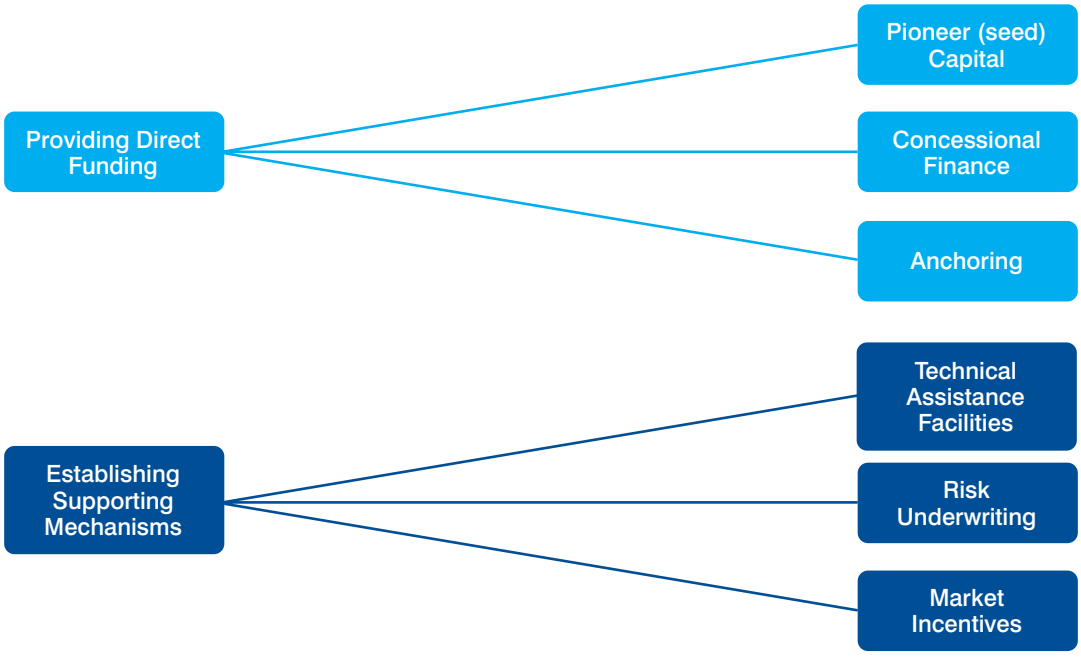
Building on the work by the WEF, approaches to provide direct financing from DFIs and/or grant financing facilities to support an investment include:

- **Pioneering early stage investments** (e.g. seed capital) to help address high risks.
- **Facilitating investments** through higher-risk junior debt in a transaction (i.e. concessional finance).
- **Anchoring capital** by investing in a transaction at the same terms as private capital in order to increase comfort (e.g. market rate debt or equity).

Supporting mechanisms that signal opportunity to private finance and help prepare subsequent investment include:

- **Technical assistance facilities** to help address risks in new geographies and markets, and to help reduce transaction costs in developing new projects, providing advisory services, incubation, operational assistance, training and other professional services.
- **Risk underwriting** to help the private sector preserve capital in relation to macro or project-specific risks, often through guarantees that absorb initial losses or insurance policies that provide compensation against negative events.
- **Market incentives** for sectors that do not support market fundamentals, by providing price guarantees for products (e.g. purchase contracts or advance market commitments, impact bonds, matching funds, challenge funds, etc.).

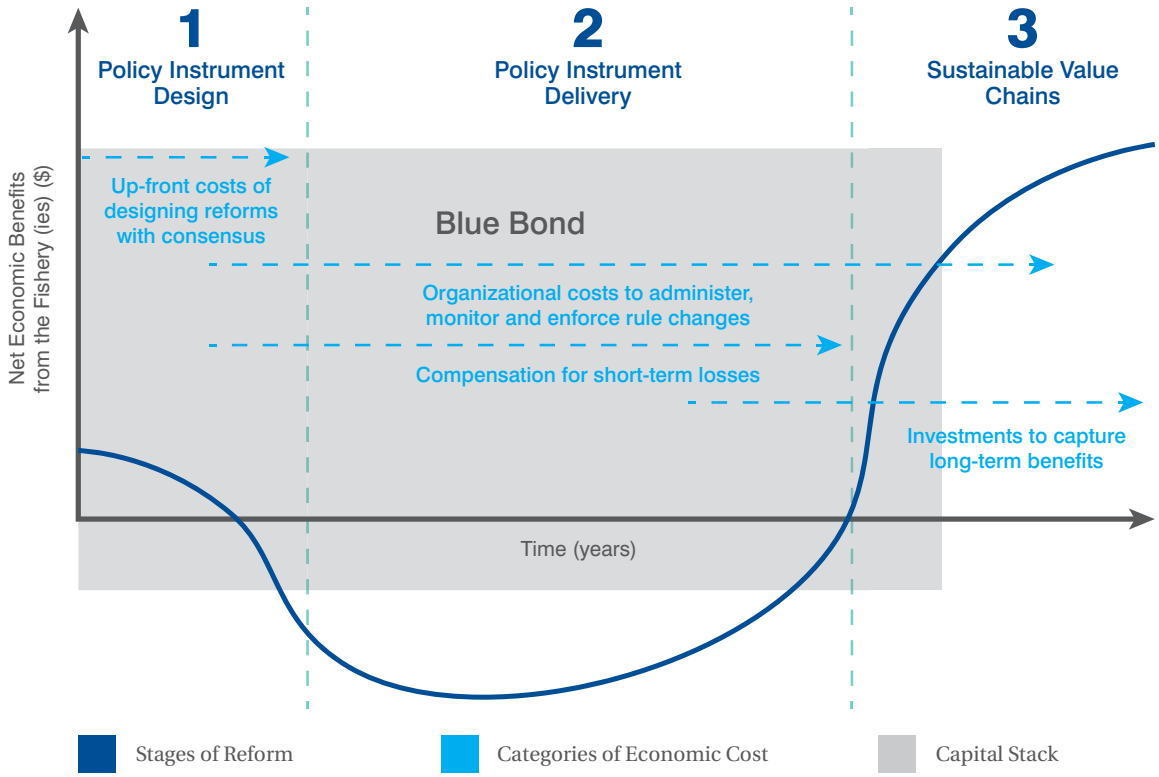
Figure 2: Blended Capital Approaches



While all of the approaches highlighted by the World Economic Forum may be useful, this report features several that build on the WEF structure and appear particularly promising to help fill the finance gap in the context of fisheries:

1. **A 'blue bond' approach**, typically providing a vertical 'stack' of capital to fund national governments' costs in stages one and two of reform (though stages two and three are also possible), utilizing the concessional finance, anchoring capital, risk underwriting and market incentives approaches.
2. **An impact investing approach**, providing a vertical stack of capital to fund the costs of stage two (as well as three) where there is an investible entity and where stage one is completed, utilizing the pioneer, concessional, anchoring, and risk underwriting approaches.
3. **An incremental approach**, providing a series of investments throughout the reform process, building from commitments of private capital to enter at stage three on the condition that prior reforms have been completed, building on the pioneering, anchoring, risk underwriting and market incentives approaches.

Figure 3: Blue Bond Approach



Economic Benefits Monetizable?	Public and club goods, difficult to monetize, though governments may recover costs via taxation
Likely Recipients/ Borrowers	Government, typically at the national level (some sub-national lending may occur)
Finance Instruments	Concessional or market debt (sovereign bond), potentially linked to guarantee
Potential Financiers	Philanthropies, development finance, institutional investors
Capital Blended?	Potentially through supporting mechanisms such as a technical assistance facility for preparation, public guarantees to leverage private investment, as well as direct funcing for project preparation and junio debt anchoring
Example	Seychelles blue bond

This financing mechanism would build on the strong precedent established by green bonds, a funding vehicle initially launched in 2007 to raise capital for projects addressing climate change. Since 2008, the World Bank has issued AAA-rated green bonds with proceeds earmarked for Bank-financed projects that support mitigation and adaptation to climate change. Proceeds are used to finance projects that receive an additional layer of screening to determine their climate change mitigation and adaptation impacts, and are monitored and reported on to investors through a rigorous process laid out in the Green Bond Principles (World Bank 2015).

In recent years, green bond innovations have been applied to ocean and freshwater ecosystems under the heading of 'blue bonds' (Caballero 2015). A blue bond would likely be a sovereign bond issuance with proceeds used to invest in all stages of fisheries reform, but with particular focus on policy design and implementation stages. It would typically target large institutional investors by utilizing repayment guarantees or other forms of credit enhancement from DFIs. Further, a blue bond may draw on technical assistance funds to help pay for issuance costs and/or support projects that bond proceeds would invest in.

The challenge may be the relatively smaller size of potential blue bond investments, given high transaction costs for larger institutional investors in smaller or more isolated countries (especially in comparison to larger green bond investments that justify these costs). For example, the Seychelles case in Box 2 below illustrates a relatively small investment with high transaction costs for the private sector, only some of which may have been reduced by the participation of the DFI. At the same time, the long time frame of fisheries governance reforms may incur higher costs for bond issuers who will be holding funds during the entire period, also perhaps presenting a potential challenge with this type of investment vehicle.

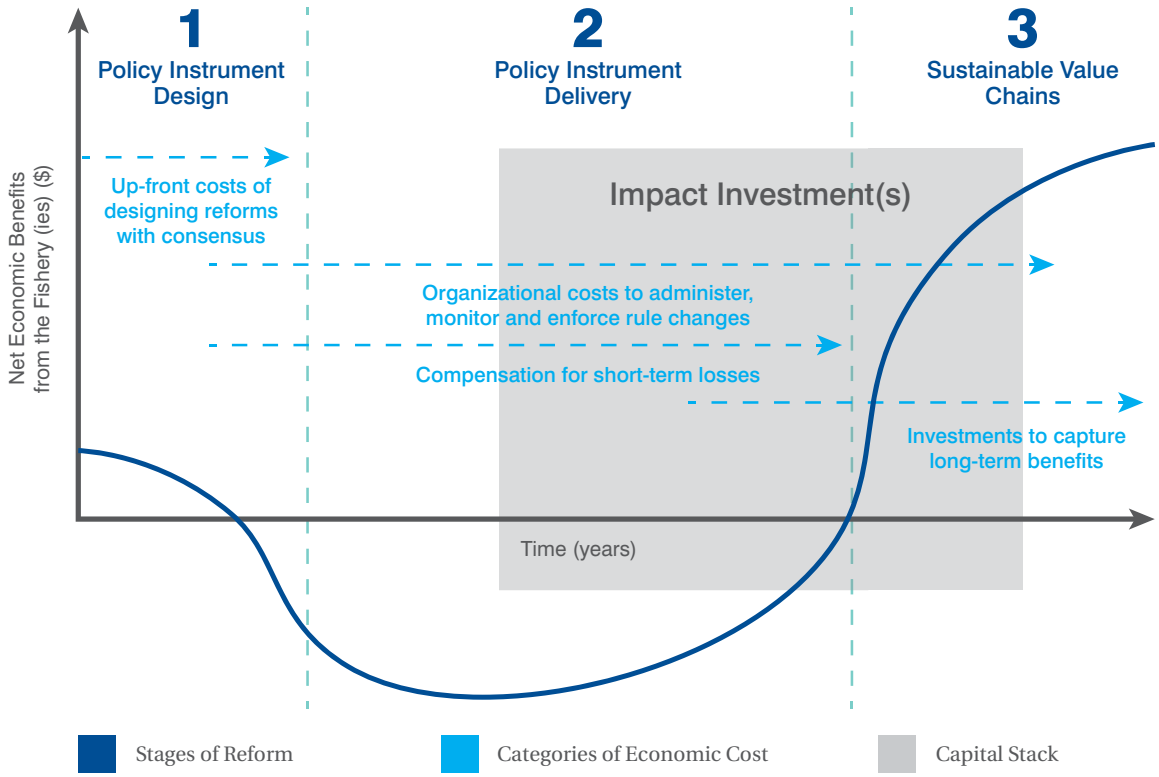
Box 2: Seychelles Blue Bond

The Government of the Seychelles is in the process of developing the first blue bond to raise approximately US$15 million as part of a wider, US$25 million effort to support reform of its nearshore fisheries (Richardson 2016). The bond would be issued by the Government of the Seychelles, alongside a US$5 million World Bank partial credit guarantee and a US$5 million Global Environment Facility (GEF) loan ('non-grant instrument'). Both the World Bank and the GEF have also provided significant technical assistance over two years to develop the transaction structure and to help attract potential investors for the Bond (as isolated jurisdictions such as small island states may not be familiar to larger institutional investors).

Proceeds of the bond would support the implementation of a national multi-spatial plan for multiple use marine zones in the Seychelles, as well as a fisheries management plan for the Mahe plateau. The Seychelles Conservation and Climate Adaption Trust (SeyCCAT) will co-manage the proceeds, of which US$3 million will be issued as grants and US$12 million as investments (M. Callow, personal communication 2017).

If successful, the bond may provide an important precedent that could be replicated by other countries with an interest in utilizing innovative financial mechanisms to reform their fisheries. The Seychelles blue bond is relatively small compared to other green bonds, and there are some questions over the replicability and scalability of this approach. However, the work done to date has already demonstrated that through the innovative use of blended finance, blue bonds carry great potential. The Seychelles bond would be a proof of concept for a financial instrument that has the potential to finance the costs of designing policy reforms, costs of increased monitoring and surveillance to ensure compliance with new rules, and support increased investment in seafood supply chains while providing compensation for stakeholders whose revenue streams may be reduced by the reforms.

Figure 4: Impact Investing Approach



Economic Benefits Monetizable?	Public and club goods, difficult to monetize; early-stage private goods
Likely Recipients/ Borrowers	Investable entity, e.g. a seafood processing/distribution company (potentially in a PPP with government), user groups such as fishing associations, other aggregators along the value chain
Finance Instruments	Debt, equity, grants
Potential Financiers	Philanthropies, development finance, impact investors
Capital Blended?	Potentially through supporting mechanisms such as a technical assistance facility for preparation, advance market commitments for sustainable products, as well as direct funding for project preparation and pioneering investment such as venture capital. Additional blending opportunities through subordinated capital and first-loss facilities are also possibilities.
Examples	Encourage Capital, Althelia Ecosphere, Meloy Fund

Impact investing in fisheries reform, an approach adopted by a number of impact funds to date, can be considered within the context of a wider blended capital framework. At present, three impact funds are working to invest in sustainable fisheries and the recovery of sustainable fisheries, including the Meloy Fund (Box 3, below), Encourage Capital and Althelia Ecosphere's Sustainable Oceans Fund.

For those fisheries in countries or regions where stage one is already complete, the obstacle may be financing the economic costs of stage two and the early steps in stage three. As Encourage Capital (2015) has explored, private investors interested in measuring and achieving conservation impact alongside financial returns (i.e. 'impact investors') may be available to finance some of these costs through equity investments that work in concert with different sources of funding to meet different needs. In the strategies developed, philanthropic grants often provide technical assistance and support the recurrent costs of policy delivery (e.g. monitoring fishing effort and harvests, compliance with fishing rules, etc.). This is combined with equity investments into seafood processing/distribution companies that reduce post-harvest losses and add a premium for sustainably harvested products (through higher quality and access to more lucrative markets), as well as offering distributions of returns to stakeholders throughout the value chain (e.g. as shares of the company) (Encourage Capital 2015).

Box 3: The Meloy Fund: An Impact Investment Fund for Small-Scale Fisheries in SE Asia

The Meloy Fund is an US$18-$20 million impact investment fund (of which US$6 million is public finance on concessional terms committed by the Global Environment Facility (GEF)) that will incentivize the development and adoption of sustainable fisheries by making debt and equity investments in fishing-related enterprises that support the recovery of coastal fisheries in Indonesia and the Philippines. The Meloy Fund is a subsidiary of Rare Conservation, an international NGO with a local presence in Indonesia and the Philippines. Rare will provide sustainability expertise and technical assistance support to the Meloy Fund and to the enterprises in which the fund will invest.

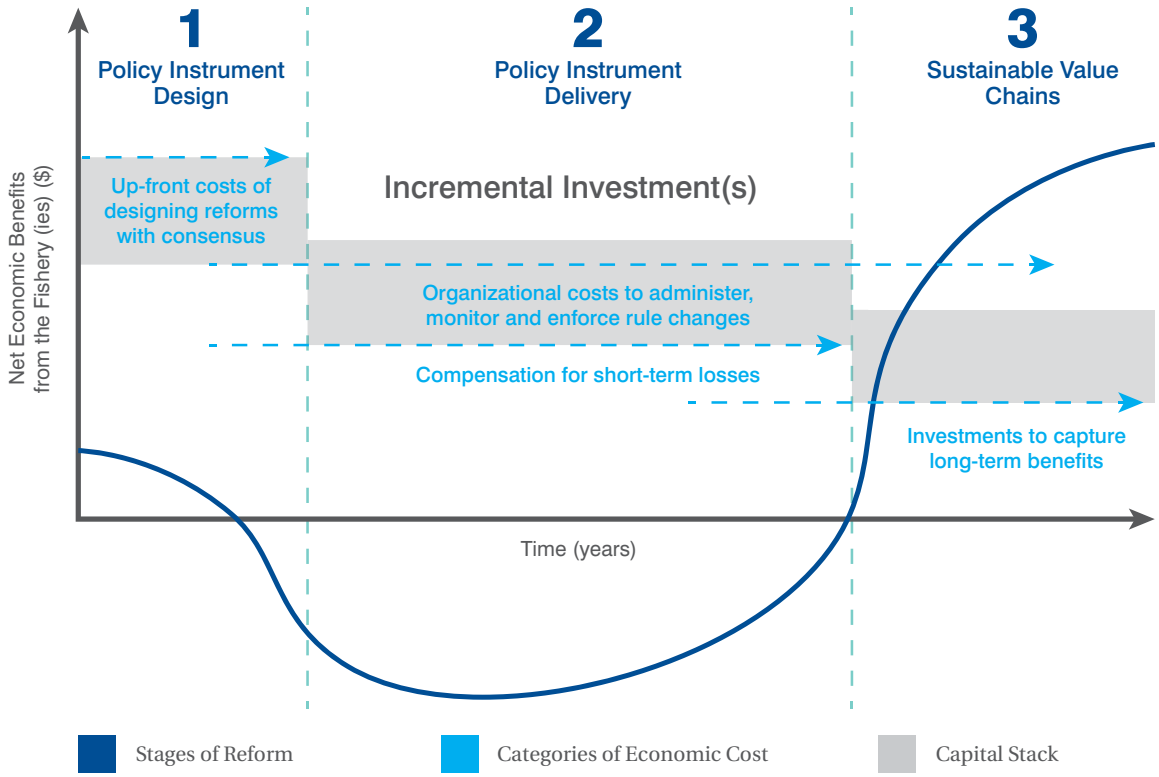
Debt and equity investments for the fund are expected to focus on:

(i) investing in supply chain and production efficiencies, waste-reduction, aggregation, and value-added processing that either reduce costs or improve revenues for local fishers (stage 3); and
(ii) fishing pressure offset investments, including ocean-based aquaculture, that allow for stock recovery to take place while helping fishers access alternative but complimentary income sources (stage 2).

The average investment size is expected to be from US$0.5 to 2.0 million, with a duration of 5 to 7 years. In advance of the fund launch, in December 2016 Rare closed a US$1 million five-year investment in Meliomar, a Philippines-based seafood aggregator, processor, importer and exporter. The fund formally launched in August 2017.

Source: Global Environment Facility (2016)

Figure 5: Incremental Approach



Economic Benefits Monetizable?	Early investments in stages one and potentially two unlikely to generate monetizable economic benefits, while investments in stage three would
Likely Recipients/ Borrowers	Stage one: government; stage two: government, user groups such as associations; and stage three: fishing, processing and other supply chain companies
Finance Instruments	Full range: grants, concessional lending, mature debt and equity
Potential Financiers	Philanthropies, development finance, impact funds and other private equity
Capital Blended?	Potentially through supporting mechanisms such as a technical assistance facility for the series of investments, risk reduction tools in some transactions, as well as junior debt and anchoring in later-stage transactions

As mentioned before, in many cases, blending the capital needed to finance a fisheries reform cycle into one vertical stack of capital may not be feasible, given the long timeframe, the incremental nature of reform and the lack of a single entity that can represent the entire transition. At the national scale, what may be more feasible is the blending of different types of capital to support the reform cycle in a series of discrete transactions which may leverage each other – a horizontal stack of capital. For example, philanthropic grants may support stakeholder consultations, data collection, and initial analyses, to design and enact policy reforms in the first stage of the process. Grants might be used simultaneously to cost and prepare a concessional loan from a DFI that would support some of the costs of the second stage, including potentially compensation for any revenues foregone as a result of harvesting rule changes. These activities in stages one and two can enable private equity investment into value chain enhancements such as processing facilities. If each stage is successful, then the opportunities for investment in the subsequent phase emerge, as the sustained cash flow of a sustainable fishery could be attractive to private investors in the same manner that cash flow from timber is attractive in mature markets (Credit Suisse et al 2016). To ensure impact as the investment progresses, it will be important to incorporate environmental, social and governance (ESG) performance indicators and milestones into the investment proposition from the outset.

A catalyst for some governments embarking on a high-risk reform process to transition to more sustainable fisheries could be some signal or commitment that capital would be available as needed at subsequent stages, notably private investment to enhance the value chain after reform implementation. An investment roundtable, whereby different types of investors collaborate to signal intent to invest upon successful completion of each stage of reform, could help encourage decision-makers to invest public funds that might otherwise not have been available (Global Partnership for Oceans 2014).

Next Steps and Concluding Remarks

Given the potential mechanisms described above, there are several next steps that DFIs, NGOs and philanthropic organizations can take to begin financing fisheries reform through blended capital approaches.

NGOs and DFIs: Reducing Risk and Building Standards

Across all three of the proposed approaches – blue bonds, impact investing and incremental investing –risks are likely high (in turn raising transaction costs), and perceived risks (due to the novelty of fisheries as investment opportunities) will be even higher. Therefore, a key role that non-private sources of capital can play is leveraging their existing fisheries knowledge as a way of fostering dialogue and mitigating investment risk with the private finance community. This could include continued assessment and analysis of fisheries to better understand the unique risks the sector faces, as well as ongoing dialogue with both the investor and project developer communities to better understand their needs and challenges in overcoming those risks.

Those risk-mitigating functions extend to NGOs as well, since in many cases they will have firsthand experience of local fishery and community conditions that are necessary to any blended capital proposals. This is especially true in regions and sectors that lack robust project development services – making the technical assistance and capacity building services that NGOs often provide even more critical.

Communication with the public sector will also be especially crucial in fostering blended capital approaches to fisheries investment. Governments typically play a significant role in providing capital flows for fisheries – e.g. through subsidies (Sumaila et al. 2016) and tax regimes – so aligning that domestic public capital with development finance and private finance will be an important step in ensuring that blended capital approaches will succeed. While not the focus of this report, fishing subsidies are a key element of any investment approach to fisheries sustainability.

Good communication with fishing communities is also critical, to ensure they are informed and engaged stakeholders in any investment process that relates to their fishery. Financing proposals that lack fishing industry buy-in, or more importantly, do not ultimately benefit fishers themselves, are likely to fail. NGOs in particular can play a strong role in ensuring that the voices of fishers and local communities are taken into consideration as part of any blended capital approach.

A potential avenue for engaging multiple stakeholder groups in targeted geographies may be through convening or facilitating investment roundtables, which could include public, private and philanthropic capital providers. Such roundtables would build common understanding and potentially help identify financing opportunities for the economic costs of reform as they are identified.

Aside from the potential benefits of increased understanding, roundtables could provide significant benefits to participants, by:

- **Creating better access to local knowledge**, including existing investments related to the targeted geography or fishery. This would help participants more effectively identify and target investments from the outset – mapping different types of capital to the various stages of fisheries reform;
- **Enhancing impact** by supporting complementarity between related investments and creating greater awareness of the larger reform cycle defined by the government and/or stakeholders.
- **Assisting participants** to replicate and scale successes.

In addition to effective communication about the challenges and opportunities facing fisheries investments, there is an opportunity for NGOs and philanthropic organizations to build the norms and standards of sustainable fisheries finance, in order to increase confidence and clarity with investors.

For example, working to create a common perspective on what constitutes 'sustainability' in the context of sustainable fisheries finance will be a key step in ensuring coordination between the various investment initiatives already underway. Already a number of impact funds and NGOs are coming together to develop 'Principles of Sustainable Fisheries Finance' that will serve to underscore essential components of sustainability for investment (T. Fitzgerald, personal communication, 2017).

Over time, as precedent is established and confidence in fisheries finance grows, clarity would be expected to emerge on the best-suited blended capital approaches for fisheries (e.g. as has been the case in forest finance, climate finance, etc.), and it will be incumbent on investors and their partner organizations to codify progress through case studies and knowledge platforms. This will help ensure that as the fisheries finance space grows and blended capital approaches become more prevalent, norms, codes of practice and standards are established, recognized and help solidify momentum.

Philanthropic Organizations and DFIs: Trialing Proof of Concept

Ultimately, the value of technical assistance, capacity building, communication and developing norms and standards will be limited unless tangible projects are identified and successful investments are made. Therefore, the most important next step for all parties interested in blended capital approaches is to explore and begin making real, on-the-ground investments. From this, substantial information will be gathered and improvements to the approach can ultimately be made.

Though risk remains a key barrier to investment, there is much that DFIs and philanthropic organizations can do to encourage private finance to begin investing in fisheries recovery. First movers like Althelia Ecosphere, Encourage Capital, the Meloy Fund and the Government of Seychelles can only be joined by others in the future if the information and opportunities identified are acted upon by investors, and potential projects have the capacity to receive and manage investments. We hope that this report provides an initial framework for DFIs and other providers of concessionary and grant financing to use blended capital in innovative ways that help overcome the barriers facing investment in fisheries recovery.

Concluding Remarks

If we are able to increase the types and amount of capital available to fund fisheries reform - and utilize one to leverage the other where needed - blended capital approaches may send clearer signals to decision-makers that reform is not only possible, but in everyone's best interests. In aggregate, such signals can help move us closer to advancing a suite of Sustainable Development Goals, and as a result, thriving, resilient oceans that support more fish, feed more people and improve global prosperity.

Annexes

Annex 1. Definitions and Characteristics of Various Investors and Finance Instruments

Capital is typically available to help finance fisheries reform via a number of different finance instruments that include:

- **Grants**: financial awards with no expected repayment or compensation over a fixed period of time, typically provided by philanthropic organizations, government agencies and development finance institutions (including debt swaps, where investors agree to cancel a portion of the recipient – generally government's – debt based on agreed conditions, such as the recipient spending those portions on fisheries reforms);
- **Concessionary capital**
  - o Concessional debt: money lent for repayment at a later date, usually with interest but at rates below those available on the market, typically provided by government agencies and development finance institutions (DFIs) (under a range of terms, e.g. with loans disbursed in stages dependent upon performance of borrower towards agreed targets, etc.),
  - o Guarantees: capital available to protect an investor from the risk of capital loss by taking on the debt obligation in the event of a default, typically provided by government agencies and development finance institutions;
- **Mature debt and equity**
  - o Equity: Investment that represents part ownership of a company that may be publicly traded or private, typically provided by venture capital, private equity and/or investment funds.
  - o Debt: The issuer promises to repay the principal of the loan on a specific date and to pay a specified interest on a regular basis, typically provided by investment funds. This can include 'social impact bonds', which are essentially pay-for-performance contracts, whereby government agencies pay a return to investors only if the targeted reform program meets or exceeds previously agreed upon performance targets.[6]

Sources: Nicola 2013; Rhim 2015; World Economic Forum 2015; Credit Suisse et al. 2016)

These instruments are typically provided by the following types of investors according to Credit Suisse et al. (2014):

1. **Donors such as philanthropic organizations and government aid agencies**, who do not seek repayment of the funds or a financial return, and whose sole objective is impact (including in some cases enabling other projects that do generate financial returns);
2. **Wealth-preserving investors**, such as development finance institutions providing concessional loans, with the objective of repayment of principal but no real financial return (essentially impact is the primary objective, while preserving wealth, with no financial returns sought); and
3. **Return-seeking investors**, such as venture capital, private equity and investment funds, whose objective is to generate market-level returns while in some cases achieving impact, with no tradeoff envisaged between the two.

For the latter group, the constraints to investing in projects with positive environmental impacts such as fisheries reform are significant – notably in the tropics. These include:

- **Little commercial support for early stage project ideas**, with substantial transaction costs incurred for even relatively small investments.
- **High search costs**, as there is no standardized process for tracking and evaluating investable opportunities, nor standardized measurement of conservation impacts and financial returns.
- **High perceived risks** (identifying and quantifying risks is difficult in the absence of standardized assessment tools).
- **Lack of scalability and replicability** models for existing projects (Credit Suisse et al 2016).

6 In essence, the government signs a pay-for-performance contract with an investor to deliver a reform program or service, with a payment amount to be defined up front (e.g. with rate of return to investor dependent upon performance), and the investor to contract for service (Nicola 2013)

Impact Investing: Private Capital Seeking Social and Environmental Impact

Among private investors aiming to preserve wealth or generate market-level returns, impact investing is an approach that has gone mainstream. It is defined by the Global Impact Investing Network (GIIN) as investments made into companies, organizations and funds with the intention to generate social and environmental impact alongside a financial return (either below or above market level). More than US$46 billion of investments under management in 2014 were considered impact investments, with the potential to grow to US$45 trillion in the next decade. In May 2015, JP Morgan and GIIN released their annual impact investor survey with updated reports on the impact investment landscape and investor activity. From their sample of 145 respondents, the total impact investment assessment amounted to US$60 billion. From this total, 10% of investments came from the energy sector, 5% from food & agriculture, and 17% from the 'others' category, which includes forestry, land conservation, sustainable agriculture, arts & culture, and manufacturing.

Sources:
http://www.forbes.com/sites/ashoka/2015/02/24/the-slippery-slope-of-impact-investing/
https://thegiin.org/assets/documents/pub/2015.04%20Eyes%20on%20the%20Horizon.pdf
https://thegiin.org/impact-investing/need-to-know/#s1

Characteristics of Finance Instruments

	Description	Beneficiaries and Markets	Opportunities to Blend with Other Finance Instruments	Category of Risk (Low, Medium, High)	Targeted Financial Returns	Financing Organizations
Grants	A financial award with no expected repayment. Can be used as seed capital, insurance/guarantees, and/or blended with other financial instruments as needed (or as directed by the grantor).	Non-profit organizations	Fund costs and activities that lead to investment of debt or equity in a given transaction (with a capital structure), including, for example, concessional debt.	High	No financial returns sought	Philanthropic organizations
		Non-project organizations and Governments		High		Development Finance Institutions, Government Agencies
Concessionary Capital						
Concessional Debt	Money lent for repayment at a later date, usually with interest. Concessional debt is loaned on terms favorable to the borrower, characterized by below market interest rates and typically long grace periods as compared to market-rate debt instruments.	Governments	Take the form of junior debt in a transaction that leverages private capital.	High	Recovery of principal	Development Finance Institutions, Government Agencies
Guarantees	Capital provided to protect an investor from the risk of capital loss by taking on the debt obligation in the event of a default.	Governments and private companies	Protect investors against capital losses in a given project/ transaction, or provide credit enhancement.	High	Fees	
Mature Debt and Equity						
Equity	Investment that represents part ownership of a company which may be publicly traded or private. Can be (i) junior equity: accepts higher risks for lower financial returns, in exchange for social, environmental and economic impact, i.e. in the event of a default, subordinated debt will only be repaid after all senior obligations have been satisfied; (ii) senior equity: ownership in a company where the value is determined at the time of investment.	Private companies	Public investment can take a junior equity position (subordinate to other equity), or junior debt investment (where terms are more favorable to borrowers than senior debt investment). or Public investment can take a position in a project alongside private investment, on the same terms, demonstrating viability and providing comfort to private investors.	Medium	Payment based on value of the company	Venture Capital
				Medium		Private Equity
				Low		Investment Funds
Debt	The issuer or borrower promises to repay the principal of the loan on a specific date and to pay a specified interest on a regular basis. Can be subordinate to senior debt (i.e. mezzanine).	Governments and private companies		Low	Repayments with interest	

Sources: Rhim 2015; World Economic Forum 2015; Credit Suisse et al. 2016

Annex 2. Synthesis of Risks to Capital Invested in Fisheries Reform

All financial returns to investments are subject to risk, and the profile of risk to return for a given investment will generally outweigh any other characteristic considered by return-seeking investors (Credit Suisse et al. 2016). Such investors will typically weigh the level of risk in order to determine the cost of the capital provided, and in many cases will have a threshold beyond which they feel it is too risky to invest (World Economic Forum 2015). For example, investments in private companies in emerging markets often face risks such as business model risk (nascent markets, new projects, new business models), technical feasibility, macroeconomic and corporate governance risks, funding shortfalls and liquidity risk (such as the inability to refinance and/or exit) (World Economic Forum 2015). In addition, transaction costs associated with learning new markets, capital intensive projects, small deal sizes and lengthy transaction times can be high, dampening return expectations (World Economic Forum 2015).

Generally speaking, risk will increase with the level of complexity in the system. Fisheries are extremely complex systems (Charles 2001), and tropical, multi-species, low-governance and small-scale fisheries even more so.

Risk in the fisheries sector is inherently high, and Holmes et al (2014) suggest five types of risk to achieving targeted returns in fisheries projects:

1. **Project execution risk** — lack of stakeholder engagement, failure of the management system, unforeseen delays.
2. **Environmental risk** — fish stocks decline despite governance reforms due to external factors, natural disasters, climate change.
3. **Market risk** — product does not attract a premium, market suffers from external shock, shifts in price and behavior.
4. **Political risk** — removal of public financing for the project, removal of supporting policy framework, change of government.
5. **Country risk** — country credit rating, exchange rate fluctuations and global market shock.

Risks assessed in commercial small-scale fisheries

- Reforms to fisheries governance could prove costlier than is budgeted.
- Fisher compliance with sustainable fishing practices may not improve as much as projected.
- Fisheries authorities may not provide promised enforcement resources or may undermine efforts entirely with poorly established policies.
- The commercial business operations may not be competitive or successful against lower-cost models that do not invest in sustainable or responsible sourcing.
- Complex overall project execution could fail to complete project implementation, or could prove to have unintended consequences.
- Exit strategies may not generate the targeted values.

Source: Encourage Capital (2015)

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