

Section I. PROJECT DESCRIPTION

1. GLOBAL ENVIRONMENTAL PROBLEMS, ROOT CAUSES AND BARRIERS

Global Environmental Problem

Maritime transport is vital to the global economy. Approximately 80 percent of global trade by volume and 70 percent by value is carried by ships.¹ As global consensus on climate change has increasingly focused on high carbon-intensity sectors, such as power and transport, shipping has been largely excluded from international climate negotiations. In fact, the industry remains one of the last to operate primarily on heavy fuel oil (HFO), a heavy, high-carbon, high-sulfur fuel that releases sulfur dioxide, nitrogen oxides and other harmful particulate matter into the air when burned.² Continued reliance on HFO, one of the world’s dirtiest fuels, has made the shipping sector one of the most carbon intensive, highest polluting industries in the world. As other sectors have taken steps towards decarbonization, shipping has risen to be the world’s sixth largest emitter of greenhouse gases. **The shipping sector is now responsible for approximately one billion metric tons of CO₂ emissions per annum, a carbon footprint greater than the country of Japan.**

The majority of the shipping industry has not yet made any significant changes that will result in either lower carbon emissions or air pollution for new vessels or for the 95,000 ships already operating today.³ Given the long asset life of commercial ships, much of today’s fleet is expected to still be in the water in 2050. **Without significant changes to newly commissioned ships and retrofits for the existing fleet, emissions from shipping are projected rise by up to 250 percent by 2050.**⁴ If shipping fails to decarbonize, it will account for between 10 and 17 percent of global GHG emissions by mid-century.⁵

An initial strategy adopted by the International Maritime Organization (IMO) aims to reduce carbon emissions from shipping by up to 50 percent by 2050. However, this strategy contains no binding commitments on the industry, nor as outlined below, does it alleviate the critical market barriers preventing private sector financing from flowing to the **estimated US\$1.4 trillion of upgrades necessary over the next two decades** just to cut shipping emissions by 50 percent.

A myriad of low-carbon, fuel efficient investment opportunities for ships already exist, many of which are cost effective today. Despite this, industry adoption of these technologies has been hampered by several market barriers that cannot be addressed by regulatory efforts alone. Among the most challenging is the long-standing **issue of split incentives** between shipowners, who make investment decisions for their fleets, but do not pay operational costs, and charterers, who lease these vessels for specific routes or periods of time and pay fuel costs during the contract period. This system has created systematic disincentives for shipowners to invest in fuel efficient technologies, which would create savings that a

¹ UNCTAD, 2019. Review of Maritime Transport 2019. Although the industry’s growth is inherently volatile in line with global trade, annualized growth averages are approximately three percent between 1970 and 2016. In 2019, there were 95,402 commercially operating vessels.

² Heavy fuel oil is also known as “bunker fuel” or “bunker oil”.

³ International Maritime Organization (IMO) adopted an initial strategy to reduce the carbon footprint of the shipping industry by up to 50 percent by 2050. However, this strategy contains no binding commitments.

⁴ IMO. Third GHG Study. 2014. Note that this Platform is specifically targeted to retrofits of operating ships; commercial ships have asset lives that can exceed three decades. A ship put in the water today would be expected to operate through 2050. Although new ships are placed into service each year, the existing fleet makes up the vast majority of the sector’s carbon emissions.

⁵ European Parliament, Emissions Reduction Targets for International Aviation and Shipping 2015

shipowner could not capture (see Figure 2). The IFC/GEF Greener Shipping Platform proposes the first known structural solution to this issue.⁶

With the ambition of unlocking the vast resources of the private sector in order to transform the carbon profile of the international shipping fleet, IFC, together with several key strategic partners, propose a first-of-its-kind financing Platform (“the Platform”). This Platform has the potential to rapidly scale available private sector financing for low-carbon investments for ships and change the decarbonization trajectory of the shipping industry. This Platform would aim to alleviate specific market barriers, outlined in more detail in the following sections, that are currently preventing widespread private sector investment in low carbon, fuel-efficient technologies. **The Platform aims to provide a transformative and sustainable solution to the environmental challenges of commercial shipping.** In recognition of the vital role that private sector financing must play to decarbonize the sector, IMO has expressed support for this IFC/GEF initiative. A letter from IMO to IFC, detailing the Platform’s alignment with IMO’s GHG Strategy and the importance of demonstration vehicles for private sector financing aimed at low carbon opportunities, such as the IFC/GEF Greener Shipping Platform, is included in the supporting documentation.

The Platform will initially be piloted with several global shipping industry participants, including Maersk Tankers, Cargill Ocean Transportation and Mitsui. Once a suitable suite of technologies has been tested and the innovative cost-saving/cost-sharing mechanism has been validated, the Platform can be scaled across the global shipping industry, including for smaller charterers or operators.

Root Causes

The omission of shipping from global efforts to tackle climate change can be attributed to several root causes. **The first is the industry’s unique complexity, fragmentation and lack of transparency.** Involving multiple actors and countries, the industry’s structure creates enormous challenges for data gathering, monitoring, and attribution of emissions, among others. The common industry practice of “flags of convenience”, whereby ship owners register ships in other countries to avoid restrictive regulations or to minimize or eliminate taxes, is one such example of the complexity involved in effective regulation. For example, a ship may be flagged in Panama, while being owned by a company in Greece, chartered by a cargo owner in the Netherlands to run a route between Chile and Hong Kong, using fuel supplied by Brazil and labor from the Philippines. **This complexity has weakened the regulatory environment and associated enforcement mechanisms.** Weaker enforcement is complicated by the fact that the majority of shipping emissions occur in the Areas Beyond National Jurisdiction (ABNJ). Commonly known as the high seas, ABNJ are outside national jurisdictions, making comprehensive, coordinated and effective regulation challenging.

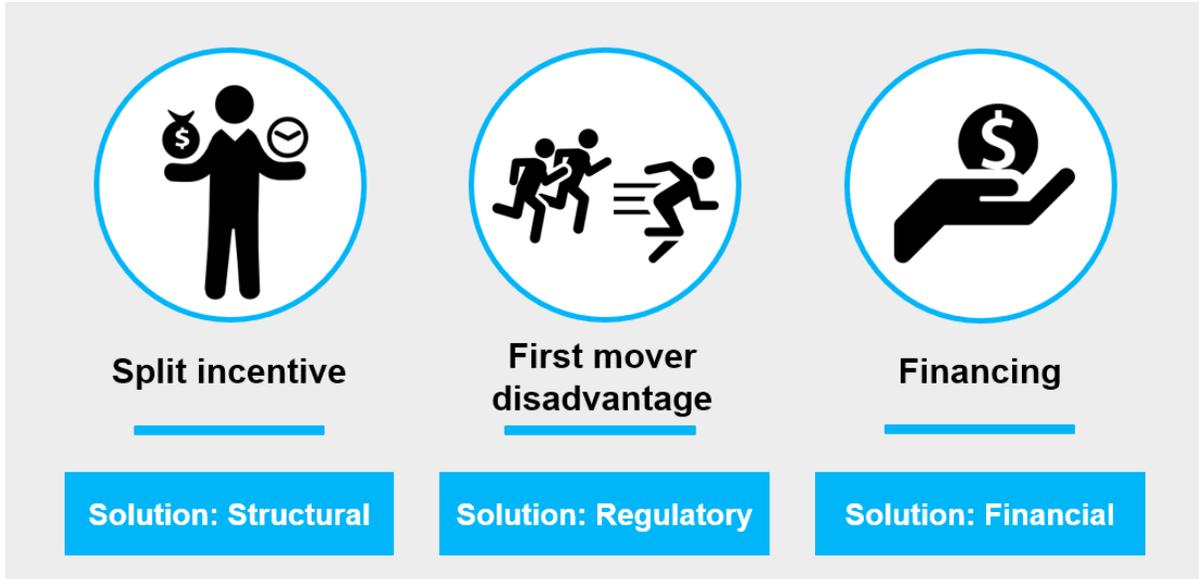
Underscoring the industry’s regulatory challenges, the shipping industry is also marked by intense **intra-industry competition and lack of pricing elasticity.** Industry players are reluctant to share commercially sensitive information with their competitors, particularly concerning investments that may enhance operational or technical efficiency.

Specific Barriers

In addition to the root causes of slower action from the shipping sector to address and mitigate the industry’s carbon footprint, there are several specific barriers hindering investments into low-carbon, fuel efficient technologies, which are further outlined below.

Figure 1. Market Barriers to Private Sector Investment in Greener Shipping

⁶ Estimate provided by UMAS and the Energy Transitions Commission for the Getting to Zero Coalition.

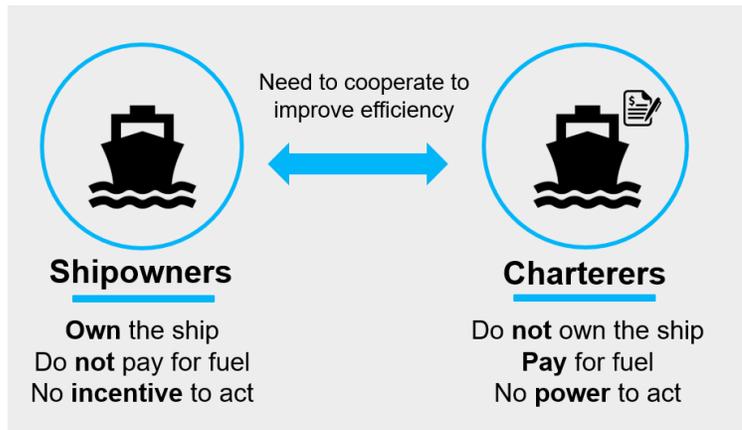


Barrier 1: Split incentives discourage long-term investments

Much of commercial shipping runs on a charter system. Ship-owners charter (or “lease”) a vessel, either for a specific route or a specific amount of time, to cargo owners or logistics services providers. Under traditional charter arrangements, the costs of any fuel used during that contract are borne by the charterer, leaving little incentive for a shipowner to make energy-efficiency or other technical improvements that would accrue long-term fuel savings the shipowner could not capture.

Additionally, given the intense price competition in the market, pricing for charters remains relatively inelastic with any retrofits unlikely to bring additional short-term pricing benefit. This issue may be only resolved through transparent collaboration and a structural method to share benefits between the charterer and the ship owner. Such a structure requires the presence of an impartial third-party investor, such as IFC.

Figure 2. Split incentives in the shipping industry



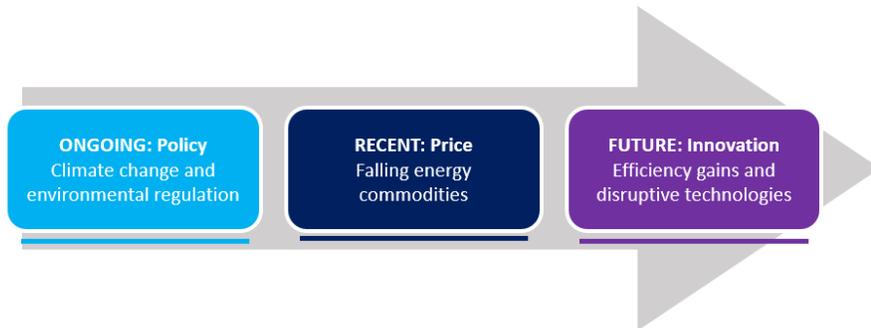
Barrier 2: First Mover Disadvantage for Green Shipping Retrofits

Cost of current technologies and the higher costs for initial investments are likely to drop when the technologies are produced at scale and available from a variety of suppliers. The market is poised for the first-movers to demonstrate the viability of the various technologies, but no single company wants to make the first investments and pay the premium. This is also the case for the associated supply chain investments, such as financing for alternative fuels. The availability of more highly refined fuel or LNG is often hindered by investments in the infrastructure supply lines required to ensure that those fuels are available in the ports where ships need them. Associated issues of quality in the supply chain further hamper investments, as many alternative fuels require special handling (e.g. fuels that must be pressurized or cooled during transit), which present additional challenges for smaller ports particularly in developing countries. This first-mover domino effect presents a major barrier to the capital expenditure needed to improve the fuel efficiency of ships - a lack of supply hampers the growth of demand, while without demand, supply investments are difficult to justify.

Barrier 3: Lack of Financing for Green Shipping Investments

Financing for retrofits has presented an industry challenge. The risk of “stranded assets”, or collateral that cannot be encashed, is acute for smaller upgrades and the installation of specific technologies, which presents a challenge for financial institutions to repossess if a loan underperforms. Financial institutions that specialize in shipping may provide asset-based financing for new ships (similar to aircraft financing) but are unable to cover upgrades, retrofits or the installation of new technologies, as the collateral underpinning the financing cannot be repossessed, foreclosed or liquidated.

Figure 3: Drivers of Stranded Assets⁷



While larger ship owners may be able to implement retrofits at their own cost (in the absence of the split-incentive problem), smaller shipowners cannot finance fuel-efficient technology improvements to their fleets, especially in emerging markets. While the *availability* of commercial financing is not a market barrier for many of the major shipping companies, who are able to raise debt on the commercial market at the same terms IFC could offer, commercial financing alone cannot alleviate the risks of newer technologies, the costs of being the first mover to retrofit a fleet, the lack of savings capture or other market barriers outlined above.

⁷ HSBC, Stranded Assets: What Next? HSBC Global Research, Climate Change. 16 April 2015.

IFC estimates that the current fleet requires several hundred billion dollars of retrofits just to meet the new caps on sulfur emissions that went into effect in January 2020. To bring the industry to zero net carbon by 2100 will require financing that is greater by an order of magnitude. A new study by UMAS and the Energy Transitions Commission for the Getting to Zero Coalition calculates that the amount of investment needed to halve shipping’s emissions between 2030-2050 are between US\$1 and US\$1.4 trillion. This is close to an average of US\$50-70 billion annually for 20 years. Full decarbonization by 2050 would require further investments of US\$400 billion over 20 years, bringing the total to US\$1.4-US\$1.9 trillion.⁸

2. THE BASELINE SCENARIO AND ANY ASSOCIATED BASELINE PROJECTS

(2a) Business as Usual Scenario

Under a business-as-usual scenario, shipping will remain one of the dirtiest industries in the world, emitting approximately one billion tons of global greenhouse gases every year and growing. In addition to carbon emissions, burning thousands of tons of HFO will release approximately twelve percent of the world’s sulfur (SO₂) emissions every year, a cariogenic air particulate attributed to thousands of premature deaths annually primarily in the world’s busiest port cities. Fuels from shipping will continue to be responsible for approximately thirteen percent of the world’s emissions of nitric oxide and nitric dioxide (NO_x), the gases that contribute to acid rain, ozone depletion and smog.

The indirect impacts of continuing to fuel the transit of 80 percent of the world’s cargo with one of the world’s dirtiest fuels will also be measurable in oil spills, oil residue, plastics and other chemicals either washed into the ocean through the ship’s bilge water systems or illegally dumped, with disastrous results for global marine ecosystems.

Decades of public sector work to support the strengthening of global consensus on the threat of climate change and the impact of business-as-usual shipping on marine ecosystems and air quality have led to recent catalytic shifts in the shipping industry, as detailed below. This Platform will seek to align with the critical work and awareness raising that is already underway.

(2b) Progress towards greener shipping

In 2018, the International Maritime Organization (“IMO”) adopted an initial strategy on reduction of GHG emissions from ships, setting out a vision confirming IMO’s commitment to reducing and phasing out GHG emissions from international shipping.⁹ IMO also recently announced the initiative, Green Voyage 2050, to promote global efforts to demonstrate and test technical solutions for reducing such emissions. Despite these critical efforts to align the regulatory environment and promote technical solutions, to date there has not been wide-spread efforts to catalyze the magnitude of private financing necessary to retrofit the existing global fleet. With operating lives that can extend beyond 30 years for a ship, a scalable, replicable, private-sector led solution to finance these upgrades is critical to any successful effort to decarbonize the shipping sector. In recognition of the importance of private-sector oriented solutions for low-carbon investments into the shipping sector, IMO has provided a letter of support for the Platform.

⁸ Christensen, Johannah. “How decarbonizing shipping could unlock a global energy transition.” World Economic Forum, 22 Jan 2020.

⁹ <http://www.imo.org/en/MediaCentre/HotTopics/Pages/Reducing-greenhouse-gas-emissions-from-ships.aspx>

Some forward-looking players, including Maersk, have publicly announced goals to reach carbon neutrality by mid-century.¹⁰ There have also been some limited efforts at financing for shipping initiatives, such as the Green Shipping Financing program launched by the European Investment Bank in 2017. However, this platform has focused on the construction and financing costs of new ships and restricts financing to companies with significant European interests (for example, by the vessel flag) which is inconsistent with the globalized nature of the shipping industry, as outlined above.¹¹

Alliances and partnerships are increasingly interested in taking action, including:

- **International Maritime Organization (IMO):** IMO adopted its first regulations to address the emission of air pollutants from ships more than a decade ago. In 2011, mandatory measures were implemented to improve the energy efficiency of international shipping (under MARPOL), representing the first-ever mandatory global energy efficiency standard for an international industry sector. In April 2018, IMO set out a vision to reduce GHG emissions from international shipping and phase them out, as soon as possible during this century. Based on the strong alignment between the and IMO's GHG strategy, IMO has expressed support for the operationalization of an IFC/GEF Greener Shipping Platform. IMO is also supportive of a collaborative effort among IFC, IMO, GEF and other private sector financiers to hold an event focused on Green Shipping.
- **Global Industry Alliance:** The Global Industry Alliance (GIA) to Support Low Carbon Shipping is an alliance of maritime industry leaders encompassing shipping businesses, like Maersk/MSK, engine manufacturers, like ABB/Wartsila, port operators, like the Port of Rotterdam, and fuel suppliers like Shell, working together with the GEF-UNDP-IMO GloMEEP (Global Maritime Energy Efficiency Partnerships) Project. GIA aims to provide technical expertise on tackling the challenges of decarbonizing the shipping sector. The Alliance can leverage resources from the GIA Fund, established through an annual membership contribution by the GIA.¹²
- **ING-EIB Partnership:** In February 2018, the Dutch Bank ING and the European Investment Bank (EIB) announced plans to finance commercial energy efficient retrofits of ships through a guarantee program.¹³
- **CEO Call to Action:** Initiated by the Global Maritime Forum (GMF), 34 CEOs of major shipping companies launched a Call to Action at GMF's Annual Summit in Hong Kong in October 2018. In this call, they fully commit to support the IMO strategy and confirm that they stand ready and willing to work with all stakeholders to help this succeed¹⁴. By now, this Call to Action has been signed by more than 50 maritime sector leaders.¹⁵
- **Poseidon Principles:** Launched in June 2019, the Poseidon Principles represent a framework for assessing and disclosing the climate alignment of global ship finance portfolios. Inspired and

¹⁰ Maersk. Maersk sets net zero CO₂ emission target by 2050. 2018

¹¹ Increased receptivity of the industry to more stringent regulatory requirements is demonstrated by recent IMO-mandated cuts in the sulfur emissions associated with respiratory disease and acid rain for up to 70,000 ships that went into effect in January 2020. This change will not affect carbon emissions.

¹² <https://glomeep.imo.org/global-industry-alliance/global-industry-alliance-gia/>

¹³ <http://www.climateaction.org/news/new-300-million-investment-to-help-steer-green-shipping>

¹⁴ <https://www.globalmaritimeforum.org/press/34-maritime-ceos-sign-call-for-action-in-support-of-decarbonization>

¹⁵ <https://www.globalmaritimeforum.org/content/2018/11/Call-to-action-in-support-of-decarbonization.pdf>

guided by parallel financial initiatives such as IFC’s Equator Principles, the Task Force on Climate Related Financial Disclosures (TCFD) and UNEP-FI’s Principles for Responsible Banking, the Poseidon Principles enable ship financiers around the world to render their ship finance portfolios consistent with responsible environmental behavior and incentivize them to contribute to international shipping’s decarbonization. This includes a firm commitment to track and report on the GHG emissions impacts of all shipping investments. Initial signatories include major ship financing banks such as Citibank, Société Générale, KfW or DNB, several of which are IFC clients and co-financing partners for third-party projects. IFC is currently exploring the necessary institutional arrangements required to become a signatory.

- **Getting to Zero Coalition:** Initiated by the World Economic Forum, the Global Maritime Forum, and Friends of Ocean Action, this industry-led platform brings together stakeholders from across the maritime industry to make zero-emissions vessels commercially viable - and in close association, to make zero-emissions fuels a reality by 2030. The World Bank is a supporting organization in this Coalition.

These initiatives demonstrate the increasing willingness of the shipping industry to tackle the challenge of changing the emissions trajectory of the industry.

(2c) Associated baseline projects

Since 2005, IFC has invested US\$14.2 billion, including mobilization, to private sector transportation projects. IFC’s investments in the transportation support private infrastructure projects and public-private partnerships that bring tangible benefits to communities and businesses in emerging markets – saving time, reducing costs and expanding trade.

Most recently IFC’s investments in shipping and barging have included several new and innovative project structures that have helped companies increase their efficiency, reduce their costs and save significant amounts of greenhouse gas emissions and other air pollutants. Recent transactions include a project with the Mediterranean Shipping Company (MSC), the world’s second largest shipping line by container vessel capacity. IFC committed a US\$150 million loan to optimize the sailing performance of 140 of MSC’s vessels. This project saved 1.5 million tons of carbon, 15,000 tons of SO₂ and 130 tons of NO₂ from efficiency improvements in the client’s existing fleet.

IFC also supported that client’s compliance with the IMO’s Ballast Water Management Convention. An IFC US\$70 million loan helped the client install 150 water treatment systems to stop the transfer of invasive species that can travel in ballast water. A sample of recent IFC projects in Shipping and Barging is included in the project’s supplementary documentation.

3. PROPOSED ALTERNATIVE SCENERIO and OUTCOMES

(3a) Proposed Program Approach

In the proposed alternative scenario, IFC proposes to create an **IFC-GEF Greener Shipping Investment Joint Venture for the Decarbonization of Maritime Transportation** (“the Platform”)¹⁶, a first-of-its-kind, technology-agnostic, private-sector driven, financing vehicle aiming to accelerate the creation of a global fleet of green, low-carbon ships. GEF funding will provide a critical derisking role, bringing

¹⁶ The terms and conditions of any private sector transaction are subject to change during final IFC investment review.

comfort to private sector investors and allowing this first-of-its-kind financing model to achieve first close.

The Platform would represent the first global effort to propose a solution to split incentives hampering fuel efficient investments, while also mobilizing financing to fill a vital gap to support low-carbon retrofits for commercial vessels. Initially capitalized by the anchor investors, the Platform would seek to deploy investments in technically feasible, commercially tested technologies that could provide significant fuel savings. Once operational, the Platform has the potential to scale across the shipping industry, providing financial and operational benefits for any eligible industry operator.¹⁷ In tandem, the Platform will seek to gather and disseminate information on operational best practices, technology suitability and operational performance data that can be shared across the industry. **Individual ships that have received investments and retrofits from Platform will be made publicly available to catalyze future demand for low-carbon, fuel efficient ships.** Operational data and performance will be disseminated through the Platform’s knowledge management components and will leverage other active programs, such as GreenVoyage2050, and other activities through partnerships such as GLOMEEP that support innovative technological solutions for shipping.

To demonstrate the potential transformative magnitude of this proposed solution, if the Platform were scaled to only capture only 10 percent of the currently commercially operating industry, equivalent to retrofitting approximately 9,000 ships at an average cost of US\$1.5 million, **a Greener Shipping Platform would expect to mobilize US\$13.5 billion in private sector financing and offset approximately 600 million tonnes of greenhouse gas emissions** across the lifetime of the investments.

Objective

The objective of the Greener Shipping Investment Platform will be to provide a comprehensive solution to the three primary market barriers outlined above, as follows:

- (i) solve the split incentives barriers currently preventing ship owners and charters from action resulting in fuel savings;
- (ii) alleviate first-mover disadvantage through an innovative derisking structure that protects investors and ship owners from testing commercially viable, fuel-efficient technologies on ships; and
- (iii) unlock and scale available private sector financing for greener shipping investments by demonstrating the commercial viability of fuel-efficient upgrades through transparent, industry-wide knowledge sharing of the performance of low-carbon ships.

Investment Thesis

The Greener Shipping Platform proposes a structure with the potential to transform one of the most carbon intensive industries towards a sustainable, low-carbon future while proving the commercial viability of greener shipping investments at scale. The Platform would also represent the world’s first scalable, globally available, private-sector backed investment vehicle specifically targeting low carbon solutions for operating ships.

Once the initial structure, including the cost-sharing mechanism has been validated, similar technology packages can be offered across the global shipping sector. If the business model was

¹⁷ Eligibility for additional investors to contribute capital to the Platform will be developed and approved by the Anchor Investors. Any charterer would be eligible to use the Platform to recommend ships for green retrofits.

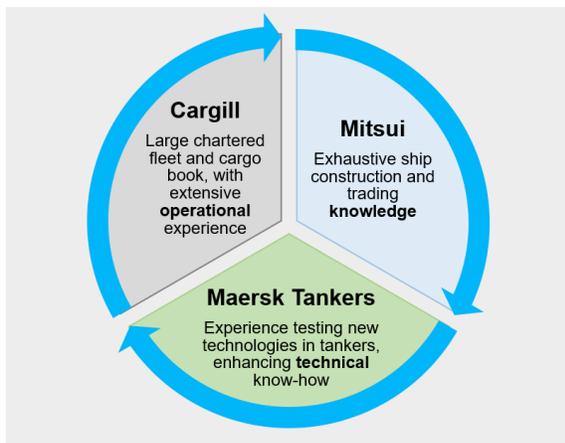
proven to be commercially sustainable, any currently operating commercial vessel could potentially benefit from packages of validated, fuel efficient, low-carbon technologies.

Strategic Partners for the Pilot phase

The three initial strategic partners are global leading shipping companies will lead as anchor investors for this Platform: Cargill Ocean Transportation, Maersk Tankers and Mitsui, as outlined below.¹⁸

Together these investors account for several hundred operating ships currently under charter and/or ownership. Each is committed to finding solutions to move their fleet towards low-carbon or carbon neutral operations.

Figure 4. Greener Shipping Platform - Anchor Partners



- **Cargill Ocean Transportation** is a leading freight-trading organization and charterer of over 600 vessels, moving more than 200 million tons of freight to more than 4,500 ports around the world.
- **Maersk Tankers** is a leading player in the product tanker industry, operating more than 160 product tanker vessels, one of the largest fleets of vessels in the world.
- **Mitsui** is a leading ship builder, operator and technical advisor, operating a fleet of almost 800 vessels from container shipping to LNG transport.

Platform Structure & Governance

The Platform, an operating company to be organized and incorporated under a mutually-agreed jurisdiction, will be staffed and managed by secondees and appointees from the anchor investor companies.¹⁹ A diagram outlining the structure of the proposed Platform is shown in Figure 5. Initially capitalized and piloted by the anchor investors, including IFC and GEF, the Platform structure and governance will be designed so additional investors, charterers and shipowners may be added to the Platform either during the initial phase or in subsequent periods in order to ensure maximum scalability. Any charterer (subject to reputational and credit risk checks) would be eligible to use the Platform and to recommend ships for green retrofits.

Investments made by the Platform will be overseen by the Investment Committee (IC). The IC will be responsible for the approval of the financing and installation of every proposed technology set and the estimated return from every investment. Payback periods and fuel savings will be estimated based on a comfortable confidence interval of, e.g., P90 probability of exceedance. The Investment Committee will ensure that the fuel savings, payback periods and expected investment costs are validated and agreed between the Platform, the shipowner and the charterer to ensure full transparency and information sharing.

¹⁸ IFC is also initiating discussions with other potential private sector partners, including existing IFC clients, to engage.

¹⁹ Legal domicile must be determined by consensus among anchor partners and will be based on final legal review and recommendations.

The Platform's operations will be overseen by a Board of Directors, formed by appointees from the anchor shareholders, alongside independent appointee member(s), as agreed by the anchor partners. The Board of Directors would be responsible for the overall investment strategy of the Platform and oversight of the investment portfolio performance.

Investment Cycle

The Platform investment cycle will be based on transparency, credibility, appropriate risk assessment and technical expertise. Maersk will validate a technology package of upgrades that seeks to maximize fuel savings for a particular vessel. Expected fuel savings must be validated and approved by Maersk Tankers and the IC. Once the investment is validated and approved by the IC, upgrades will be financed by the Platform and installed on the relevant vessel. The vessel would be chartered by the Charterer for the appropriate period of time, ensuring the payback of the investment with the target return. The Charterer (initially, Cargill) will pay approximately 15-20% of the expected fuel savings, as validated by Maersk Tankers, directly to the Shipowner, as an incentive to participate in the retrofits. The Charterer will pay the remainder of the expected savings (80-85%) directly to the Platform.

As the ship is placed back into commercial operations, the Platform will monitor the fuel savings, comparing them with the initial projections. Data and operational track records from the technologies will be summarized and disseminated for the benefit of the shipping sector. Ships that have received Platform-funded efficiency upgrades will be listed on the Platform's website to ensure transparency for future Charterers seeking to lower their fuel costs. This transparency is expected to catalyze demand for more fuel-efficient ships among shipowners, by creating a market for charterers to demand fuel-efficient ships.

The Platform will be capitalized by US\$155 million (including GEF). The Platform is in continuing discussions to add additional investors (which may also include additional capitalization from the anchor partners, other global shipping companies and private sector financiers, institutional investors or other Development Finance Institutions). IFC is also entering discussions with other stakeholders of the shipping industry to further validate and potentially replicate the Platform's business model.

The Platform's scalability will be driven by demand. Once the initial structure has been validated, similar technology packages can be offered to any shipowner, charterer or interested investor globally. If the business model is proven to be commercially sustainable, any currently operating commercial vessel could potentially benefit from packages of validated, fuel efficient, low-carbon technologies. If the Platform were scaled to capture only 10 percent of the current commercially operating industry, equivalent to retrofitting approximately 9,000 ships at an average cost of US\$1.5 million, a Greener Shipping Platform could mobilize more than US\$13 billion in private sector financing. GEF funding can provide critical de-risking incentives that will support additional participants to join and use the Platform in order to achieve scale.

Platform Life

The Investment Platform is expected to have a 10-year life. Additional partners may join the Platform at the discretion of the anchor investors. The active investment window will be seven (7) years, with the remaining period dedicated to supervision and monitoring. The seven-year investment window provides the maximum flexibility to make pilot investments with a broad range of green shipping technologies and encourage the use of newer technologies, particularly those of auxiliary low-carbon propulsion, which are likely to require payback periods exceeding traditional energy efficiency investments. If the Platform's investors renew the operations of the Platform, the active investment period will be extended. In no case will GEF's capital contribution exceed 20 years.

Investment Terms

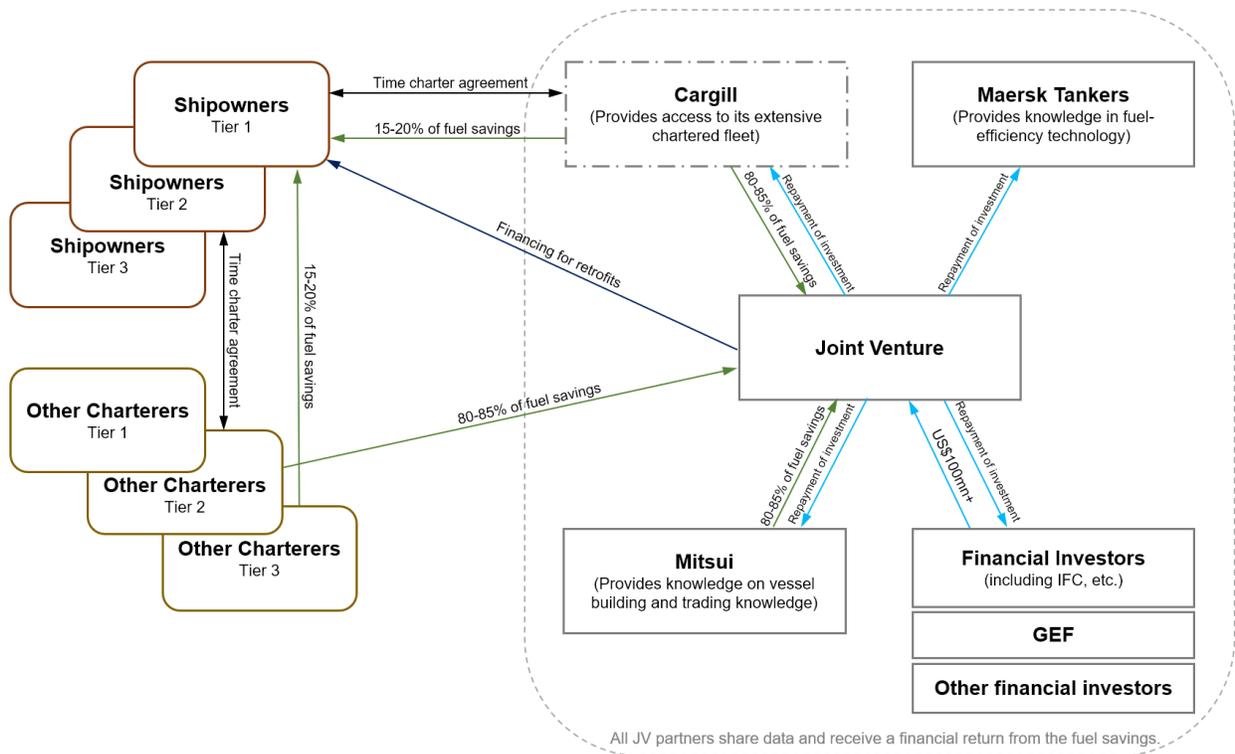
During the active investment period, the Platform will initially seek to finance at least 120 green shipping investments, assuming average investment sizes between US\$0.5 – US\$2 million. The potential fund or investment platform would be conservatively estimated at US\$155 million, which would include concessional finance from GEF, IFC co-investment and third-party financing. During this pilot phase, the fund will test various technology packages, validating the commercial performance of investments and transparently sharing operating data in order to increase the scale and replicability of future investments. An initial set of 30 ships will be targeted for the first set of operational enhancements.

Investments selected by the Platform’s Investment Committee will seek the following criteria:

- Eligible investments will be technology agnostic
- Technologies must meet minimum fuel savings criteria, be commercially available and be technically validated by Maersk Tankers
- Each investment must be no more than 10% of the Platform size
- All investments must generate minimum fuel savings that ensures a payback period equal to or less than 7 years
- All investments will be made in USD; the Platform will not take currency risks

An illustrative view of how this investment Platform will operate is shown below.

Figure 5. Greener Shipping Platform Structure



Role of GEF Concessional

Many global shipping companies already benefit from strong balance sheets and the ability to raise financing on terms equal to or better than IFC. As an investor in developing markets for the past six decades, IFC is aware that private investors often avoid projects that involve untested approaches—or those that the markets perceived as too risky. Although opportunities for cost-effective, fuel-efficient

improvements for shipping have existed for decades, to date there have been no systematic investments in fuel efficiency despite the fact commercially proven technologies exist today. A significant portion of this reluctance to invest can be attributed to the lack of appropriate derisking instruments for first movers.

GEF's equity investment in this Platform will provide critical derisking that will allow the Platform to achieve first close. The Platform will model an innovative, sustainable solution to the long-standing industry issue of split incentives, while allowing a range of low-carbon technologies to establish a commercially viable track record in the shipping industry. GEF's investment provides comfort to other investors, allowing the Platform to support a wider range of technology solutions than would be possible if judged on a purely commercial basis. IFC anticipates that once these investments demonstrate a proven track record of performance, future follow-on investments can be made on commercial terms, potentially accelerating a wave of technology adoption across the more than 95,000 operating vessels that form today's global shipping fleet.

IFC proposes to deploy GEF funds in a subordinated, quasi-equity structure, which provides the Platform with some, but not complete, coverage against underperformance from green shipping technologies. This structure is also a signal to the market that the first projects supporting low carbon investments for shipping require only partial concessionality, unlike other instruments, such as a first loss guarantee which provide risk coverage directly to anchor investors. In keeping with the DFI Enhanced Blended Finance Principles, IFC believes the structure proposed provides the Greener Shipping Platform with the **minimum amount of concessionality** required to ensure that the Platform proceeds.

Role of IFC

The Platform will leverage IFC's network of key global private sector players, the IFC's financial structuring expertise, its role as an honest broker and global convener of the private sector and its longstanding experience and demonstrated track record in shipping/transport. IFC will also bring its global client roster in shipping and transport, which includes several of the partners chosen for this initiative, other global shipping companies, ship financiers and charterers, who also may join the Platform.

Returns to Investors

The Platform will target a net IRR of between 8 to 15 percent for all investors, including GEF. An indicative Termsheet with further detail is included in Annex A, along with an indicative reflow schedule in Annex B. The Platform will consider a range of technologies; each will have individual calculations of fuel savings and payback periods for specific shipping environments. The seven-year investment window provides the maximum flexibility to make pilot investments with a broad range of green shipping technologies, including encouraging the use of newer technologies, particularly those of auxiliary low-carbon propulsion, which are likely to require payback periods exceeding more traditional energy efficiency investments.

The target rates of return appear satisfactory for the proposed quasi-equity instrument, as evidenced by participation of private sector companies at the same hurdle rate. Specifically, quasi-equity investments from the anchor investors to the platform would benefit from (i) no currency risk (ii) strong credit worthiness of each of the anchor investors and (iii) capability of the Platform to select from an array of proven green shipping technologies. The difference between GEF's return and the return of other investors to the Platform would only be in subordination in the cash waterfall, without which anchor investors would not invest in the Platform. If the Platform is successful, GEF would earn substantially the same nominal return as other anchor investors.

Project Outcomes/Outputs

During the investment period, IFC aims to achieve the following outcomes and outputs, as indicated below.

Component 1: Transform the Availability of Private Sector Finance for Greener Shipping Investments

Outcome 1.1: Private sector investment into greener shipping improvements that improve efficiency, saving fuel and operating costs.

- **Output 1.1:** Deploy at least US\$155 million of private sector financing for greener shipping initiatives.
- **Output 1.2:** Support investments related to green shipping, energy efficiency improvements and other technical efficiency measures that have the potential to directly lower carbon emissions by approximately 1.8 million tons of CO₂.²⁰
- **Output 1.3:** Achieve a co-financing leverage at the Platform portfolio level of at least 1:10 (GEF to total Platform size). Investments will seek to maintain a co-financing ratio of more than 1:10 (donor: total fund size, including private sector financing). Depending on the financial structure appropriate to the transaction, the leverage ratios may be higher on certain individual transactions.
- **Output 1.4:** Support scale up and commercialization of at least five (5) low-carbon cleaner technologies not yet deployed at scale in the shipping industry. Aim to support investments that underpin the business case for low carbon technologies and help those technologies and best practices achieve commercial scale. Financing for technologies may include those that have the potential to rapidly deploy once their track record in shipping is successfully established, including but not limited to auxiliary wind propulsion, air bubble hull lubrication, higher efficiency propellers and more hydrodynamic bulbous bows.

Component 2. Ensure Global Industry Awareness of Greener Shipping Investment Opportunities

Outcome 2.1 Ensure transparent knowledge sharing of fuel-saving, low carbon technologies across the shipping industry.

- **Output 1.1: Enhance transparency and publicly available performance data on green, fuel-efficient, low-carbon ships.** Ships that have received Platform assistance to invest in low-carbon, fuel efficiency measures will be made public on the Platform's website to enhance the visibility green ships and increase the demand for fuel-efficient ships from Charters. Performance and fuel savings from specific technologies will also be disseminated to catalyze increased investment and visibility from industry stakeholders. This may also provide compelling evidence for shipowners who operate their own vessels to finance improvements. Leveraging its additionality, IFC will act as a trusted partner to aggregate commercially sensitive results from investments, including best practices or experiences with specific technologies, while maintaining client confidentiality. IFC's strategic target for the dissemination of knowledge will be to leverage its network and

²⁰ The Platform will also seek to reduce or eliminate dangerous and carcinogenic air pollutants such as sulfur oxide (SO_x) and nitric/nitrous oxide emissions (NO₂), which are a byproduct of burning marine fuels. A target for these reductions will be made based on further refinement of technology packages with anchor partners.

client rolodex to create channels capable of reaching industry players best positioned to decide future investments. Initial collaboration with the International Maritime Organization (IMO) on initiatives such as Green Voyage 2050 may lead to additional knowledge sharing or the collaboration on Outputs detailed below.

- **Output 2.1 Convene an International Greener Shipping Event**

Based on outcomes from investments made by the Greener Shipping Investment Platform, IFC will host an event to focus industry attention on opportunities in greener shipping. Key industry players and anchor investors, including GEF, will be asked to discuss successes and challenges with the investment platform and associated learnings from low carbon, low pollution investments in shipping.

IFC has held initial conversations with IMO about aligning the Platform with IMO's ongoing initiatives, including Green Voyage 2050. IMO is supportive of this Platform and a Green Shipping event could be a collaboration between IFC, IMO, GEF and other private sector financiers.

- **Output 2.2 Deliver Flagship Greener Shipping Knowledge Piece**

IFC will develop a retrospective report on challenges of transactions in low-carbon transit, including a strategic look ahead for private sector investments. The report will summarize aggregated lessons learned from IFC-GEF Greener Shipping Investment Platform and seek to leverage IFC's role as a trusted partner and honest broker, able to protect the commercial sensitivity of its clients while disseminating aggregated learnings to other industry players who may be well positioned to make future investment decisions.

- **Output 2.3 Strengthen Public-Private Partnership Link among Green Shipping Stakeholders**

Global sectors, such as shipping, require longstanding, repeated coordination and engagement among both private and public sector players to ensure that public sector efforts are well coordinated with availability of finance to make them actionable. Work under this output will be designed to be needs-based, with strategic coordination among IFC clients for specific deliverables, which may include IMO's third study on decarbonization of the shipping industry, strengthening coordination between IFC and the IMO, where the World Bank Group has acquired observer status or through closer support of the Poseidon Principles, a set of principles currently endorsed by 11 leading ship financing banks with regards to measuring and reporting GHG emissions pertaining to ship finance portfolios.

IFC Governance for Blended Concessional Finance Resources

For all blended concessional transactions, IFC exercises the same standard of care when investing on behalf of donor partners as it does with respect to the administration and management of its own affairs. IFC's governance structure is aligned to IFC's blended finance principles first presented to IFC's Board in 2012 and the **DFI Enhanced Blended Concessional Finance Principles** adopted in 2017. More details on IFC's investment process, governance and oversight of concessional funds is available in the following Annex.

Summary of Project's Suitability for GEF Non-Grant Instrument (NGI)

This project has been designed to align with the specific selection criteria of the GEF-7 NGI Program. Box 1 summarizes the proposed project’s alignment with that criteria.

Box 1: Eligibility for GEF NGI Funding

<p><u>(i) Scalability</u></p>	<p>The Platform has the potential to be transformational. If Platform were scaled to only capture only 10 percent of the currently commercially operating industry, equivalent to retrofitting approximately 9,000 ships at an average cost of US\$1.5 million, a Greener Shipping Platform would expect to mobilize US\$13.5 billion in private sector financing and offset approximately 600 million tonnes of greenhouse gas emissions across the lifetime of the investments.</p> <p>Scalability can be tested once the (i) the proposed structure of sharing cost-savings is proven and (ii), the performance of fuel-efficient technologies is demonstrated. The Platform will then scale to incorporate additional investors, or in the best-case-scenario, be made available to cover any ship globally that currently operates under the charter system. The Platform’s business model is also expected to be replicated by other industry stakeholders.</p> <p>IFC anticipates a small amount of concessional finance in the form of derisking will bring comfort to investors to invest in an innovative structure that allows cost-savings from efficiency upgrades to be shared among investors. As fuel costs account for half of a ship’s daily operating costs, IFC expects that many technologies developed today are already cost-effective but have not yet been rolled out at scale due to market barriers such as split incentives and lack of financing.</p>
<p><u>(ii) Appropriate and enhanced co-financing ratios</u></p>	<p>The portfolio will seek to achieve a co-financing ratio of 1:10 (donor to private sector). This will include approximately US\$13.5 million from IFC, in addition to similar amounts from other anchor partners. Co-financing ratios may be affected by a portfolio more heavily weighted to newer/less proven technologies and business models.</p>
<p><u>(iii) Attractive financial terms</u></p>	<p>Investments supported by a Greener Shipping Investment Platform are expected to offer attractive financial terms and will be structured with the expectation of reflows. GEF financing is expected to be structured as close as is feasible to commercial rates of return, in keeping with the principles of minimum concessionality, while still allowing the transaction to happen. A Termsheet can be found in Annex A.</p>
<p><u>(iv) High Financial and Non-Financial Additionality of GEF</u></p>	<p>Concessional finance may be one of the only ways to unlock the enormous private sector financing available by de-risking investments in green technologies, addressing uneconomic pricing, first-mover costs and split incentives that have prevented the retrofits of commercial ships to date.</p> <p>As far as IFC is aware, there are no other global green shipping financing platforms that can offer the small amounts of concessionality required to alleviate the market barriers currently preventing shipping companies from making low carbon improvements to operating ships. GEF is potentially the only contributing partner whose geographic scope is global and whose environmental benefits broad enough capture the ambition of reducing global carbon emissions from the Shipping industry.</p>

<p><u>(v) Capacity to generate reflows</u></p>	<p>All projects structured under the Greener Shipping Investment Platform will be structured as returnable capital. IFC anticipates that any transfers of reflows, repayments or other associated fees would occur annually in line with IFC’s standard reporting to GEF. Expected reflows are summarized in Annex B.</p>
<p><u>(vii) Innovative financial solutions</u></p>	<p>Insofar as IFC is aware, no other similar concessional finance facility (ie. ability to realign split incentives, offset first-mover costs, or provide demonstration opportunities for new operational modalities or technologies) is available today. A global Greener Shipping Investment Platform able to deploy concessional finance to catalyze private sector investments into low carbon technologies would be a first-of-its-kind, innovative and transformational initiative.</p>
<p><u>(vii) Global Environmental Benefits</u></p>	<p>IFC estimates that leveraging a Platform initially valued at US\$155 million would create equivalent carbon emission savings, primarily from the offset, replacement or saving from marine heavy fuel oil (HFO), of approximately 1.8 million tCO₂e over the initial set of 120 low-carbon ship retrofits financed by the Platform. These calculations of environmental benefit are based on the Platform’s expected market share and investment volumes and are consistent with IFC estimates of the performance of specific fuel-efficient technologies used aboard commercial vessels. Reductions in emissions from sulfur oxide (SO_x) and nitrogen dioxide (NO₂), both byproducts of burning marine fuel, are also expected. These co-benefits are outlined further below.</p> <p>Aggregated direct and indirect impacts are initially estimated at over 20 million tCO₂e, but may be an order of magnitude larger, primarily driven by the demonstration effect and additional private sector investment on purely commercial terms. Approximately 2.5 million people are expected to be beneficiaries of the Platform’s environmental benefits.</p> <p>The Platform is also expected to have significant indirect impacts in addition to carbon savings. These co-benefits include (i) reduced dumping; (ii) improved wastewater treatment; (iii) lowering the rate and severity of oil spills; (iv) lessening oil and chemical residue washed into marine bodies by bilge water; and (v) reduced incidences of plastics and other equipment that is currently dumped in the open ocean along the world’s major shipping routes. Although benefits from these investments are expected to be global, they will accrue fastest for the major port cities in developing countries, as well as in countries with coastlines that border the world’s busiest shipping lines.</p>

4. ALIGNMENT WITH GEF FOCAL AREAS and/or IMPACT PROGRAM STRATEGIES

The Greener Shipping Investment Platform aims to support the objectives of the GEF Non-Grant Instrument and the successful engagement of GEF-7 with the private sector to engage in innovative technologies and business modes that can yield global environmental benefits consistent with GEF focal area objectives. The Platform is fully consistent with GEF-7 Programming Directions to tackle the major drivers of environmental degradation and to achieve systems change.

Specifically, the Platform is fully aligned with the **GEF Climate Change Impact Program to Climate Change Focal Area**, including the three fundamental objectives in GEF-7 Programming Directions: (1)

“Promote innovation and technology transfer for sustainable energy breakthroughs”; (2) demonstrate mitigation options with systemic impacts; and (3) foster enabling conditions for mainstreaming mitigation concerns into sustainable development strategies. Further the Platform is complementary to other climate finance programming, building on the GEF's long-standing track record of driving innovation and funding demonstration and pilot activities that are too early in the market adoption chain to be within the reach of other providers of environmental finance.²¹

Specifically, in line with GEF-7 Strategy objectives to promote innovation and technology transfer for sustainable energy breakthroughs, the Platform is strongly aligned at two entry points:

Accelerating Energy Efficiency Adoption: The Platform creates opportunities for available energy efficiency technology and proven approaches to be adopted more broadly and ensures energy efficiency policies, measures, and technologies are able to reach their full potential for a previously underserved sector.

Clean Tech Innovation: This project fosters technology deployment, dissemination, and transfer through entrepreneurship and emphasizes private sector partnerships.

The Platform is also complementary to the **GEF International Waters Program and International Waters Focal Area**, supporting the objective to address Areas Beyond National Jurisdiction (ABNJ) that are seriously threatened by maritime transport. Consistent with GEF-7 Programming Directions, the Platform offers a compelling opportunity for private sector engagement with national and regional stakeholders and supports transboundary cooperation in shared marine ecosystems.²² The Platform will offer private sector-supported de-risking instruments that accelerate the deployment of innovative technologies in the transport/shipping sector which are capable of addressing point and non-point sources of pollution and seek commercial solutions to reduce marine litter and pollution.

5. INCREMENTAL/ADDITIONAL COST REASON AND EXPECTED CONTRIBUTIONS FROM THE BASELINE THE GEFTF AND FINANCING

Incremental Cost Reasoning

Investments continue to be hampered by market barriers mentioned prior, key among them split incentives (charterers vs. shipowners), first mover risks, lack of financing and the intense market competition that has made it difficult for industry players to cooperate or share commercially sensitive information, even when the potential benefits are high. The merely *availability* of additional financing on purely commercial terms is unlikely to make meaningful inroads to remove these barriers and promote a lower carbon, lower pollution fleet. Dominated by international conglomerates with strong balance sheets, most major shipping companies already have access to inexpensive financing.

Concessional finance structured on quasi-commercial terms is a potential solution for all market barriers that currently hamper private sector engagement. Concessional finance has the potential to demonstrate the first generation of lower carbon, lower pollution results from greener shipping investments, allowing those to scale and replicate on increasingly commercial terms.

²¹ GEF-7 Programming Directions. GEF/R.7/19, Section 113, p. 36. Available in full at: <https://www.thegef.org/documents/gef-7-programming-directions>

²² Ibid.

IFC is not aware of another concessional global platform specifically targeting greener shipping investments for currently operating vessels. GEF's financial contribution to this innovative and first-of-its-kind investment vehicle is critical for its success. GEF's equity investment in the Platform, in the form of an opportunity to participate as an anchor partner in a fund designed to achieve impact at a scale sends a strong signal to key players in the international shipping sector that a low carbon future is feasible.

6. GLOBAL ENVIRONMENTAL BENEFITS

Direct Benefits

The proposed Greener Shipping Platform will target investments that have the potential to play a catalytic role in the creation of a fleet of green shipping assets, lowering greenhouse gas emissions by up to 20-40 percent on each ship voyage and reducing or eliminating dangerous and cacogenic air pollutants such as sulfur oxide (SO_x) and nitrifies oxide emissions (NO₂), which are a byproduct of burning marine fuels.²³

The complexity and size of the global shipping industry can make precise estimates of savings difficult. Estimates of average fuel use, for example, rely not only on the type of ship, its capacity and its loaded cargo, but also on other factors, such as the type of route it sails, the retrofit technology used and the weather during sailing. Changes in any of these categories may affect the calculation.

IFC's indicative calculation of environmental co-benefits from a Greener Shipping Platform are based on improving the fuel efficiency of a commercial ship traveling a high-volume route over one year. Using this methodology, IFC's model indicates that Platform-supported retrofits would avoid the use of approximately 2 million tons of marine heavy fuel oil, equivalent to saving 1.8 million tCO₂e across the asset life of the retrofits. IFC also calculated the potential carbon benefits based on the Platform's expected market share and investment volumes. Both methodologies are consistent with direct carbon emissions savings of approximately 1.8 million tCO₂e.

A summary of environmental benefits from IFC's indicative model are included below:

Table 2: Indicative Environmental Benefits from Greener Shipping Investments²⁴

Pollutant	Expected Annual Savings/Emissions Avoidance	Unit
CO ₂ emission avoidance	1,789,308	tCO ₂ e/initial Platform investments
SO _x emission avoidance	2,325	tSO _x /year
NO _x emission avoidance	12,974	tNO _x /year
Carbon Monoxide (CO) emissions avoidance	388	tCO/year
Non-methane volatile organic compound (NMVOCs) emissions avoidance	356	tNMVOC/year

Approximately 2.5 million people are expected to be direct beneficiaries of the Platform's environmental benefits. Comprehensive environmental benefit accounting related to decarbonization of the shipping industry is still being developed by the World Bank Group's academic partners. For example, the University College London, a renowned maritime research institution and close academic partners of the

²³ Exact fuel savings will depend on the vessel type, speed, route, etc.

²⁴ Estimates of CO₂ avoidance are based on a 10-year asset life across an initial set of 120 Platform-supported investments.

World Bank's work on decarbonizing the shipping sector, are the lead authors for IMO's Third GHG Study. One of the goals of this extensive research is to size the total investment needed to fully decarbonize the international shipping sector, including the additional operating costs, the additional energy costs and the capital expenditures (capex) required. Estimates of the required capex will focus on two areas: (1) additional costs of investments on a per-ship basis (aggregated over projections of an expanding fleet size), and (2) additional costs of investments in the fuel supply chain (including costs of alternative fuel production, transport, storage and bunkering). IFC would plan to incorporate these findings and adjust the environmental metrics accordingly.

Indirect Benefits

The Greener Shipping Investment Platform is also expected to create a portfolio of first-of-its-kind, demonstration projects, which are anticipated to catalyze follow-on projects that can be financed on commercial terms. These follow-on benefits, although not directly supported by a Greener Shipping Investment Platform, are expected to multiply the direct environmental co-benefits detailed above. If successful, the Platform has the potential to change the trajectory of the shipping sector's carbon emissions and bring it closer to a feasible future of decarbonization.

7. INNOVATION / SUSTAINABILITY AND POTENTIAL FOR SCALING UP

(a) Innovation

The project proposes a first-of-its-kind, innovative, transformational financial structure using concessional funding to de-risk investments into low-carbon investments for shipping. These investments will serve to address the specific market barriers constraining private sector financing for greener investments, as outlined above, including mitigating first-mover risks, encouraging the adoption of new technologies and providing innovative solutions to address barriers such as information asymmetry and split incentives. If successful, this model is expected to unlock vast private sector resources currently prevented from flowing to low-carbon investments due to the long-standing issue of split incentives, which continue to disincentive improvements to fuel efficiency.

(b) Sustainability

Fuel costs account for half of a ship's daily operating costs, making a variety of potential fuel-saving investments financially attractive in the absence of split-incentives. IFC anticipates that once the track record of these investments is established for the sector, additional investments may be made on a commercial basis. To support sustainability, the Platform will also ensure transparency by publicly disclosing the ships which have received upgrades or retrofits, along with sharing information on the performance of specific technologies.²⁵

(c) Scalability

The Platform has the potential to rapidly scale private sector financing available for green shipping and transform the trajectory of the shipping industry towards decarbonization. The Platform aims to alleviate the market barriers that are currently preventing widespread private sector investment in low carbon, fuel-efficient technologies. The Platform's ambition is to provide a transformative and sustainable solution to the environmental challenges of commercial shipping. In recognition of the vital role for private sector financing to decarbonize maritime transport, IMO has expressed support for this Platform and its

²⁵ Data is subject to client confidentiality and may be aggregated for public dissemination.

objective to scale and provide an innovative financing vehicle. A letter expressing IMO's support can be found in the Platform's supplementary documentation.

By using concessional finance to alleviate risk and to address pricing distortions that will primarily affect the early adopters of newer technologies, a vast commercial market could be unlocked. Even if the Platform scaled to capture only 10 percent of the commercially operating industry, equivalent to retrofitting approximately 9,000 ships at an average cost of US\$1.5 million, the Platform would still mobilize US\$13.5 billion in private sector financing for greener shipping. Even with only a minority market share, the Platform would have enormous potential to reduce GHG emissions, due to the magnitude of carbon savings available from investments into efficient, low-carbon shipping. An illustrative example is IFC's recent project to optimize the sailing performance of 140 vessels belonging to the Mediterranean Shipping Company (MSC). This project resulted in a reduction of 1.5 million tons of CO₂ per year, the largest GHG reduction from a single IFC investment at the time of its commitment.

Shipping companies are aware that low-carbon solutions are needed but unclear what package of investments would provide their fleet with the highest benefit for the available lowest cost. Concessional finance can be used to unlock a virtuous cycle of investments. Demonstrating the returns from the first set of projects allows shipowners to become more comfortable financing these improvements from their own cash flow. At the same time, as greener investments become more widespread, financial institutions may become increasingly willing to extend tailored loan products targeting low-carbon improvements for shipping, replicating available financing for much wider market segments. IFC and GEF also collaborated on similar projects to open up the financing markets for sustainable energy financing (SEF) programs through financial intermediaries. GEF supported many of these first-generation SEF projects, including CHUEE (GEF ID 2624), CEEF (GEF ID 1541) and PSEF (GEF ID 2108). The scalability of these projects is now visible; today energy efficiency lending is a commercial, mainstream product offering for financial intermediaries globally. IFC anticipates that similar to these early IFC/GEF SEF initiatives, greener shipping investments may require a small amount of concessionality initially to demonstrate success before scaling widely.

Section II. STAKEHOLDERS

The global shipping industry is complex, diverse, geographically dispersed and has numerous national, international and civil stakeholders across the public and private sector.

These include, but are not limited to:

- **Private sector companies** across all stages from port operators, supply vessels, ship owners, charterers, fuel suppliers, logistics services providers, commodity traders, cargo owners and ship brokers
- **Technology developers**, engineering companies, shipbuilders, etc.
- **Government ministries**, including both national and local government ministries of maritime transport and trade
- **Port Authorities** and other public agencies
- International regulators, such as the **International Maritime Organization**, a United Nations agency that acts as the industry's regulator, and has expressed its support for the Platform
- **Civil Society Organizations (CSOs)** and **Non-Government Organizations (NGOs)**
- **International non-government organizations**, such as the Global Maritime Forum, which represents the maritime industry

IFC and the World Bank Group have extensive networks and active consultations with the majority of the industry's stakeholders. IFC has consulted extensively with these networks in preparation for this proposal, including with a range of private sector players and the IMO to discuss the project designs that can provide effective, impactful and efficient structuring solutions to address the market barriers preventing the scale up of commercial financing for low carbon, low pollution shipping projects.

In the initial phase of the Platform, the focus will be to operationalize and demonstrate the commercial sustainability of various low-carbon technology investments. Timely execution will be of essence, therefore during the initial phase the focus has been on consultations with private sector stakeholders who may wish to invest, as well as the International Maritime Organization, to ensure alignment of the Platform with the IMO's initial GHG Strategy and current programming.

Over time, as the Platform establishes its efficacy, it will lead consultations through knowledge management events with relevant NGOs and civil societies, which will be able to offer further guidance on potentially available technology offerings. Learnings from these knowledge events will be adopted by the Platform accordingly and disseminated to the larger industry group.

The Platform is expected to directly collaborate with several ongoing initiatives where the World Bank is playing a leading role, including the **Getting to Zero Coalition**, which was initiated by the World Economic Forum, the Global Maritime Forum, and Friends of Ocean Action. This industry-led platform brings together stakeholders from across the maritime industry to make zero-emissions vessels commercially viable - and in close association, to make zero-emissions fuels a reality by 2030. The World Bank is a supporting organization in this Coalition.

As the Platform is designed and operationalized, conversations are expected to continue with key stakeholders, including but not limited to:

- **International Maritime Organization (IMO):** IMO adopted its first regulations to address the emission of air pollutants from ships more than a decade ago. In 2011, mandatory measures were implemented to improve the energy efficiency of international shipping (under MARPOL), representing the first-ever mandatory global energy efficiency standard for an international industry sector. In April 2018, IMO set out a vision to reduce GHG emissions from international shipping and phase them out, as soon as possible during this century. Based on the strong alignment between the and IMO's GHG strategy, IMO has expressed support for the operationalization of an IFC/GEF Green Shipping Platform. IMO is also supportive of a collaborative effort among IFC, IMO, GEF and other private sector financiers to hold an event focused on Green Shipping.
- **Friends of the Ocean Action:** Friends of Ocean Action is an informal group of over 55 ocean leaders who are fast-tracking solutions to the most pressing challenges facing the ocean. Its members – the Friends – come from business, civil society, international organizations, science and technology. The mission of Friends of Ocean Action is to use knowledge, means and influence to help the international community take the urgent steps needed to “conserve and sustainably use our ocean, seas and marine resources for sustainable development” as outlined in SDG 14: Life Below Water. The Friends of the Ocean Action works alongside the High Level Panel for a Sustainable Ocean Economy, which has action tracks that include ending illegal, unreported and unregulated fishing and decarbonizing the maritime and shipping sectors. The members of the Friends of the Ocean Action group include members of the private sector, such as the CEO of Salesforce and members of multilaterals such as the executive director of the UN Environment Programme.

- **High Level Panel for Sustainable Ocean Economy:** The High Level Panel brings together world leaders who recognize that economic production and ocean protection must be mutually supporting. It is an initiative of serving heads of government committed to catalyzing bold, pragmatic solutions for ocean health in support of the SDGs. The High Level Panel includes heads of government from some of the world's largest countries and is supported by the World Resources Institute.

Section III. GENDER EQUALITY AND WOMEN'S EMPOWERMENT

In December 2015, the World Bank Group launched a Gender Strategy (FY16-23), for the first time jointly committing the institutions of the WBG (including IFC) to support public and private sector clients in closing gaps between men and women. Following the WBG Gender Strategy, IFC developed a 3-year Gender Strategy Implementation Plan (GSIP) for FY17-19, which outlines how IFC will prioritize its work on closing gaps between men and women. IFC's priorities are to improve women's access to more and better jobs, and to enhance women's access to assets, including finance, technology, and markets. IFC works with companies on recruiting and retaining diverse talent, including getting certified on gender outcomes and narrowing the gap in management and on corporate boards. IFC continues to expand its work in closing gender gaps through investments, with recent commitments to quadruple annual financing dedicated to women-led businesses and achieve a 50 percent share of women directors where IFC has a board seat.

Consistent with IFC's Gender Strategy, a Greener Shipping Investment Platform, will undertake, as appropriate, a gender-responsive approach to investments. Concessional investments have development impacts and co-benefits that must allow women, along with their families and communities, opportunities for employment, access to services, income generation, and entrepreneurship. Investments may also present challenges that need to be addressed to ensure both women and men benefit, which IFC will consider and take into account during project development.

IFC will also seek to coordinate with other gender-based platforms serving the shipping sector and stay aligned, where appropriate, with initiatives that advance the cause of gender equality in the maritime industry. This could include, for example IMO's Women in Maritime program, that works to support the participation of women in both shore-based and sea-going posts.

Section IV. PRIVATE SECTOR ENGAGEMENT

Private sector stakeholders of the global shipping industry are now poised for change, as the regulatory bodies and enforcement mechanisms are strengthened, and the information and environmental impact data is more readily available. The availability of financing to implement these transformations is now critical. However, to date, no program or platform has been able to unlock the private sector resources required to catalyze the shipping industry to invest in a low carbon future. The massive investment required to meet the lower carbon, lower emission targets are immense. The resources of the public sector are insufficient to close the financing gap to upgrade or retrofit the 95,000 commercial operating vessels of today. The mobilization of private sector financing will be instrumental to decarbonization targets. This investment is anticipated to be highly visible among private sector players, as it incorporates the following:

(i) Transforming Policy and Regulatory Environments to Encourage Sustainable Business

An IFC-GEF Greener Shipping Investment Platform is the natural acceleration of the decades of public policy work supported by multiple organizations, including GEF, to bring consistency, transparency and environmental regulatory standards to one of the world's most challenging industries. The adoption of

low-sulfur standards and gradual shift towards carbon regulation can be attributed directly to these public sector efforts. A public-private partnership must now be ready to support the mobilization of private sector financing to scale this transformation.

(ii) Deploying innovative financial instruments

A concessional platform for greener shipping will take advantage of innovative, quasi-equity instrument with subordination features, available only through the GEF NGI window, to derisk investments into low-carbon technologies and operational. This structure will allow GEF to participate fully in the upside of the Platform, while expanding investor risk tolerance and offering some downside protection. The structure has been designed to mobilize significant private sector, third-party capital as well as to draw in additional private sector investors, who but for IFC's involvement, would not have participated.

(iii) Convening multi-stakeholder alliances

Multilateral and non-governmental institutions, including GEF, have supported the regulatory environment to the point where curtailing carbon emissions and other marine pollution has become a necessity. But without some form of concessional financing, many of these investments will not go forward at scale. A private sector focused platform, specifically targeting market barriers preventing financing from flowing to these cost-effective and environmentally beneficial projects is the critical next step. IFC proposes to create a first-of-its kind platform that can convene a diverse set of private sector players who have not yet explored greener shipping opportunities and would not participate but for IFC/GEF's involvement. IFC sees additional opportunity to link the Platform to other ongoing low-carbon initiatives with key stakeholders, such as the IMO, with whom IFC is already engaged.

(iv) Strengthening institutional capacity

The Platform is also expected to benefit the institutional capacity of the shipping industry to evaluate, finance and install low carbon technologies aboard operating vessels. Further, the demonstration effect of Platform investment projects is expected to scale up the institutional capacity of financial intermediaries to increase their lending for fuel-efficient improvements. On a project level, IFC brings rigorous due diligence and E&S Standards to all its investments and demands a threshold of performance from its clients that is aligned with global best practice. For each investment, a team of IFC E&S specialists works directly with the client company to strengthen reporting, ensure safeguards and protect local communities, in line with the World Bank Group's Performance Standards. Within the realm of private sector engagement, IFC believes that each investment financed strengthens the institutional capacity of our clients.

(v) Demonstrating innovative approaches

A private-sector engagement through an IFC-GEF Greener Shipping Investment Platform will encourage sustainable business investment by providing innovative instruments and solutions customized to provide minimum concessionality and move markets towards sustainability. Investments will also target the scale up of the new, cleaner technologies which must be tested, installed, manufactured, and verified at scale.

(vi) Crowding in private sector financing

Crowding in private sector financing is at the core of IFC's business. With over six decades of experience, IFC has become a leading mobilizer of third-party resources for projects in developing markets. IFC's willingness to engage in difficult environments and its leadership in crowding-in private finance enables it to extend its development impact well beyond its direct resources. In FY18, IFC mobilized US\$11.7 billion from third parties for projects in developing countries, in addition to its own-account investments. Almost 60 percent of that third-party financing supported projects in the most challenging, high-risk or poorest countries.

As the Chair of the DFI Working Group on Blended Concessional Finance for Private Sector Projects and a market leader in the use of blended concessional finance in private sector projects, IFC applies the DFI Enhanced Blended Concessional Finance Principles for every concessional transaction. These Principles, including crowding-in the private sector and adhering to minimum concessionality, are part of IFC's continued commitment to catalyze market development and mobilize private sector resources to maximize finance for development.

At the project level, a Greener Shipping Platform is expected to crowd in a minimum of \$142 million of private sector financing. A successful Platform is expected to scale up rapidly, incorporating additional private sector investors and increasing financing ratios for GEF's investment.

Section V. RISKS

Projects under the Program will be implemented in accordance with IFC's relevant policies and procedures and screened against a number of risks, largely to ensure Program success through financial viability and environmental and social integrity. The most relevant and significant projects risks have been categorized and described below.

(a) Credit risks

With the Greener Shipping Program's concessional investments targeting first-of-its-kind projects not yet fully commercially viable due to high risks and/or costs, it can be expected that the resulting portfolio may be less diversified and riskier than IFC's overall climate portfolio. To enable those highly additional and impactful projects, Program funds will require the ability to assume higher risks (and lower returns) than commercial investors, including IFC. At the same time, GEF's contribution to the Program comes with an expectation of capital reflows. Although GEF may be exposed to the credit risks of the investments under the Program, reflows will come back to the Program based on the financial performance of those investments. Typical credit risks and mitigating factors that are expected to be considered during project screening, due diligence, and financial structuring are described below.

(b) Country risk

Investments under the Platform may occur in countries with uncertain political and economic outlooks, making the provision of long-tenor financing challenging.

Mitigant: Projects will be carefully selected and reviewed to ensure typical protections, such as political force majeure, and other appropriate risk-mitigating products, as necessary.

(c) Sector risk

In some countries, regulatory reforms such as port emissions monitoring or open water dumping, are not yet in place, not enforced or under negotiations, creating uncertainty associated with implementation of reforms over the next few years. These reforms may affect the long-term financial viability of potential projects.

Mitigant: Sector reforms often need to take place over time in order to succeed, and in the interim the Program can support projects that are considered competitive, informed by IFC's experience in financing climate projects in other markets.

(d) First mover risks

Initial private sector projects supporting new technologies or business models will face typical risks associated with lack of experience and capacity in the sector.

Mitigant: The Program will benefit from IFC's selection of projects with the right combination of sponsors and suppliers to maximize the chances of success. The Program will also benefit from IFC's global experience in structuring and financing projects across other emerging markets.

(e) Environmental and Social (E&S) risks

IFC requires that all projects are assessed and screened for environmental and social risks. Projects are required to meet and operate in a manner consistent with IFC's Sustainability Framework, including IFC's Performance Standards (PS) on Environmental and Social Sustainability. The Sustainability Framework enables IFC to incorporate E&S risk management into investment analysis and decision-making processes through a transparent and disciplined approach.

Following IFC 2012 Sustainability Policy, IFC identifies risks and benefits for men and women. The Sustainability Policy incorporates a focus on increasing women's participation in investments and local communities through the PS. As part of the E&S assessment, IFC expects clients to minimize gender-related risks from business activities and unintended gender differentiated impacts. For example, consultations to affected communities, as part of PS1, should reflect the different concerns and priorities of men and women about impacts, mitigation mechanisms and benefits.

IFC has also set up a robust framework to ensure that projects are aligned with a core commitment to monitoring and enforcing IFC's strict environmental and social standards. The Compliance Advisor Ombudsman (CAO) is the independent accountability and recourse mechanism for IFC, which addresses complaints from people affected by IFC/MIGA projects, with the goal of improving environmental and social outcomes on the ground and fostering greater public accountability of IFC and MIGA. CAO reports directly to the President of the World Bank Group.

IFC commits to sharing the E&S Review Summary with the GEF Secretariat in advance of CEO Endorsement. As a GEF Agency, the World Bank Group is aligned with GEF Environmental and Social Safeguards policies; in instances where requirements for private sector projects may differ from the World Bank, IFC will seek to review and align such requirements in accordance with IFC's Environmental & Social policies and share this review with the GEF Secretariat in advance of CEO endorsement.

(f) Integrity risks and anti-money laundering/anti-terrorist financing policies

IFC holds itself to the highest standards of integrity in the conduct of its business and expects its project sponsors, clients, co-financiers, and counterparties to meet these same standards. Each potential investment project presents a unique level of integrity risk, which is the risk of engaging with external institutions or persons whose background or activities may have adverse reputational and/or financial impact on IFC and its partners. In accordance with the best practices of international financial institutions and multilateral development banks, IFC implements an integrity due diligence (IDD) process to identify, examine, and document integrity risks in potential and existing engagements and evaluate the integrity risk in order to decide whether to proceed with an engagement.

In addition, IFC is committed to combating money laundering (AML) and the financing of terrorism (CFT). IFC has a visible and effective program on AML and CFT, which supports its development mission and safeguards its reputation, as well as mitigating financial and operational risks. IFC takes into account and supports international best practices, as well as promoting these best practices among its clients to ensure that all IFC operations, and those of its partners and clients, are regularly reviewed and improved.

(g) Corporate Governance

IFC requires a corporate governance analysis for potential investment projects as part of its due diligence process. In this analysis, IFC makes use of IFC's Corporate Governance methodology, which evaluates corporate governance risks of client companies and opportunities to address issues and enable improvement. The focus is on commitment to good corporate governance practices, shareholder rights, accountability, the board of directors, the control framework, disclosure and transparency. This can be demonstrated through: (i) demonstrated commitment by the client company and its shareholders to implementing high quality corporate governance policies and practices; (ii) capacity of the Board of Directors to oversee the strategy, management and performance of the company; (iii) ability of the client company's risk management and controls to ensure sound stewardship of the company's assets and compliance with relevant regulations; (iv) client company financial disclosures that offer relevant, faithful, and timely representation of its economic transactions and resources; and (v) adequate and fair client company's minority shareholders' rights.

(h) Eligibility of Additional Platform Investors

The Platform aims to scale after establishing an initial track record for green shipping investments. After the operational model has been confirmed, the Platform will seek to add additional investors. The Platform may also be further expanded through debt financing, asset securitization or through other green instruments, such as Platform-issued bonds. Eligibility for additional investors seeking to contribute capital to the Platform will be developed and approved by the Anchor Investors.

(i) Eligibility of Charterers

The Platform's unique cost saving model relies on the credit-worthiness of the Charterer to ensure that the majority of the agreed, contractual fuel savings are periodically paid to the Platform and a small incentive payment is made to the shipowners to participate in the retrofits. As these payments are instrumental to the Platform's operations, the Platform will develop a standard set of criteria to assess the credit-worthiness of participating charterers. The Platform's Investment Committee (IC) will approve any new charterer's engagement with the Platform based on such criteria.

(j) Misalignment between Expected and Actual Savings

There is a risk that projections of savings from fuel-efficient investments do not materialize. This risk will be mitigated by ensuring the Platform works with credit-worthy charterers and selects technologies with a commercial track record in some sector. Rigorous technology evaluation, performed by engineering experts will rely on an industry-standard metrics (eg. p90), which will be further refined as the technologies demonstrate performance in a specific shipping environment. Shortfalls in savings may be ameliorated by adjusting the contractual agreement between the shipowner and the charterer. This may include extending the charter contract period to ensure a full payback of the forecasted cost savings.

(k) Energy and Shipping Market Dynamics

Prolonged low oil prices and sustained depression in the shipping markets may affect the priorities of the industry stakeholders and lower the incentives to focus on energy efficiency of the existing fleet.

Section VI. COORDINATION

The IFC-GEF Greener Shipping Investment Platform will align, coordinate and inform with other IFC and World Bank initiatives focused on green shipping. This will include continuing IFC/IBRD engagement on as key stakeholders in the MDB Working Group on Sustainable Transport, as part of the World Bank Group's Rio 20+ commitment to provide more than US\$175 billion of loans and grants for

transport in developing countries over the coming decade (through 2022). IFC would also seek to learn and share knowledge with several relevant GEF funded programs, as detailed below.

Coordination with relevant Private Sector Platforms

IFC would also seek to coordinate with the eleven financial institutions (FIs) who are signatories to the Poseidon Principles, several of which are already IFC clients. Together, these FIs control US\$100 billion of shipping finance and have committed to increase the transparency of the carbon emissions in their financing. Although their portfolios are primarily directed towards new ship building, would be well-placed to learn, shape and expand their lending products based on IFC’s track record of investments. This would be a particularly true for nascent, but scalable technologies whose large-scale success in the maritime industry requires creation of specific financing structures involving cooperation of several stakeholders.

Coordination with the International Maritime Organization

IFC and IMO have already discussed this Platform Concept and IMO has provided a letter of support, included in the supplementary project documentation, indicating alignment with IFC’s efforts to mobilize private sector financing for the decarbonization of the shipping industry. IFC would further seek to align with ongoing IMO initiatives in green shipping, including Green Voyages 2050, where potential work to pilot and showcase potential fuel efficiency and low-carbon technologies may provide synergies with potential Platform investments. Future cooperation is expected to continue as the Platform moves into operations.

Coordination with Relevant GEF Projects

In addition to stakeholders listed above, relevant GEF financed projects with which the IFC-GEF Greener Shipping Investment Platform would seek to coordinate and share learnings with other active GEF-funded initiatives that focused on the reforms shipping industry, including EBRD’s “Green Logistics Program” (GEF ID 9047) and IMO/UNEP’s “Transforming the Global Maritime Transport Industry towards a Low Carbon Future through Improved Energy Efficiency (GloMEEP)” (GEF ID 5508). IFC would seek to provide opportunities for review and feedback from both parties in the effort to capture and disseminate knowledge gained from Greener Shipping investments made by the Platform.

The Greener Shipping Investment Platform would also seek to consult with the IMO/UNDP “Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships’ Ballast Water (GloBallast Partnerships)” (GEF 2261). Although tangentially related to financing greener shipping initiatives, the GloBallast Partnership may provide a similar example of the natural continuity between GEF-supported public sector dialogue and follow-on opportunities for private sector engagement. In the case of ballast water, pressures on the shipping industry from the regulatory bodies, allowed IFC to propose a US\$70 million loan to install 150 new ballast water systems for long-standing shipping client, the Mediterranean Shipping Company (MSC), several years before the industry adoption of IMO’s Ballast Water Management Convention.

Coordination with Civil Society Organizations

As the Platform establishes its efficacy, it will seek consultations through knowledge management events with relevant NGOs and civil society organizations (CSO), which will be able to offer further guidance on potentially available technology offerings. Learnings from these knowledge events will be adopted by the Platform accordingly and disseminated to the larger industry group. The Platform will work with relevant stakeholders, including IMO, to identify key CSOs and NGOs to participate in these events and discussions.

Coordination with National and Regional Initiatives

Consistent with the globalized nature of the industry, the focus of the Platform will be global. However, where appropriate the Platform will seek to maintain alignment and collaboration with national or regional initiatives, such as the Pacific Blue Shipping Partnership, GreenVoyage2050 or support achievement of NDC targets for those that have included maritime transport in their NDC commitments. More detail on alignment with ongoing national and regional efforts is outlined below in Section 7, Consistency with National Priorities.

Coordination with the World Bank Group

Climate Change Group: The Climate Change Group has worked on decarbonizing maritime transport since early 2017. It nowadays represents the World Bank in official meetings at the International Maritime Organization where the World Bank has acquired observer status. Through this channel, the Climate Change Group also makes official submission to the Meetings of the Marine Environment Protection Committee such as the most recent one “Understanding the economic impacts of greenhouse gas emissions mitigation policies on shipping”.²⁶ It closely works with IMO member states on developing progressive decarbonization policies to shift maritime transport on a low-/zero-carbon development pathway.

The Carbon Pricing Leadership Coalition, hosted by the Climate Change Group, has been working on the idea of a market-based measure (carbon pricing) over the past couple of year. A core element has been stakeholder engagement (mainly through the CPLC shipping expert workshop series which hosted workshops in Paris in January 2018 with the OECD International Transport Forum (OECD ITF), in Cologne in May 2018, in Geneva in November 2018 with the United Nations Conference on Trade and Development (UNCTAD) and in Singapore in June 19 with the Maritime and Port Authority of Singapore).

Green shipping work supported by the Climate Change Group is in the process of receiving financial contributions from the World Bank’s new PROBLUE trust fund to pursue the following objectives: (a) supporting effective climate policy making under the IMO, (b) engaging shipping stakeholders to build consensus and develop common solutions, and (c) strengthening the WBG’s global leadership role and creating business opportunities.

World Bank’s Environment, Natural Resources and Blue Economy Global Practice: The Environment, Natural Resources and Blue Economy Global Practice has a substantive work program focusing on many aspects related to the Blue Economy. Part of this work program is the management of a newly established trust fund called PROBLUE. PROBLUE is a new Multi-Donor Trust Fund that supports healthy and productive oceans. It supports the implementation of Sustainable Development Goal 14 (SDG 14) and is fully aligned with the World Bank’s twin goals of ending extreme poverty and increasing the income and welfare of the poor in a sustainable way. PROBLUE is part of the World Bank’s overall Blue Economy program, which takes a multi-pronged, coordinated approach to ensuring the protection and sustainable use of marine and coastal resources. In the light of its four key themes, support for green shipping falls under the sustainable development of key oceanic sectors such as tourism, maritime transport and off-shore renewable energy.

World Bank’s Transport Global Practice (Transport GP): The Transport GP has continually worked on port-related infrastructure projects. Upcoming engagement with a focus on clean shipping and ports (including broad environmental impacts beyond GHG emissions to focus on concerns such as solid waste,

²⁶ IMO. MEPC 74-7-3 and MEPC 74-INF.12

liquid waste, invasive species in ballast water, cargo residues, shipbreaking, etc.). The Transport GP is working on global knowledge products supporting this agenda (Blue/Green Ports Toolkit, for potential PROBLUE funding request) and the Caribbean Blue Ports Initiative (already submitted for consideration). Further work in India and South Africa also contributes to this agenda with substantial room for expansion.

Section VII. CONSISTENCY WITH NATIONAL PRIORITIES

Due to the complexity and size of the shipping industry, as well as driven by the accrual of environmental co-benefits in international waters, the majority of environmental co-benefits from the Platform's investments will accrue in Areas Beyond National Jurisdiction (ABNJ). As such, these environmental co-benefits fall outside the nationally determined contributions (NDC), as neither emissions from shipping nor aviation are included in the Paris Agreement. The fact that the shipping industry has been permitted to continue to emit particle matter known to be carcinogenic and profoundly determinantal to human health, air quality and marine ecosystems, is a profound demonstration of the difficulty of providing solutions and effective regulation for areas beyond NDC boundaries.

Consistent with the globalized nature of the industry, the focus of the Platform will be global. However, in cases where shipping has been incorporated into national and regional climate objectives, the Platform is well aligned with national priorities. Several illustrative examples of this alignment include:

Pacific Blue Shipping Partnership: A governmental initiative of multiple small island developing states in the Pacific, including Fiji, Marshall Islands, Vanuatu, Tuvalu, Solomon Islands, Tonga, Kiribati, which committed at the United Nations Climate Action Summit 2019 in New York to fully decarbonize their regional shipping activities by 2050.

Nationally Determined Contributions: Several countries, such as the [Marshall Islands](#) and the [Philippines](#), have included shipping in their Nationally Determined Contributions (NDCs) under the Paris Agreement, tying commitments to national reductions of greenhouse gas emissions to domestic shipping. Other countries are considering following suit in the pending 2020 revisions to NDCs.

Non-maritime shipping: While most shipping occurs on oceans, inland waterways are also very critical for many countries. For example, with the support of the World Bank, Bangladesh has started to develop its inland waterways shipping for cargo moving significant amounts of freight from the road to rivers and to ensure seamless connection with coastal and maritime shipping.

GreenVoyage2050: In 2019, the International Maritime Organization (IMO) with which the World Bank Group is planning to sign a Memorandum of Understanding for close collaboration on green shipping launched a new program called [GreenVoyage2050](#). Under this program, the former [Global Maritime Energy Efficiency Partnerships](#) (GloMEEP), supported by the GEF, will be continued, deepened and enhanced in the phase one countries: China, India, Malaysia, South Africa, Georgia. The goal is to support these five countries to initiative demonstration projects for increased energy efficiency and new fuels.

National action plans: The [Initial Strategy](#) on Greenhouse Gas Reductions from Ships, adopted by the IMO in April 2018, explicitly refers to national action plans as an important lever to contribute to the climate targets of international shipping.

Shipping registries: The United Nations Conference on Trade and Development has started to establish a link between carbon emissions from international shipping and IMO states. A recent thought piece concluded that Panama, the Marshall Islands and Liberia “hosted” about one third of global shipping emissions in 2019, sparking a discussion as to whether financial contributions to the IMO should be calculated partially based on carbon emissions from ship registries.

In addition, although outside the NDCs, the high seas and the world’s business shipping routes are overwhelmingly bound by developing countries, particularly in Asia, which is the destination of over 60 percent of the world’s ocean-bound cargo. Developing countries house 15 of the world’s busiest ports. More than 80 percent of the world’s most intense air pollution is attributed to shipping emissions. Countries situated along the world’s congested shipping lanes, such as **Indonesia, Malaysia, Panama and Vietnam** are all signatories to the Paris Agreement and have signaled their intent to tackle their carbon emissions. These countries will disproportionately benefit from cleaner, greener shipping practices, particularly as 70 percent of shipping emissions occur within 400 kilometers of the coastline.

Finally, marine pollution, not only air pollution, but oil spills, plastics, dumped equipment and other trash, have the most significantly impact those living closest to those trade routes and major port cities. The environmental co-benefits of reducing marine pollution in all its forms will have significant benefits on the water quality, marine life, fisheries and other developing countries that rely on oceans for their livelihoods.

Section VIII. KNOWLEDGE MANAGEMENT

The Platform will seek to leverage information, learning and knowledge gained from the Platform’s investments and disseminate it transparently and publicly in order to support additional scale up and/or replication:

- Involve stakeholders in the project’s preparation, in order to learn from their collective experiences
- Provide visibility to the Platform and its anchor partners and donor (GEF) as a first-of-its-kind innovation in greener shipping financing
- Provide thought leadership on technical and operational improvements for greener shipping investments
- Disseminate aggregate data on experiences with specific technology and operations, subject to client confidentiality
- Disseminate lessons learned about greener shipping investments with decision makers and in appropriate industry fora
- Leverage IFC’s role as a global convener to bring together private sector participants and other stakeholders in order to share experiences, provide lessons and support public-private partnerships
- Coordinate with relevant national, regional and international platforms to ensure knowledge transfer and transparency

Specific knowledge work and dissemination across key industry stakeholders will be carried out, which is detailed in Component 2 of the Investment Platform’s proposed work plan.

Annex A: Revised Indicative Financial Termsheet (April 2020)

Instructions. This termsheet to be submitted with the PIF/PFD should include sufficient details to allow a financial expert to understand and judge the financial viability of the proposed investments. Indicative terms and conditions should be used when specific details are not yet available. An equivalent termsheet used for internal Agency purposes is acceptable but must include sections on Currency Risk, Co-financing Ratio and Financial Additionality.

GEF – INDICATIVE TERMSHEET Project/Program Title	IFC-GEF Greener Shipping Investment Platform Joint Venture for the Decarbonization of Maritime Transportation)²⁷ (“The Platform”)
Project/Program Number	TBD
Project/Program Objective	Create a first-of-its-kind global investment vehicle solely focused on decarbonizing the shipping industry. Given the long-standing split incentive issue ²⁸ between shipowners and charterers, such a targeted investment Platform would catalyze private sector financing and create the world’s first operating fleet of fuel-efficient, low-carbon, green ships.
Country [ies]	Global. A Greener Shipping Investment Platform would aim to reduce carbon emissions, improve air quality and reduce emissions of air particulates regardless where those benefits accrued. Many of the investments may benefit developing countries.
Agency presenting the Project	International Finance Corporation (IFC)
Anchor Investors	Expected to comprise (subject to confirmation of interest, negotiations and approvals): <ul style="list-style-type: none"> • Cargill Ocean Transportation • Maersk Tankers • Mitsui

²⁷ The terms and conditions of any private sector transaction are subject to change during final IFC investment review, structuring and confirmation of interest from and negotiations with the other potential investors. Other investors may join the Platform during the life of the Project. There may be more than one similar platform with various investors.

²⁸ Much of commercial shipping runs on a charter system. Ship-owners charter (“lease”) a vessel, either for a specific route or a specific amount of time, to cargo owners or logistics services providers. Under traditional charter arrangements, the costs of any fuel used during that contract are borne by the charterer, leaving little incentive for a shipowner to make energy efficiency or other technical improvements or retrofits that would accrue long-term fuel savings the owner could not capture. Additionally, given the intense price competition in the market, pricing for charters remains relatively inelastic with any retrofits unlikely to bring any additional short-term pricing benefit. Thus neither the shipowner nor the charterer has a financial incentive to make a ship more fuel efficient.

	<ul style="list-style-type: none"> • GEF (<i>through IFC, as GEF Executing Agency, also referred to as the Anchor Donor</i>) • IFC <p>As a quasi-equity investor, IFC will ensure best-practice corporate governance are adopted by the Company and the Board through the Platform’s incorporation documents. Management approval for any new IFC investment requires that investees meet IFC’s Corporate Governance and Performance Standards. IFC participation is subject to these governance standards and is standard practice for IFC.</p> <p>As long as IFC continues to be an investor, these standards are adhered to irrespective of any additional rounds of financing by the company.</p>																
<p>Project Financing</p>	<p>Total co-financing will be US\$142 million.²⁹</p> <p>Note that all blended concessional finance investments made by IFC require a new IFC investment. IFC’s blended concessional co-investment model ensures incentives are aligned and that donor financing can take advantage of IFC’s extensive due diligence, project monitoring and supervision cycle without incurring additional costs.</p> <p>IFC anticipates co-investing \$13.5 million quasi-equity on its own-account into the Platform. The total investment from IFC and IFC-as-implementing-agent-for-GEF, would therefore be anticipated to total \$27 million.</p> <p>Platform Co-Financing</p> <table border="1" data-bbox="792 1440 1380 1753"> <thead> <tr> <th>Sources of Co-Financing</th> <th>Co-financier</th> <th>Type</th> <th>Investment Mobilized (US\$)</th> </tr> </thead> <tbody> <tr> <td>GEF Agency</td> <td>IFC</td> <td>Quasi-equity</td> <td>\$13.5m</td> </tr> <tr> <td>Private Sector</td> <td>Cargill</td> <td>Quasi-equity</td> <td>\$10m</td> </tr> <tr> <td>Private Sector</td> <td>Mitsui and Co</td> <td>Quasi-equity</td> <td>\$10m</td> </tr> </tbody> </table>	Sources of Co-Financing	Co-financier	Type	Investment Mobilized (US\$)	GEF Agency	IFC	Quasi-equity	\$13.5m	Private Sector	Cargill	Quasi-equity	\$10m	Private Sector	Mitsui and Co	Quasi-equity	\$10m
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Private Sector	Cargill	Quasi-equity	\$10m														
Private Sector	Mitsui and Co	Quasi-equity	\$10m														

²⁹ The grant portion of the Platform supporting capacity-building and knowledge-sharing is not included.

	<table border="1"> <tr> <td>Private Sector</td> <td>Maersk Tankers</td> <td>Quasi-equity</td> <td>\$10m</td> </tr> <tr> <td>Private Sector³⁰</td> <td>Other Investors</td> <td>Quasi-equity</td> <td>\$98.5m</td> </tr> </table>	Private Sector	Maersk Tankers	Quasi-equity	\$10m	Private Sector ³⁰	Other Investors	Quasi-equity	\$98.5m
Private Sector	Maersk Tankers	Quasi-equity	\$10m						
Private Sector ³⁰	Other Investors	Quasi-equity	\$98.5m						
GEF Proposed Financing	US\$13.5 million in a subordinated, quasi equity instrument from GEF as an anchor investor.								
Total Size Investment Platform	The Platform will target total capitalization of US\$155.5 million within the first investment period of seven years. Additional investors may join the Platform at any time upon agreement with the anchor investors.								
Co-financing and Co-Financing Ratio	<p>The Platform’s investors will comprise of global shipping companies (possibly including Maersk Tankers, Cargill and Mitsui), DFIs (including IFC), other private companies, potentially including other charterers, institutional investors and/or mobilization platforms.</p> <p>Co-financing ratios are as follows:</p> <p>Every GEF US\$1 mobilizes US\$10.50 of other financing for a co-financing ratio of 1:10.50x (donor: other investors) or 1:11.5x (donor: total investment).</p> <p>This co-financing ratio may increase as additional investors join the Platform.</p>								
Currency of the Financing	USD								
Currency risk	The Platform will be denominated in US dollars; there will be no currency risk.								
Structure and Governance	<p>Financing from IFC will require that the Platform would implement best practice corporate governance standards and include appropriate conflict resolution mechanisms. IFC, on its own account and as co-investor and as implementing partner for GEF, will ensure that these are incorporated into the charter documents of the Platform.</p> <p>Appropriate corporate governance bodies would be set up, e.g., investment committee (to review the merits of each investment), the board of directors and the general investor meeting. IFC</p>								

³⁰ Subject to successful performance of the Platform, market interest and agreement with other anchor investors

	<p>will strive to align the incentives of all the Anchor Investors, including avoiding conflict of interests in the waterfall payment to the different anchor investors and the staff allocated to the Platform.</p>
<p>Investment Platform Strategy</p>	<p>Within the first two years, the Green Shipping Investment Platform will seek to make to at least 10 new investments to upgrade or retrofit eligible ships.</p> <p>During the active investment period of seven years, the Platform will seek to finance at least 120 green shipping investments (subject to market demand and investor interest), assuming average investment sizes between \$0.5 – \$2 million.</p> <p>The Platform will invest in fuel-saving technologies that have an established track record in shipping and other sectors.</p> <ul style="list-style-type: none"> • Investments will seek to increase the fuel efficiency of the ship using modern fuel saving technologies. • Eligible technologies must meet minimum fuel savings criteria, be commercially available and be technically validated by the Platform to be considered for investments. • To ensure appropriate diversification, the Platform will cap each investment at no more than 10% of the platform capitalization. All investments must generate minimum fuel savings that ensures a payback period equal to or less than 7 years. • Each payback period would be determined by the investment that underpins it. The Platform will strive to repay investments as quickly as possible to satisfy financial interests of all the investors. <p>Note that any investment supported by the Platform must be economically justified, commercially oriented and ensure the target return to the anchor investors. Eligible technologies must demonstrate high fuel efficiency. As it is likely the Platform will be oriented towards opportunities that maximize fuel savings in the specific shipping</p>

	<p>environment, a fuel efficiency floor has not been considered necessary.</p>
<p>Life of the Platform and associated investment projects</p>	<p>The Investment Platform will have a 10-year life. The active investment window to support green shipping retrofits and upgrade projects will be seven (7) years, with the remaining period dedicated to supervision and monitoring.</p> <p>The seven-year investment window provides the maximum flexibility to make pilot investments with a broad range of green shipping technologies and allow Platform-supported investments to stay technology-agnostic, including encouraging the use of newer technologies, particularly those of auxiliary low-carbon propulsion, which are likely to require payback periods exceeding more traditional energy efficiency investments.</p> <p>The length of GEF’s investment will be coterminous with other investors to the Platform. IFC will be a co-investor with GEF; If the Platform were extended, IFC and GEF will continue their respective investments. If IFC exits the Platform, GEF will exit as well. Any recommendations to extend the Platform, along with the commercial justification for such an extension, will be made by the Platform’s investors. In no situation will IFC or GEF’s term exceed 20 years.</p>
<p>Capital Structure</p>	<p>The Platform will initially be financed with capital contributions in the form of shareholder loans from the Platform’s anchor investors. Funding from GEF would be used in the form of quasi-equity to help the Platform achieve first close.</p> <p>Within the structure, GEF’s capital would be subordinated to other anchor investors, as per the waterfall agreed between the anchor investors. At this time, it is not envisaged that GEF will be subordinated to subsequent investors.</p>
<p>Exposure Limits</p>	<p>No more than 10% of the Platform’s capital in any one investment.</p>
<p>Platform’s Expenses</p>	<p>The Platform will bear two types of expenses.</p> <p>(i) One-time set-up costs to place the Platform into operations, sourced from the first capital call to the anchor investors.</p>

	<p>(ii) Ongoing expenses which would cover the annual operational costs of the Platform. Once operational, a mechanism will be put in place to use a portion of the Platform’s revenue from each individual investment to reimburse ongoing administrative and operating costs of the JV. Regular capital reflows to all the investors in the Platform, including GEF and IFC, will be effected after the costs of operations are covered.</p> <p>All investors in the Platform, including GEF and IFC, will share equally prorata in the costs of operations during set up and operations. No fees will be paid by IFC/GEF on individual investments made by the Platform. Operational expense covered during (i) and (ii) will not create a conflict of interest for anchor investors or other participants in the waterfall.</p>
<p>Capital Calls</p>	<p>Disbursements to the Platform will be made <i>pari passu</i> among all participants. Capital calls will be made for the following purposes:</p> <ul style="list-style-type: none"> (i) First capital call to cover the costs of setting up and operationalizing the Platform, and (ii) Subsequent capital calls as per needs of the individual investments approved by the Investment Committee.
<p>Additional Investors</p>	<p>After an initial track record of green shipping investments is achieved, the Platform would be well-positioned to scale with additional investors by leveraging the operating experience and financial outcomes of the Platform.</p> <p>Eligibility for additional investors seeking to contribute capital to the Platform will be developed and approved by the Anchor Investors. Any charterer would be eligible to recommend ships for green retrofits, subject to reputational and credit risk checks performed by the Platform.</p> <p>The Platform may also be further expanded through debt financing, asset securitization or through green instruments, such as Platform-issued bonds.</p>
<p>Platform Use by Charterers/Shipowners</p>	<p>Charterers and shipowners will have access to the cost-sharing mechanism provided by the</p>

	<p>Platform regardless of whether they participate in the Platform as investors.</p> <p>The incentive to use the Platform is to access the unique package of upfront financing of green shipping retrofits, technical advisory and implementation services. The Platform will design a transparent and equitable structure of sharing fuel savings among:</p> <ul style="list-style-type: none"> (i) Ship owners to incentivize them to participate in the vessel retrofits with fuel saving technologies; (ii) Platform investors (anchor and any new investors) to provide them with an appropriate rate of return on investment; (iii) Charterers to incentivize them to participate in the transaction. <p>The Platform will develop a standard set of criteria to assess the reputation and credit-worthiness of the participating charterers, which is instrumental to the Platform’s operations. The Platform will approve any new charterer’s engagement with the Platform based on such criteria.</p> <p>Shareholders would ensure that the Platform continues to operate as an independent entity, making arms-length investment decisions that maintain technology-agnosticism, irrespective of the identity of the charterer and the shipowner.</p>
<p>Cash Waterfall (Use of Proceeds) from Individual Investment</p>	<p>Proceeds from each individual investment will be distributed to the anchor investors in the following priority:</p> <ul style="list-style-type: none"> • Allocation for the Platform’s operating expenses • 100% of principal return to the anchor investors, excluding GEF, in proportion to their capital contributions until they have received reflows equal to their aggregate contributed capital. • 100% principal return to the anchor donor (GEF) until reflows equal aggregate capital contributed to the Platform by GEF. • Payment of the financial return on investment to the anchor investors until they receive the target return on their quasi-equity investments or IRR.

	<ul style="list-style-type: none"> • Payment of the financial return on investment to the anchor donor (GEF) until it receives the target return on its quasi-equity investment³¹. • GEF Catch-Up: Any additional reflows (upside) on the investment thereafter will be shared prorata amongst anchor investors with no subordination for GEF. <p>As the commercial returns from Platform investments will depend on individual underlying investments, each of which will have a different return profile, an amortization schedule is not possible, which is normal for a quasi-equity investment.</p> <p>The exact frequency of payment will be determined by the performance of the underlying investments. If any adjustments are anticipated to the expected annual payments, GEF would be notified.</p>
<p>Returns</p>	<p>The Platform will target a net IRR of up to 15%³² on each individual investment for all investors, including GEF.</p> <p>The Platform will consider a range of technologies; each will have individually calculated fuel savings and payback periods for specific shipping environments. Returns on investment will be determined for a particular ship/set of ships or for a particular investment. Each investment made by the platform will be self-liquidating based on the fuel savings.</p> <p>Given the risks associated with making first-mover investments to decarbonize the shipping industry, the Platform may incur losses and be unable to realize expected financial returns or recover invested capital. It is possible that one or more investments may not succeed technically and financially. The portfolio approach is expected to create sufficient diversification.</p>

³¹ GEF may decide to accept a return lower than the anchor investors once the platform opens up for 3rd party charterers subject to a minimum acceptable return to be discussed ahead of GEF CEO endorsement of the project. GEF goal’s in accepting a lower return would seek to incentivize 3rd party charterers in the platform through a share of the EE distributed in the waterfall.

³² Subject to further investment review, management approvals, confirmation of interest from and negotiations with the investors

	<p>The aggregated return for the Platform will depend on the portfolio of individual fuel savings from investments. IFC anticipates that if returns are high, indicating commercial sustainability without the need for concessionality, GEF's investment is expected to start being repaid in at most year 5 and be returned after the initial 10-year period. If the initial returns are below the hurdle, then the life of the Platform may be extended or adjusted in order to demonstrate commercial success and ensure return on investments.</p>
<p>Use of Concessionality</p>	<p>GEF financing will be structured as quasi-equity, targeting same rate of return as other anchor investors, but will be subordinated in the cash waterfall, providing portfolio protection if one or more investments made by the Platform fail to generate fuel savings and financial returns as expected at the time of investment. The GEF could also consider subordination to 3rd party charterers to incentivize their participation in the Platform.³³</p> <p>IFC proposes to use GEF funds as subordinated, quasi-equity as it provides the Platform with some, but not complete, coverage against underperformance from green shipping technologies. By providing partial risk coverage, the structure supports the thesis that low-carbon shipping technologies are on the cusp of commercial viability. The subordinated waterfall structure also widens the eligible green shipping technology choices from which the Platform can select without creating misalignment of interests with other quasi-equity providers.</p> <p>This structure is also a signal to the market that the first projects supporting low carbon investments for shipping do not require a blunt concessional instrument such as a first loss guarantee. In keeping with the DFI Enhanced Blended Finance Principles, IFC believes the structure proposed provides the Green Shipping Platform with the minimum amount of concessionality required to ensure that the Platform proceeds.</p>

³³ The potential mechanism for this will be discussed before GEF CEO endorsement of the project.

<p>Additionality of GEF</p>	<p>A Green Shipping Platform would be the shipping sector’s first technology-agonistic, global financing vehicle specifically targeting fuel-efficient, low-carbon investments for existing, operating ships. Consistent with DFI Enhanced Principles, including that of minimum concessionality and transparency, IFC will structure funding from GEF to derisk the Platform structure and provide comfort to investors to implement low-carbon technologies on operating vessels. No such global financing Platform focused on decarbonizing the shipping industry currently exists; IFC regards GEF’s co-investment in the Platform as highly additional, as further outlined below.</p> <p>The Platform proposes an innovative and first-of-its-kind cost-sharing/cost-savings model with the potential to solve the split incentive issues between charterers and ship-owners that have prevented private sector finance from flowing into such investments. The Platform is structured to address the risk of new technology adoption and demonstrate the returns from low-carbon projects for shipping. This demonstration will allow shipowners to become more comfortable financing these improvements, either from their own cash flow or from commercially-minded investors. The Platform’s design allows additional shipowners and charters the opportunity to benefit from the Platform without the requirement to become an investor in the Platform, increasing its scalability and potentially creating a public good in the green shipping space.</p> <p>GEF participation offers vital portfolio de-risking that will allow the scale-up of investments in fuel efficient technologies in the shipping sector that would not otherwise be possible.</p> <p>GEF funds would be structured as quasi-equity to provide patient capital, as explained in the cash waterfall. By allowing other investors to receive their principal repayment first, GEF provides comfort to other investors to participate in new and untested green shipping investments. To ensure GEF is compensated for this risk, commercial returns will be shared equally among the other anchor partners (excluding the</p>
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	<p>GEF) only after GEF has received its principal in full. Additional payments to GEF after principal return represent the potential Platform returns.</p> <p>GEF concessionality would not be used to protect Investors from direct losses from a counter guarantee. Instead GEF will provide portfolio protection by being subordinated in the cash waterfall, as shown in Figure A. Without such protection, anchor investors would not be willing to invest risk capital despite the possible returns.</p>
Liquidation / Exit ³⁴	Each individual investment is expected to be self-liquidating. Investors may exit the Platform upon full payback of their investments from individual retrofit projects.
Reporting	The Platform operating company will provide financial statements and performance information on the investments on an annual basis. Annual financial reports will be audited based on international financial reporting standards (IFRS). IFC will report to GEF on the performance of the Platform through its customary annual monitoring and reporting (AMR) channels.
Alignment with GEF Environmental & Social Safeguards	IFC commits to sharing the ESRS with the GEF Secretariat in advance of CEO endorsement. As a GEF Agency, the World Bank Group is aligned with GEF Environmental and Social Safeguards policies; in instances where requirements for private sector projects may differ from the World Bank, IFC will seek to review and align such requirements in accordance with IFC’s Environmental & Social policies and share this review with the GEF Secretariat in advance of CEO endorsement.
Terms and conditions for the financing instruments	All use of blended concessional co-investments must meet the DFI Enhanced DFI Blended Concessional Finance principles.
Knowledge Sharing	IFC is open to ongoing discussions with GEF Secretariat on the most effective venue/fora to disseminate the information on the performance of the Platform for the benefit of the shipping sector. The Platform would also seek to collaborate with IMO and align with relevant programming already underway. Conversations with IMO have already begun and IMO has

³⁴ Terms and conditions of liquidation and exit to be negotiated.

	provided a letter of support for the Platform. The participation of key industry players representing both the public and private sector, will be vital for dissemination of learnings from the Platform for the replication of its business model and bringing in new investment for greening shipping.
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Annex B: Reflows table

Instructions. Any financial returns/gains/interests earned on non-grant instruments, will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee.¹⁷

Item Data	
GEF Project Number	TBD
Estimated Agency Board approval date	December 2020
Investment type description	Quasi Equity Investment in the Green Shipping Platform
Expected date for start of investment	1Q2021
Amount of GEF Investment	US\$13.5 million
Amount of Co-Financing	US\$142 million
Estimated Return	Assuming Investment Platform capitalization of US\$155 million and under a base case scenario, the projected IRR (USD) is estimated up to 15%. During the active investment period, the Platform will seek to finance at least 120 green shipping investments, assuming average investment sizes between \$0.5 – \$2 million. To ensure appropriate diversification, the Platform will cap each investment at no more than 10% of the fund size. The Investment Platform may incur losses and be unable to realize the expected financial returns or even recover the invested capital.
Maturity	The Investment Platform will have a 10-year life. If the Platform’s Board of Director’s renews the operations of the Platform, the active investment period will be extended, in which case GEF will be notified. At no point will GEF’s support for the Platform exceed 20 years.
Estimated reflow schedule	The payback period of investment is estimated to be 5 years. Reflows are expected from Year 5 to Year 10 of the life of the Investment Platform.
Repayment method description	Net proceeds from validated fuel savings will be paid into the JV by the charterer. Proceeds will be distributed to the anchor investors in the following priority: <ul style="list-style-type: none"> • Allocation for the Platform’s operating expenses

	<ul style="list-style-type: none"> • 100% of principal return to the anchor investors, excluding GEF, in proportion to their capital contributions until they have received reflows equal to their aggregate contributed capital. • 100% principal return to the anchor donor (GEF) until reflows equal aggregate capital contributed to the Platform by GEF. • Payment of the financial return on investment to the anchor investors until they receive the target return on their quasi-equity investments or IRR. • Payment of the financial return on investment to the anchor donor (GEF) until it receives the target return on its quasi-equity investment. • GEF Catch-Up: Any additional reflows (upside) on the investment thereafter will be shared prorata amongst anchor investors with no subordination for GEF.³⁵
Frequency of reflow payments	Reflows will start from Year 5 onwards and will not follow any fixed schedule.
First repayment date	Not earlier than 5 years from the date of first investment.
First repayment amount	Not possible to predict
Final repayment date	At the end of the Divestment Period- 10 years is estimated life of the Investment Platform
Final repayment amount	Not possible to predict
Total principal amount to be paid- reflowed to the GEF Trust Fund	Expected to be up to US\$13.5 million
Total interest/earnings amount to be paid- reflowed to the GEF Trust Fund	Assuming an up to a 15% return is realized then an estimated US\$1.5-2 million in earnings after recovery of principal. The Investment Platform may incur losses and be unable to realize the expected financial returns or even recover the invested capital.

³⁵ GEF may decide to accept a return lower than the anchor investors once the platform opens up for 3rd party charterers subject to a minimum acceptable return to be discussed ahead of GEF CEO endorsement of the project. GEF goal's in accepting a lower return would seek to incentivize 3rd party charterers in the platform through a share of the EE distributed in the waterfall.

Annex C: Partner Agency Eligibility to Administer Concessional Finance

The GEF Agency submitting the PIF or PFD will demonstrate its capacity and eligibility to administer NGI resources as described below:

Track Record and Performance in Blended Concessional Finance

IFC has been successfully deploying blended finance investments for almost a decade and is currently the largest and oldest practitioner of blended finance transactions among Development Finance Institutions (DFI's). IFC conducts blended finance operations in several thematic areas and industries globally, including to SMEs, sustainable agriculture supply chains, women-owned businesses, IDA, conflict-affected and vulnerable countries, climate change, manufacturing, and infrastructure to name a few.

Between Fiscal Year (FY) 2010 to FY2018, IFC deployed US\$919 million of concessional donor funds to support 169 high-impact projects in over 50 countries, leveraging US\$3.5 billion in IFC financing and more than US\$5 billion from other private sources. Each US\$1 dollar of concessional resources from our partners mobilized over US\$8 dollars of IFC and other private and public capital toward high-impact projects across the developing world.

In FY2019, US\$236 million donor funds leveraged over US\$589 million in IFC financing for 33 projects.

The pace of blended finance project considerations continues to accelerate. As of end of June 2019, over 56 projects (\$618 million in concessional donor funds) were reviewed and endorsed by IFC's Blended Finance Committee for further processing and consideration.

Thought Leadership on Blended Concessional Finance

As the Chair of the Development Finance Institution (DFI) Working Group on Blended Concessional Finance for Private Sector Projects, a consortium of 23 multilateral development banks and financial institutions, IFC led the development and adoption of the [DFI Enhanced Blended Concessional Finance Principles for Private Sector Projects](#) as described below.

Governance on Blended Concessional Finance

IFC is committed to using a disciplined and targeted approach when it comes to blending concessional donor funds with its own commercial funds. This commitment reflects a long track record and thought leadership in the application of blended finance through evidence-based learning, that encourages real-time evolution and improvements to our approach.

In 2017, IFC created a Blended Finance Department to house a team of investment and operational professionals focusing on the management and deployment of blended concessional funds. All blended finance projects are reviewed and approved by an independent Blended Finance Committee (BFC), a senior Corporate Committee, and/or the Blended Finance Director, ensuring that IFC applies best practices, balances efficiency, accountability, and transparency, and adjusts investment decisions and the use of concessional finance based on the learning that comes from project structuring and implementation. The BFC helps to ensure that IFC can continually inform its own operations, maximize its innovation tools and resources and provide the highest standard of governance for concessional transactions. IFC's governance structures are aligned to the Blended Finance principles (summarized below) and have been embedded into IFC documentation, training, and procedures.

Adherence to these principles and a robust governance framework, endorsed by our stakeholders, guide IFC's approach to blended finance and are required for every transaction using contributor funds. The DFI Enhanced Blended Concessional Finance Principles are briefly outlined below:

- *Rationale for Using Blended Concessional Finance.* Development Finance Institutions (DFI) support of the private sector should only contribute financing beyond what is available, or that is otherwise absent from the market, and should not crowd out the private sector.
- *Crowding-in and Minimum Concessional.* DFI support to the private sector should, to the extent possible, contribute to catalyzing market development and the mobilization of private sector resources.
- *Commercial Sustainability.* DFI support of the private sector and the impact achieved by each operation should aim to be sustainable. DFI support must therefore be expected to contribute towards the commercial viability of their clients.
- *Reinforcing Markets.* DFI assistance to the private sector should be structured to effectively and efficiently address market failures and minimize the risk of disrupting or unduly distorting markets or crowding out private finance, including new entrants.
- *Promoting High Standards.* DFI private sector operations should seek to promote adherence to high standards of conduct in their clients, including in the areas of Corporate Governance, Environmental Impact, Social Inclusion, Transparency, Integrity, and Disclosure.

Based on these principles, it is imperative that IFC's investments contribute beyond what financing is available, and otherwise absent from the market; otherwise the transaction will not be approved by the BFC. IFC's Blended Finance Department bears responsibility for representing its donor interests as contributors within IFC's decision making processes, ensuring appropriate structuring and use of concessional finance, and managing the blended finance co-investment portfolio after projects are committed and under implementation. To this end, IFC's separate team of blended finance investment officers identify, negotiate, and structure donor funds alongside IFC's commercial financing as co-investments. After the project is committed, this team supervises the donor-funded co-investment and reports to the development partner on the project over the course of project lifetime.

Donor funded blended finance co-investments rely on and leverages IFC's operating investment cycle. The harmonized investment origination, approval process and portfolio management approach are outlined in the graphic below.

IFC Investment Cycle



a) Ability to accept financial returns and transfer from the GEF Agency to the GEF Trust Fund;

In all projects and structures (other than for non-returnable capital structures such as viability gap funding or performance-based), there is an expectation of financial returns from principal repayments, interest payments, distributions or fees. IFC has more than a decade of experience with this process for its existing donor-funded blended finance facilities. IFC’s strong financial management systems include the segregation of donor funds. The ability of IFC to accept and transfer financial returns to the GEF Trust Fund presents no issue.

b) Ability to monitor compliance with non-grant instrument repayment terms;

A core part of IFC’s investment operations is to monitor compliance with investment terms across the full lifecycle of the project. Typically, for IFC donor-funded facilities, this lifecycle encompasses a five- to seven- year active investment period, followed by another 15- to 18-year supervision period, for a total of 20 to 23 years.

For all investments, IFC maintains a procedure for project initiation, oversight, and control, complete with risk assessments and monitoring throughout the life of the project. For IFC investments that utilize blended concessional finance, an additional layer of supervision and reporting exist alongside IFC’s own account investments. IFC follows strong portfolio management practices for all of its projects. IFC’s portfolio supervision teams actively monitor compliance with investment agreements, performs site visits to evaluate project status and to identify solutions that address potential problems.

IFC systematically tracks environmental and social performance and measures financial and development performance and results. IFC’s projects and funds are closely monitored, and for projects in financial distress, IFC’s Special Operations Department determines the appropriate remedial actions. The Special

Operations Department seeks to negotiate agreements with creditors and shareholders to share the burden of any restructuring, so problems can be worked out while the project continues to operate.

c) Capacity to track financial returns (semester billing and receiving) not only within its normal lending operations, but also for transactions across trust funds;

IFC will implement a GEF NGI Project an accredited Executing Agency for the World Bank Group, which is an Implementing Agency for GEF. GEF-supported investments will follow IFC's financial management and procurement policies, including financial accounting, disbursement methods and auditing. IFC will maintain separate records and ledger accounts in respect of the GEF Funds for blended concessional finance and disbursements made therein. IFC will continue to report to GEF through the World Bank, per the legal requirements agreed for earlier GEF-funded activities.

IFC's mechanism / process for program-level reporting to GEF

As noted above, IFC will continue financial reporting to GEF through the World Bank, following the guidance and requirements agreed for earlier GEF-funded activities.

d) Commitment to transfer reflows twice a year to the GEF Trust Fund;

Typically, reflows from IFC's blended concessional funding is either accumulated and periodically refunded to the contributor, or recycled to the Trust Fund and re-deployed in subsequent investment phases. The availability of reflows varies widely depending on the project structure and the contributor's preference. IFC will transfer any financial returns, gains or interests earned on non-grant instruments, to the GEF Trust Fund as noted in Guidelines on the Project and Program Cycle Policy.³⁶

And, in case of NGI for private sector beneficiaries:

e) Track-record of repaid principal and financial returns from private sector beneficiaries to the GEF Agency.

IFC has not yet used GEF's Non-Grant Instrument window. However, our relationship with the GEF spans over two decades, with over US\$100 million in project approvals to enable private sector engagement in emerging markets.³⁷ Over this period IFC has also returned almost US\$42 million to the GEF, through the World Bank. GEF-supported projects are still active in our existing portfolio.

And, in case of concessional finance for public sector recipients:

f) Track-record of lending or financing arrangements with public sector recipients;

IFC's mandate is to support private sector development in emerging markets. Therefore, this criterion is not applicable to IFC's existing investment operations.

g) Established relationship with the beneficiary countries' Ministry of Finance or equivalent.

³⁶ As per requirements for Non-grant Instruments in Annex 5 of the Guidelines on the Project and Program Cycle Policy (GEF/C.52/Inf.06/Rev.01)

³⁷ The total approved amounts do not include advisory funding under various platforms or investment funding approved prior to 2000.

Please see section f) above.