The emergence of a sustainable blue economy is threatened by over-extraction, habitat damage, pollution, climate change, and the COVID-19 pandemic. Hundreds of billions of dollars of annual investment in the oceans is needed, but only $13 billion was invested by philanthropy and official development assistance in the last decade.

Convergence’s database records 16 blended transactions targeting SDG 14 (Life Below Water), representing aggregate financing of $2.5 billion.

Fisheries and aquaculture and water infrastructure account for most blended blue economy transactions to date (both 38%).

Funds account for most (56%) blue economy transactions, but individual projects may be easier to pitch to investors.

Blue economy transactions have a median size of $96 million (vs $58.6 million for the overall market) but can vary in size; 50% are over $100 million while 31% are under $25 million.

Blue economy transactions can mobilize large amounts of funding, but one challenge is ensuring that the project developers and MSMEs that are the direct beneficiaries of most blue economy transactions (both 63%) are not overwhelmed by the size of the financing deployed.

Given the prominence of early-stage and small to mid-sized enterprises among sustainable ocean businesses, technical assistance (50% of blue economy transactions) and design funding (31%) will be key to bringing projects to commercial viability as they encourage the emergence of larger financial vehicles.

To scale the blue economy, creating effective enabling conditions, boosting concessional support, and establishing platforms connecting project developers with partners in other markets will be key.
The emergence of a sustainable blue economy* is under threat. The global ocean economy was projected to double in size to $3 trillion by 2030, based on the value add and employment growth forecasted for ocean-based sectors like marine aquaculture, offshore wind, fish processing, and shipbuilding and repair. However, the COVID-19 pandemic has negatively impacted the ocean economy, disrupting coastal tourism, maritime transport, fisheries and seafood production, and particularly affecting small island developing states. Meanwhile over-extraction, direct habitat damage, pollution, and climate change also threaten the future health of the oceans. Estimates of the funding needed for the oceans vary, from $175 billion in overall annual funding to a $459 billion annual funding gap posited by the Asian Development Bank (ADB). Limited amounts of philanthropy and official development assistance have been invested in sustainable ocean projects, with one estimate suggesting that only $13 billion has been committed in the past decade. Scaling financing to the blue economy is clearly urgent.

How can blended finance help support the emergence of a sustainable blue economy? As Trip O’Shea of Mirova’s Sustainable Ocean Fund notes, investor interest in the sector has grown substantially over the past two to three years but maintaining investor momentum will require a track record of successful investments and exits. Patiently nurturing an ecosystem of commercially viable opportunities, for example, will help tap into investor demand, as Karin Berardo of The Nature Conservancy notes:

“Unlike more mature sectors like renewable energy, where we already know how to develop solar fields and investors are willing to invest in project development, we are still developing the models that demonstrate how specific activities in a coral reef restoration, for example, will result in positive impacts for the environment while also creating viable financial results. Given the nascency of project models in the blue economy, they currently have high risk and probability of loss, so must be nurtured by grants or philanthropy.”

Our Blue Finance respondents agree, noting that a lack of well-structured projects with solid business plans is a key reason private capital has not entered the sector at scale despite existing demand:

“Blended finance will be critical to allowing projects first to take off, and in the mid to long term, to mature, enabling the private sector to engage more in the blue economy in the coming years.”

This brief analyzes the 16 closed transactions targeting SDG 14 (Life Below Water) recorded by the Convergence database, representing $2.5 billion in total committed financing. This brief also presents insights from interviews with key stakeholders.

* The World Bank defines the blue economy as the sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health.
Investors see the biggest opportunities in the blue economy in areas like climate resilience and adaptation, marine renewable energy, plastic pollution prevention, sustainable fisheries, and waste-water treatment. Fisheries and aquaculture and water infrastructure account for most blended blue economy transactions to date (both 38%), with sustainable ocean-based food systems restoring depleted ecosystems and targeting SDG 2 (Zero Hunger) in coastal communities. Blue economy deals have most targeted Latin America and the Caribbean (31%), sub-Saharan Africa (25%), and the MENA region (25%).

**FISHERIES & AQUACULTURE AND WATER INFRASTRUCTURE MOST TARGETED**

![Figure 2: Blue economy transactions by sub-sector](image)

**Funds and Projects: Key Structures within the Blue Economy**

As Figure 3 shows, funds account for most (56%) of blended transactions within the blue economy. Examples include the $106 million [Circulate Capital Ocean Fund](#), the world's first investment fund dedicated to preventing ocean plastic in Asia, launched in 2019 and [backed](#) by a $35 million, 50% USAID loan portfolio guarantee. However, Terry Tamminen of AltaSea notes that projects can be easier to pitch to investors than funds:

> “With parties who are not used to collaborating and an unfamiliar sector, it can be easier for them to commit to specific projects whose risk they can easily evaluate and introduce them to blind pool fund structures once they’ve gained experience of blended finance.”

**Blue Economy Transactions are Typically Larger but Can Range in Size**

Blue economy transactions have a median size of $96 million (vs $58.6 million for the overall market) but can vary in size; as Figure 4 shows, 50% are over $100 million while 31% are under $25 million. Transactions range from the $364 million [Blue Bond for Ocean Conservation](#), which closed in 2021 and funds debt sustainability and marine conservation in Belize, backed by $610 million of U.S. International Development Finance Corporation (DFC) political risk insurance and a 2016 Convergence proof-of-concept grant; to the $22 million [Meloy Fund I](#), which closed in 2020 and funds sustainable coastal fisheries in Indonesia and the Philippines, backed by a USAID partial debt guarantee and funding from the Global Environment Facility (GEF), Dutch development bank FMO, and others.

![Figure 4: Blue economy transactions by total size](image)
CAN MSMES AND PROJECT DEVELOPERS ABSORB LARGESUMS OF BLUE FINANCING?

Blue economy transactions can mobilize large amounts of funding, but as Yabanex Batista of the Global Fund for Coral Reefs notes, one challenge is ensuring that the project developers and micro-, small and medium-sized enterprises (MSMEs) that are the direct beneficiaries of most blue economy transactions are not overwhelmed:

“The countries in which we’re hoping to deploy blended finance for the blue economy are not necessarily ready for large influxes of capital; they often lack the capacity mechanisms to deal with this effectively. We need to structure solutions that can absorb large amounts of capital and deploy these resources at a rate the system can take, avoiding money being spent non-strategically with sub-optimal results.”

TECHNICAL ASSISTANCE AND DESIGN FUNDING KEY TO THE BLUE ECONOMY

Given the blue economy’s emergent nature, the prominence of early-stage and small to mid-sized enterprises, and higher capital costs and limited economies of scale in many small island developing states, design funding and technical assistance will be key to bringing projects to commercial viability. As Berardo notes:

“Cultivating organizational toolkits for testing project concepts, underwriting risks to those projects, and managing loans and grants, will require an enormous amount of technical assistance. It’s also not the type of technical assistance most often made available. We need science and measurement and evaluation metrics, which are frequently the focus of technical assistance, and also financial literacy and continuing support for evolving financial needs.”

FOUNDATIONS & NGOS: KEY DEAL SPONSORS IN THE BLUE ECONOMY

Foundations and NGOs are the most prominent sponsors of blue economy transactions (44% vs 12% of the overall market), with The Nature Conservancy (3 transactions) and Conservation International (2) (both US-domiciled) being the only sponsors of multiple blue economy transactions. Transactions partly targeting SDG 14 (Life Below Water) that have been sponsored by The Nature Conservancy include EcoEnterprises Fund III, a women-led fund investing in Latin American businesses that protect fragile environments, create jobs, and empower women in rural areas. Finally, the United States is the leading deal sponsor domicile, accounting for 50% of the sponsors of blue economy transactions. Looking forward, the entry into the market of commercial entities as deal sponsors will likely be required for larger investment-ready transactions to emerge.
**FMO, OeEB & EIB: TOP COMMERCIAL INVESTORS IN THE BLUE ECONOMY**

FMO, Austrian development bank OeEB, and the European Investment Bank (EIB) have been the top commercial investors in the blue economy. The leading role of development banks is typical of an emergent sector; as the number of business opportunities and transaction records grows, we can expect more private investors to engage in blended finance for the blue economy. Prominent investor platforms in the sector include the Sustainable Blue Economy Finance Initiative, a UN-convened global network of banks, insurers, and investors representing $11 trillion in total assets that works across the financial community to ensure that investment, underwriting, and lending activities are aligned to SDG 14 (Life Below Water).

**GEF, BMZ & USAID: TOP CONCESSIONAL FUNDERS IN THE BLUE ECONOMY**

GEF, the German Ministry for Economic Cooperation and Development (BMZ), and USAID have been the top providers of concessional finance to blended transactions in the blue economy. Recent donor activity in the space includes the currently fundraising Global Fund for Coral Reefs, which will involve blending at the project rather than fund level (the donor-only fund is not captured in our historical data but future blended transactions in its portfolio will be counted). By funding coral reef conservation, the German, French, British, and Canadian governments will collaborate with private foundations to provide $125 million in grants for pipeline building, research, and impact assessments, while the Green Climate Fund has provided an $125 million anchor investment to provide guarantees, concessional loans, and early equity investments to the underlying projects.
Reflections

Despite the sometimes ‘exotic’ and difficult geography of the blue economy that spans across all oceans, and the limited track record of business propositions, there is no lack of opportunities. To translate opportunities and bold commitments into investments, blended finance can play a critical role, today.

Blended finance for the blue economy, however, is an emergent area still unfamiliar to many. Various challenges arise from this, as Batista observes: “Despite increased interest in the blue economy, there's still a disconnect in understanding what the private sector's interests are, what blended finance is, and how governments can help build effective enabling conditions. Private capital can get frustrated that things don’t move as fast as they’re accustomed to due to this lack of understanding.” Tamminen provides an example: “With the Sub-National Climate Fund, some philanthropies questioned why they should provide technical assistance grants if its ultimately just going to help for-profit investors make money, while for-profit investors questioned why they should be interested at all in projects so risky concessional capital is needed to make them viable.” While in developed countries new companies and financial vehicles have emerged, a fundamental problem is the lack of commercially viable propositions in developing countries and particularly in small island development states. As Batista notes, “We have not yet cracked the code of how to transition from site-specific projects to creating larger, replicable systems for scaling the blue economy.”

To scale blue finance, in addition to pipeline development, enabling conditions should be put in place to limit greenwashing and to ensure private capital is directed towards measurable positive impact and that safeguards are respected. “Has the work been done,” Berardo asks, “to define what the blue economy means in each geography, supported by data? Have Marine Spatial Plans been articulated? Have we engaged all relevant stakeholders and thought about it from a policy and regulatory perspective? Only in the context of these broader activities should we consider the financial mechanisms needed to promote investment.”

Increased concessional support for the blue economy is also key, to help bridge the transition to more advanced commercial models. As Berardo relates, there’s a gap in funding that can bring projects to commercial viability in the blue economy, including basic infrastructure: “What we’re seeing repeatedly is that the early-stage concessional funding runs out of money, time, or patience, and the commercial financing gets distracted and does not fully analyze the true risk profile.” It should be easier, our Blue Finance respondents note, for market participants to access first loss concessional backing: “Accessing such coverage when structuring blue economy transactions is usually a lengthy process, with there being just a few agencies active in facilitating this.” While recognition of the urgency of supporting the blue economy is there, organizational cultures often remain behind the curve, as Tamminen notes: “Leadership of banks, DFIs, foundations and philanthropies often say the right thing on the blue economy, but when it comes to program grant managers or asset managers within financial institutions making grants or investing, they often say that’s not how they’re measured, or how they have to report, or how their bonus is structured, or that they don’t have time.”

Focusing exclusively on supporting projects where impact is easily quantifiable, moreover, can distract from making investments in research and design that can help remodel existing markets. As one respondent observes: “Where I get most excited now is with those opportunities that unlock a lot of value beyond just a single project or fishery and can really drive systems change, like the deployment of machine learning to aid fisheries management. These types of businesses are very attractive to the venture capital community, and tend to be overlooked by DFIs, foundations, and endowments, who tend to focus on projects where the ‘impact’ is clearly quantified.”

The development community can also help scale blue economy solutions by identifying additional markets they can expand to, Tamminen notes: “If we want the blue economy to expand, we must help companies shorten their marketing cycles and what it takes for them to find willing partners and opportunities for their technology to be deployed in other countries. Making this process more efficient by establishing platforms in which companies can present their technologies or how their bonus is structured, or that they don’t have time.”

Overall, scaling the blue economy will require a multi-pronged approach: from creating effective enabling conditions in developing economies to boosting longer-term concessional support and establishing platforms connecting project developers with partners in other markets.
Methodology and Notes

1. **Convergence’s database**: Convergence maintains the largest and most detailed database of blended finance transactions that have reached financial close. Given the current state of information sharing, it is not possible for this database to be fully comprehensive. We have made efforts to capture all relevant blended finance transactions; however, there are likely more transactions that have not been captured.

2. **Scope of available data**: This brief analyzes 16 transactions targeting SDG 14 (Life Below Water). This brief also draws upon stakeholder interviews conducted with Jose Luis Sanchez, Director of New Business Development, Blue Finance, and Nicolas Pascal, Executive Director & Co-Founder, Blue Finance; Karin Berardo, Director, Sustainable Debt, The Nature Conservancy; Yabanex Batista, Deputy Head of Secretariat, Global Fund for Coral Reefs; Terry Tamminen, President / CEO, AltaSea at the Port of Los Angeles; and Trip O’Shea, Investment Director, Sustainable Ocean Fund (LatAm Coverage), Mirova Natural Capital.

3. **Target regions and countries**: Convergence tracks region and country data by stated region(s) and countries of focus at the time of financial close, not actual investment flows. Often, regions and countries of eligibility are broader than those explicitly stated.

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BLUE ECONOMY INITIATIVES FROM THE UN JOINT SDG FUND

BLUE INVEST – EAST CARIBBEAN

Blue Invest is an aggregated Blended Finance Technical Assistance (TA) and Investment platform that catalyses Blue Economy investments in the Eastern Caribbean. It is a solution to three interconnected challenges faced by sustainable ocean businesses: the high costs of start-up capital, the small ticket size of investments and limited local expertise.

To address these challenges, the programme will provide grants, TA, and loans to graduate businesses onto the path of commercial sustainability and crowd-in $28 million of private and public sector capital.

The Blue Invest allows for a flexible solution to project finance by blending TA, grants and loans that are sized and structured to individual business propositions. A pipeline of projects and transactions has been pre-screened, including two investment-ready projects; seven projects anticipated to be ready by 2023; and thirteen projects that are at the concept stage. The two transaction ready projects are 1skip’s tuna value chain project and a blended finance facility for marine protected areas in the Eastern Caribbean. The programme is currently under development and curated by FAO, UNCDF and UNDP.

INVESTING IN CORAL REEFS AND THE BLUE ECONOMY

The ‘Investing in Coral Reefs and the Blue Economy’ programme addresses the shortage of investment-ready projects, the private sector’s perceived risk of investing in blue natural capital, and the resulting high cost of operationalizing blue economy businesses. The programme utilizes $10 million of public finance provided by the Joint SDG Fund and the Global Fund for Coral Reefs to leverage $50 million of investment in sustainable ocean businesses. By 2030, the combined impact will result in at least 30 effectively managed marine protected areas, improved food security and income for over 6,000 fishers, 30,000 MT GHG emissions avoided per year, 0.5 hectares of mangrove forest loss per year, 560 MT of fish stock increased per 1,000 hectares and S$1 billion tourism revenue loss avoided annually. UNDP, UNCDF and UNEP, in close collaboration with Fiji’s Ministry of Economy and the Ministry of Waterways and Environment are providing patient capital and financial de-risking in the form of grants, loans and guarantees to sustainable ocean businesses. Blue Finance and Matanataki, who take a venture building approach to co-create and nurture viable businesses together with entrepreneurs, are working with the UN system and private and public investor to present commercial propositions.

The UN provides project preparation grants and concessional loans and/or guarantees to 8-10 blue economy blended finance transactions. Already identified transactions include commercial investments in Locally Managed Marine Protected Areas featuring revenues from eco-tourism, sustainable fisheries, and blue carbon credits. The set-up of Fiji’s second sanitary landfill (US$16.8M target) is the largest foreseen transaction with the potential to service the entire Western Division of Fiji and serve as the backbone for more progressive waste management.

‘GUTPLA SOLWARA, GUTPLA BISNIS’ (GOOD OCEANS, GOOD BUSINESS)

Papua New Guinea is one of the world’s seventeen megadiverse countries. The country hosts the highest marine biodiversity in the Pacific Ocean with over 40,000km² of coral reefs, more than 500 species of stony corals, 1,635 reef associated fish species, and 43 mangrove species. Ocean health and the future of 87% of the population depend on these natural resources. Climate change, unsustainable fisheries activities and an increase of pollution are depleting these critical ocean resources. More than 1.33 million hectares of marine space will be established and managed under protection by 2026. Via the incubated businesses, positive impact on coral reef ecosystems in the two priority sites will be assessed. The programme will directly support at least 5 new blue economy initiatives demonstrating proof of concept and resulting in more than 250 local sustainable ocean-based jobs created.

The programme, implemented by UNCDF and UNDP and funded by the Joint SDG Fund and the Global Fund for Coral Reefs, will start in April 2022.

A Blue Investment Strategy will integrate blue economy principles into ocean management and help establish a conducive business environment. The policy work is matched by the Blue Economy Enterprise Incubation Facility, which will be embedded in the national Biodiversity and Climate Fund, to stimulate the growth of viable blue economy business models. The facility provides technical assistance and early-stage finance to unearth, incubate and grow sustainable blue enterprise from cradle to exit with a focus on small and medium enterprises (SMEs) and women. Access to credit lines that are de-risked with guarantees, will be offered by domestic financial players to ocean businesses.

Learn more at: https://sdginvest.jointsdgfund.org/