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Financing the Blue Economy

Utkarsh Majmudar

Utkarsh Majmudar is a professional with over two decades of experience encompassing teaching, research and administration at premier business schools in India (IIM Bangalore, IIM Lucknow, IIM Udaipur etc.) and working with large corporations in India at GE Capital, iGATE and HSBC. Apart from finance, he has done significant work in the area of sustainability–conducting an annual study of the performance of companies on corporate responsibility, working with large companies, publishing cases on sustainability, and writing extensively on the theme. He co-authored the book Balance: Responsible business for the Digital Age. Utkarsh is a member of the Board of Governors at IIM Raipur.

The oceans and seas cover two-thirds of our earth. Oceans and seas are a vital source of food, employment and livelihood for over three billion people. They also facilitate international trade. Coastal areas are home to nearly 2.4 billion people (Friends of Ocean Action, 2020.). Oceans are also our most significant carbon sink. Oceans absorb around 25% of all carbon dioxide (CO_2) emissions (Shutler and Watson 2020.). This makes them one of the world's largest carbon sinks. Yet, in much of the sustainability discussions, the blue economy receives little attention.

We know of seas for the fish. But there is much more beyond fishing that the blue economy supports. As Table 1 shows, there are many economic activities around oceans and seas (Ahmed, 2019).

Table 1: Economic Activities around Oceans and Seas

Activity	**Benefits**
Climate regulation	Oceans transport heat from the equator to the poles regulating weather and climate.
Essential life supply	Oceans produce more than 50% world's oxygen and store 50 times more CO_2 than the atmosphere.
Blue carbon	Mangroves, seagrasses, and salt marshes remove 10 times more CO_2 from the atmosphere than a typical rainforest. It also stores 3 to 5 times more carbon than rainforests.
Protecting shorelines	Mangroves, seagrasses, and coral reefs protect shores against erosion, storm surge, and flooding.

Activity	Benefits
Energy from the oceans	The ocean can produce thermal energy from the sun's heat and mechanical energy from tides and waves.
Ocean wind power	Higher wind speeds in the ocean help produce more wind energy.
Ecosystem	Oceans support an array of mangroves, seagrass beds, coral reefs, and diverse species of flora and fauna.
Food	Seas account for 15% of animal produces from fish, 80% of global aquaculture, and 60% of global fisheries.
Oil and gas	Offshore oil and gas production supports fuel needs across countries.
Trade and transportation	Seas are a significant conduit of international trade
Tourism	Swimming, boating, snorkeling, diving, and whale and dolphin watch provide significant tourist attractions.
Medicine	Many medicinal products from seas provide relief from infections, cancer, arthritis, heart diseases, and Alzheimer's disease.
Income and jobs	The activities described above provide employment and income to people on seas and coasts.

The blue economy can also be linked to the UN's Sustainable Development Goals (SDGs). SDG number 14 outlines reforms in the marine industries and achieves recovery of the marine ecosystems (United Nations, 2015). The main targets of SDG 14 are:

- Reducing ocean acidification and pollution of all kinds
- Restoring oceans ecosystems
- Supporting sustainable fisheries
- Ending overfishing

Historically the funding for a sustainable blue economy has come from public and philanthropic sources. Private sector investments have come from more traditional sectors – shipping and fishing. Unfortunately, both these activities are inherently unsustainable. Given the importance of the blue economy and its many touchpoints yet investment into the blue economy is drastically low. Not only has it been low, but a vast chunk of public sector investments have been misdirected in the form of harmful subsidies and investment in oil and gas. It is estimated that only about 1 percent of the ocean economy's total value was invested in sustainable projects through philanthropy and official development assistance over the past decade. According to a report by the High-Level Panel for a Sustainable Ocean Economy , if $1 is invested in key ocean actions, it can yield a minimum of $5 over a 30-year horizon (Konar and Ding, 2015).

A report, "Ocean Finance: Financing The Transition To A Sustainable Ocean Economy," highlights a range of action items to fill the gaps in blue finance (Sumaila, Walsh, Hoareau and Cox, 2020).

1. Set up guidelines and principles for defining sustainable investments in the blue economy.
2. Improving decision-making processes and activities to adapt new knowledge of potential risks, impacts, and opportunities.
3. Creation of effective and stable regulatory and policy environment to incentivize investments.
4. Stimulating the pipeline of investible sustainable projects through risk mitigation.
5. Exploring new financing mechanisms and tools for finance to reach relevant projects.
6. Support mechanisms that limit harmful and illegal activities.

There are many sources of funding for the blue economy.

Impact Only Money:

First is what can be called Impact only money, which has a requirement for generating money. These include public funding, official development assistance, and philanthropic grants. Public funding is money received from the national or state governments to create the infrastructure that serves the public interest. Official development assistance comes from multilateral institutions; for instance, the UN's FAO provides funds for fisheries and aquaculture, whereas International Maritime Organisation funds shipping projects. Philanthropic grants come from rich individuals, foundations, charities, NGOs, or companies that want to discharge their corporate social responsibility.

Debt:

The second is debt, a popular means of funding blue economy projects. Debt is popular mainly because of its low risk, low reward nature. It also provides flexibility to both borrowers and investors. Debt instruments can be characterized by:

- The entity that borrows and creates the bond is the **issuer**;
- the buyer of the bond is the **holder**;
- the interest paid on the bond at regular intervals until the maturity of the bond is the **coupon**; the bond's interest rate is referred to as the coupon rate.
- the value of the bond used to compute the coupon amount is the **principal**;

- bonds are issued for a fixed time period after which the principal is repaid. This is called the **maturity** of the bond;
- the time between the issue of the bond and its maturity is referred to as the **term**.

Blue Bonds: One of the most popular types of debt instruments is the *blue bond*. An innovative financial instrument, a blue bond raises money that is earmarked exclusively for ocean-friendly projects. Issuers such as sovereign states invite private sector investors to purchase blue bonds. Then the issuers will provide a return accordingly. Development banks or global funds are expected to guarantee the return.

The world's first sovereign blue bond was launched by Seychelles in 2018. A total of $15 million was raised to advance the small island state's blue economy. Here the blue bond is partially guaranteed by the World Bank up to $5 million and further supported by a $5 million concessional loan from the Global Environment Facility (GEF). Issuers then commit to carrying out some projects in the short run, contributing to ocean sustainability through projects such as Illegal, Unreported, and Unregulated (IUU) fishing eradication, marine plastic debris reduction, ocean conservation, and coastal resilience building, as well as blue carbon projects.

There can be many flavors of blue bonds. The popular ones are:

Use-of-proceeds blue bond**:** These bonds specify the use to which the bond proceeds are put. Take the case of an offshore wind project that supports renewable energy transition. Now, an offshore company wants to build a new class of ships that provides installations, maintenance, and services to this wind project. The project company signed up for the Sustainable Ocean Principles. They incorporated these principles into their strategy. It issued a five-year use-of-proceeds blue bond to finance innovation and the construction of the ships.

Use-of-KPI blue bond**:** Here the interest rate that is paid on achievement of KPI's that are set in advance. The use of antibiotics in fisheries is rampant. An aquaculture company wants to reduce its overall use of antibiotics by 90% in all its locations across the globe. The company has signed the Sustainable Ocean Principles and aligned its strategy with them. It also sets up KPI's to measure set annual targets for the reduction of antibiotics and issued a three-year KPI-linked blue bond.

A blue bond issuance requires a framework that covers:

1. Setting a blue baseline: This baseline sets out the base over which improvement is sought to be achieved. This exercise helps set up KPIs.
2. Developing clear and measurable KPIs: A bond with clear and measurable KPIs is more likely to attract investor response.

3. Disclose sustainability-related metrics on a regular basis: This helps an investor know how her money is being used and builds confidence in the issuer.

Equity:

Finally, there is equity. This denotes ownership in the enterprise. Here the risk profile is different from debt and is preferred by those with a high tolerance for risk. There are many forms of equity used in blue finance:

Private Equity/Venture Capital (PE/VC): These players invest in startups and help them grow. Private equity investors have started taking a keen interest in ESG related startups. They recognize the high risk but are also see opportunities to make a profit.

Public Equity: Public equity provides liquidity to the shares and can be traded by anyone on the stock exchange. Given that these entities already comply with a large number of disclosures, additional disclosures like PRI or TFCD should be relatively easy. Several companies in the shipping sector and fisheries are publicly traded.

While the market for blue finance is still in its infancy, the focus on marine ecology is increasing, and the market is likely to proliferate. The World Bank has been working on several blue bonds to align projects with SDGs. With growing interest in ESG and SDGs, banks are likely to play a crucial role in building this market. This would be in sync with their efforts to green their financing portfolio. The OECD estimates that the blue economy will be valued at $3 trillion by 2030 -- double what it was worth in 2010. It is also likely to generate around 40 million jobs. A new constituency in finance is taking shape, and the future of blue finance is bright.

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