

A REVIEW OF INNOVATIVE SOURCES OF FUNDING BLUE ECONOMY IN AFRICA

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Abstract

This study aimed at reviewing innovative sources of funding blue economy in Africa. The study was guided by two theories: economic theory and market efficiency theory of innovation. The study reviewed selected innovative sources of funding blue economy namely, Blended Finance, Blue bonds, Development impact bonds, Debt swaps, Crowdsourcing-Diaspora financing, and contingently recoverable grants. Qualitative desk review from research papers, journal articles, textbooks and the websites were used in the study. The study recommends that there is need to strengthen the ocean governance and the knowledge and capacity of those living around the coastal environment and the authorities that are tasked with ensuring the preservation of the oceanic resources. Additionally, exploration of the limited oceanic resources requires a coordinated effort from players in both the public and private sectors. This will ensure the availability of innovative and sustainable financing initiatives that will go a long way into ensuring that the potentials of this resource are channeled into economic development.

Keyword: Blue economy, Innovative financing Blended Finance, Blue bonds, Development finance, Development impact bonds, Debt swaps, Crowdsourcing-Diaspora financing, and contingently recoverable grants

1.0 Introduction

Many African countries boast of significant coastal and islands jurisdictional areas with potential opportunities to spur economic growth and facilitate the preservation of the marine ecosystem. Many of these countries have been categorized in lower or middle-income levels. Blue Economy is made up of different economic sectors and economic policies that together determine whether the use of oceanic resources is sustainable. In African countries, innovative financing of the marine ecosystem can deliver food, energy, transport, tourism, marine biotechnology, freshwater, trade, waste disposal, carbon sequestration, marine mining, research and development in ocean technology, coastal urbanization and many other oceanic services that can benefit several industries within Africa economic development agenda 2063.

The African Union called the Blue Economy the "New Frontier of African Renaissance" (UN, Economic Commission for Africa, 2016). The concept of Blue Economy is meant to promote a country's economic growth, social inclusion and the preservation and improvement of the marine ecosystem while at the same time ensuring environmental sustainability of this vital yet neglected sector (World Bank Group, 2017). Potts, Wilking, Lync, and McFatridge (2016) compiled the concept of the blue economy as defined by various author to mean "blue green economy" or "blue growth, the new maritime green economy" (European Commission, 2012), "green economy in a blue world" (UNEP, 2012), "blue growth" (FAO, 2013a), and "green growth in fisheries and aquaculture" (Organization for Economic Co-operation and Development [OECD], 2015). The

concept has developed as an emerging paradigm for the sustainable management of natural marine and freshwater resources (Ababouch, 2015)

As depicted in figure 1, several economic activities make up the components of the Blue Economy. The fisheries, aquaculture industries are good drivers of economic growth which increase demand for food security and demand for protein. This is done through the harvest of living resources like seafood (World Bank Group, 2016). Pharmaceuticals and chemicals industry also contribute to research and development for health care and the industry in general. This is also done through the harvest of living resources that build marine biotechnology (World Bank Group, 2016).

2.0 Literature review

Some attempts was made by the researchers to review some theories to substantiate the bases for reviewing selected innovative finance instruments which can equally be applied to the development of the blue economy.

2.1 Conceptual Framework

2.1.1 The Africa Blue Economy

According to Akatpa (2018), to meet the resource needs of the rising global population amidst earth's dwindling land-based resources, the ocean, for now, has been singled out as the generation-next resource base. In November 2018, Kenya played host to the Global Sustainable Blue Economy Conference (SBEC). The conference brought together 16,320 participants from 184 countries. They included 7 Heads of State and Government, 84 Ministers, several Heads of International Organizations, Mayors and Governors, the business and private sector, community leaders, the civil society, and women and youth organizations. The discussions focused on key thematic areas on how to build a sustainable blue economy sector owing to its immense contribution to the global GDP. The theme of the conference was 'the Blue Economy and the 2030 Agenda for Sustainable Development' broken down into nine distinct but mutually reinforcing sub-themes.

These were smart shipping, ports, transportation and global connectivity, employment, job creation and poverty eradication, cities, tourism, resilient coasts and infrastructure, sustainable energy and mineral resources and innovative industries, management and sustaining marine life, conservation and sustainable economic activities, ending hunger, securing food supplies, promoting good health and sustainable fisheries, climate action, agriculture, waste management and pollution-free oceans, maritime security safety and regulatory enforcement and people, culture, communities, the inclusive blue economy.



Figure 1: Description of blue economy activities

Source: World bank group

SBEC 2018 resulted in among others the Nairobi Statement of Intent on Advancing a Sustainable Blue Economy which contained several key political messages. They include the need to; promote action-oriented global strategies that place people and the blue economy resources at the center of sustainable development; promote collaboration for sustainable partnerships and projects in the various sectors of the blue economy; mobilize finance from the public and private sources, promote access to technologies and innovations, share best practices, capacity building; promote gender equality, the role and participation of women and youth in the blue economy; strengthen science and research to generate and disseminate evidence-based knowledge and information as well as to inform policy and decision making; strengthen governance mechanisms, and promote synergies within and between different levels of governments (SBEC, 2018).

2.1.2 Financing Blue Economy in Africa

The concept of innovative finance is complex and numerous definitions have been proposed over time depending on how expansively the concept is shaped, the categories of mechanisms included, and other factors. Nevertheless, all efforts at defining it refer to innovative finance as a complement to traditional finance and entail the involvement of the “official sector” that follows the principles of scaling-up, additionality, complementarity and sustainability in relation to all mechanisms and initiatives that provide finance to meet the 2030 Agenda for Sustainable Development and now the Agenda 2063 (World Bank, 2010; OECD, 2014; Foreign Affairs, 2017; Elmer, Marino, Richter, & Zhang, 2018)

The key messages on innovative financing models and financing sources for blue economy revolved around the inadequacy of the traditional sources of financing projects that had proven

inadequate. Innovative and robust financing models must be adopted to realize a sustainable blue economy and to harness its potential in the economic development model. According to CDFA (2009), Development finance is the efforts of local communities to support, encourage and catalyze expansion through public and private investment in physical development, redevelopment and/or business and industry. It is the act of contributing to a project or deal that causes that project or deal to materialize in a manner that benefits the long-term health of the community. It is a unique financing approach to address environmentally contaminated land and specific solutions to unlocking capital access in underserved markets and industries.

Tirumala and Tiwari (2020), provided a synthesis of elements in a framework that proposes pathways for accelerating the investments in the blue economy. According to these authors, the acceleration of blue economy investments are centered around a financing facility (termed as Ocean Financing Facility) that can act as an anchor for raising the required sources of funds, and to direct the same to the blue economy projects as required. This financing facility (with an appropriate institutional structure) could be established at a national or regional center and should be so organized to blend national, multilateral, impact investment, and philanthropic funds. The diversification of the funding sources (category of investors) needs to be so managed to obtain the as low cost of funds as possible. Their framework was as presented in figure 2 below.

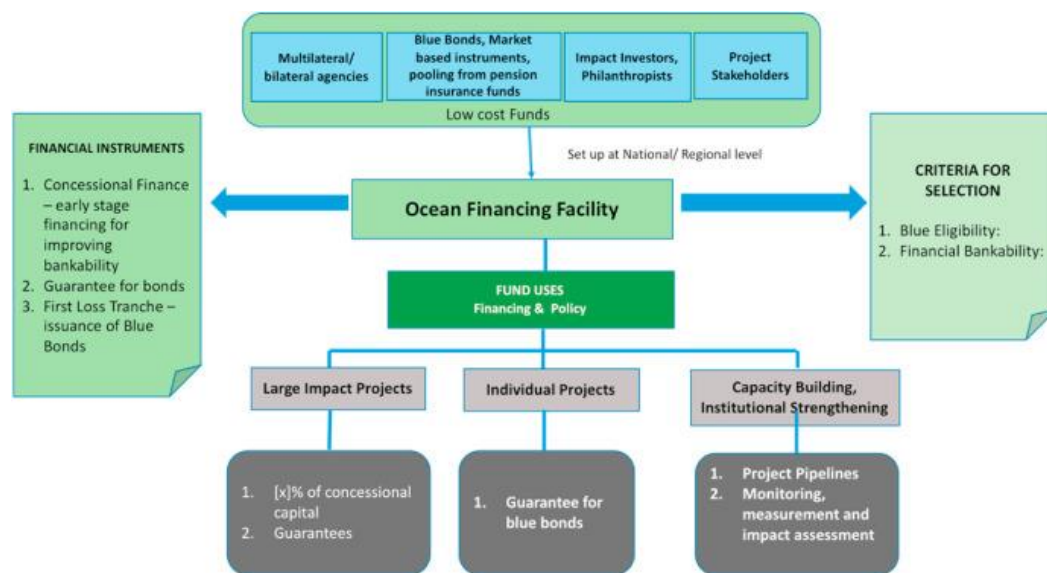


Figure 2: Framework for accelerating blue economy investments

Source: Tirumala and Tiwari (2020),

Therefore, the objective of this study to review some selected innovative instruments of development financing to fund blue economy in Africa. This is to enable nations with blue economy potentials to explore new and diverse sources of finance such as capital markets, green bonds, blue bonds, venture capital, crowdfunding, equities, development impact bonds, resilience swaps, recoverable grants, social success notes and many other financial innovations available. Based on suitability, sustainability, and access, we discuss a few of these innovative financing

instruments that can be of help in annexing the blue potentials in the African context. To this end the remain parts of the paper are divided into section two literature review, three Materials and methods, four contains Data Presentations while five concludes the study.

2.2 Theoretical review

As cited by Mbaya (2020), Orosz, Phillips and Wyatt Knowlton (2003) developed the theory of change as a tool that shows the path from needs to activities to outcomes to impact. It describes the change one would want to make, and the steps involved in making that change happen. The term ‘theory of change’ originates in the field of program evaluation. Sometimes also called ‘program theory’, it refers to the construction of a model that specifies (usually visually) the underlying logic, assumptions, influences, causal linkages and expected outcomes of a development program or project (Orosz, *et al.*, 2003). This theory is of relevance to advance the required change to be accelerated in the blue economy sector

The “economic theory” explains the essence of financial innovation. The theory is founded on the premise that market participants respond to market imperfections through financial innovations (Harris & Raviv, 1989; Ross, 1989). In this regard, the demand and supply forces of financial innovations are pegged on the need to deal with market infections such as transaction costs, information asymmetries and other inefficiencies while still realizing profit maximization (Ross, 1989). Within the context of this study, the need to maximize profits while reducing the cost of credit could be a motivation for investing in blue economy.

Merton (1990) in his “market efficiency theory of innovation” also provides a valuable rationale for financial innovation. The theory was based on the notion that financial innovations are motivated by forces designed to increase market efficiency and improve social welfare. Merton argued that the market is not perfect hence institutions must innovate to improve market efficiency. He gives three motivations for producing innovations namely: the creation of new financial structures that allow risk sharing, risk pooling and hedging as well as new financial structures for transferring resources, the improvement of economic efficiency and liquidity and reduction of agency costs. This theory equally is of relevant to this study due to the adjudged riskiness of financing real development of which blue economy will bring about.

2.3 Empirical Review

Meme and Fatoki (2020) conducted a study to determine the effect of innovative finance on Kenya’s public debt. Specifically, it aimed to establishing the effect of foreign remittance, financial transaction tax and guaranteed loan financing on public debt level in Kenya. A descriptive research design was adopted and population of interest for the study was Kenya. Secondary data for a period of 5 years from 2014 to 2018 was utilized while the Vector auto regression model was estimated to establish the relationship between the variables. Their results indicated that there is a positive and significant relationship between foreign remittance and public debt in Kenya while a negative and significant relationship was established between financial transactions tax, no

significant relationship was established on guaranteed loans and public debt in Kenya. They concluded that foreign remittance has a positive and significant effect on public debt level in Kenya while financial transactions tax has a negative and significant effect.

Changaya and Fatoki (2020) examined the effect of foreign inflow as innovative finance on real estate investment in Kenya. Specifically, they assessed the effect of diaspora remittance, foreign direct investments, portfolio management and included financial development as a moderating factor on real estate investment in Kenya. The causal research design was employed while, the Autoregressive Distributed Lag bounds test and the Dynamic Ordinary Least Squares methods were employed in the analysis. The findings revealed that Foreign Direct Investment and Portfolio Investment have significant negative effect on Real Estate investment in Kenya in the short run. Also, the interaction between Financial Development and Foreign Direct Investment was weakly significant. The study concluded that foreign inflows determine Real Estate Investment only in the short run in Kenya. In the long-run, their effects on Real Estate Investment wanes. The researchers also conclude that the moderating effect of Financial Development on the relationship between Foreign Inflows and Real Estate Investment in Kenya is feasible only through the Foreign Direct Investment channel.

Tirumala and Tamari (2020) conducted a study on innovative financing mechanism for blue economy projects with the aim of assessing the adequacy of the existing blue economy initiatives for sectoral investment needs and to develop contours of a framework that could accelerate the blue economy investments. Using a Theory of Change approach, contours of a framework that pools in low-cost funds from a diverse set of investors to be deployed for either public sector promoted large impact projects or individual blue economy projects through market-based instruments are suggested. They researcher further conclude that the current initiatives such as blue bonds are relatively small and accelerating investments requires access to additional financing instruments and a transformative change in participating stakeholders.

Mbinya and Fatoki (2021) concerted effort at establishing the effect of blended finance on access to water in Kenya was guided by three specific objectives namely to; determine the effect of the private sector funding on access to water, evaluate the effect of public sector funding on access to water and establish the effect of donor funding on access to water in Kenya. The descriptive research design was used in the study while senior officers from the 9 water services provider implementing blended finance in Kenya were interviewed. To gather primary data, a semi-structured questionnaire (with both close-ended and open-ended questions) was used. From the survey, qualitative as well as quantitative data were derived. Multiple linear regression model was used to explore the relationship between the dependent variable and the independent variable. The finding of their study revealed that Private sector funding has a negative but significant effect on access to water. Public sector funding has a positive but insignificant effect on access to water while donor funding has a positive and significant effect on access to water. Their study therefore concludes that improvement and enhancement of these sources of funding could significantly

increase access to water in Kenya. The study concludes that independent variables selected for this study affect access to water in Kenya.

3.0 Materials and Methods

The study was purely qualitative in nature as it used a desk review research approach, in line with business dictionary a desk review research is also a method of secondary research that involves in gathering and analyzing information, already available in print or published on the online like company records, published government reports, and knowledge in newspapers/ magazines. The sources of data for this study include, research papers, journal articles, textbooks and the websites.

4.0 Data Presentation

4.1 Review of Selected Innovative funding sources for Blue Economy

4.1.1 Blended Finance

Ensuring a healthy terrestrial, coastal and marine ecosystems, and the clean air, freshwater, and biodiversity on which we all depend costs about \$300 billion to \$400 billion every year globally. Funding initiatives to a low carbon world require even more resources. Governments have demonstrated that they cannot provide the needed resources, but the private sector manages an estimated \$300 trillion in assets and many investors want to play a larger role in “green” finance as part of a growing commitment to ensure clean energy, reducing risks to supply chains, preserving, and managing access to natural resources, and sharing responsibility for the global needs. The key challenge to be addressed is ensuring that scarce public resources are deployed in a way that catalyzes the required redirection of finance for achieving conservation outcomes. In this regard, blended finance has attracted significant interest in recent years. Blended finance combines the power of development finance and private capital to reduce risks and increase opportunities for private investors. In the climate change mitigation space, the GEF and other International Financing Institutions have successfully used blended finance models over the past two decades to pioneer and scale-up financing of new technologies in renewable energy, energy efficiency, urban transport, and other related fields.

As sustainable energy technologies began achieving significant cost reductions and countries put in place enabling policy environments (e.g., feed-in-tariffs, power purchase agreements), the opportunity for private sector investment expanded greatly. However, mobilization of private capital for blended finance schemes involving biodiversity and natural resources management – Conservation Finance for short - is still incipient (Global Environment Facility, 2015). The GEF experience shows that blended finance is an important instrument. During 2013-14, the GEF provided a total of \$1.4 billion in climate finance (as defined by OECD-DAC’s “Rio Marker”), equivalent to 68% of total funding from the GEF in that period. This

finance mobilized about \$800 million from the private sector, implying that GEF climate finance, on average, mobilized about 60 cents from the private sector for each dollar from the GEF. The contrast with the GEF's smaller sample of blended finance operations is sharp: the \$175 million that GEF provided for blended finance operations mobilized \$1,098 million from the private sector, equivalent to a leverage ratio of 6.3—that is, a mobilization rate that is several times higher than our “regular” operations. The GEF experience shows that Blended Finance can be an effective instrument to redirect private sector finance towards investments that benefit the climate (Global Environment Facility, 2015).

According to IFC (2018). Blended finance is the strategic combination of public and/or private development finance flows, for example, concessional finance and philanthropic resources, with other public or private capital to enhance resources for investments in key areas of economic development. Driven by the adoption of the UN's Sustainable Development Goals (SDGs) and the renewed focus on the role of private sector capital and expertise, blended finance has attracted substantial interest in recent years, and substantially more concessional resources for blending has become available. The SDGs have incentivized new thinking on innovative development finance, including how to blend public and private funds. Efforts to provide opportunities for private investors will be essential to mobilize the estimated \$4 trillion a year of investments needed to achieve the SDGs. Naturally, there is no silver bullet in development finance. No single financing instrument can provide a viable long-term solution by itself. However, blended finance has the potential to be a catalytic part of many solutions. This explains how blended finance can play a crucial role in opening up the potential the Blue Economy. It highlights how blended finance projects can have development impact that will go a long way to promote investments for preservation and sustainable blue economy (IFC, 2018).

The magnitude of financing through Blended Finance is in the order of trillions of dollars per year, of which a large amount comes from the private sector. It is therefore critical that scarce public resources are deployed in a way that catalyzes the required redirection of finance. Blended finance aims to achieve exactly that, and therefore has attracted significant interest in recent years. Blended Finance refers to structured transactions in which development finance and private capital achieve climate impact—or other environmental impacts—while at the same time delivers adequate risk-adjusted financial returns for the private investor. The most commonly used financial instruments in blended finance are (i) guarantees, which provides protection from various forms of risks of capital loss for investors; (ii) debt, typically in the form of subordinated or concessional debt (or both); and (iii) equity, typically in the form of junior equity accepting higher risks for lower financial returns.

This model of financing can therefore involve public-private financial partnerships as well as public-private partnerships. The rationale behind blended finance is to increase leverage i.e aid/philanthropic funds used to attract additional/mobilize additional public/private capital, to enhance impact, and to deliver risk-adjusted returns. A host of actors are involved in blended finance from bilateral development agencies to multilateral development finance institutions and philanthropic foundations. Blended finance presents an opportunity to scale up both public and

private financing for development in an overall context, where public aid resources for development are constrained. There are opportunities in this model of financing that can support blue economy financing (World Economic Forum, 2015).

4.1.2 Blue Bonds

It is no longer a doubt that our oceans are in a dire state. Overfishing has significantly reduced the fish population globally. Climate change and ocean acidity and pushing the coral reefs to near extinction and the loss of those reefs and other ecosystems have left the communities living along the coastal areas exposed to the impacts of storms and rising sea levels. For many coastal nations, these are matter of life and death. Leaders of these nations are struggling to protect the marine ecosystem but too often are struggling to control and manage their countries debt burdens. This renders their efforts to invest in conservation efforts that would make their environments and economies more resilient to be in the vein (The Nature Conservancy, 2019).

According to Nature Conservancy (2019), blue bonds for conservation are an opportunity for coastal nations to reinvent in their natural resources by refinancing their natural debts in a way that secures funding for conservation of marine ecosystem that can be tailored to benefit their economies. In a Blue Bond arrangement, the government of the interested country commits to protect at least 40 percent of their coastal surrounding areas including coral reefs, mangroves and other important surroundings in the marine ecosystem and engage in conservation works that that improve or develop fisheries management and reducing pollution. The funder leverages public grants and commercial capital to restructure the nation's sovereign debt, leading to lower interest rates and longer repayment periods. A portion of those savings is then committed to the conservation efforts as per the country's commitment. The funds also go towards the scientific research and the planning process that work with the local partners to identify activities that combine conservation and sustainable economic opportunities such as restoring coral reefs for tourism and improving fisheries management to help ensure compliance from all stakeholders.

The blue bond is a debt instrument issued by governments, development banks or others to raise capital from impact investors to finance marine and ocean-based projects that have positive environmental, economic and climate benefits (Blue Natural Capital Financing Facility, 2019). Blue bonds are modelled on successful green bonds, which have been issued by multilateral financial institutions, sovereign states and municipalities to fund investments in sustainable energy, clean transportation, and other areas. This innovative financing facility has the potential to raise large amounts of capital, which can assist in financing initiatives such as marine conservation and sustainable fisheries. There are however several issues for deliberation. There is need for technical assistance provided by multilateral financial institutions to enable the bond issuance at an affordable rate, the need to ensure that the bond complies with industry good practice principles such as transparency in the projects or interventions to be financed with the blue bond proceedings. There is need to consider how the financing modality is aligned to a countries debt sustainability and debt management strategies and development of a concrete project pipeline

suitable for effective deployment of the resources raised via a blue bond issuance (Caribbean Development Bank, 2018).

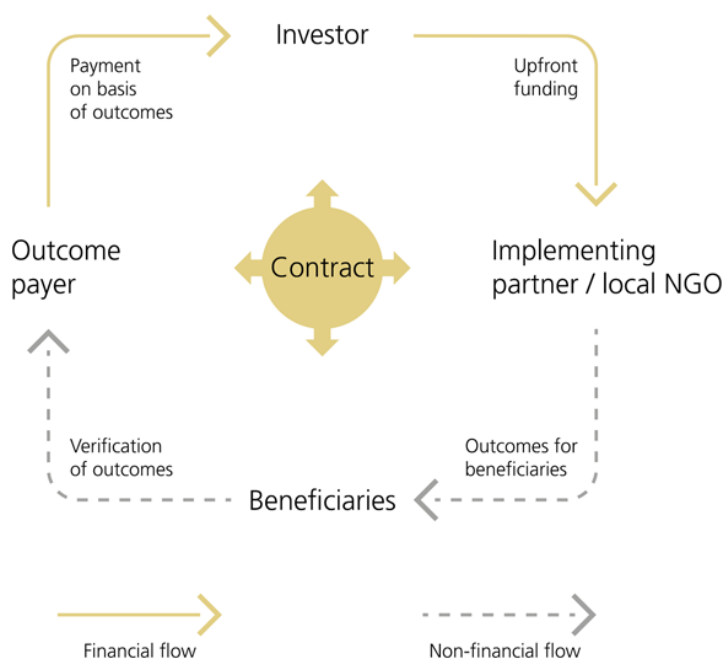


Figure 2: Process of developing impact bond

Source: centreforsibs@dcms.gov.uk

4.1.3 Development Impact Bonds

A Development Impact Bond or DIB is a results-oriented funding mechanism that coordinates public, philanthropic, and private-sector resources to leverage upfront financing for service delivery. DIBs involve four main players: investors who provide the start-up or growth capital for intervention and bear some financial risk, service providers (also referred to as implementing organizations) who use the capital to implement the intervention, and outcome funders (also referred to as outcome payers) who agree to repay investors their principal plus some rate of interest if the intervention reaches certain previously agreed-upon targets. An independent third party must verify the results generated by the intervention before the outcome funder repays the investor. An intermediary organization can also assist with the design of the DIB, the search for investors, and generally facilitate negotiations between all involved parties. Figure 2 presents the DIB model as proposed by the Center for Global Development and Social Finance UK's Development Impact Bonds Working Group (Development Impact Bond Working Group 2013).

Social Impact bonds and Development Impact bonds and are therefore forms of payment-for-results based on public-private partnerships arrangements between government or donor in the case of Development Impact Bonds and the Private and non-profit sectors to deliver projects with a particular social and environmental objective (UNDP, 2017). Impact bonds are redeemed by the

investor only if specified social or environmental outcomes are achieved. They involve three key actors namely investors who provide upfront capital for the project, service providers who implement the projects and outcome funders or payers who return the capita to the original investors plus a small return in the event of success (Caribbean Development Bank, 2018).

The objectives of this model of financing are to align impact investment with measurable results, grant affordable access to capital for public projects, particularly for prevention and conservation measures, provide greater certainty on revenues for the execution of public resources thanks to the frontloading of all required resources and introduce a rigorous approach to performance management by closely linking payments with performance. This refocuses the social sector on outcomes and ensuring public resources are well spent (United Nations Development Programs, 2015).

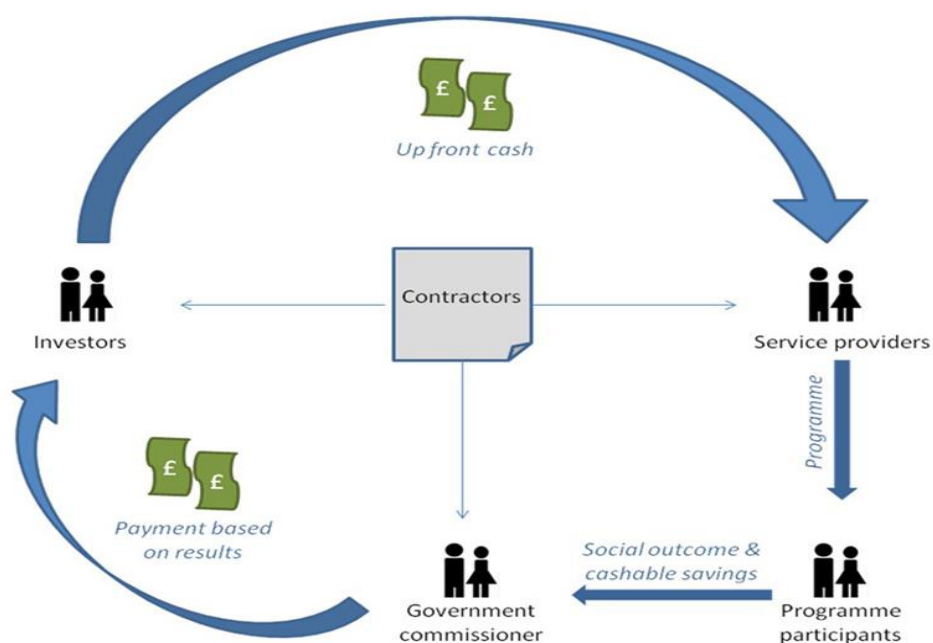


Figure 3: Process of the social impact bond

Source: centreforsibs@dcms.gov.uk

DIBs aims to address a three-part coordination problem characterized by the operating model in many LMICs. First, organizations often struggle to attract adequate and flexible capital to support the scale-up of socially valuable services and investments, even if the delivery of such services can potentially generate a profit. Second, private investors hesitate to supply low-cost capital to projects that do not generate a sufficiently high financial return, even if they have substantial social value. Finally, donors and philanthropists frequently utilize ex-post, input-based funding approaches whereby they only cover incurred expenses for preapproved program inputs. Such funding approaches may limit the ability of recipients to innovate for impact, limit access to upfront financing, and fail to create mechanisms that allow public and private funding to be combined for scaled-up service provision. DIBs tackle the three-part problem by basing payments on verified changes in outcomes, introducing private-sector approaches to the oversight of service

delivery, and being flexible enough to adapt to the needs of all the involved parties. Each of these three strategies implies a theory of change. Under the first theory of change, implementing organizations can adjust their service delivery strategy at any point if they determine another approach might work better. They have the funding to innovate and quickly implement new strategies based on their knowledge of the local context since investors in a DIB supply funding upfront. Implementing organizations also have the mandate: outcome funders and investors only want to see changes in outcomes that can satisfy a third party's rigorous and independent assessment (Center for Global Development , 2018).

In line with the second theory of change, the literature on impact bonds suggests that a main source of innovation in a DIB comes from the investor. The risk posed to the investor if the intervention fails is meant to incentivize the investor to guide the service provider in tracking its progress and responding to setbacks. The reputational risk to the service provider acts as another incentive; the service provider is consequently encouraged to seek out and use the investor's feedback. Lastly, many elements of the DIB model can be adjusted to fit the needs of the partners involved. Impact bonds can be structured as individual transaction impact bonds or impact bond funds (Gustafsson-Wright, Gardiner, & Putcha 2015). In an impact bond fund, the outcome payer defines a price per outcome that it is willing to pay and then service providers bid on one or more of the outcomes. This can serve as a more cost-efficient contracting model. Aid agencies may also find it politically difficult to divert funds from a remedial intervention toward a promising preventive intervention. DIBs address this issue by shifting the upfront financing requirement to the investor. The fact that the financial return on a successful intervention comes from a reputable outcome funder with a strong balance sheet (established during due diligence), rather than the cash flows of a service provider, eases some of the risk investors take on by providing funding upfront. The flexibility afforded by the DIB model also provides an opportunity to align organizations that approach the same problem differently (Center for Global Development , 2018).

The world's first Social Impact Bond launched in 2010 in Peterborough, England. It focused on reducing rates of recidivism among adult male offenders with short-term prison sentences. More than 60 SIBs have been implemented since then, mostly in high-income countries such as the United States and the United Kingdom (Dear *et al.* 2016). In Africa, the Social Impact bond was launched in Cameroon, called the cataract bond, that was aimed at enabling the hospital to reach self-sufficiency in five years. The bond provided USD 2 million in financial support for operational costs at the new hospital in Cameroon. The DIB/SIB is, therefore, an important financial innovation that can also be applied in the conservation and growth of the Blue economy to harness its potential to the global, continental, and regional economic growth.

4.1.4 Debt swaps

Debt-for-nature swaps (DNS) can mobilize resources for protecting nature while reducing the debt burden of developing countries. In exchange for debt forgiveness, the debtor government commits to invest the accrued savings in conservation and/or climate related expenditures. The

transaction is made possible by the willingness of a creditor (s) to forgive the totality or part of the credit rights or to similarly sell the debt outstanding to a third party (typically a conservation organization) at a price lower than the face value (UNDP, 2017). Debt-for-nature swaps leverage funds for use in local conservation efforts and are based on the model of debt-for-equity swaps, in which discounted debt is exchanged for investments in the assets of an indebted country (Caribbean Development Bank, 2018). In the case of debt-for-nature swaps, the proceeds of the swap are invested in conservation activities in the indebted country. Under a typical debt-for-nature swap, a conservation organization buys part of a country's debt from an official or commercial lender on the secondary market at a sizable discount.

This is a potential avenue through which debt can be reduced and complimentary funds raised for important conservation activities. Some drawbacks that have been identified include relatively small amounts of actual debt relief and potentially high transaction costs, particularly finance and legal fees, where there may need to issue new instruments to refinance the loan (UNDP, 2017).

A debt-for-nature and resilience facility was recently proposed by the World Bank for small states. The facility proposes to retire high-cost commercial or bilateral debt, such that the savings from the debt reduction creates additional fiscal space, which can be used to finance current or capital expenditure (UNDP, 2017). The qualifying criteria included the willingness to implement policy and institutional reforms for environmental management and climate resilience, identification of debt that could be bought back, preferably at a discount or replaced by cheaper or longer-maturity debt and identification of a donor or donors who can provide additional funds for the debt buyback operation (Caribbean Development Bank, 2018).

4.1.5 Crowdsourcing-Diaspora Financing

Crowdfunding is part of the broader universe of financial innovations enabled by technological advancements (Jenik, 2017). The diaspora is a potential source of complementary investment in sustainable development and by extension, the blue economy. Some countries, especially in sub-Saharan Africa, have benefited from initiatives that aim to connect the diaspora to equity and bond deals for development projects in their countries of origin through, for example, crowdfunding investment platforms (Caribbean Development Bank, 2018). Projects supported by the diaspora range from housing, infrastructure, agribusiness, manufacturing, technology, and healthcare. To incentivize the diaspora to invest, private intermediaries often provide quality assurance services (vetted investment projects) and investment guarantees, which are in turn made possible through partnerships with official donors, such as bilateral development agencies or multilateral development banks. Diaspora bonds are indeed a viable financing source for a sustainable blue economy. The potential of diaspora bonds for different countries depend on some favorability factors including the size of the stock of emigrants, whether the emigrants have above-average median incomes, sovereign credit rating above the speculative-grade, lower perceptions of public corruption above average rating in global competitiveness.

4.1.6 Contingently Recoverable Grants

Contingently recoverable grant resources reduce the risks and upfront costs associated with the exploratory phase of capital intensive projects particularly commercial extractive-type resources. The resources are usually provided to special purpose vehicle (SPV) entities to fund, for example, resource exploration and pre-drilling phases (Caribbean Development Bank, 2018). If the resources are proven, the contingently recoverable grant converts to loan resources and can be complemented with the issuer of the initial grant resources exercising an option to undertake future debt financing, if the project is to advance beyond successful exploration (Caribbean Development Bank, 2018).

A recoverable grant is not a legally defined term, so individual grant makers and social investors may define recoverable grants differently. Recoverable grants are different from a charitable grant in that grantors hope to get their money back to recycle the capital into future social impact projects (Echoing Green, 2011). Recoverable grants are different from loans in that they are forgivable. Grantors may consider forgiving repayment under extraordinary circumstances, and an Echoing Green's case, is not repayable unless the recipient company is financially successful. At their core, recoverable grants keep the social mission and impact of the recipient central.

5.0 Conclusion

Advancing the blue economy as a strategic economic growth pillar in the Region requires continuous research and development, targeted feasibility studies, competitive analysis and the development and testing of new financing instruments and models. Therefore this paper reviews some innovative funding sources that can be assessed and annexed to effectively harness the potential of the marine ecosystem in countries like Nigeria, Kenya and other African nation that are not inter locks. Additionally, there is need to strengthen the ocean governance and the knowledge and capacity of those living around the coastal environment and also the authorities that are tasked with ensuring the preservation of the oceanic resources. Exploration of the limited oceanic resources requires a coordinated effort from players in both the public and private sectors. This will ensure the availability of innovative and sustainable financing initiatives that will go a long way into ensuring that the potentials of this resource are channeled into economic development.

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