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Incorporating Blue Bonds as a funding alternative for a sustainable development project

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ABSTRACT

This study aims to examine Blue Bonds as a guarantee issued by the issuer (government and companies) as alternative financing. Compared to ordinary bonds that are issued only to meet the issuer's funding needs, the transaction results Blue Bonds will be used to support marine protection, fisheries governance, waste and water pollution management, and the restoration of marine ecosystems. In this study, the author uses the method literature review sourced from journals, books, reports from related ministries, international financial institutions such as the World Bank, and news from national and international media. The results of this study indicate that by issuing Blue Bonds, the government and companies will get more funds from bond investors. Investors will receive a return in the form of a coupon (fixed interest rate) from the issuer and pay according to schedule and the initial principal investment. Not only that, the government and companies will get a good reputation among investors and actively contribute to Indonesia's maritime development.

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Introduction

Indonesia's potential to become the world's maritime axis is very large. This country has 8,500 species of fish, 555 species of seaweed, and 950 types of coral reefs that live in the oceans of Mother Earth with an area of 5.8 million km² of water.² (Ministry of Maritime Affairs and Fisheries, 2018). Based on a report from the Ministry of Maritime Affairs and Fisheries (2018), the potential of Indonesia's marine resources, especially the fisheries sector, reaches 12.54 million tons per year spread across Indonesian waters and the Indonesian Exclusive Economic Zone (ZEEI). In addition, Indonesia's comparative advantage in the maritime sector also has significant implications for the economy. Dahuri (2019) argues the economic potential of the marine sector reaches 1.38 trillion dollars per year or 1.3 times the 2019 National Gross Domestic Product (GDP) and can open 45 million jobs in Indonesia. Crucially, the Central Statistics Agency (2018) noted that the contribution of the Fisheries sector to Gross Domestic Product (GDP) reached 98 trillion Rupiah in the Quarter III. Seeing this great potential, blue economy Indonesia in the fisheries sector, marine renewable energy, and tourism can be the key to increasing economic growth and making sustainable use of maritime, oceanic, and marine resources to realize an advanced Indonesia.

Unfortunately, marine problems in Indonesia such as pollution of ocean ecosystems, increasing the volume of plastic and non-plastic waste, illegal fishing, and overfishing be insurmountable obstacles. Jambeck (2015) explained that Indonesia produces 1.29 million tons of plastic waste that pollutes the oceans and this data is reinforced by the McKinsey report (2015) where Indonesia produces 60% of plastic waste in the ocean. In addition, the community Divers Clean Action (2019) states that 63% of the oceans in Indonesia have been polluted by plastic waste that can harm coral reef ecosystems and marine biota. Sadly, a whale has died swallowing nearly 6 kilograms of plastic and flip-flops in Southeast Sulawesi Province to be precise on Kapota Island, Wakatobi National Park (WWF,

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2018). As the country with the 2nd largest contributor of marine plastic waste after China, which reached 1.3 million tons (Science Magazine, 2015), the cost of losses suffered by Indonesia reached 4 billion rupiah per year due to the destruction of Indonesia's ocean ecosystems. Susi (2018) also noted that Indonesia lost 2,000 trillion rupiahs, as a result of illegal fishing. This shows that marine problems caused by human activities are an important concern.

Meanwhile, the government has tightened supervision of illegal fishing through the Minister of Maritime Affairs and Fisheries Regulation Number 37/PERMEN-KP/2017, disbursed a budget of 7.28 trillion Rupiah for the Ministry of Maritime Affairs and Fisheries, as well as providing Waste Management Service Fee Assistance (BLPS) (2018) of 26.91 billion rupiahs to the Regional Government. However, the problem of program realization and budget is a classic obstacle in Indonesia. Local government budgets in managing the environment are still relatively minimal, namely 23% of the regional Regional Revenue and Expenditure Budget.

(APBD) or \$5-6/capita per year (World Bank, 2019). Whereas, World Bank (2019) has presented ideal recommendations regarding waste management that requires funds of at least \$15/ capita per year or 3-5% of the total APBD.

To solve maritime problems and unlock potential blue economy s while supporting sustainable marine development in Indonesia, the authors provide recommendations for stakeholders to publish Blue Bonds as an alternative to financing maritime problems, especially the marine and fisheries sector, and to support the UN's sustainable development agenda (goal 8) and (goal 14) namely decent work & economic growth and life below water.

Blue Natural Capital Financing Facility (2019) explained that Blue Bonds are a debt guarantee issued by the issuer to increase capital, especially the implementation of sustainable development goals related to underwater life. Different from bond ordinary funds issued only to meet the needs of government and company funds, the result of transactions Blue Bonds will be used to support marine conservation, fisheries governance, waste treatment, and water pollution, and the restoration of marine ecosystems. By publishing Blue Bonds, the government and corporations will receive additional capital from bond investors. Investors will receive returns in the form of coupons (fixed interest rates) from the issuer which will be paid according to schedule and the initial principal investment. great, Harvard Business Review (2018) explains that the government or corporations that issue sustainable bonds, get a good reaction from investors, especially pro-environmental investors. The greater variety of financial instruments will provide a strong composition depth in the government and corporate funding sector. Therefore, publishing Blue Bonds will give a multiplier effect to the government, companies, investors, and the environment, especially the productive funding of the Indonesian maritime sector.

There is no specific scientific research related to Blue Bonds. However, Blue Natural Capital Financing Facility (2019) has made a conceptual report on the issuance of blue bonds entitled "Blue Bonds: Financing Resilience of Coastal Ecosystems". The report explains how the concept of Blue Bonds can be applied worldwide and the specific benefits associated with developing a sustainable blue economy. Besides, the success Sychelles Blue Bonds and Nordic Investment Banks in issuing Blue Bonds and obtaining alternative funding of up to 15 million dollars per year makes the projected issuance of Blue Bonds very profitable. Learning from the report, the author adapted the issuance of Blue Bonds in Indonesia with the following framework:

Figure 1: Writing Framework; Source: Author

Publishing Blue Bonds have a target investor pro-environmental, millennial, and old player. The Ministry of Finance (2019) explained that more than 29% of investors have contributed to placing their investments in environmentally friendly instruments, especially Green Sukuk with a final yield of 3.75%. Furthermore, the Ministry of Finance (2019) released data that 50- 52% of the retail ST-006 or Government Securities (SUN) market was dominated by millennials (22- 37 years) (Pew Research Center, 2018). Millennials

liked ST006 for easy access, promising returns using floating coupon rates and referring to 7 Days BI Reserve Repo Rate (if interest rates increase, the coupon will increase).

However, if there is a decrease in interest rates, the coupon rate will not be adjusted (still 6.75%). This is in line with the statement United Nations Development Program (2018) related to the millennial investment trend who has a high interest in investment instruments, especially the sustainable environment because of the socially aware and socially conscious characteristics of millennials. free-financial (Strauss & Howe, 2000). Therefore, this segment of investors is the main target of issuance Blue Bonds.

Lastly, publishing Blue Bonds in Indonesia has a goal for the sustainable conservation of marine, coastal, and fishery resources. Not only that, sewage treatment, water pollution, and the restoration of marine ecosystems are also major concerns.

Table 1: Publishing Purpose Blue Bonds in Indonesia

Principle Blue Bonds	Blue Economic Activity
Renewable energy	1. Renewable energy for marine areas in Indonesia incudes: - Ocean wave energy - Tidal Energy - Ocean thermal energ
Water Pollution Management	1. Prevention and re-treatment of and treatment of water waste such as plastic waste and water pollution 2. Reduction, control, and management response of waste and water pollution
Conservation Biodiversity Marine	1. Protection of coral reefs and marine biota ecosystems 2. Mangrove conservation to prevent abrasion
Availability Infrastructure	1. Development of affordable basic infrastructure such as; sanitation, ready-to-drink water treatment, sewage treatment channels, and others 2. Provision of health facilities, education, vocational education and access to credit such as; hospitals and schools to the surrounding community
Access to credit	1. Access to affordable credit for fishermen, especially fisherman and small actors for survival Micro and Small Enterprises Medium (MSME) 2. Access to financial service for investment or savings in sustainable blue activities, especially for fishermen and MSME business actors
Food security	1. Maintenance biodiversity marine and fisheries, especially the maintenance of fish supply

Issuance of Blue Bonds requires an assessment and verification process regarding which blue economy projects are eligible for funding. In its implementation, the Financial Services Authority (OJK) can refer to international standards such as: Sustainable Bond Principles (ICMA) to clarify the publishing process. In addition, OJK can also clarify legal perspectives by including regulations on the feasibility of blue economy projects, transparency of information, evaluation and verification of assets, financial reports, and company and government performance prospectuses.

In implementing this idea, of course, socialization and education activities are needed to increase public awareness about the urgency of developing sustainable blue economy projects and investing in the future. Especially for the millennial segment, social contributions are needed to become Indonesia's underwater life is better through alternative Blue Bonds funding in Indonesia.

Research and Methodology

In this study, the author uses the. a method literature review or literature review. what is meant by research literature review namely a systematic, explicit, and reproducible method for identifying, evaluating, and synthesizing the work of research results and ideas that have been produced by researchers and practitioners (Okoli & Schabram, 2010). This research is descriptive by regularly describing the data obtained, then giving an understanding and explanation to the reader so that it is easy to understand well.

The author uses literature review due to unfavorable conditions to conduct research directly when social distancing. with that expected literature review This can provide an overview of the use of Blue Bonds as an alternative to funding blue economy projects to support sustainable development goals. The writing of this paper is sourced from journals, books, reports from related ministries, international financial institutions such as the World Bank, and news from national and international media. In addition, this paper uses up-to-date statistical data from government institutions such as the Central Statistics Agency (BPS) and the Ministry of Marine Affairs and Fisheries (KKP).

Result and Discussion

Analysis of Blue Bonds Issuance in Indonesia (Gap and Barriers Analysis)

Publishing Blue bonds in Indonesia will focus on marine conservation, fisheries management, waste management and water pollution, and the restoration of marine ecosystems. However, publishing Blue Bonds or other environmentally friendly financial instruments, there are still gaps and obstacles such as;

Table 2: Gap and Barriers Analysis Blue Bonds

Gap and Barriers Analysis	Solution
Lack of guidelines for Blue Bonds	Based on the category of projects that meet the requirements of blue bond against Global Bond Principle (GBP) Reduce
The project is too risky	The risk with alternative streams of other fixed-income securities and increase credit or Asset Insurance
The project is too complex	Clarifying in the blue bond project structure
Weak issuer credit rating	Embrace loan from Multilateral Development Bank (MDB)
Low credibility and awareness regarding the benefits of new bonds	Develop blue bond matrix, principles and mechanisms and provide technical assistance
Lack of buyers	Socialization and education related advantages and implications Blue Bonds to potential investors
High transaction fees	Assessment standard and transaction facility development

Blue Bonds Issuance Structure in Indonesia

The issuance of Blue Bonds can be carried out by the government, companies, and related institutions. The structure for the issuance of Blue Bonds (for companies);

- i. Cooperation with the Underwriters (underwriters). The use of PEE services has the aim of assisting issuers in marketing and selling securities offered to the public to produce a certainty of obtaining funds from these securities (Financial Services Authority, 2016). The underwriting contract may contain a full commitment (full commitment) or best ability (best effort). In addition, cooperation between supporting professions such as accountants, notaries, legal consultants, and others is considered necessary to provide security to investors regarding the financial statements of issuing companies, periodic auditing, and company legal documents.
- ii. Synergy with supporting institutions such as Trustees, Securities Administration Bureau (BAE), Securities Ratings, and Custodian Banks. The function of the trustee is to supervise and develop issuers in paying interest on the principal of the bonds, assess and analyze the ability of issuers, and provide periodic evaluations regarding issuers' performance. Furthermore, the BAE functions to record and regulate the distribution of securities rights. Securities rating is used to rank bond securities. This is done to provide information to investors on the potential and risks of each issuing company. Lastly, the Custodian Bank functions as custody of securities services such as interest receipts and transaction settlements.
- iii. Publishers must attach registration documents to OJK and brief prospects regarding publication permits. After the OJK has processed and provided verification of acceptance of the issuer, the issuer is required to make a public offering and allotment as well as listing on the stock exchange.
- iv. Finally, the issuer is required to submit a report on the results of the public offering and allotment. Debt securities trading using the FITS system (Fixed Income Trading System) to facilitate the trading of debt securities on the Indonesia Stock Exchange. In addition, there is a reporting system for debt securities transactions, known as CTP-PLTE (Centralized Trading Platform – Securities Transaction Reporting). CTP- PLTE is an electronic system, which can be used as a means of trading and reporting debt securities transactions.
- v. Investors can transact to allocate their funds to Blue Bonds to contribute to the development of the blue economy and socially important project with the commercial rate of interest. Publishers must provide information update related to the allocation of the use of funds Blue Bonds and make a report related to which maritime sector is eligible to be funded along with the percentage of the amount.

- vi. In addition, publishers must also provide information related to development projects blue economy and expected outcomes. Finally, publishers can communicate with investors through annual reports, newsletters, websites, and other instruments.

In the process of publishing Blue Bonds, the identification of clear reasons and objectives is needed to determine the urgency of issuing Blue Bonds. Mapping which blue economy projects deserve improvement, the composition of yields regarding coupons or interest rates, and credit guarantees are also the main focus. After that, a report on the qualifications of the blue economy project with the right methodology and sources of information as well as conducting regular monitoring of the progress of the blue economy project funded by profit allocation Blue Bonds. Lastly, make a framework and prospectus Blue Bonds in the future. Furthermore, strategic steps can be taken by:

Short term (2020)

Prepare, develop strategic ideas (scoping and mapping related to publishing Blue Bonds), and development of facilities and infrastructure.

Medium-term (2021-2025)

Implementing pilot projects, evaluating pilot projects, improving and implementing Blue Bonds in a limited scope. Furthermore, synergizing with other stakeholders such as the government through related ministries, companies, and related institutions to optimize the potential of Blue Bonds in Indonesia.

Long term (2026-2040)

Application of ideas to other sectors as an alternative effort to finance the conservation of underwater life in Indonesia.

Blue Bonds Issuance Matrix

Table 3: Publishing Matrix Bluebonds (Author Process)

<i>Key Indicator, (Renewable energy, waste management, and water pollution, conservation biodiversity Indonesian marine life, restoration of marine biota ecosystems such as coral reefs and a mangrove, availability of basic infrastructure, and access credit to fisherman and coastal communities)</i>		
Area and Potential Area		
The largest archipelago	World coral species	Fish Species reef
1,904 km²	76%	37%
World fish supplier	World coastlines	Area of water
10%	55,000 km ²	3,1 million km ²
Problem		
Marine pollution	Illegal fishing and overfishing	Poorresident
9 million tons of plastic waste		Coastal 7.9 million
KKP Limited budget	Oil Spill	Land Dispute
7.28 trillion	37 cases 1988-2017	60%
		Vulnerable land
Solution		
Blue Economy Project Funding Alternatives	Reducing plastic waste in the sea through the maritime gita movement, plastic bag taxes, construction of marine conservation projects, restoration of marine biota ecosystems such as planting mangroves and coral reefs, and access to credit for fisherman	
Blue Bonds		

Conclusions

To overcome environmental problems, especially the volume of plastic waste in the sea, pollution of marine biota ecosystems such as coral reefs, destruction of mangroves, inadequate infrastructure development, non-optimal credit access to fishermen, and the limited budget of the Ministry of Marine Affairs and Fisheries, solutions are needed to overcome these problems. to support sustainable development goals (8th goal is decent work and economic growth and 14th goal is underwater life). Through publishing Blue Bonds, which is alternative financing for blue economy projects, maritime problems in Indonesia can be resolved. The problem

of the high volume of plastic waste in the ocean can be solved by preventing and reprocessing waste through waste management. In addition, the Gita Bahari or Love of the Sea movement is also encouraged to overcome the waste problem. The Ministry of Maritime Affairs and Fisheries and the Ministry of the Environment can increase their budget through the injection of proceeds from publication Blue Bonds for the success of a sustainable blue economy project in Indonesia. Furthermore, the problem of damage to marine biota ecosystems such as coral reefs and mangroves as abrasion prevention can be overcome by planting mangroves and protecting coral reefs through continuous funding from the issuance of Blue Bonds.

The problem of providing infrastructure that is less than optimal in coastal areas and access to credit for fishermen can be resolved by developing blue economy projects such as renewable energy infrastructure through ocean waves and providing affordable access to local fishermen with an injection of publishing capital Blue Bonds. By publishing Blue Bonds, the government through the Ministry of Maritime Affairs and Fisheries, the Ministry of Finance, as well as the Ministry of the Environment, companies, and related institutions will obtain alternative sustainable funding. Bonds can be issued through government or retail bond mechanisms. To simplify the mechanism, the government or retailers use an online system to issue bonds through the website or contact the 13 distribution partners that have been assigned to handle online orders. Purchases can also be made through securities companies and Financial Technology. It is hoped that investors especially millennials and environmental will be attracted through an easy process and promising yields (coupons or interest rates referring to 7 Bank Indonesia - Days Reverse Repo Rate).

Blue bonds publishing also provides multiplier effects for stakeholders. Issuers (both government and companies) will get environmentally friendly financing alternatives that are in line with sustainable development goals, build a good reputation in the eyes of investors, and improve internal financing efficiency. For investors, getting yields or coupon rates that tend to rise and are safe (using the 7-day BI-DRR reference and the trend of continuously rising interest rates) and contribute significantly to sustainable blue economy development.

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