



Food and Agriculture Organization
of the United Nations

**FAO's
Blue Growth Initiative**

Blue finance guidance notes

Blue
bonds





Green bonds and blue bonds

Bonds that contribute to blue growth

Bonds are debt-based financial instruments used to raise capital for range of purposes. They can be issued by a range of entities: governments (“sovereigns”), private entities, multilateral banks or commercial banks. Bond investors are paid a fixed interest rate – the coupon – on a fixed schedule. The initial investment, the principal and interests must be paid in full at maturity.

Green bonds are bonds that specifically target activities and projects addressing climate change, environment or sustainable development, and are hence subject to additional requirements. Because they are part of the environmental market, the underlying projects must comply with appropriate green bond standards, which broadly speaking address three areas of concern to investors, beyond financial requirements: environmental, social and governance.

Blue Bonds are a subset of the Green Bond Market, a USD 200 billion global market of environmental bonds that has been growing rapidly. They are intended to finance marine-related activities and assets, including fisheries and aquaculture and their value chains. In fact, investors prefer that we call them Green Bonds (or Green Marine or Green Fishery Bonds), not Blue Bonds.

STANDARDS

The most credible standards for blue bonds are designed by Climate Bonds Initiative (CBI), which will have Fishery Green Bond Standards by mid-2020. The best review of the green bond market is to be found in CBI's annual State of the Market Report.

The second most widely used standards come from the Green Bond Standards, which is a set of voluntary guidelines produced by financial institutions. While these standards are reasonable, they lack the scientific integrity of CBI and there are no specific fishery or seafood standards.

Benefits of green bond finance

Green or blue bonds have some additional transaction costs because issuers must track, monitor and report on the use of proceeds to comply with green bond standards. However, these bonds have a number of advantages that offset the extra costs, including:

- highlighting the issuers' and investors' commitment to meeting national, regional and international goals related to sustainable fishing and aquaculture, including the relevant Sustainable Development Goals (SDGs);

Types of activities for blue bond finance

- sustainable fisheries and aquaculture;
- sustainable tourism;
- green shipping and ports;
- renewable marine energy;
- climate change adaptation and mitigation;
- coastal protection and marine conservation.

- telling a positive marketing story, aligning the fisheries sector with the sustainable finance movement;
- diversifying the investor base away from purely financially motivated investors to those more closely aligned with sustainability goals;
- strengthening transparency and accountability;
- bringing together teams from environment, treasury and commerce in policy development processes and investor roadshows;
- giving urgency to environmental governance;
- strengthening negotiating power with foreign fishing companies through alliance with environmentally minded investors.

Raising new capital is never easy, but the green bond market makes it easier, thanks to the strong demand.

Upward trend in demand for green bonds

The USD 200 billion green bond market represents a small part of the global bond market, estimated at USD 100 trillion. However, green bonds have been the fastest growing segment of the global bond market since 2014. Demand for green bonds

is especially strong on the part of institutional investors that have made commitments to sustainable finance. The owners and managers of roughly one-third of global liquid assets (or USD 45 trillion) have agreed to follow the United Nations-supported Principles of Responsible Investment (PRI). The demand for green bonds, perhaps the most desirable allocation for these investors, is far in excess of the supply. That's good news for issuers. For example, the recent Fiji Green Bond, which included some fishery allocations and was the first green bond issued by an emerging-market nation, was quickly oversubscribed by a factor of 2:1.

Green bonds vary in terms of the designation of their proceeds and the form of debt recourse (Table 1). The green "use of proceeds" bond market has developed around the idea of flat pricing - where the bond price is the same as ordinary bonds. Prices are flat because the credit profile of green bonds is the same as other vanilla bonds from the same issuer. Therefore, green bond issuers should not expect to pay less than they would for issuing a vanilla bond - unless a guarantor and/or donor can be engaged to effectively lower the cost for the issuer (see Seychelles Blue Bond model).

Table 1. Types of green bonds

Type	How proceeds raised by bond sale are used	Debt recourse	Examples
"Use of proceeds" bonds	Earmarked for green projects	Recourse to the issuer: same credit rating applies as for issuer's other bonds	European Investment Bank Climate Awareness Bond Barclays Green Bond
"Use of proceeds" revenue bonds or asset-backed security (ABS)	Refinance green projects or are earmarked for them	Revenue streams from the issuers though fees, taxes etc. are collateral for the debt	Hawaii State (backed by fee on electricity bills of the state's utilities)
Project bonds	Ring-fenced (segregated from other assets) for the specific underlying green project(s)	Recourse is only to the project's assets and balance sheet	Invenergy Wind Farm (backed by Invenergy Campo Palomas wind farm)
Securitization (ABS) bonds	Refinance portfolios of green projects or are earmarked for green projects	Recourse is to a set of grouped projects (e.g. solar leases or green mortgages)	Tesla Energy (backed by residential solar leases) Obvion (backed by green mortgages)
Covered bonds	Earmarked for eligible projects included in the covered pool	Recourse to the issuer and, if the issuer is unable to repay the bond, to the covered pool	Berlin Hyp Green Pfandbrief Sparebank 1 Boligkreditt green covered bond



Challenges and opportunities for fishery and aquaculture finance

Several financing choices are available in the Fisheries toolkit. Each has its challenges and opportunities as presented below (Table 2).

Table 2. Comparison of blue bonds with other fishery finance solutions

Instrument	Description	Problem addressed	Pros	Cons
Blue bonds				
Sovereign green bond (e.g. Seychelles Blue Bond)	New capital through bond issue that meets environmental criteria, usually issued by a sovereign with some risk mitigation from MDB, supported by revenues generated by the government from general taxes or project usage fees	Need for fresh capital for long-term natural resource management	<ul style="list-style-type: none"> New capital, new investors Multi-use, decided by sovereign: monitoring, enforcement, policy, capacity-building, government role in local fish processing Repay with government fees and taxes Strong demand for green bonds 	<ul style="list-style-type: none"> High costs and setup time relative to loans Best for issues over USD 50 million or a group of nations under MDB regional issue Capital guarantee from MDB often needed to compensate for low credit rating Usually no direct project revenues
Multilateral development bank (MDB) green bond (e.g. Nordic Baltic Blue Bond)	Bond issued by MDB to fund public and private green projects	Need to aggregate nations under strong credit and governance of MDB	<ul style="list-style-type: none"> Lowest possible finance cost because of AAA rating Economies of scale for regional projects Technical assistance included Direct project revenues 	<ul style="list-style-type: none"> Each nation receives a portion of capital, which may be less than needed Central control of spending and compliance

(cont.)

Instrument	Description	Problem addressed	Pros	Cons
Other financing solutions				
Debt-for-nature swap (e.g. Seychelles Debt-for-Nature Swap)	Sovereign debt restructuring whereby a portion of the nation's debt is forgiven in exchange for investments in national environmental assets and programmes, including coastal resilience	Need to restructure debt for some savings and to invest in natural capital or conservation projects	<p>Some decrease in debt payments and total debt</p> <p>Funding for conservation, restoration and maintenance of fisheries and other natural resources</p> <p>Debt transferred from foreign banks to locally managed trust</p> <p>Immediate conservation funding plus long-term funding with new endowment (optional in the Seychelles case)</p>	<p>No new capital, so needs covered by sovereign debt must still be addressed when debt is refocused on conservation alone</p> <p>Debt reduction benefit is often overstated</p> <p>Need strong partnerships in place with local governance and conservation organizations, with community support</p> <p>May need grant funding to compensate investors for any loss in swap</p> <p>Setup costs and time</p>
Senior bank loan	Provides capital to the borrower from one creditor, with a superior claim on the borrower's assets than on those of other creditors	Need to finance projects too small or short term for a bond issue	<p>Relatively low setup costs and time</p> <p>Negotiation with only one creditor</p>	<p>Vulnerability to demands and limitations of one creditor</p> <p>Possible misalignment of creditor with borrower goals</p> <p>Allows claim on borrower's assets ahead of other creditors</p>
Syndicated loan or syndicated bank facility	Financing offered by a group of lenders working together to provide funds for a single borrower	Need to finance infrastructure and other long-term projects beyond the scope of one lender	<p>Enables direct finance of projects for one borrower by several lenders</p> <p>Lower setup cost than bond issue</p> <p>Bank's credit decision less tied to borrower's credit rating than bond investor's decision</p>	<p>Fewer investors than bond issue</p> <p>Higher interest rate than bond issue</p> <p>Borrower may receive only the amount the syndicate can lend, not the full amount needed</p>
Project finance	<p>Funding long-term infrastructure, industrial projects and public services using a non-recourse or limited-recourse financial structure</p> <p>Debt and equity used to finance the project are paid back from project cash flows</p>	Need for fresh capital to finance resilience projects directly	<p>Collateral is project assets and cash flows; borrowing capacity added without engaging sovereign credit risk</p> <p>Lower setup and management costs than internal financing</p> <p>Long-term financial agreement</p>	<p>Limited to revenue-generating projects</p> <p>Higher transaction and contracting costs than internal financing</p> <p>Strict controls on cash flow and management supervision (a pro for investors)</p> <p>Need to sell to investors (a common issue for most instruments)</p>

Three models for fisheries bonds

Examples of green bonds providing specific benefits for fisheries include the Seychelles Blue Bond, the Fiji Green Bond and Nordic-Baltic Blue Bond (summarized in Table 3).

The Seychelles Blue Bond, issued to support implementation of the Seychelles' Blue Economy Strategic Policy Framework and Roadmap (2018), is a good model for sustainable fisheries finance. The proceeds will be used:

- to provide USD 3 million in grants through the Blue Grants Fund, administered by the Seychelles' Conservation and Climate Adaptation Trust (SEYCCAT), for fisheries reform and fisheries management in 15 percent of marine protected areas;
- to provide USD 12 million in loans through the Blue Investment Fund, administered by the Development Bank of Seychelles, to fund eligible activities aimed at fisheries diversification and fisheries sustainability projects;
- to contribute to the World Bank's South West Indian Ocean Fisheries Governance and Shared Growth Program, which supports countries in the region in managing their fisheries resources sustainably and increasing economic benefits from their fisheries sectors.

The bond includes two advantageous risk-mitigation features:

- The World Bank provided a repayment guarantee for one-third of the principal. This reduced the price of the bond by partially mitigating risk of the investment for impact investors.
- The Global Environment Facility (GEF) offered a USD 5 million concessional loan to help cover the coupon payments. This coupon subsidy reduced the effective interest rate of 6.5 percent for Seychelles to 2.8 percent, making the repayments more affordable.

The Fiji Green Bond is aimed at climate mitigation and adaptation, with some use of proceeds towards the blue natural capital of Fiji. The bond's

main focus is on sustainable development of natural resources, renewable energy, water and energy efficiency, clean transport, wastewater management and sustainable agriculture to reduce fertilizer runoff into the ocean. The ultimate objectives are to help Fiji achieve 100 percent renewable energy and to reduce CO₂ emissions in the energy sector by 30 percent by 2030. The World Bank supported the issuance of this bond through the establishment of a sustainable finance roadmap, steering committee and development of a green bond policy.

The Nordic-Baltic Blue Bond was issued by the Nordic Investment Bank (NIB) to protect and rehabilitate the Baltic Sea through water projects. SEB (Skandinaviska Enskilda Banken) arranged the issue and served as advisor. The bond supports lending to wastewater treatment and water pollution prevention projects, storm-water systems and flood protection, protection of water resources and protection and restoration of marine ecosystems and related biodiversity (wetlands, rivers, lakes, coastal areas and open sea zones). The bond concept was developed in an integrated way through a workshop with key stakeholders. This approach and the use of existing formats and structures kept transaction costs down.



Unloading of frozen tuna fish, Victoria harbour on the main island of Mahe in Seychelles

Table 3. Three blue bond models, compared

Feature	Seychelles Blue Bond	Fiji Green Bond	Nordic-Baltic Blue Bond
Issuer	Government of Seychelles (rated BB-)	Government of Fiji (rated BB-)	Nordic Investment Bank (rated AAA)
Focus	Sustainable marine and fisheries projects	Climate change mitigation and adaption	Water resource management and protection
Size (USD)	15 million	50 million	200 million
Format	Private placement	Listed on London Stock Exchange (LSE)	Listed on Nasdaq, Stockholm
Development time	~4 years (2014 to October 2018)	3 months (July to October 2017)	6 months (July 2018 to January 2019)
Terms	6.5% interest Will be repaid in full from Seychelles central budget in 10 years	10-year maturity 6.5% coupon	5-year maturity 0.375% coupon
Repayments	Repaid by taxes	Repaid through project returns	Repaid through project returns
Standards	No verification standards, but World Bank internal processes adhered to		Green Bond Principles
Relevance to fisheries	Most relevant as a fisheries bond model Governance provisions for improved management Investors aligned with goals for fisheries and marine protected areas, simultaneous with Debt-for-Nature Swap	Relevant as a portfolio model that may include fisheries along with other government assets and projects that have direct revenues	Relevant as a regional approach for a blue theme, using a regional development finance institution as an umbrella format to borrow cost effectively and then on-lend directly for positive outcome at a range of locations Same approach could be used for regional fisheries finance

Creating an enabling environment for blue bonds

Making blue bonds attractive

As illustrated by the Seychelles Blue Bond, reducing risk through guarantees and enlisting donors can provide the dual advantages of lowering costs and attracting impact investors, who may accept lower financial returns in favour

of environmental returns. Also appealing for investors is the potential of fisheries projects to generate direct revenue that can contribute to meeting bond repayment obligations.

Obtaining guarantors

Guarantees are a tool of blended finance (i.e. the use of catalytic capital from public or philanthropic sources to increase sustainable private-sector investment in developing countries by reducing risk to investors). In blue bond finance, they are needed to cover any potential risks in the cash flows of the underlying projects, because bonds must be repaid in full. For investor confidence, it is crucial that fishery projects and activities be

secured. Obtaining such a guarantee can be a challenge because of inherent uncertainties in cash flows, revenue generation and return on investment.

Multilateral development banks (the World Bank or regional development banks such as the Asian Development Bank, African Development Bank or Inter-American Development Bank) can provide either partial or full guarantees to enable a sovereign bond issuer to reach investment grade. The guarantee serves as security for repayment should the bond issuer default, and is reflected in the terms and structure of the bond.

The Multilateral Investment Guarantee Agency (MIGA) offers political risk and credit enhancement guarantees to further improve investor confidence. Under MIGA's "Non-Honoring of Financial Obligations" coverage, protection is provided to safeguard against the failure of a sovereign to make an obligated payment. Membership in MIGA is only available to countries that are World Bank members.

Guarantees offer two benefits for the issuer: lower risk to attract more investors, and lower borrowing cost in comparison with bonds that have no risk mitigation.

Engaging donors

To improve investment certainty, the bond issuer may seek partnerships with bilateral aid and private philanthropies. In addition to building investor confidence, such partnerships also reduce the cost of issuing the bond, by:

- contributing to credit enhancement in the form of guarantees;
- contributing to development costs;
- supplementing the issuers' repayments;
- providing technical assistance to the projects.

Bond repayment through direct revenue

Fisheries have 3 missions:

- protecting fish stocks and marine ecosystems (the asset) by sustainable management;
- providing enabling conditions for a strong local fishing industry (policy, regulation/conservation and management measures, enforcement, monitoring, control and surveillance (MCS);
- generating revenues from access fees and supporting services (processing, distribution).

Fisheries and aquaculture can generate direct revenues from access fees and, possibly, from





community processing and distribution activities. As a result, fishery projects are more financially sustainable than projects entirely dependent on taxes and donor contributions. Private investors appreciate direct revenues. After all, they are offered many investment choices and prefer those that can be self-sustaining.

As private investors must provide 90 percent of the capital needed each year to support the SDGs, it is important to address their needs. Projects that generate direct revenues for at least part of the bond proceeds have a clear sustainability edge over those that do not. The direct revenue edge may also compensate, to some degree, for an issuer's relatively low credit rating.

Getting governance ready

A successful bond issue requires many enabling conditions: policy relevance, regulatory environment, governance arrangements, secure tenure, technical and financial capacity, knowledge management and communication capacity, research and monitoring services, and science-based support. All of these elements provide certainty for markets to operate, support for fishery projects and risk reduction for investors. Separate finance or grants may be necessary to engage technical support to establish the essential preconditions for bond finance.

Good governance refers broadly to a set of qualitative characteristics relating to institutional arrangements, decision-making rules and values. The result is enhanced participation, transparency, accountability and public access to information.

Getting technical and financial capacity ready

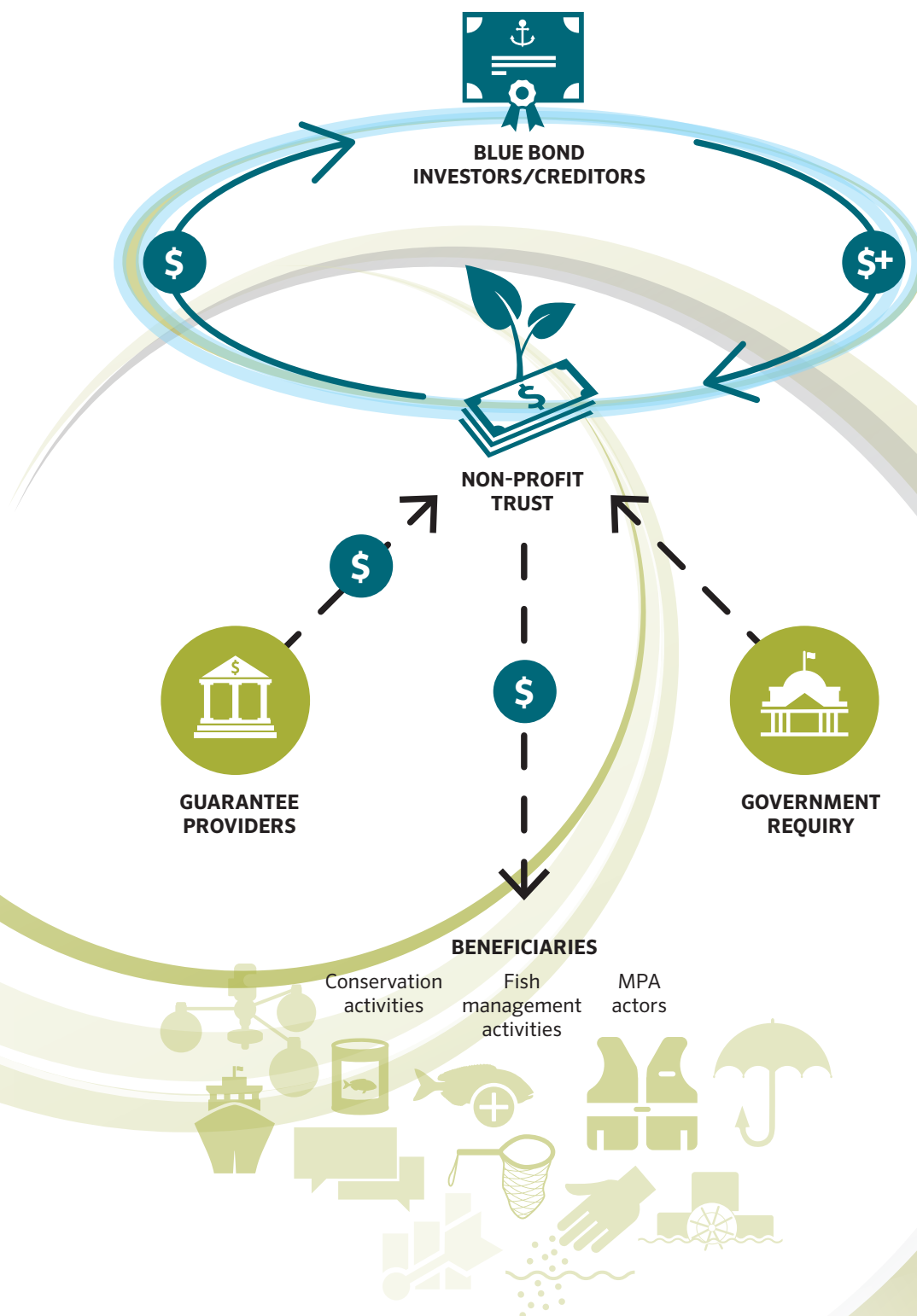
In addition to policy and governance frameworks, a host of advisors and partners must be enlisted to support a successful bond issue. These fall into five broad categories:

- **Financial:** guarantors (for full or partial return of capital, if possible), donors (for coupon subsidy and technical support), media and/or marketing firm (for investor roadshows and media outreach), accountancy firm (to verify project projections and audits);
- **Legal:** for structuring the bond, regulatory compliance, documents, safeguarding interests;
- **Sustainability:** choice of ESG or green bond standards, Appointment of verifier/auditor (if required by investors);
- **Project design:** leaders and teams for each project envisioned, establishing transparent goals, activities and timetables;
- **Technical:** assistance from science and operational teams to execute projects that meet environmental and social goals.

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Key actors for blue bond



Financial investment in the fisheries and aquaculture sectors has traditionally been limited. Fisheries and aquaculture sectors' production and profitability have historically been rather unpredictable. Therefore they presented risky business models for the financial sector. However, our understanding of how to manage this unpredictability, through established best practices and ever improving technology, is shifting this paradigm. The financial sector and fisheries and aquaculture sectors can mutually benefit from collaboration given the important scale and economic impact of these sectors, including contributions to employment, value addition and food security. The Blue Finance guidance notes, prepared under FAO's Blue Growth Initiative, include brochures on microfinance and insurance for small-scale fisheries and small-scale aquaculture producers, blue bonds, blended finance and impact investment. The brochures aim to provide governmental, non-governmental, private and public stakeholders with information, resources and concrete pathways for obtaining finance to support blue growth transitions at local, national, regional and global scales.

The Blue Finance Guidance Notes series includes:

Microfinance for
small-scale fisheries



Blue bonds



Insurance for
small-scale fisheries



Blended
finance



Aquaculture insurance
for small-scale producers

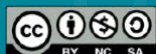


Impact investment



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