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Banking on water-impact bonds: Benefits, barriers and beyond



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Introduction

Both marine and inland waters have a tremendous impact on the global economy, as they support a variety of industries, including fishing, tourism, trade and energy. Protecting these vital resources and investing in their sustainable management is crucial for maintaining their economic benefits. Investors can have a significant impact by supporting water-related projects, and an emerging class of water-impact bonds offers a unique opportunity to gain direct exposure to these initiatives. By investing in water-impact bonds, investors can contribute to the conservation and sustainable use of water resources, ensuring their continued economic and environmental value.

Effective water management is crucial for climate resilience, because water resources are increasingly threatened by climate change. By managing water efficiently, communities can better withstand and adapt to extreme weather events, such as droughts and floods, thereby safeguarding their livelihoods and ecosystems.

Both excessive and insufficient amounts of water can have detrimental effects on economic activity. Recent floods in the United States and in central and eastern Europe, such as those in September 2024, caused extensive damage to infrastructure and housing, leading to billions in recovery costs and significant economic disruption. Similarly, droughts have severely impacted electricity production; for instance, the 2024 drought in the Pacific Northwest of the United States reduced hydropower generation by 13% compared with the average over the last 10 years.[1] These examples highlight the critical need for effective water management to mitigate the economic risks associated with extreme weather events.

Marine life plays a vital role in the global economy. The fishing industry, for example, supports the livelihoods of approximately 58.5 million people worldwide, with around 600 million people depending on fisheries and aquaculture for their income. In 2019, aquatic foods provided about 3.3 billion people with at least 20% of their average intake of animal protein.[2]

Additionally, marine ecosystems contribute significantly to tourism. Coastal and marine tourism is valued in the trillions of US dollars, attracting millions of visitors annually and supporting local economies. The ocean also plays a crucial role in global trade, as it facilitates the movement of goods across the world.

The immense economic value of marine life is evident and makes the sustainable management and conservation of marine resources crucial for the global economy.

Water-impact bonds: a growing market



Water-impact bonds have gained traction recently, with the market's growth driven by the increasing recognition of the role that healthy oceans and water systems play in global economic development. As climate change intensifies, the demand for financial instruments that can address the related challenges has surged.

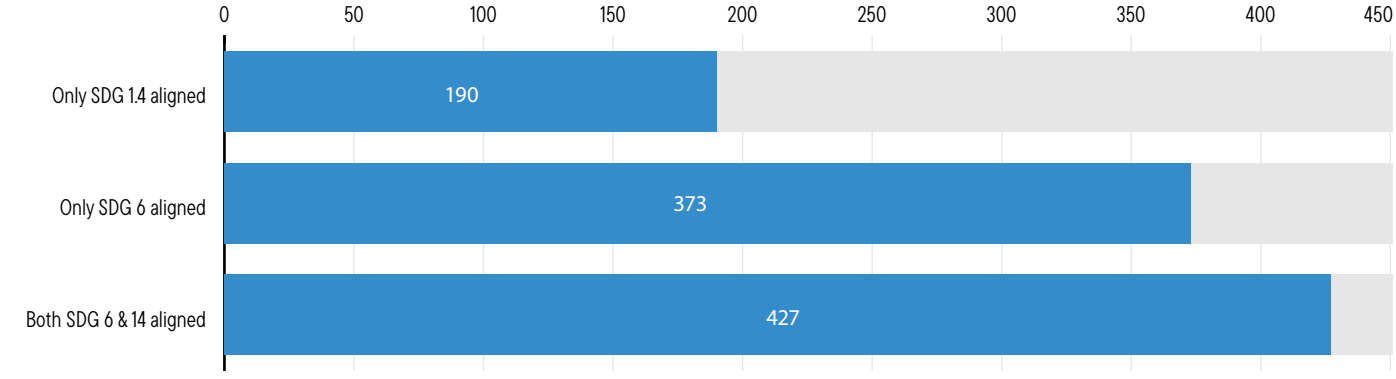
Water-impact bonds are a variation in the category of green bonds specifically designed to finance projects related to the conservation and sustainable use of marine and freshwater resources. It is a use-of-proceeds (Uop) instrument, meaning the funds raised are earmarked for specific projects, such as marine conservation, sustainable fisheries management or water sanitation. Projects like these not only help to protect vital water resources but also support economic growth and resilience in communities that depend on these ecosystems.

In our analysis, we focused on International Capital Market Association (ICMA)-aligned green bonds that support water-related Sustainable Development Goals (SDGs)[3] such as clean water and sanitation (SDG 6) and life below water (SDG 14) (see Exhibit 1) and/or have a water-related theme.[4] Examples are water bonds, blue bonds and Sustainable Blue Economy (SBE) bonds (see Exhibit 2). As per this definition, the Water-impact bond market is estimated at **€1 trillion** in outstanding-par amount.[5] However, it is important to note that there are data limitations, and the market size is only indicative.

From a financial perspective, water-impact bonds can potentially offer attractive opportunities for portfolio diversification. As more data on water-impact bond performance and impact becomes available, investor confidence will likely grow, spurring further market expansion.

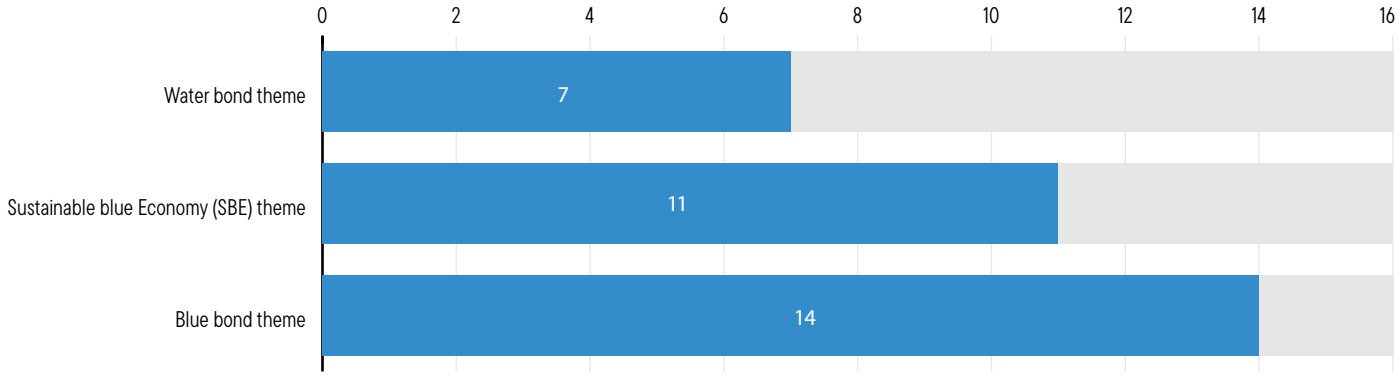
Regulators and international organizations dedicated to marine conservation support the water-impact bond market, as they provide frameworks that standardize issuance and ensure the effective use of funds. The involvement of reputable organizations enhances credibility and encourages investor participation. For instance, SBE bonds make up the largest part of the water-impact bond market, which is likely because this theme was made an integral part of the European Green Deal.[6]

Exhibit 1: Outstanding Amount of Bonds Aligned with Water-Related SDGs (in Billions of Euros)



Note: SDG 6: Clean Water & Sanitation. SDG 14: Life Below Water. Source: Bloomberg. As of November 25, 2024.

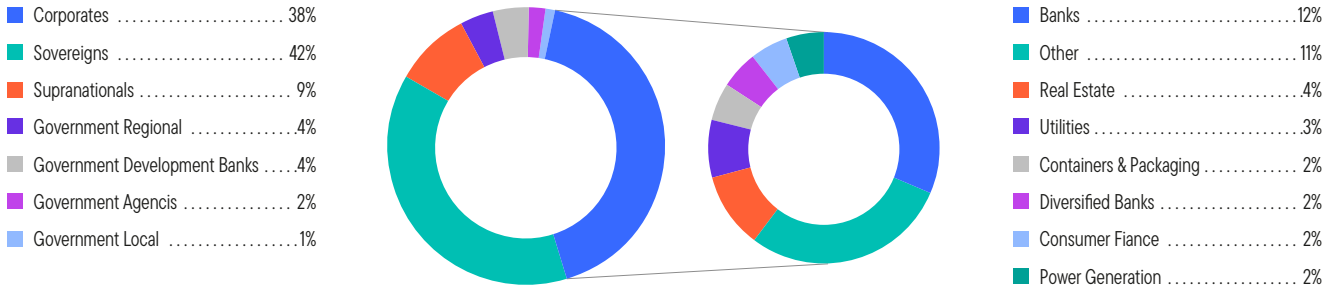
Exhibit 2: Outstanding Amount of Water-Themed Bonds (in Billions of Euros)



Source: Bloomberg. As of November 25, 2024.

Government-related issuers are a major player in the market, with more than 50% of water-impact bonds issued by sovereigns, regional and local governments, governmental agencies and government development banks (based on the amount outstanding). Approximately 38% of the market was composed of corporate water-impact bonds, with banks being the largest issuers (see Exhibit 3). France, Germany, the United Kingdom and Italy are the most often occurring countries of risk for the bonds issued (see Exhibit 4), with most issuance denominated in euros, US dollars and British pounds (see Exhibit 5).

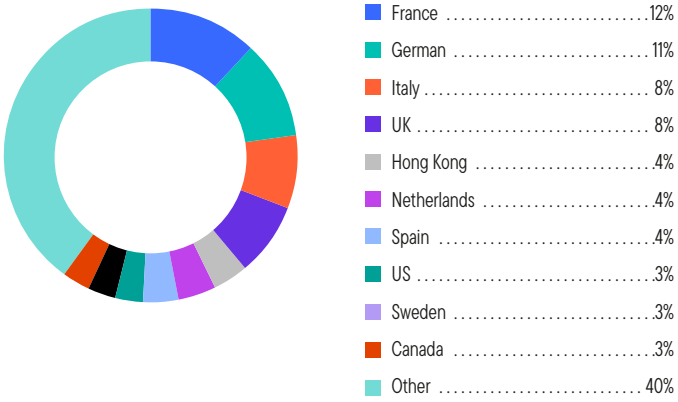
Exhibit 3: Water-Impact Bonds by Bloomberg Industry Classification Standard (BICS) Sector



Source: Bloomberg. As of November 25, 2024. Due to rounding, numbers may not total to 100%.

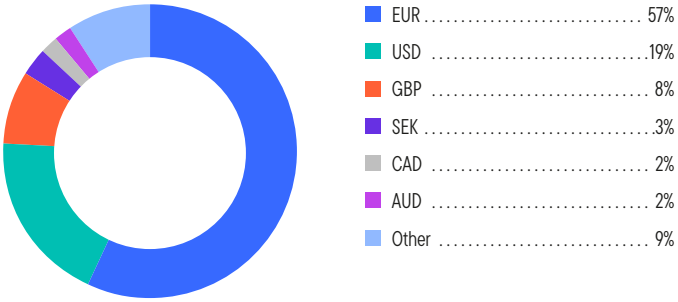


Exhibit 4: Water-Impact Bonds by Country of Risk



Source: Bloomberg. As of November 25, 2024. Due to rounding, numbers may not total to 100%.

Exhibit 5: Water-Impact Bonds by Currency



Source: Bloomberg. As of November 25, 2024. Due to rounding, numbers may not total to 100%.



Water-impact bond frameworks



In response to the growth of the water-impact bond market, much-needed transparency principles have been established. These include ICMA's Green Bond Principles (GBP),[7] which provide guidance on eligible green use-of-proceeds and have helped develop a credible process for green bond issuance. Additionally, March 2018 saw the introduction of the SBE Finance Principles,[8] which go beyond focusing on ocean pollution and consider the sustainable conservation and use of oceans, seas and all marine resources in accordance with environmental and risk management practices, such as the International Finance Corporation's (IFC's) Performance Standards.[9]

A fundamental element of water-impact bond frameworks is the allocation of proceeds. This ensures that the capital generated via a bond's issuance is dedicated to initiatives that promote the sustainable utilization of water-related resources.

The Blue Finance Guidance Framework[10] mentions SDGs[11] 6 and 14, and incorporates activities related to SDGs 2 (Zero Hunger), 12 (Responsible Consumption and Production), 13 (Climate Action), and 15 (Life on Land), which address pollution in rivers and coastal areas.

By explicitly presenting funded projects, frameworks help to ensure that capital is deployed efficiently to reach the environmental objectives. Blue finance activities include:[12]

A. **Water supply:** investments in the research, design, development and implementation of efficient and clean water supply

B. **Water sanitation:** investments in the research, design, development, and implementation of water treatment solutions

C. **Ocean-friendly and water-friendly products:** investments in the value chain, including production, packaging and distribution of environmentally friendly products that avoid water or ocean pollution

D. **Ocean-friendly chemicals and plastic-related sectors:** investments in the research, design, development and implementation of measures to manage, reduce, recycle and treat plastic, pollution or chemical wastes in coastal and river basin areas

E. **Sustainable shipping and port logistics sectors:** investments in the research, design, development and implementation of water and waste management and reduction measures in shipping vessels, shipping yards and ports

F. **Fisheries, aquaculture and seafood value chain:** sustainable production and waste management and reduction measures that meet, keep or exceed the Marine Stewardship Council certification standards or equivalent

G. **Marine ecosystem restoration**

H. **Sustainable tourism services**

I. **Offshore renewable energy facilities**

Frameworks also suggest conducting regular audits to verify the proper use of funds and to provide transparency to investors. Similarly, high-quality and transparent reporting of the impact of investments should show both the benefits and lessons learned.

Franklin Templeton Fixed Income (FTFI) Bond Assessment Process and Sustainable Impact Database

At FTFI, we follow a strict process to qualify bonds as sustainable investments. Our main principle is alignment with the European Union's (EU's) Sustainable Finance Disclosure Regulation (SFDR); therefore, our assessment method makes sure that all the bonds we invest in meet the SFDR's definition of a sustainable investment. In line with our goal to have a positive impact on the environment and society, as well as to comply with regulatory requirements, we first verify that all the eligible expenses for a bond that we consider buying are indeed sustainable and contribute positively to environmental or social objectives. Then, we make sure that neither the issuer nor the project that is financed by the bond issue does any significant harm to other environmental or social objectives. While evaluating these parameters, we use 16 mandatory principle adverse impact (PAI) indicators. In addition to our analysis of expenses and the "do no significant harm" analysis, dedicated fixed income analysts match both the projects financed by the UoP bond in question and the issuer's overall economic activity to the United Nations (UN) Sustainable Development Goals (SDGs).

Based on the above insights, our water-impact assessment framework includes criteria presented in Exhibit 6.

Exhibit 6: Water-Impact Bonds Assessment Criteria



Eligible expenditure for a bond has positive contribution to environmental or social objective

Is the project type consistent with the Green Bond Principles and does it significantly contribute to SDG 6 or SDG 14?



Issuer or project does not harm other environmental or social objective

Does the project type introduce risks that may impact progress on other environmental or social priorities?



Good governance principles

Are there any severe controversies?

Are we satisfied with governance safeguards and standards?

Water—Impact Bonds Assessment Criteria

Analysis by Franklin Templeton Fixed Income team.

Our proprietary Sustainable Impact Database (SID) highlights the robustness of our investment approach, from comprehensive bottom-up research to careful security selection. We maintain that impact indicators provide a broader perspective on investment success, one that includes societal and environmental benefits as well as economic returns.

Our SID records standardized data is collected from publicly available allocation and impact reports. This allows us to monitor the allocations of and impact generated through all the UoP bonds held in our dedicated sustainability funds. The database also includes the bonds' contribution to various financed project categories such as Sustainable Water Management, Wastewater Treatment, Biodiversity, Climate Change Adaptation and their impact on the UN SDGs, as well as where the projects are located.

Water-impact indicators we observe are in line with the guidelines established by the International Capital Market Association (ICMA), well-recognized by investors, issuers and financial intermediaries (see Exhibit 7.)

Exhibit 7: Water-Impact Categories Observed in FTFI Sustainable Impact Database

ICMA Category	Description
Sustainable Water and Wastewate Management	A. Sustainable Water Management—Water Use Sustainability and Efficiency Projects
	B. Wastewater Treatment Projects (including Sewage Sludge Management)
Biodiversity	A. Protected areas and Other Effective Area-based Conservation Measures (OECM) with focus on both land and water/marine areas (the protection of coastal, marine and watershed environments)
	B. Landscape conservation/restoration including both land and water/marine areas (the protection of coastal, marine and watershed environments)
Climate Change Adaptation	A. Area adapted to climate change consequences: land adjusted to flood risk, etc., and reduction in land-loss from inundation and/or coastal erosion
	B. Reduction in damage and repair costs due to climate with focus on the reduction in flood damage costs

Source: FTFI based on International Capital Market Association (ICMA) Green Bond Principles.[13]

Case study



The French company Suez Group is the largest private water supplier in the world, managing and distributing clean water to individuals and businesses across multiple continents. The company is involved in the entire water management value chain, including the design, construction and operation of water networks and infrastructure.

In 2022, Suez issued five green bonds, with 84% of the proceeds, or €3.6 billion out of €4.3 billion, allocated to strictly water-related activities and 16% to recycling and recovery. The funded projects have a positive impact both in the short and long term and are only ones in our sustainability portfolios, where proceeds are 100% dedicated to water- and wastewater-impacting activities.

Suez's Green Bond Framework demonstrates that the company's investments adhere to the guidelines set out by ICMA's GBP, ensuring greater transparency for investors. The company's investment projects focus on potable water production, wastewater treatment and desalination, particularly in regions with limited conventional water resources, serving both municipal and industrial clients. Moreover, the entity emphasizes sustainable and innovative solutions, utilizing digital technologies to enhance efficiency and reduce its environmental impact.[14]

This commitment to water sustainability aligns with the goals of water-impact bonds, which support projects that protect and manage water resources for both environmental and societal benefits.

In terms of potable water production and distribution, 68 million people benefit from this resource, amounting to a total volume of 2,228 Mm^3 (cubic millimeters).[15] The development of projects focusing on alternative water sources, such as those for agricultural irrigation—one of the most water-intensive sectors—allows for the redistribution of 4% of the water after treatment. Furthermore, through its innovation in desalination projects, the company provides access to this vital resource for over 1.7 million people in high-pressure areas, amounting to 160 Mm^3 of desalinated water.

The efforts made in terms of transparency and the positive outcomes achieved generated strong interest from investors, with over 200 institutional[16] investors across Europe participating, resulting in a 2.9x oversubscription. This performance placed Suez's issuance among the two largest green bond issuances in 2022. As a result, this success further strengthens the French enterprise's commitment to the sustainable management of water resources, in line with the principles of water-impact bonds, which support concrete actions for the long-term preservation and management of water.

Conclusion

In conclusion, water-impact bonds represent a promising financial instrument for promoting sustainable water management and conservation. By directing investments toward projects that protect and enhance marine and freshwater resources, water-impact bonds contribute to both environmental sustainability and economic resilience. Moreover, the frameworks and principles guiding issuance ensure transparency and accountability, making them an attractive option for investors seeking to diversify their portfolios while supporting vital ecological initiatives. The case study of the French Suez Group exemplifies the positive impact that water-impact bonds can have, demonstrating significant investments in water-related activities and achieving substantial environmental and societal benefits. As the market for water-impact bonds continues to grow, it holds the potential to play a crucial role in addressing global water challenges and fostering a more sustainable future.



Endnotes

1. Source: "Drought conditions reduce hydropower generation, particularly in the Pacific Northwest." US Energy Information Administration. November 2024.
2. Source: "Blue Economy." World Bank. April 2024.
3. United Nations Sustainable Development Goal(s) (SDGs) are aligned with the proceeds or Sustainability Performance Target of a security.
4. Sustainable Marketing theme specifies the sustainable marketing label the issuer utilizes, at issuance, to describe the instrument.
5. Source: Bloomberg. As of November 25, 2024.
6. Source: Communication on Sustainable Blue Economy (SBE). European Commission.
7. Source: Green Bond Principles. ICMA. June 2022.
8. Source: "The Sustainable Blue Economy Finance Principles." United Nations. 2018.
9. Source: "Performance Standards on Environmental and Social Sustainability." International Finance Corporation, World Bank Group. 2012.
10. Source: "Guidelines. Blue finance: Guidance for financing the Blue Economy, building on the Green Bond Principles and the Green Loan Principles." International Finance Corporation, World Bank Group. January 2022.
11. Source: "The 2030 Agenda for Sustainable Development." United Nations Sustainable Development Goals. 2015.
12. Source: "Guidelines. Blue finance: Guidance for financing the Blue Economy, building on the Green Bond Principles and the Green Loan Principles." International Finance Corporation, World Bank Group. January 2022.
13. ICMA, Green Bond Principles. June 2022
14. Source: "Green Bond Framework." Suez. 2022.
15. Source: "Green Bond Reporting." Suez. 2022.
16. Source: "SUEZ issued its inaugural €2.6bn Green Bond, unprecedented deal in the sector." Natixis. June 3, 2022.

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Fixed income securities involve interest rate, credit, inflation and reinvestment risks, and possible loss of principal. As interest rates rise, the value of fixed income securities falls. **Low-rated**, **high-yield bonds** are subject to greater price volatility, illiquidity and possibility of default.

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