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Debt instruments

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Executive summary

Debt instruments, including loans, bonds, and guarantees, are increasingly recognised as vital tools for financing nature restoration and conservation projects. While grants remain a significant funding source for nature-based solutions (NbS), debt instruments bring unique benefits. Loans, for example, can be tailored to suit the specific needs of projects and offer long-term funding—perfect for initiatives like ecosystem restoration, where results take time to unfold.

Green and environmental impact bonds are great opportunities to attract capital, directly supporting sustainable, nature-centred ventures. The European Union (EU) is critical in creating opportunities and stimulating demand for investment in NbS through public sector initiatives. The European Investment Bank (EIB) supports climate action and environmental sustainability through various financial products, including green bonds and intermediary loans, aimed at financing nature-based solutions.

Shared management programmes, intermediary loans supported by the EIB, and guarantees help small and medium-sized enterprises (SMEs) access the necessary capital for implementing these projects. Guarantees as a funding instrument component are presented in more depth in a specific MERLIN Off-the-Shelf instrument.

One relevant type of debt instrument is green bonds, which have gained traction in EU markets, offering investors a means to support environmental projects while earning returns directly.

Despite the promising landscape, private sector engagement in financing nature restoration (e.g. NbS projects) remains limited due to their inherent characteristics, such as longer investment horizons and uncertain returns. However, by diversifying the range of debt instruments and leveraging the national and EU's support frameworks, there is significant potential to scale up financing for nature restoration and conservation, encouraging broader participation from both public and private sectors.

This document provides a **comprehensive guide** to using debt instruments for financing nature restoration, conservation, and sustainability projects. **Debt instruments, such as loans and bonds,** have emerged as critical tools for addressing environmental challenges by mobilising capital from public, private, and institutional investors. This report explores the various types of debt instruments available and highlights their purposes, target beneficiaries, and practical applications in supporting nature-based solutions.

The first section introduces debt instruments, outlining their aims, which include providing capital for projects with clear environmental objectives such as ecosystem restoration, climate adaptation, and biodiversity protection. The document **classifies** the most prominent types of debt instruments, such as **green loans, sustainability-linked loans, green bonds, and blended finance.** It explains how each type serves different environmental goals.

This MERLIN Off-the-Shelf report **identifies the potential beneficiaries and target groups** for these financial mechanisms, including governments, private companies, non-profit organisations, and local communities engaged in conservation activities. The mechanics of these instruments are then discussed, detailing how they function throughout a **project's life cycle**, from securing funds to implementation and monitoring.

The analysis also thoroughly reviews the **pros and cons** of using debt instruments, the **expected implementation times, and set-up and operational costs.** The report outlines the **prerequisites** necessary to launch debt instruments, including regulatory requirements, capacity-building efforts, and risk management strategies.

Key stakeholders and major players, including the European Investment Bank (EIB), European Bank for Reconstruction and Development (EBRD), and private sector participants, are highlighted for supporting such projects. In addition, the document presents best practices and **successful case studies**, such as the Linnunsuo wetland restoration and the Alzette River restoration, which demonstrate the positive impact of leveraging debt instruments for environmental projects.

Finally, the report offers recommendations on **key performance indicators (KPIs)** to assess project success, followed by a **bibliography, links to additional resources for deeper exploration of the topics discussed, and glossary.**

Introduction to debt instruments and their importance

The European Union (EU) has been increasingly focused on sustainable development and environmental conservation in recent years. Financing nature restoration projects within the EU involves various mechanisms and initiatives to restore ecosystems, preserve biodiversity, and address environmental challenges. **According to the United Nations Environment Programme (UNEP), investment in nature-based solutions (NbS) must triple in real terms by 2030 and quadruple by 2050 to meet global targets for addressing climate change, biodiversity loss, and land degradation.**¹

A European Investment Bank (EIB) report provides an overview indicating that **1364 physical nature-based projects have been implemented in the EU and the United Kingdom since 2000.** Figure 1 shows the distribution of NbS projects by ecosystem. The results showed that most projects fall under the Urban category (76%), while only 11% were dedicated to wetland and freshwater ecosystems.

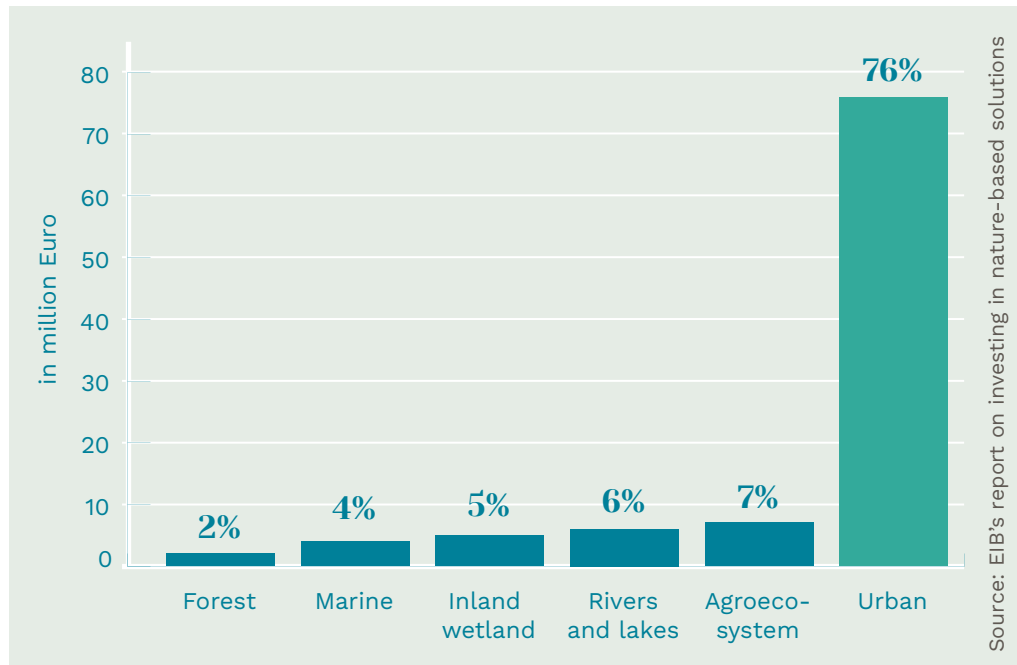


Figure 1. Nature-based solution projects by ecosystem (2000–2022)

Mobilising funds and employing a variety of **financial instruments (FIs)** are essential for creating NbS and preserving and restoring biodiversity. The European Commission (EC) Guidance for Member States on Financial Instruments provides the following definition of financial instruments:

„Union measures of financial support provided on a complementary basis from the budget to address one or more specific policy objectives of the Union.“²

The main advantage of FIs is their capacity to attract private and public investments and generate additional money flow. By the end of 2021, FIs have helped to leverage almost 50 billion euros of financing for the benefit of the EU.

According to the asset classes, the FIs can be categorised into two major groups: equity and debt-based instruments. The former represents a type of funding wherein an investor acquires a stake in a company. The company renounces a portion of control in this financing arrangement yet gains access to financial backing and business guidance. Unlike equity instruments, debt instruments, at the core of this report, involve a significant injection of funds without diluting control over a company or other type of entity.

This report focuses on debt instruments, particularly on loans, representing 45% of amounts committed to FIs as of the end of 2021.³

The European Commission provides the following definition of loans:

„...agreements which oblige the lender to make available to the borrower an agreed sum of money for an agreed period and under which the borrower is obliged to repay that amount within the agreed time.“

Loans offer financing under different conditions, but in all cases, they require a commitment to repay the investor or lender and pay interest at a fixed or variable rate.

The debt-based funding opportunities suitable for organisations and projects within ecosystem restoration and nature-based solutions (NbS) are discussed in the following sections.

¹ United Nations Environment Programme (2021). State of Finance for Nature 2021. Nairobi. Accessible here: <https://www.unep.org/resources/state-finance-nature-2021>

² Fi-compass (2015). Guidance for Member States on Financial Instruments – Glossary. https://fi-compass.eu/sites/default/files/publications/EC_Guidance-Member-States-FI-Glossary_0.pdf

³ EC (2021). Financial instruments under the European Structural and Investment Funds. Accessible here: https://ec.europa.eu/regional_policy/sources/funding/financial-instruments/summary_data_fi_1420_2021.pdf



Aim of debt instruments

The primary idea behind providing loans to nature restoration projects, such as NbS, is to support projects and initiatives that leverage natural ecosystems and processes to tackle environmental challenges. By offering loans to implement NbS, financial institutions and investors contribute to funding projects such as reforestation, habitat restoration, freshwater restoration, and sustainable agriculture. **These loans enable organisations and individuals working on NbS to access the capital needed to implement their projects** and thus promote sustainability, biodiversity conservation, and climate resilience.

Moreover, loans provide a means for lenders to earn returns while supporting initiatives with positive social and environmental impacts.

While grants are still one of the most used types of funding, depending solely on this source can present risks and limitations, such as constraints in terms of their size or duration of funding period. For example, project developers must continually seek funding through repeated applications if they need to cover a project's financial requirements over its lifespan. **Loans and other debt instruments can help overcome such limitations and define an independent and sustainable project path.** Even those entities that rely solely on grants can benefit from debt instruments by anticipating the grant amounts and allowing faster implementation of the projects.

Types and aims of debt instruments

Several debt instruments can be used to finance nature restoration and conservation projects. These instruments can provide funding while aligning with environmental goals and incentivising companies, governments, or organisations to undertake sustainability efforts. Multiple debt instruments are available to finance nature restoration and conservation projects, each offering different flexibility levels and focusing on sustainability outcomes. Restoration managers can choose the best option available in the region based on the project's size, nature, and funding requirements.

In the following table, we gather key types of debt instruments that can support such projects, their purposes, use cases, and standards (if applicable):



Debt instrument	Aim	Use case	Standards/Structure
Bank Loans	Designed for non-risky projects	Anticipation of grants amount	No specific standard, and varies country by country
Green Loans	Designed for projects that deliver clear environmental benefits such as nature restoration, conservation, renewable energy, and pollution prevention.	Funds must be used for reforestation, wetland restoration, wildlife conservation, or sustainable agriculture.	Follows principles set by the Loan Market Association (LMA) or similar bodies [1]
Sustainability-Linked Loans (SLLs)	Tied to achieving sustainability performance targets, including nature-related targets like biodiversity enhancement, land restoration, and emissions reduction.	Funds can be used for general corporate purposes, but borrowers must meet key environmental targets such as ecosystem restoration or deforestation reduction.	No specific standard, but targets must be met to maintain favourable loan conditions.
Green Bonds	Issued to finance environmental and conservation-related projects.	Proceeds can be used for large-scale nature restoration projects, reforestation, water conservation efforts, and biodiversity protection.	Adheres to the Green Bond Principles, ensuring transparency and proper use of funds. [2]
Sustainability Bonds	Finances projects that support environmental and social sustainability, including nature conservation and community-driven restoration initiatives.	Projects can focus on ecosystem services, sustainable forestry, regenerative agriculture, and social benefits like improved local livelihoods.	Issuers follow Sustainability Bond Guidelines for clarity and alignment with broader sustainability goals. [3]
Climate Bonds	Focuses on financing solutions to climate change, often including nature-based solutions like ecosystem restoration to capture carbon or adapt to climate risks.	May fund large-scale reforestation, mangrove restoration for flood protection, or other climate-resilient nature projects.	Follows standards and frameworks by the Climate Bonds Initiative. [4]
Environmental Impact Bonds (EIBs)	A pay-for-success model where investors are repaid based on the success of environmental outcomes.	Ideal for projects with measurable impacts, such as improved water quality, reforestation success, or habitat restoration. If targets are met, investors receive higher returns.	Typically used by governments or public agencies to fund conservation and environmental restoration projects.
Conservation Finance Loans	Provides capital for preserving ecosystems, wildlife, and biodiversity.	Used by non-profits, land trusts, or conservation groups to acquire and protect land, restore habitats, or fund sustainable land management practices.	N/A
Blended Finance	Combines concessional financing (e.g., grants, soft loans) from public or philanthropic sources with private investment to de-risk nature-based projects.	Ideal for large-scale nature-based projects that need upfront public or concessional funding to attract private capital. Examples: land restoration, ecosystem conservation, sustainable fisheries.	Public or philanthropic entities provide "first loss" guarantees to protect private investors.
Development Bank Loans	Loans from institutions like the World Bank Asian Development Bank for environmental conservation and restoration projects.	Supports governments and large-scale environmental programs to restore forests, improve water management, and protect biodiversity.	Long-term, low-interest loans with favourable terms focused on sustainability outcomes.
Impact Investment Funds	Invests in conservation projects to achieve measurable environmental and financial returns.	Includes habitat restoration, biodiversity protection, and nature-based carbon offsets.	Investors often accept lower financial returns if significant environmental benefits are realised.

Table 1. Types and aims of debt instruments

Potential beneficiaries and target groups

The **relevant beneficiaries** and target groups depend on the scale and focus of the project, the type of financing, and the expected environmental and financial outcomes.

Generally, the beneficiaries of loans for NbS projects include a diverse range of stakeholders from both public and private sectors, including:

- **Governments (national and local):** for large-scale restoration, infrastructure, and environmental protection projects.
- **Private sector (corporations, SMEs):** for sustainability-driven business models, renewable energy projects, and green infrastructure.
- **NGOs and conservation groups:** for land acquisition, habitat restoration, and biodiversity conservation.
- **Local communities and indigenous groups:** benefiting from sustainable land management and community-driven nature projects.
- **Investors:** particularly those interested in ESG, impact investing, and financing nature-based solutions with environmental and social returns.
- **Microfinance institutions involved in on-landing.**

How does it work?

Loans are financial arrangements where one party borrows capital, typically from banks or other financial institutions, and commits to repaying the borrowed principal and an agreed-upon interest rate over a specified period. The most commonly utilised loans for nature-based projects include:

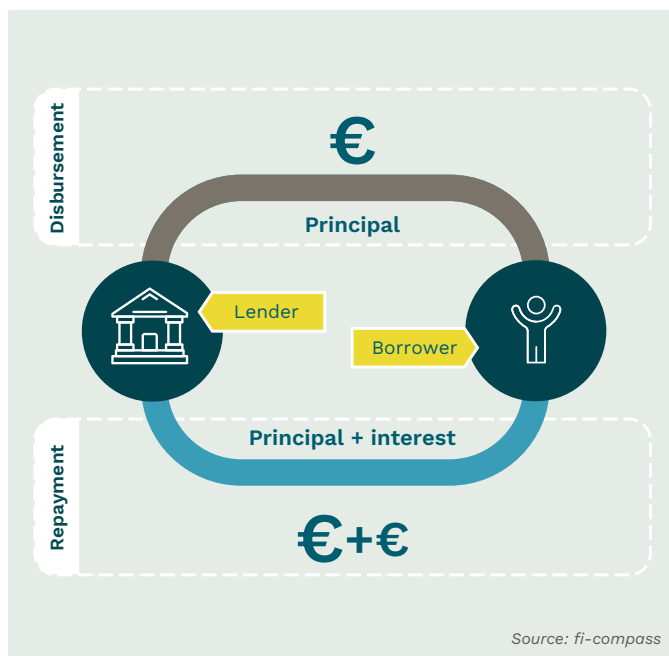
- **Market rate loan:** allows the borrowing party to access capital, with interest payments contingent on their capacity to repay and generate a profit. Typically, the rate is determined by EURIBOR index plus a spread/margin (typically between 1%–6%). This is the same as your typical bank loan for your house if you have a variable rate.
- **Concessional loan:** provides more flexible terms for the borrower, enabling them to modify aspects such as the grace period, interest rate, or other agreement terms to better suit their needs. The concessional loans are typically based on a government’s support, which allows the financial intermediaries (e.g., banks) to offer more flexible repayment conditions.



Project cycle

The process of obtaining a loan varies depending on its type, the source of funding, the amount requested, and the project scope. Each funding source comes with its unique set of requirements and expectations, making it essential for applicants to tailor their approach accordingly. A well-structured project cycle provides a roadmap to navigate this complexity, ensuring that the proposal aligns with the lender’s priorities and risk assessment criteria. From initial project design, feasibility analysis, and financial modeling to the preparation of supporting documentation, each phase demands meticulous attention to detail. Moreover, engaging stakeholders early in the process and demonstrating long-term sustainability can significantly enhance a project’s credibility. Understanding these intricacies empowers applicants to maximise their chances of success, turning a well-conceived idea into a fully funded initiative.

Figure 2. Loan scheme



Generally, we can identify the following steps:

1. Application: the borrower applies for a loan from a lender, a public bank, commercial bank, lending organisation, or other financial institution. This stage typically involves providing a business plan with the described business model and its potential social or environmental impact. In addition, a detailed financial statement must be provided. These two documents must confirm the project’s alignment with the lender’s policies and bankability. It could also be helpful to conduct a SWOT analysis to identify all potential risks and decide on potential risk-mitigating tools, such as guarantees or technical assistance. In the application, it is important to state which team will manage the project and if there are any collaterals (extra guarantees) that the project may give to the bank (e.g., a pledge on existing buildings, approved grants to be received).

2. Appraisal and approval: the lender evaluates the borrower’s application, including their creditworthiness and ability to repay the loan. If the borrower meets the lender’s criteria, the loan is approved. Borrowers must be provided with a loan agreement outlining the terms and conditions of the loan.

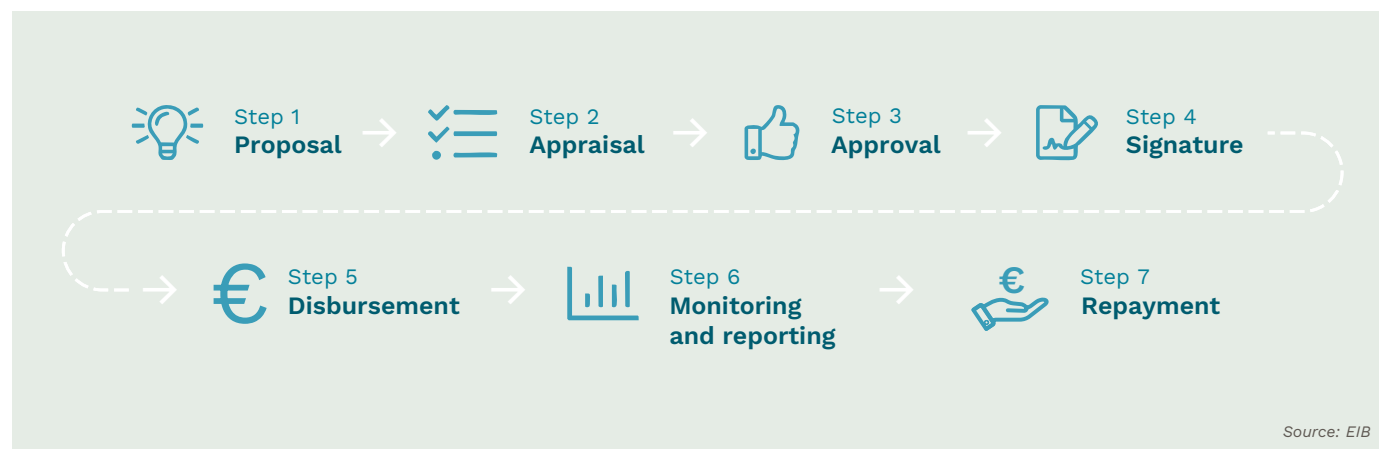
3. Disbursement: once the borrower has agreed to the terms and conditions of the loan, the lender disburses the funds—the project implementation.

4. Monitoring: the lender supervises the project’s implementation through all the stages until the loan is paid back.

5. Repayment: the borrower is accountable for reimbursing the loan under the conditions specified in the loan agreement. One essential condition is the repayment type, which can be amortising or bullet. The first requires the gradual repayment of the loan principal throughout the borrowing term, while in the second case, the principal is repaid on the maturity date.

As stated before, the process and its stages may vary, but the steps mentioned above define the pillars of the loan concession process. As an example, Figure 3 depicts the project cycle of the private loan concession process by the European Investment Bank (EIB).

Figure 3. Project cycle of private loan concession by the EIB



Pros and cons of the loans

Understanding the advantages and disadvantages of loans is crucial for making informed financial decisions and effectively managing borrowing activities.

Sources: [5], [6]

✓ Advantages of loans (Pros)

- Preservation of authority in decision-making
- The structure can be tailored to address the specific requirements of the project.
- Managing is not too challenging.
- Clearly defined repayment schedule which facilitates budgeting
- Preservation of equity of final beneficiary

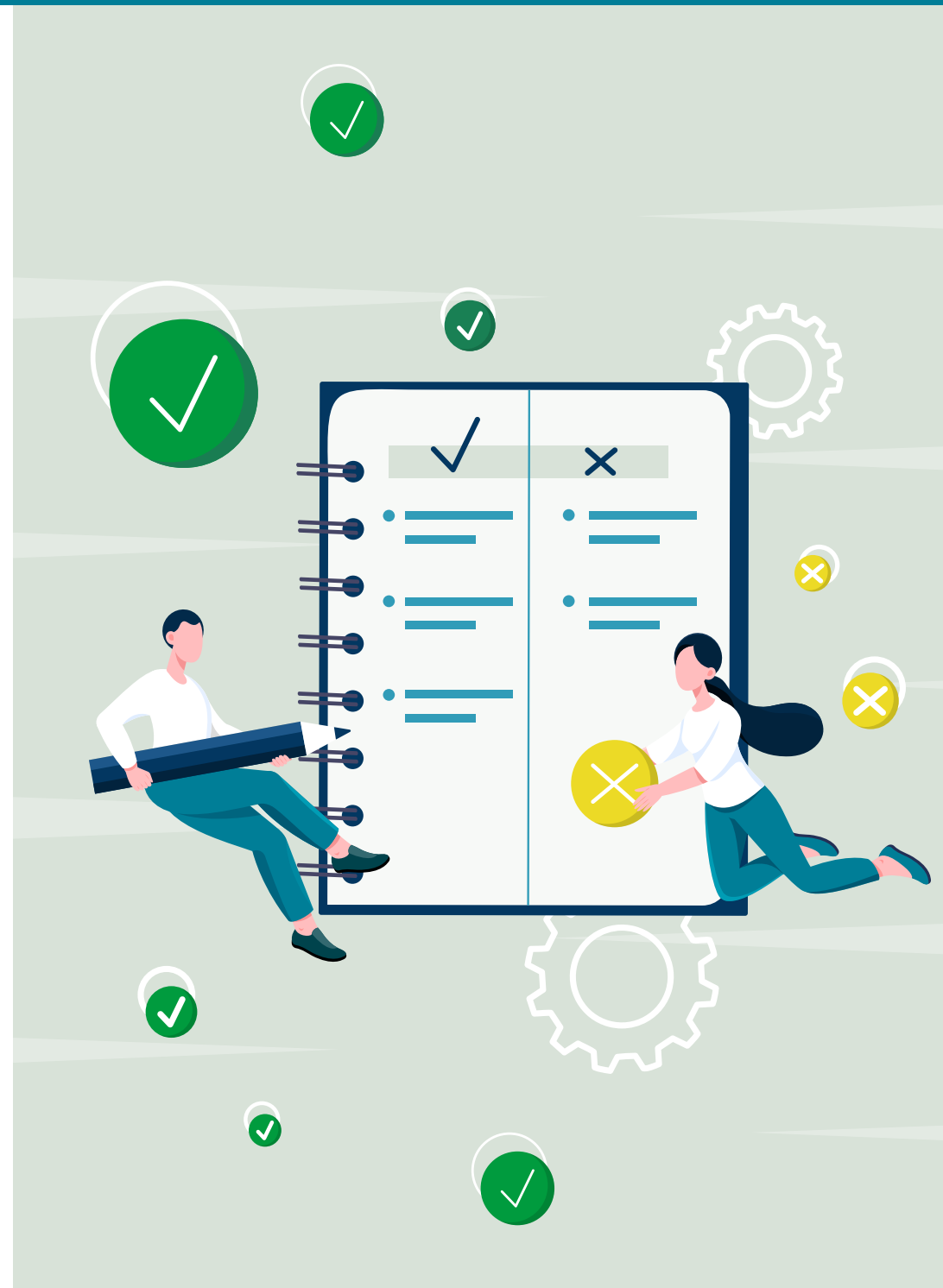
✗ Disadvantages of loans (Cons)

- Repayment of principal and interest
- Risk of default
- Requires more additional resources to other instruments.
- Frequent financial reporting can be requested.

Consulting companies

Don't be discouraged if your organisation lacks the internal expertise or resources to apply and/or manage debt instruments. While many organisations have dedicated departments or in-house knowledge in this area, if yours does not, you can consider engaging external financial consultants to guide and support your debt management strategy. **Engaging with experts in this field can significantly enhance your ability to manage and leverage debt efficiently, ensuring your organisation's sustainability and financial health.**

Having an accountant in the project is enough to manage the application and management of the debt instrument.



Time for implementation

Implementing a debt instrument, such as a loan, for nature restoration and conservation projects involves **several vital steps to ensure adequate funding, management, and execution**. Here is a structured approach to the time implementation plan. This timeline can be adjusted based on the project size and scope.

Stage	Duration	Key Activities
1. Concept development	1–3 months	<ul style="list-style-type: none"> → objective setting: define project goals (e.g., wetland restoration) → stakeholder identification: government agencies, NGOs, financial institutions → feasibility study: environmental, financial, and legal feasibility studies → identification of revenue sources that will allow repayment of loan
2. Structuring the debt instrument	2–4 months	<ul style="list-style-type: none"> → financial model design: loan terms, repayment structures, interest rates → legal framework: compliance with national and international regulations → risk assessment: manage environmental, financial, and market risks → partnership formation: collaborate with financial and conservation bodies
3. Loan agreement and terms finalisation	1–2 months	<ul style="list-style-type: none"> → negotiation of terms: define loan duration, interest rate, repayment schedule → sustainability metrics: integrate environmental performance criteria → approval process: obtain approvals from stakeholders
4. Loan disbursement and implementation	ongoing (up to 5 years)	<ul style="list-style-type: none"> → disbursement of funds: release funds based on progress milestones → project monitoring: regular financial and environmental reporting → mid-term reviews: assess progress and align with conservation goals
5. Repayment and outcomes evaluation	ongoing (5–10 years)	<ul style="list-style-type: none"> → repayment of loan: borrowers repay according to schedule → environmental impact assessment: evaluate restoration outcomes → reporting to stakeholders: provide updates on financial and ecological results
6. Long-term sustainability and refinancing	5+ years	<ul style="list-style-type: none"> → reinvestment: adapt the loan structure for future projects → scalability: explore expansion to other regions or projects

Table 2. Time for implementation

When planning the time for implementation, you need to take into consideration the following aspects:

- **Blended finance:** combining public and private financing can reduce risks and encourage more significant investment.
- **Risk mitigation:** insurance, guarantees, or government backing can provide security for lenders and project implementers.
- **Monitoring and transparency:** a robust framework for monitoring financial and environmental outcomes is crucial to the success of the loan.

Set up costs

As was mentioned earlier, getting a debt instrument for nature restoration and conservation projects can vary significantly based on the size and scope of the project, as well as the financial mechanism used.

Key setup costs generally include:

- **Transaction costs:** these can involve **legal fees, contract negotiation, and structuring of the financial instrument**, which ensures compliance with both environmental standards and financial regulations.
- **Due diligence and risk assessment:** costs associated with **assessing environmental and financial risks**, including feasibility studies, biodiversity impact assessments, and potential carbon credit evaluations.
- **Monitoring and evaluation:** once the project is underway, monitoring its progress regarding biodiversity impact or carbon sequestration **can involve additional geospatial data collection and environmental reporting costs.**
- **Technical assistance and capacity building:** many projects require **upfront investment in training and local capacity-building** to ensure long-term sustainability, particularly in areas involving community-based conservation efforts.
- **Interest rates and financial terms:** depending on whether the funds come from public or private sources, **loan interest rates can vary, impacting long-term financial planning.**

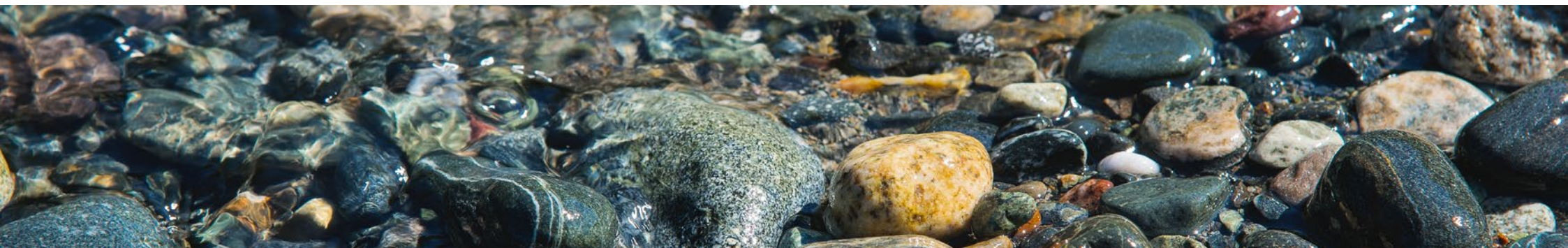
These costs are compounded by the fact that investment in nature-based solutions still needs to be developed more as compared to other sectors, meaning early-stage transactions may face higher setup costs due to a lack of standardised frameworks for measuring biodiversity and ecosystem services benefits. However, the good news is that an increasing number of **startups, often led by biologists, are emerging with innovative tools to standardise and measure biodiversity and restoration benefits**, helping to bridge this gap and reduce barriers to investment.

Operational costs

The operational costs for using debt instruments like green bonds, sustainability bonds, and sustainability-linked loans (SLLs) can vary depending on several factors, including the project's complexity, the issuance's size, and the requirements for monitoring and reporting. Below are typical operational costs associated with these instruments.

Table 3. Operational costs for debt instruments

Category	Description	Example Costs
Issuance and legal fees	These fees cover the preparation and legal work required to issue the debt instrument. Includes drafting the bond or loan documentation and ensuring compliance.	Legal fees typically range from 0.1% to 0.5% of the issuance value.
Certification and verification costs	Independent third-party verification or certification (e.g., for environmental compliance) ensures funds are used as intended and sustainability targets are met.	Certification and verification fees range from 10,000 euros to 50,000 euros or more.
Monitoring and reporting costs	Issuers are required to report on project progress or sustainability targets. It may involve external consultants, environmental and financial reports, or data collection.	Monitoring and reporting costs range from 0.1% to 0.3% of the annual issuance value.
Underwriting fees	Investment banks or underwriters charge a fee for placing or underwriting the bond or loan. This fee is typically a percentage of the issuance amount.	Underwriting fees are generally 0.5% to 1.5% of the total issuance value.
Administrative costs	General administrative tasks related to issuing, managing, and servicing the debt instrument, including legal work, document management, and stakeholder engagement.	Vary; are often included in overall issuance fees.



Prerequisites to use a debt instrument

Using a debt instrument (such as green bonds, sustainability-linked loans (SLLs), or sustainability bonds) for sustainable finance or nature restoration projects requires careful consideration by the restoration manager. It is essential to meet all prerequisites across legal, financial, environmental, and regulatory frameworks.

Below are the **key steps and prerequisites** that must be carefully addressed:

1. Clear definition of purpose: the restoration manager must analyse prior to use if the debt instrument’s purpose is aligned with the restoration project goals, particularly if it is a sustainability-focused instrument. For example, **green bonds** must finance environmentally beneficial projects such as water conservation, water quality improvement, ecosystem restoration, renewable energy, reforestation, or pollution reduction; **sustainability bonds** must fund projects that deliver both environmental and social benefits; **SLLs** link interest rates to the achievement of pre-defined sustainability targets or KPIs (e.g., reduction in CO₂ emissions or energy consumption). The restoration manager has to establish a clear framework for how the funds will be used and ensure that the project aligns with internationally recognised standards, such as the **Green Bond Principles or Sustainability Bond Guidelines**. We discussed these standards in the “Aim of debt instruments” section.

2. Feasibility and financial planning: prepare a detailed financial model showing the expected **returns, revenue streams, and risk management plan**, including market, credit, and operational risks. Finding ways to generate revenue is a major challenge for restoration projects, as they usually result in public goods, and it’s difficult to avoid free-riding. Revenue-generating activities are critical to repay the loans and also to show lenders that the loans will be repaid under a detailed financial plan.

3. Regulatory compliance: different countries and regions, including the EU, have specific regulations for issuing debt instruments, especially those related to sustainable finance. For example, EU regulations are under the EU Taxonomy and the Sustainable Finance Disclosure Regulation (SFDR). The issuer of a bond on a stock exchange (e.g., the Luxembourg Green Exchange or the London Stock Exchange) must meet listing requirements.

4. Legal documentation: working with legal advisors to draft and finalise the necessary legal documents will facilitate the smooth execution and success of the debt instrument.

5. Monitoring and reporting framework: investors expect transparency on how the funds are used and whether sustainability targets are met. Create a **reporting structure** to provide regular updates on projects, including environmental/social impact and financial performance. **Establish clear metrics** to measure the success of the sustainability outcomes (e.g., carbon reductions, job creation, biodiversity improvement). **Set up a system for annual reporting** or impact reporting, and hire third-party auditors if necessary.

6. Risk management and hedging: if you, as a restoration manager, apply for a debt instrument in a currency different from your local currency, consider hedging the currency risk. Hedging currency risk involves using financial instruments or strategies to protect against potential losses caused by fluctuations in exchange rates. It is also possible to reduce the risk of fluctuating interest rates using the same type of instrument. **Develop a comprehensive risk management strategy** to protect against currency, interest rate, and market volatility.

These prerequisites help ensure that the use of a debt instrument is structured correctly and aligns with the sustainability goals of the nature restoration project.





Main players/programmes on the market

This section provides an overview of the main programmes and funding sources for NbS projects, focusing on loans.

Shared management programmes

The EU supports local and regional projects by utilising financial mechanisms administered through **shared management funds**, also known as **European Structural and Investment Funds (ESIF)**. You can find more information on the websites of the European Regional Development Fund (ERDF), the European Commission, and the European Investment Bank.

Loans under ESIF are offered on better terms as compared to commercial loans – lower interest rates, longer repayment periods, and reduced collateral. As for types of loans, risk-sharing loans and microcredit are worth mentioning. The ESIF finances risk-sharing loans in collaboration with other institutions, and the losses and benefits are shared in an agreed-upon proportion. **Microcredits** are usually provided for short-term projects with no or small collateral required.

Moreover, **interest-free loans for startups** might be available in certain regions to support entrepreneurs in establishing their SMEs.

More information about eligibility and the application process can be found here: https://research-and-innovation.ec.europa.eu/funding/how-apply/how-apply-funding_en

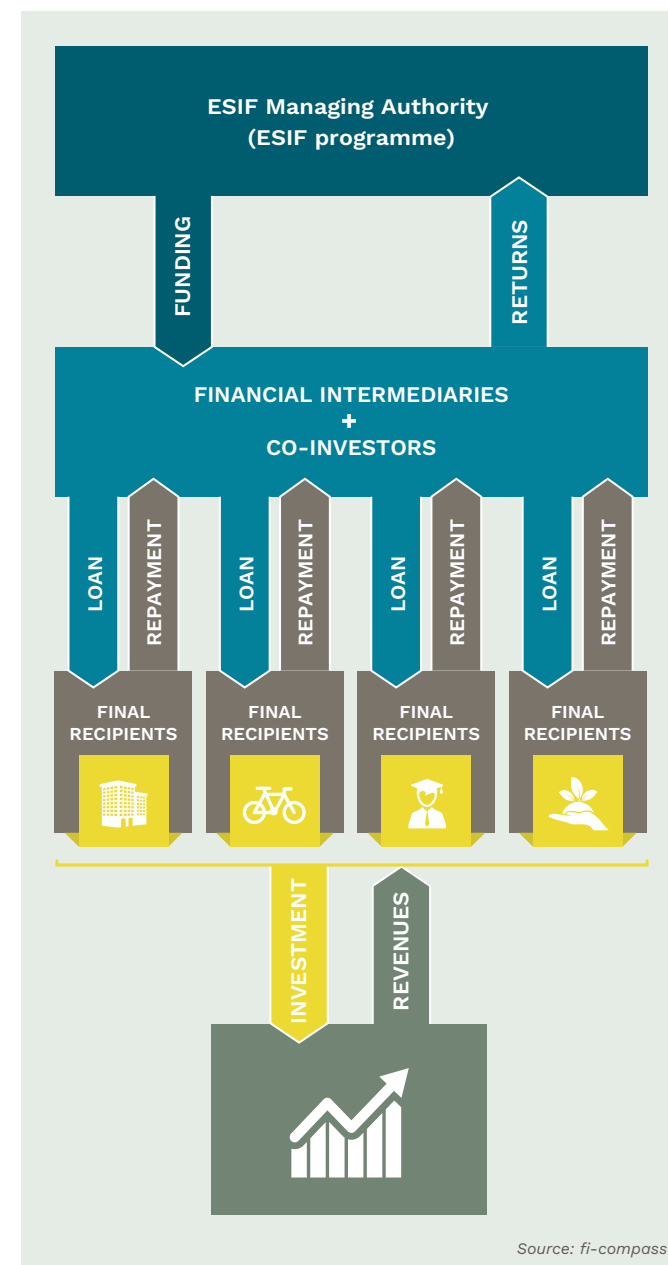


Figure 5.
Loan scheme under the ESIF programme

European Investment Bank (EIB)

The EIB is the EU’s main “climate bank” and one of the most important global investors in climate action. **In 2023, 60% of its investments went to environmental sustainability projects.**

The EIB provides direct, framework, and intermediate loans. Direct loans are provided for individual projects and are subject to specific conditions, such as a minimum investment of 25 million euros. Framework loans support multi-year investments starting from 100 million euros. Finally, to provide support for small and medium enterprises, EIB offers intermediate loans up to 12.5 million euros. In this case, EIB provides loans to financial institutions that will lend to final beneficiaries. This type of financing facilitates access to funds, allowing small businesses, NGOs, and other entities to implement their projects. The EIB Intermediate model applicable to loans, among others, is depicted below.

EIB also relies on national promotional banks that provide finance to small-scale projects. For instance, BPI France and KfW Germany provide soft loans under EIB Guarantees.

Moreover, EIB acts with different institutions and partners to create **trust funds** and support risky projects. For instance, the EIB supports the above-mentioned management funds and other projects, such as InvestEU, which also provides loans to SMEs.

Another critical project the bank supports is **Rewilding Europe Capital (REC)**. REC offers commercial loans for small businesses in specific sectors, such as forest management, biodiversity, wetlands restoration, and water management. In particular, it provides 6–8-year loans of 25–600 thousand euros, focusing on EU MSs. More details can be found here: <https://rewildingeurope.com/wp-content/uploads/2017/11/REC-factsheet-wetland-restoration-and-water-management.pdf>.

It is mentioned here that all these financing mechanisms originated from the EIB because you, as a restoration manager, may be able to identify a local bank benefiting from these instruments, making your life easier.

European Bank for Reconstruction and Development (EBRD)

EBRD provides direct loans for larger projects, but small businesses can also benefit from their investments. In particular, the EBRD provides loans to local commercial banks, offering funding to micro, small, and medium businesses. SMEs looking for funding should directly contact local banks to check requirements and limits. More information is provided here: <https://www.ebrd.com/work-with-us/project-finance/loans.html#anchor2>.

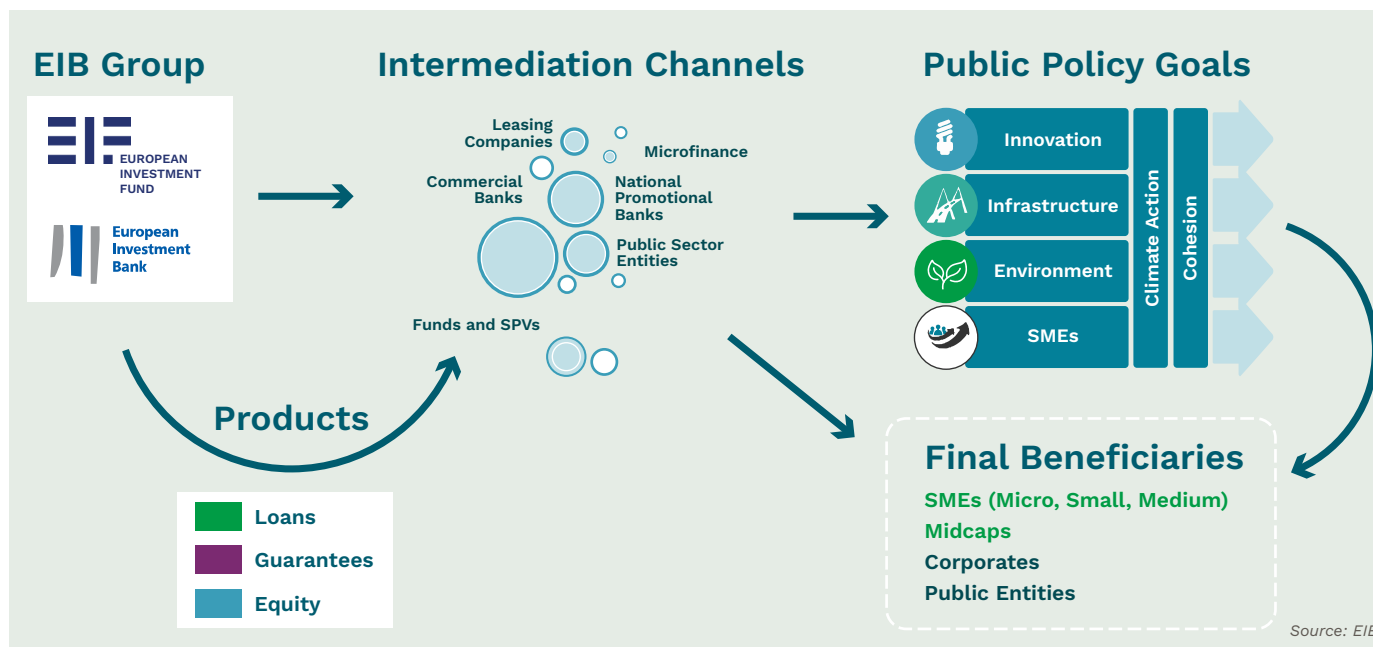
Private sector

Despite growing recognition among private sector actors of the potential benefits of investing in NbS projects, their impact still needs to be improved. **According to the EIB’s report, which covered more than 1300 NbS projects in Europe, only 3% rely on private sector finance.**

Various factors make investments in NbS projects less appealing to the private sector. NbS investments are considered riskier due to their extended payback periods and uncertain returns as compared to more conventional projects. The high transaction costs, coupled with typically small-scale NbS projects, poses challenges. Other limitations may arise due to the public good nature of ecosystems, such as lakes and rivers.


Summing up, private investors will only be inclined to invest in NbS projects if they foresee obtaining a satisfactory return on their investment within a reasonable timeframe and with an acceptable level of risk.


Figure 6. EIB’s Intermediate model





Best practices


Best practices for utilising debt instruments in nature restoration include focus on understanding the differences among financial instruments and having a team that understands the instruments and is able to manage them. Ensuring the sustainability of your project is key for you to be able to repay the loans. Key recommendations include:


- 


1. Set clear conservation goals: define measurable objectives (e.g., reforestation, water conservation) and establish environmental performance indicators, like carbon sequestration or species recovery.
- 


2. Leverage green and sustainability-linked bonds: use green bonds for environmental projects and sustainability-linked bonds (SLBs) to incentivise achieving environmental targets like biodiversity protection.
- 


3. Collaborate with multilateral organisations: partner with development banks and conservation-focused financial institutions to lower costs and secure technical assistance for structuring deals.
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4. Adopt blended finance models: combine public, private, and philanthropic funding to reduce risks for private investors while financing large-scale conservation projects.
- 

5. Ensure transparency and accountability: provide regular reporting and independent audits to track financial and environmental performance, ensuring investor/lender confidence.
- 

6. Incorporate people knowledgeable in financial instruments in your team: design debt instruments that address both conservation goals and future climate risks, prioritising nature-based solutions.
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7. Engage local communities: include local knowledge in project design and implementation, securing community participation for socially sustainable outcomes.
- 

8. Prioritise ecosystem-based solutions: focus on projects that restore ecosystems, protect biodiversity, and offer co-benefits like climate resilience and ecotourism.
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9. Ensure long-term sustainability: guarantee, if possible, before you commit to the loan that your project will generate income to repay the loan.

Successful case studies

Linnunsuo wetland restoration

In April 2017, **Rewilding Europe Capital (REC)** provided a loan of **75,000 euros** to Snowchange to **purchase and conserve the restored Linnunsuo wetland in Finland.**

The Linnunsuo wetland, spanning **110 hectares**, is **situated in the boreal zone of Finnish North Karelia and forms part of the larger 9,000-hectare Jukajoki water catchment area.** Originally a degraded site due to peat production, extensive efforts over the past years have transformed it into a man-made wetland using advanced ecological restoration methods and traditional ecological knowledge. Recognised internationally as an Important Bird Area (IBA), Linnunsuo plays a crucial role in biodiversity conservation. Moreover, **it serves as a key component in the broader ecological restoration efforts of the Jukajoki basin.**

By the end of 2018, **REC granted Snowchange a second loan amounting to 200,000 euros.** Thanks to the new funds, an additional 72 hectares of land adjacent to Linnunsuo were purchased. The restoration of the Linnunsuo wetland was just the first step of a more extensive effort. In particular, together with its partners, **Snowchange plans to restore Lake Jukajärvi and all inflowing rivers by 2025.**



Alzette river restoration

The **EIB** provided a **9 million euros** loan to fund the restoration of the river Alzette in Luxembourg. **The loan was provided under the NFCC, part of the EU's Life Programme.** The project aims to diminish flood risk, enhance biodiversity, and enhance water quality. By reinstating natural conditions, river systems will become more resilient and facilitate the sustainable, multifunctional utilisation of estuaries, rivers, and streams, thus safeguarding bird habitats. Additionally, the project will implement nature-based solutions to mitigate the magnitude and frequency of flooding events that impact downstream areas.

The project will encompass a section of the Alzette River in the town of Steinsel, as well as a segment of the Pétrusse River in Luxembourg City. The restoration works for the Pétrusse River form part of a broader ecological restoration project for the Pétrusse valley. **This initiative aims to revive the valley's ecosystems, which have been affected and altered by urbanisation, which has reshaped the landscape to accommodate Luxembourg City's growth.** The project, to be carried out in multiple stages, will return urbanised river sections to a more natural condition and restore the riverbanks to create natural habitats for plants and animals.

More information on the project can be found here:
<https://www.eib.org/en/press/all/2023-160-luxembourg-biodiversite-et-adaptation-au-changement-climatique-un-financement-europeen-pour-la-renaturation-de-l-alzette>



Suggested Key Performance Indicators (KPIs)

Key Performance Indicators (KPIs) are quantifiable measures used to evaluate the success or performance of an organisation, project, or process against expected results and goals. These indicators can also assist nature restoration managers in analysing the success or shortfall of the use of debt instruments. Key Performance Indicators (KPIs) for applying debt instruments in nature restoration and conservation programmes should be tailored to track both financial performance and environmental impact. Here are several relevant KPIs to consider:

Category	KPI	Description
Environmental impact KPIs	Area of land/lakes/ivers restored (hectares/acres)	Measures the extent of land rehabilitated or restored through various methods.
	Increase in biodiversity	Tracks change in species populations or overall biodiversity indices.
	Carbon sequestration (tons of CO ₂ absorbed)	Quantifies the amount of carbon captured by reforested areas or restored ecosystems.
	Water quality improvement	Assesses changes in water quality parameters, such as pollution reduction or pH level improvement.
	Reduction in soil erosion	Measures improvements in soil stability or reductions in sedimentation rates.
	Increase in forest or vegetation cover	Monitors changes in tree canopy or vegetation density.
	Number of protected species saved or habitats restored	Tracks the success of conservation efforts targeting specific species or ecosystems.
	Reduction in greenhouse gas emissions	Measures the reduction of emissions compared to baseline scenarios.
Financial performance KPIs	Cost of capital	Measures the interest rate or yield of the debt instrument.
	Leverage ratio	Amount of private sector capital leveraged by public or philanthropic capital.
	Profits variation on year-to-year basis	Tracks the profits or losses of a project before and after getting a loan.
	Lenders' satisfaction rate	Evaluates feedback from lenders on financial and environmental performance.
	Reduction in interest rate (for sustainability-linked bonds)	Monitors reductions in interest rates based on achieving environmental targets.
Social and community KPIs	Funds allocated to conservation activities	Tracks the percentage of capital raised that is allocated to conservation and restoration activities.
	Number of local jobs created	Monitors employment generated by nature restoration projects.
	Community engagement rate	Measures the level of participation from local stakeholders in project planning and implementation.
	Livelihood improvement (household income)	Tracks improvements in household incomes due to ecofriendly job creation or economic benefits.
Governance and compliance KPIs	Access to ecosystem services	Monitors improvements in access to clean water, air, and other ecosystem services.
	Compliance with environmental regulations	Measures adherence to local and international environmental standards.
	Transparency and reporting accuracy	Tracks the frequency and quality of reporting to stakeholders on performance.
	Third-party audit compliance	Measures whether the project undergoes regular audits by independent organisations.
Sustainability KPIs	Environmental, Social, and Governance (ESG) rating	Measures the project's performance on ESG criteria.
	Longevity of restored ecosystems	Monitors the durability of ecosystem restoration efforts over time.
	Resilience to climate change	Evaluates how well the restored ecosystems withstand climaterelated risks.
	Percentage of debt tied to longterm environmental performance	Tracks how much of the debt is contingent upon longterm sustainability performance.

Table 5. Key Performance Indicators (KPI)

No standardised framework exists for the definition and evaluation of KPIs. Thus, KPIs can vary according to the type of project, funding source, etc. Concerning climate and environmental projects, KPIs could be based on SDGs or specific targets defined for different sectors.

For instance, Rewilding Europe Capital (presented in the Main Players section) provides loans to projects that can increase the natural dynamics of freshwater ecosystems and defines impact indicators such as extension of the river length, extension of natural estuaries,

and increased fish migration, among others. More information is available here: <https://rewildingeurope.com/wp-content/uploads/2017/11/REC-factsheet-wetland-restoration-and-water-management.pdf>

Conclusion

Debt instruments can play a pivotal role in financing nature restoration projects by providing a structured, predictable flow of funds that can be directed towards initiatives like habitat restoration, reforestation, or freshwater ecosystems conservation, which is the aim of the MERLIN project.

The potential of debt instruments, such as green bonds or concessional loans, lies in their ability to mobilise significant amounts of capital. This is especially relevant as global commitments towards restoring ecosystems and combating climate change require substantial investment beyond the available public funds. Debt instruments can attract private sector investment by offering mechanisms that link financial returns with environmental outcomes, such as performance-based metrics or impact investment frameworks.

One of the main advantages of using debt for nature restoration is that it can provide the **necessary upfront capital to kickstart projects** that yield long-term environmental and economic benefits. For example, concessional loans, with lower interest rates and favourable repayment conditions, can make large-scale restoration financially viable for governments or private entities.

Green bonds, on the other hand, allow investors to finance projects that have a direct positive impact on nature while offering a return on their investment,

potentially attracting stakeholders who are both financially and environmentally motivated. These instruments can also offer advantages in terms of leveraging funds from multiple sources, thus expanding the financial reach of a project.

However, it is crucial to acknowledge that the use of debt instruments is not a one-size-fits-all solution. Nature restoration projects are often complex and context-specific, with varying risks and timelines that may not always align with the structured repayment schedules associated with debt financing. For example, projects that have long gestation periods or uncertain financial returns may face challenges in meeting debt obligations. In such cases, reliance solely on debt could impose undue financial pressure, potentially leading to default or compromising the sustainability of the restoration efforts. Therefore, **assessing the viability of debt-based funding must be conducted on a case-by-case basis, taking into consideration the specific environmental, social, and economic conditions of the project.**

A more effective strategy often involves combining debt instruments with other forms of funding, such as grants or philanthropic donations, to balance the financial burden and enhance project feasibility. Grants, in particular, play a critical role by providing non-repayable funding that can cover high-risk activities or upfront costs that might not generate immediate financial returns. Blending debt with grants

can ensure that a project's financial structure is not overly dependent on future revenue streams, reducing financial risk and increasing the chances of successful outcomes. This blended approach leverages the strengths of different funding sources – debt providing substantial capital and grants offering risk mitigation and flexibility – creating an optimal financial structure that supports long-term environmental and economic goals.

In conclusion, **debt instruments hold considerable potential for nature restoration projects, particularly by enabling significant capital mobilisation and engaging private investors in environmental causes.** However, their effectiveness depends heavily on the context of the project, with factors such as risk, timeframe, and potential returns playing a crucial role in determining suitability. In many cases, the best outcomes can be achieved by **integrating debt instruments with other financial tools, like grants.**

This blended finance approach provides the necessary capital while managing risks and ensuring that financial obligations do not hinder the sustainability and success of restoration initiatives. By carefully tailoring the financial strategy to the specific needs and conditions of each project, debt instruments can become a valuable part of the toolkit for advancing nature restoration efforts and achieving broader environmental goals.

Good luck with your restoration project!



Glossary

Borrower individual, company, or entity that receives funds from another party with the obligation to repay the borrowed amount, typically with interest, over a specified period according to agreed-upon terms and conditions.

Debt instruments fixed-income assets that legally require the borrower to make payment of both interest and principal to the lender.

Equity instruments a type of funding wherein an investor acquires a stake in your company. In this financing arrangement, the company renounces a portion of control, yet gains access to financial backing and business guidance.

Financial instruments (FIs) union measures of financial support provided on a complementary basis from the budget to address one or more specific policy objectives of the Union (European Commission).

Lender individual, institution, or organisation that provides the funds to the borrower with the expectation that they will be repaid, usually with interest, according to the loan agreement terms.

Loans agreements which oblige the lender to make available to the borrower an agreed sum of money for an agreed period, and under which the borrower is obliged to repay that amount within the agreed time (European Commission).

Nature-based solutions (NbS) solutions that are inspired and supported by nature, which are cost-effective and simultaneously provide environmental, social, and economic benefits and help build resilience (European Commission).

Principal represents the original amount of funds that the borrower received from the lender.

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- [14] United Nations Environment Programme (2021). **State of Finance for Nature 2021. Nairobi.**
<https://www.unep.org/resources/state-finance-nature-2021>



Additional resources

1. Climate Bonds Initiative

Website: climatebonds.net

What to Explore: Information on green bonds, climate bonds, and financing for nature-based solutions like reforestation and climate adaptation projects.

2. Conservation Finance Alliance

Website: conservationfinancealliance.org

What to Explore: This platform provides resources and case studies on financing mechanisms for conservation and nature-based solutions.

3. Conservation Finance Network

Website: conservationfinancenetwork.org

What to Explore: A comprehensive hub for learning about conservation finance, with articles, case studies, and toolkits on funding mechanisms for land and nature conservation.

4. Environmental Finance

Website: environmental-finance.com

What to Explore: News, articles, and reports on green finance, including debt instruments for conservation, sustainability-linked loans, and nature-based solutions.

5. European Environment Agency

Website: eea.europa.eu/publications/financing-nature-as-a-solution

What to Explore: Publications on financing mechanisms for nature-based solutions, biodiversity conservation, and strategies for integrating environmental finance into policy frameworks.

6. Global Environment Facility (GEF)

website: thegef.org

What to Explore: GEF works with partners to fund environmental programs, including those using innovative debt instruments.

7. Global Impact Investing Network (GIIN)

Website: thegiin.org

What to Explore: A wealth of resources on impact investing and how financial instruments are used to fund conservation projects and sustainable development.

8. International Capital Market Association (ICMA)

Website: icmagroup.org

What to Explore: Provides guidelines on issuing green and sustainability bonds.

9. International Finance Corporation (IFC)

Website: ifc.org

What to Explore: IFC offers various insights into sustainable finance, green bonds, and their role in development financing, including nature-based projects.

10. Loan Market Association (LMA)

Website: lma.eu.com

What to Explore: LMA provides the Sustainability-Linked Loan Principles (SLLP) and resources on green and sustainability-linked financing frameworks.

11. ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure)

Website: encorenature.org

What to Explore: This organisation focuses on integrating natural capital considerations into financial decisions. They offer insights on sustainable financing mechanisms, including loans for conservation projects.

12. The Nature Conservancy (TNC)

Website: nature.org

What to Explore: Provides information on conservation finance, including debt-for-nature swaps and green bonds.

13. NatureVest (by The Nature Conservancy)

Website: naturevesttnc.org

What to Explore: Focused on conservation finance and providing examples of debt instruments used for nature-based solutions and restoration projects.

14. OECD – Blended Finance and Impact Investment

Website: oecd.org

What to Explore: Offers insights and publications on sustainable finance models, including blended finance for environmental projects.

15. PRI (Principles for Responsible Investment)

Website: unpri.org

What to Explore: They have multiple programs and case studies on financing conservation efforts, including debt-for-nature swaps and loans.

16. Sustainable Banking and Finance Network (SBFN)

Website: www.sbfnetwork.org

What to Explore: Insights into sustainable finance, including the role of green loans and SLLs in supporting environmental and nature-based initiatives.

17. UN Environment Programme (UNEP) Finance Initiative

Website: unepfi.org

What to Explore: UNEP FI focuses on sustainable finance, including how loans and debt instruments can be used for environmental restoration projects.

18. World Bank – Climate Change

Website: worldbank.org/en/topic/climatechange

What to Explore: World Bank's strategies and financial tools, including loans and bonds aimed at climate resilience, conservation, and nature restoration projects.

19. World Bank Group – Environmental Finance

Website: worldbank.org/en/topic/environment

What to Explore: World Bank's financial instruments (loans, bonds, carbon markets), current environmental projects, policy frameworks, research publications, partnerships, and the latest updates on sustainable finance initiatives.

20. World Bank Group – Green Bonds

Website: treasury.worldbank.org/en/about/unit/treasury/impact/impact-report

What to Explore: Offers resources and case studies on how the World Bank uses green bonds and other debt instruments for environmental projects.