

INVEST IN NATURE: Briefing on Biodiversity and Finance



1. Why Biodiversity Matters

The widespread loss of biodiversity and ecosystems due to human activity is accelerating, with profound implications for people's well-being and the global economy. According to the United Nations (UN),¹ biodiversity is declining globally at unprecedented rates in human history. Around one million animal and plant species are now threatened with extinction, and it is estimated that the rate of extinction is up to 1,000 times the natural rate.² If human society continues this trajectory, we face a future where 30 to 50 percent of all species may be lost by the middle of the 21st century. Furthermore, over half of the world's GDP is moderately or highly dependent on nature and its services.³ However it is in a sharp decline, driven mainly by human behavior. Biodiversity, and the services it provides, will continue to decline until 2050 and beyond due to the increasing impacts of land and sea use change, overexploitation, climate change, pollution, and invasive alien species in the business-as-usual scenario.⁴

Understanding the risks of biodiversity loss

Nature is our life-support system. In a healthy environment, every year a few species will be lost, others will evolve, and nature is

resilient. But when the rate of extinction increases such that it outpaces evolution, nature is weakened and its resilience wanes, ultimately leading to ecosystem collapse. Although we still know very little about the biodiversity that supports us, we are beginning to understand the risks of its loss.⁵

The first risk of biodiversity loss is economy. A recent report by the World Economic Forum showed that at least US\$44 trillion (about half) of the global economy is highly or moderately dependent on nature and that, ultimately, all economic activity depends on clean air to breathe, clean water to drink, and a habitable climate.⁶ Biodiversity is critical for maintaining ecosystem health. Declining biodiversity lowers ecosystem productivity as well as the quality of ecosystem services. The value of pollinator services globally has been estimated at \$1 trillion, and the loss of coral reefs, on which more than 25 percent of marine life depend at some point in their life cycles, would jeopardize the protein intake of more than three billion people worldwide. These are just two examples—and for every known economic risk, there are many more that we cannot foresee or measure.

The second risk of biodiversity loss is human health. There is growing scientific evidence that biodiversity loss brings humans

¹ United Nations. 2019. *UN Report: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating'*. <https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>

² Paulson Institute. 2020. *Financing Nature: Closing the Global Biodiversity Financing Gap*. <https://www.paulsoninstitute.org/conservation/financing-nature-report/>

³ World Economic Forum. 2020. *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*. https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf

⁴ Secretariat of the Convention on Biological Diversity. 2020. *Global Biodiversity Outlook 5*. Montreal <https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf>

⁵ Paulson Institute. 2020. *Financing Nature: Closing the Global Biodiversity Financing Gap*. <https://www.paulsoninstitute.org/conservation/financing-nature-report/>

⁶ World Economic Forum. 2020. *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*. https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf

into contact with stressed ecosystems in a way that increases the risk of transmission of zoonotic diseases.⁷ It is possible that the outbreaks of SARS, MERS, Ebola, HIV, and SARS-CoV-2, which spread from animals, were related to the disruption of ecosystems. Nature loss can have disproportionate effects on the most vulnerable communities, too. Rural communities that depend on animals and ecosystem services for their livelihoods are especially vulnerable to these risks and face disproportionate impacts of diseases driven by biodiversity loss and disruption. Nearly 80 percent of the global population living below the poverty line resides in rural areas,⁸ and evidence suggests that they tend to be highly dependent on ecosystem services for their livelihoods and well-being.⁹

The third risk of biodiversity loss is that we will not be able to achieve global net-zero emission goals without the support of the ecosystems. For example, tropical rain forests are one of the most important ecosystems for mitigating climate change. Tropical rain forests collectively sequester more carbon from the atmosphere than temperate or boreal forests, but they're also increasingly destroyed for agricultural expansion. Among the world's three-largest tropical rain forests—located in the Amazon, the Congo River Basin, and Southeast Asia—only the Congo has enough standing forest left to remain a strong net carbon sink.¹⁰ The rate at which humans are reducing forest cover is significant. Between 2015 and 2020, the global rate of deforestation was estimated at 10 million hectares per year—an area approximately the size of South Korea.¹¹

Although it is difficult to calculate the full value of nature, we know enough to recognize that its destruction presents profound risks to economies, the environment, and human societies. There is an imperative to invest in nature protection and restoration to hedge against these risks. In the medium to long term, we need a transformational shift of the markets and the discipline of economies by valuing nature. This will not happen overnight and will require a clear and compelling economic case championed by strong political leaders and underpinned by broad public support. In the meantime, to tackle the substantial risks of biodiversity loss, we must urgently identify and implement innovative financing and policy mechanisms that can rapidly mobilize substantial capital flows towards biodiversity conservation as well as reform governmental expenditures on activities harmful to biodiversity in the form of agricultural, forestry, and fishery subsidies.

Recognizing the important nexus between climate and biodiversity

Biodiversity loss and climate change reinforce each other. Climate change is a direct driver of biodiversity loss and biodiversity loss accelerates climate change. Even under a 1.5°C to 2°C global warming scenario, many ranges of terrestrial species are projected to shrink dramatically.¹² At the same time, biodiversity loss contributes to climate change. Terrestrial and marine ecosystems are important carbon sinks, sequestering 60 percent of gross annual anthropogenic carbon emissions.¹³

It is important to recognize that humanity faces several interrelated environmental crises including climate change, biodiversity loss, desertification, and pollution. To tackle them effectively requires a coherent and mutually reinforcing response. For example, it is well-known that clean energy is a key element of any strategy to reach net-zero emissions. So, appropriately locating that infrastructure, and the associated transmission system to transport the energy from where it is produced to where it is needed, is vital.

On the positive side, nature-based solutions can support climate mitigation and adaptation while benefitting biodiversity, if their design includes a proactive biodiversity enhancing and protection approach. Investing in natural infrastructure, such as mangroves and coral reefs, can strengthen carbon sinks, mitigate the impact of storm surges associated with extreme weather events, and restore biodiversity. Similarly, the creation of wetland ecosystems can help soak up excess precipitation, helping to reduce the risk of flooding while creating natural habitat for wetland biodiversity. An integrated approach can capture multiple benefits.

⁷ Centers for Disease Control and Prevention. 2021. *Zoonotic Diseases*. <https://www.cdc.gov/onehealth/basics/zoonotic-diseases.html>

⁸ The World Bank. 2018. *Poverty and Shared Prosperity 2018: Piecing Together the Poverty Puzzle*. World Bank, Washington, DC

⁹ The World Bank. 2021. *Unlocking Nature-Smart Development*

¹⁰ Harris, N. and Gibbs, D. 2021. *Forests Absorb Twice as Much Carbon as They Emit Each Year*. <https://www.wri.org/insights/forests-absorb-twice-much-carbon-they-emit-each-year>

¹¹ The White House. 2021. *Plan to Conserve Global Forests: Critical Carbon Sinks*. https://www.whitehouse.gov/wp-content/uploads/2021/11/Plan_to_Conserve_Global_Forests_final.pdf

¹² Intergovernmental Platform on Biodiversity and Ecosystem Services. 2019. *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. <https://ipbes.net/fr/node/35274>

2 Why Urgent Actions Are Needed to Close Financing Gap for Biodiversity and Climate

Estimating the biodiversity financing gap

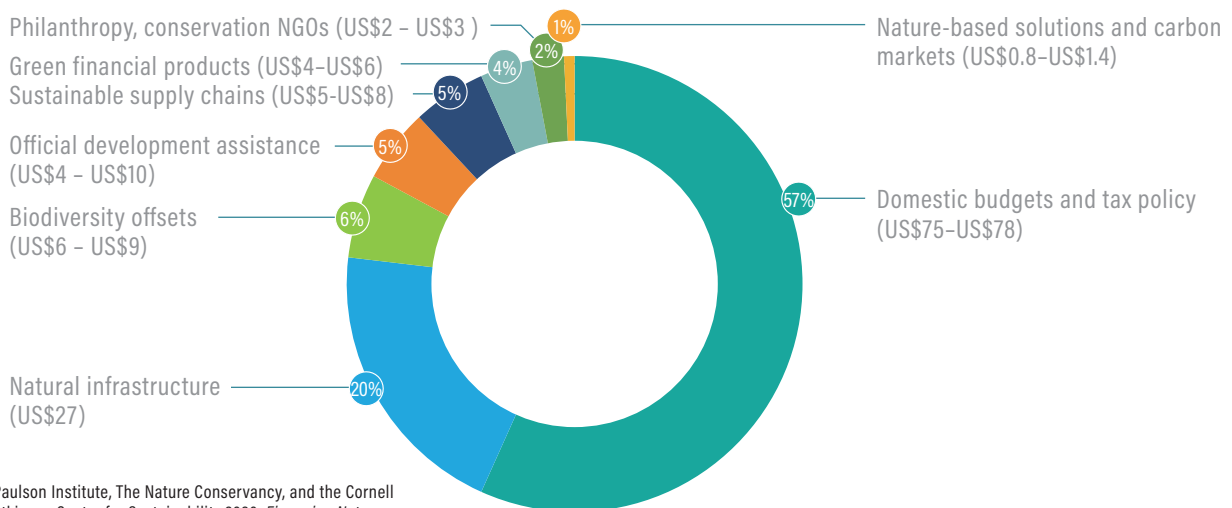
It is because our economic and financial systems do not appropriately value nature that we are losing biodiversity at a rapid rate and creating a biodiversity financing gap. Several recent studies have estimated the financing gap for biodiversity.

- As of 2019, current spending on biodiversity conservation is between \$124 billion and \$143 billion per year. By 2030, the total estimated biodiversity protection need is between \$722 billion and \$967 billion per year. This leaves a current biodiversity financing gap of an average of \$711 billion, or between \$598 billion and \$824 billion per year. -- *Paulson Institute, The Nature Conservancy, and Cornell University*¹⁴

- By 2030, the amount of funds needed for global biodiversity conservation is estimated to reach as high as \$967 billion, but only about \$125 billion is set aside, about six times less. -- *Agence Française de Développement and Global Canopy*¹⁵
- Another study identifies a total \$4.1 trillion financing gap in nature by 2050, which is equivalent to the need of investment to at least triple by 2030 and increase fourfold by 2050 from the current level. -- *United Nations Environment Programme*¹⁶

Historically, finance flows into nature have been significantly lower than those to fight climate change. Globally, only 3 percent of all climate finance was directed toward agriculture, forestry and other land use (AFOLU) and natural resource management in 2017/2018.¹⁷ For 2019/2020, total climate finance has increased to \$632 billion while biodiversity financing totaled just \$124 billion–\$143 billion.¹⁸ The total share of climate finance directed to adaptation stood at only 7 percent.¹⁹

Figure 1 | Global Biodiversity Conservation Financing in 2019 (US\$ billions per year)



Source: Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability. 2020. *Financing Nature: Closing the Global Biodiversity Financing Gap*.

¹³ Intergovernmental Platform on Biodiversity and Ecosystem Services. 2019. *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. <https://ipbes.net/fr/node/35274>

¹⁴ Paulson Institute. 2020. *Financing Nature: Closing the Global Biodiversity Financing Gap*. <https://www.paulsoninstitute.org/conservation/financing-nature-report/>

¹⁵ Agence Française de Développement. 2021. *The Little Book of Investing in Nature*. <https://www.afd.fr/en/actualites/little-book-investing-nature>

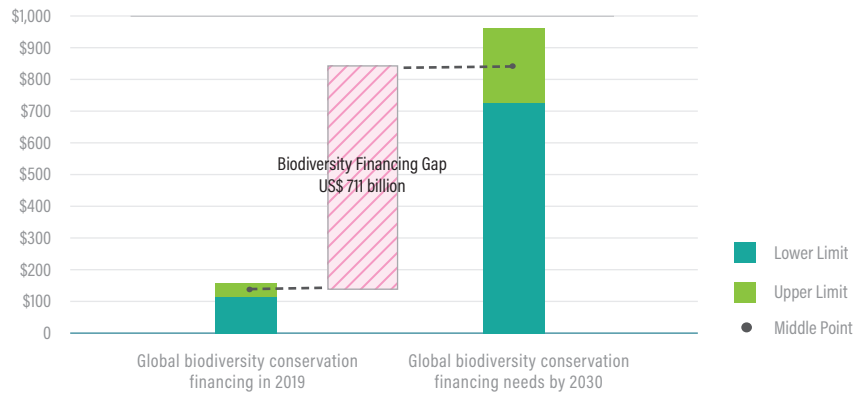
¹⁶ United Nations Environment Programme. 2021. *The time to unlock financing for biodiversity protection is now*. <https://www.unep.org/news-and-stories/speech/time-unlock-financing-biodiversity-protection-now>

¹⁷ United Nations Environment Programme and the International Union for Conservation of Nature. 2021. *Nature-based solutions for climate change mitigation*. <https://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/37318/NBSCCM.pdf>

¹⁸ Climate Policy Initiative. 2021. *Global Landscape of Climate Finance 2021*. <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/>

¹⁹ Climate Policy Initiative. 2021. *Global Landscape of Climate Finance 2021*. <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/>

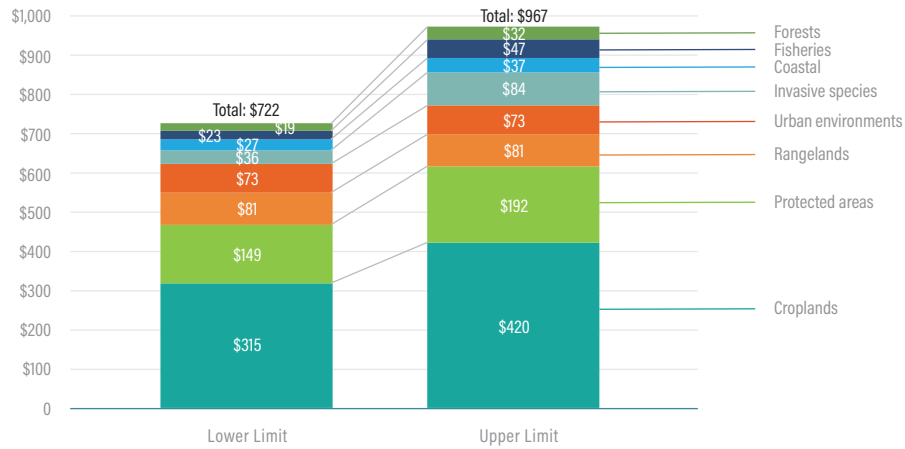
Figure 2 | Global Biodiversity Financing Gap (US\$ billions)



Note: Using midpoints of the current estimates and future needs, current global biodiversity conservation financing (upper graph) may need to increase by a factor of 5–7X to meet the estimated global need for biodiversity conservation (lower graph).

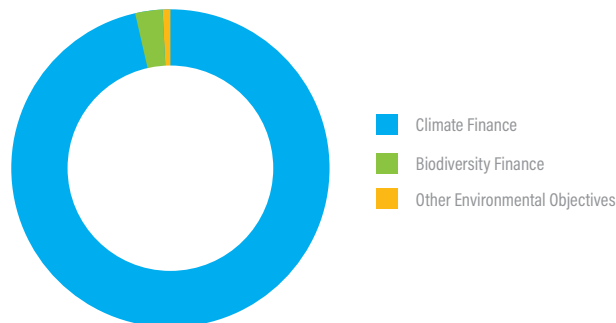
Source: Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability, 2020. *Financing Nature: Closing the Global Biodiversity Financing Gap.*

Figure 3 | Global Biodiversity Funding Needs (US\$ billions)

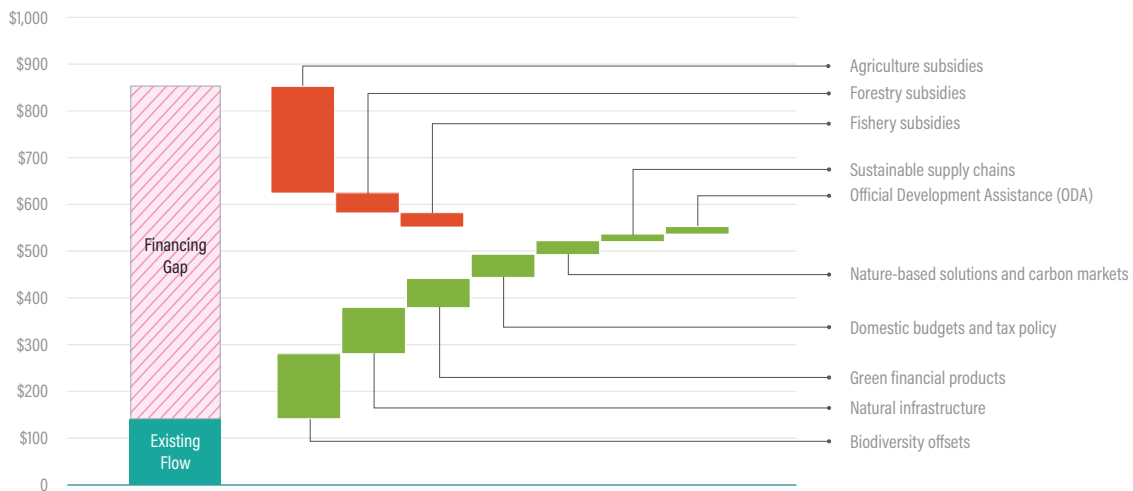


Source: Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability, 2020. *Financing Nature: Closing the Global Biodiversity Financing Gap.*

Figure 4 | Comparison of Climate Finance and Biodiversity Finance



Source: International Development Finance Club, 2021. *Green Finance Mapping Report.*

Figure 5 | Estimate of Growth in Financing Resulting from Scaling Up Proposed Mechanisms by 2030 (in 2019 ,US\$ billions per year)

Source: Paulson Institute. 2020. *Financing Nature: Closing the Global Biodiversity Financing Gap*.

This contrast is also reflected in the deployment of “green” finance, where financing for climate efforts dwarfs that for biodiversity. For example, according to research by the International Development Finance Club (IDFC), out of a total of \$185 billion in green finance commitments that its members made in 2020, \$179 billion (96 percent) went to climate finance, and only \$5.4 billion (3 percent) was directed toward biodiversity.

Closing the biodiversity financing gap

As large as the funding gap might be, there is some hopeful news: The gap can be closed for less than 1 percent of annual global GDP, or about \$711 billion. For comparison, that is roughly equivalent to the annual GDP of Switzerland or the State of North Carolina. This is less than what the world spends on cigarettes or soft drinks in a year. It is a feasible sum compared with the trillions of dollars that world governments currently inject into their economies through stimulus programs or the tens of trillions in private assets around the world.

Presented here are a range of mechanisms that, if implemented at scale, could first help to reduce the future financing needed for biodiversity and, unlock the additional funding required. These solutions draw from myriad areas of society. Some are new financial instruments for leveraging private investment while others are policy-related changes. Many are the responsibility of

governments, but some call on private corporations to transform their supply chains and investments. Importantly, everyone can make a difference, whether they are leaders in government, business, or finance.

In fact, an effective first step in closing this gap can be driven by better deployment of existing funds, smarter policies and investment choices, and shifting the capital flow away from harmful behaviors and toward outcomes that benefit nature.

Seizing opportunities to fill in the gap for financing climate and biodiversity

Despite the challenges mentioned above, there are ways to channel more financing into biodiversity conservation and bring about better alignment between climate and biodiversity.

First, efforts to address climate and biodiversity must not undercut each other. Fossil fuel energy infrastructure has endangered biodiversity significantly. Without careful planning, well-intentioned clean energy infrastructure could also pose a threat to biodiversity. So, where we place that infrastructure, and the associated transmission systems, is crucial. Such missteps could create additional financial burdens to restoring impaired biodiversity.

Second, nature-based solutions that tackle both climate and

biodiversity challenges should be explored. Nature-based solutions are an essential component of the overall global effort to achieve the goals of the Paris Agreement on climate change. For example, the restoration of mangrove forests can deliver multiple benefits, from enhancing fish nurseries and storing carbon to mitigating the impact of storm surges that will be more frequent in a changing climate. Research shows that nature-based solutions can provide over one-third of cost-effective climate mitigation between now and 2030 to hold global warming to below 2°C.²⁰ And, as natural carbon sinks, terrestrial and marine ecosystems can absorb some 60 percent of global man-made emissions. By scaling up investments in nature-based solutions, we are more likely to maximize the return on our investment.

Third, seeking innovative mechanisms to bridge the gap between biodiversity projects and existing financial markets is imperative. For example, by combining replicable homogenous projects or bundling multiple heterogeneous projects into one diversified product, conservation projects may be structured into marketable financial products that are more mature and well-established, thus unlocking the vast financial resources that are increasingly looking for environmental, social, and governance (ESG)-themed investment opportunities. There are recent efforts to rethink the value of nature through the lens of nature markets, and the New York Stock Exchange is exploring a new nature-based asset class in the form of natural asset companies designed to capture and store nature's intrinsic and productive value.

Facilitating global efforts and cooperation

In addition to the private sector, closing the biodiversity financing gap relies heavily upon government actions and thoughtful public policy to incentivize investment. All countries must fully acknowledge that healthy economies are dependent on healthy ecosystems. Nature should be seen as a finite resource to be valued and its use sustainably managed. Equipped with a more complete understanding of the benefits of biodiversity—including nature's role in mitigating and adapting to climate change—leaders at the highest levels of government should incorporate biodiversity into their policy, legal, and fiscal decision-making.

Meanwhile, multilateral institutions and donor countries should expand programs of bilateral and multilateral official development assistance to support less-developed nations that

demonstrate clear and sustainable programs to halt biodiversity loss. Developed and emerging-economy countries can also play an important role in greening supply chains through prioritizing and incentivizing sustainable, deforestation-free production. Banks and financial institutions can incentivize biodiversity-enhancing efforts through green finance priorities and policies.

Recognizing that the public sector can provide only a fraction of the finance needed, there is a critical role for the private sector—the greatest source of capital. However, it is important to note that, to realize this potential, governments must put in place the right regulatory environment, smart incentives, and market structures to induce the private sector to invest. We can only expect private companies to invest in natural capital if it is profitable to do so.

3 What Actions Are We Taking: Good Practices from PBF Members

Since the Partnership of Biodiversity and Finance (PBF) was launched in October 2021, World Resources Institute (WRI) together with global partners have taken actions to address urgent biodiversity challenges and help close the considerable action and financing gaps. As of November 2022, a total of 58 members from financial institutions, environmental groups, international organizations, academic institutions, and businesses worldwide have joined PBF.

PBF members are taking actions to achieve a dual objective:

- *Prevent and minimize biodiversity risks associated with investment and trade*
- *Mobilize innovative financial resources and tools to close the financing gap*

We showcase 20 good practice case studies, most of them from PBF members, which cover Asia and the Pacific, South America, and Europe. These typical cases focus on three key areas: tools and technical support (three cases), capital and products (eleven cases), and policies and standards (six cases).

²⁰ United Nations Global Compact. 2019. *Nature-Based Solutions to Address Climate Change*. <https://www.unglobalcompact.org/take-action/events/climate-action-summit-2019/nature-based-solutions>

Tools and Technical Support

CASE 1. Global Forest Watch: An Online Platform for Biodiversity Risk Assessment (*World Resources Institute*)

Global Forest Watch (GFW) is an online platform created by World Resources Institute (WRI) that provides data and tools for monitoring forest, land use, and biodiversity. Companies can use this platform as a management tool to identify potential risks in various business and financial decisions to reduce deforestation behavior. It can also be used to help financial institutions hold relevant companies accountable for deforestation, improve the decision-making ability to identify biodiversity risks, and help translate geospatial data into actionable insights for financial institutions and investors. Through GFW, users can receive deforestation alerts, find out about recent changes in their supply chains and/or forests where their investments are located, and understand the impact of their operations on forests. One example of GFW's application is the environmental and biodiversity assessment data used by the New Development Bank's road infrastructure project in Brazil.

Details: <https://www.globalforestwatch.org/>

CASE 2. Environmental Risk Screening Tool: Fintech to Support Biodiversity Conservation in China's Overseas Investment Projects (*The Paulson Institute*)

In early 2018, the Paulson Institute (PI) and the Foreign Environmental Cooperation Center of China's Ministry of Ecology and Environment jointly launched the development of the Environmental Risk Screening Tool (ERST). The ERST aims to provide science-based and efficient decision-making support tools for key decision-makers in the Chinese government, as well as financial institutions and investors, to improve the environmental risk management of overseas investment projects and thus reduce or avoid political, diplomatic, and financial

risks caused by poor environmental risk management. The ERST is based on geographic information system (GIS) and spatial analysis. After a user sets the boundaries of a proposed project's construction area and peripheral potential impact area with coordinates or manual drawings, the system will automatically perform biodiversity risk analysis and generate reports with reference to the prevailing environmental policies and standards of multilateral financial institutions.

Details: <https://www.paulsoninstitute.org/green-finance/green-scene/executive-summary-fintech-report-2022/>

CASE 3. eDNA: Assess Compensatory Habitat Biodiversity for Road Infrastructure Project in the United Kingdom (*NatureMetrics*)

eDNA is the collective term for genetic material obtained directly from environmental samples (e.g., water, soil, air) without capturing or sampling a target organism. When the United Kingdom (UK) government requested a biodiversity impact assessment for a major road widening project, eDNA was used to analyze the soil biodiversity of ancient birch forest land, non-ancient birch forest land, ancient artificial coniferous forest land, and the creation of new compensatory habitats in the project area. The assessment determined that compensatory woodland planting was required, and soil translocation was proposed as a measure to improve the success of the new habitat creation.

Details: <https://www.naturemetrics.co.uk/>

Capital and Products

CASE 4. Sovereign Loan: Ispartakule-Cerkez koy Rail Project in Turkey (*Asian Infrastructure Investment Bank*)

The Asian Infrastructure Investment Bank (AIIB) has financed €300 million in sovereign loans to support the Ispartakule-Cerkez koy Rail Project. The impacts on the Terkos Basin (an important bird areas) are expected to be limited since the project crosses modified habitat. A set of mitigation measures was adopted during construction and implementation, including but not limited to replanting 74.3 hectares (ha) of oak/hornbeam woodland in locations close to the project, undertaking a translocation program to prevent the potential loss of six threatened plant species, monitoring works and removing animals to nearby suitable habitat, installing additional pole sections to a height of three meters, attaching colored ribbons/tape to influence bird flight behavior away from the rail corridor in areas with the highest potential collision risk, and timing construction activities when it is not possible to prevent damage to the features, so that this damage occurs when these features are not in use.

Details: <https://www.aiib.org/en/projects/details/2021/approved/Turkey-Ispartakule-Cerkez koy-Rail-Project-Previously-Halkali-Cerkez koy-Rail-Project.html>

CASE 5. Biodiversity-Themed Bonds in Europe (*Bank of China*)

In 2021, the Bank of China (BOC) issued the first biodiversity-themed green bond by a global financial institution, with a scale of RMB 1.8 billion equivalent and a term of two years. The biodiversity projects include ecological protection of land, river, or ocean for the following purposes: protection of biodiversity and habitats, establishment of reservation area, afforestation and reforestation, sustainable forestry, and agriculture and fisheries development. With the gap for biodiversity protection by traditional funds, using green financial instruments and products to support biodiversity

conservation is an important way to expand financing channels and achieve financial availability. On November 16, 2022, the Bank of China's Paris branch issued the first US dollar-denominated green bond on biodiversity—US\$400 million—which is the first biodiversity-themed green bond in Europe.

Details: https://www.bankofchina.com/en/investor/ir10/202109/t20210923_20072938.html

CASE 6. Blue Bonds Incubator for Ocean Investments in Asia and the Pacific (*Asian Development Bank*)

After the Asian Development Bank (ADB) issued its first blue bonds in 2021 under ADB's expanded Green and Blue Bond Framework, ADB approved another blue bond from the Bank of Qingdao in China in February 2022. Before that, Bank of Qingdao and the International Finance Corporation (IFC) jointly explored a blue financial development model combined with ESG principles and launched the blue asset classification standard in 2021. The blue bond will finance loans and other debt to support projects related to the following under the blue bond framework: sustainable ship and port logistics, fisheries and seafood processing, chemical waste and plastic treatment, environmentally friendly marine and water products, water supply and treatment, sustainable tourism services, and offshore renewable energy. In April 2022, ADB launched the world's first Blue Bond Incubator to support ocean-related projects in Asia and the Pacific to help scale up sovereign and corporate blue bond issuance for critical ocean investment.

Details: <https://www.adb.org/projects/55246-001/main>
<https://www.adb.org/news/adb-issues-first-blue-bond-ocean-investments>
<https://www.adb.org/news/adb-launches-first-blue-bond-incubator-boost-ocean-investment>

CASE 7. Debt Financing in the Bahamas (*Inter-American Development Bank and Goldman Sachs*)

In June 2022, Goldman Sachs (GS) acted as sole global coordinator and joint bookrunner for the Commonwealth of the Bahamas' US\$385 million dual-tranche debt offering partially guaranteed by the Inter-American Development Bank (IDB). The \$200mm policy-based guarantee from the IDB is aimed at projects to promote a healthier and more productive ocean in the Bahamas. It includes reforms and actions to foster business recovery for micro, small, and medium-sized enterprises in the blue economy and prospecting investment projects suitable for blue bond financing. The initiative also includes reforms to promote digitalization in the blue economy, strengthen the resilience of the blue economy through improved climate risk management in coastal and offshore areas, promote better management of marine resources, and reduce marine pollution.

Details: <https://www.iadb.org/en/news/bahamas-advances-creation-social-and-inclusive-blue-economy-using-idb-guarantee#:~:text=The%20Bahamas%20will%20advance%20in,productive%20ocean%20in%20The%20Bahamas>

CASE 8. REDD+ Project: Cordillera Azul National Park in Peru (*UN-REDD Programme*)

REDD+ project, located in the Cordillera Azul National Park in Peru, is a framework guiding forest industry activities that reduce deforestation and improve forest management, conservation, and carbon storage capacity-building in developing countries. Through this project, 1,314 million ha of forest has been protected, which has contributed to 25.2 million tons in carbon dioxide emission reduction. In addition, local communities have obtained €1,797,701 in revenue from the sale of carbon credits. The project has helped protect 39 threatened species and 1,332,066 ha of critical habitat; it is certified by the Voluntary Carbon Standard and Climate, Community, and Biodiversity Standards at a gold level for biodiversity.

Details: <https://ecosphere.plus/cordillera-azul-2/>

CASE 9. Public-Private Partnership Project: Karukinka Natural Park in Chile (*Wildlife Conservation Society and Goldman Sachs*)

In 2004, Goldman Sachs (GS) entered into a landmark public-private partnership with the Wildlife Conservation Society (WCS) to protect a vast tract of wilderness and establish the Karukinka Natural Park on the island of Tierra del Fuego, Chile. Today, Karukinka spans more than 735,000 acres, with the vast majority of acreage having been donated by Goldman Sachs to WCS for its conservation as a major ecological resource. Together, Goldman Sachs and WCS worked with Chilean conservationists and other partners to establish the park, develop a sustainable use plan, and preserve the region's unique ecological characteristics. Karukinka Natural Park is home to over 100 native species and is one of the world's richest, most ecologically diverse lands, with incredibly high conservation value. It is home to the world's southernmost old-growth forest, rich alpine meadows, and vast peat bogs, which help slow climate change by absorbing hundreds of millions of tons of carbon dioxide.

Details: <https://www.goldmansachs.com/citizenship/environmental-stewardship/land-conservation/tierra-del-fuego.html>

CASE 10. Asset Management: Biodiversity Engagement (*Goldman Sachs*)

Asset managers can advance biodiversity goals through active engagement with the companies they are invested in. Goldman Sachs Asset Management (GSAM) seeks to engage with a targeted group of high-impact companies to understand their approaches to managing risks associated with biodiversity and seeks to promote accountability and best practices. In 2021, GSAM sought to focus its stewardship work related to biodiversity on two themes: plastics and land use.

Details: <https://www.gsam.com/content/gsam/us/en/institutions/about-gsam/stewardship.html>

CASE 11. Adaptation for Smallholder Agriculture Programme:
Mobilizing Private Finance to Fund Biodiversity
(*International Fund for Agricultural Development*)

One of the main mechanisms for catalyzing private sector investments in biodiversity and nature-based solutions is through the flagship Adaptation for Smallholder Agriculture Programme (ASAP) from the International Fund for Agricultural Development (IFAD). ASAP and the enhanced ASAP+ mitigate the risk involved in investing in sustainable agriculture and nature-based solutions by acting as a safety net, thereby incentivizing private sector commitment. Further, IFAD's Private Sector Financing Programme, which aims to crowd in private sector investments, know-how, and innovation for the benefit of rural communities, supports small-scale producers in building resilience capacity and adapting to climate change through diversified farming and livelihood systems, agroecological practices and other approaches, and nature-based solutions that enhance biodiversity and mitigate greenhouse gas emissions.

Details: <https://sdg2advocacyhub.org/sites/default/files/events/attachments/IFAD%20Investment%20Case.pdf>

CASE 12. Carbon Sink Loan (*Industrial Bank*)

China's first carbon sink loan totaling 18 million yuan (about 2.77 million U.S. dollars) was issued by the Industrial Bank Co., Ltd. (IB) in August 2021. The loan was granted to companies managing the coastal wetland in Jiaozhou Bay in Qingdao, east China's Shandong Province. The issuance of the loan took into account an overall analysis on the wetland's carbon sequestration capacity as a fundamental factor, and the loan amount was calculated based on the transaction prices in the national carbon market, with the wetland's long-term income right from carbon trading as collateral. The loan is used for companies to purchase high-carbon sink wetland crops with increased carbon absorption to protect coastal wetlands and effectively help companies transform the ecological value into economic value. At present, this model has been adopted in Nanjing

Branch and Hangzhou Branch of Industrial Bank to support the protection and restoration of local wetlands.

Details: <https://www.cib.com.cn/cn/aboutCIB/about/news/2021/20210820.html>

CASE 13. The Conservation Fund: First Green Bond for US
Conservation (*Goldman Sachs*)

In 2019, Goldman Sachs helped issue a \$150 million green bond for The Conservation Fund – the nation's first green bond solely dedicated for conservation. The proceeds are being used to scale efforts to ultimately protect 5 million acres of the nation's working forests through The Conservation Fund's Working Forest Fund ("the Fund"). Within one year of issuance, the bonds led to the protection of 225,000 acres of at-risk forest in eight separate projects worth almost \$250 million. As of June 2022, the bonds have impacted over 350,000 acres of forest and helped to sequester 90 million tons of CO₂e and create or maintain ~2,500 jobs. The Fund is a unique model pioneered by The Conservation Fund that allows them to acquire at-risk privately held forests and then sustainably manage them while the Fund secures a permanent conservation outcome. Once protected, the Fund resells the forest back to the market and recoups the remainder of its investment. In this way, the Fund mitigates climate change, strengthens rural economies who depend on the land, and protects natural ecosystems through the permanent conservation of at risk working forests.

Details: <https://www.goldmansachs.com/our-firm/progress/the-conservation-fund/>
<https://www.conservationfund.org/green-bonds>

CASE 14. The Amazon Fund (*Brazilian Development Bank*)

The Amazon Fund is an initiative for financing actions to Reduce Emissions from Deforestation and Forest Degradation (REDD+).¹ It was proposed by Brazil in 2007 at the 13th United Nations Framework Convention on Climate Change Conference of the Parties (UNFCCC COP), and it was designated to BNDES in 2008 by Presidential Decree 6,527. The fund was created to receive voluntary donations for non-refundable application in actions to prevent, monitor, and combat deforestation, as well as for conservation and the sustainable use of the Brazilian Amazon. The Amazon Fund monitors and evaluates various regional indicators of the Brazilian Amazon, as well as indicators that measure implementation (outputs) and the positive and negative changes arising from the supported projects. Regarding project support, the fund ends 2021 with a portfolio of 102 supported projects, of which 47 are concluded. The financial resources allocated to the supported projects add up to R\$ 1.8 billion. Of this amount, 79.5% have already been disbursed.

Details: <http://www.amazonfund.gov.br/en/home/>

key areas of action: accessing data and understanding best practices; raising awareness and supporting widespread action; developing and implementing a World Heritage Sites risk approach; protecting World Heritage Sites proactively; and engaging clients and investee companies.

Details: <https://www.unepfi.org/psi/wp-content/uploads/2019/10/PSI-WWF-UNESCO-press-release.pdf>

CASE 16. Integrate Biodiversity Risk into Bank's Environmental and Social Policy (*European Bank for Reconstruction and Development*)

The European Bank for Reconstruction and Development's (EBRD's) Environmental and Social Policy is one of the bank's three good governance policies and a key document that guides the EBRD's commitment to promoting "environmentally sound and sustainable development" in the full range of its investment and technical cooperation activities. Among the 10 performance requirements (PR), PR6 is for "Biodiversity Conservation and Sustainable Management of Living Natural Resources," which applies to all projects directly financed by the EBRD as established in the ESP, that may pose risks to biodiversity and ecosystems and the services they provide. In 2021, MDBs including the EBRD signed the joint MDB COP26 statement on "Nature, People and Planet", reiterating their commitment to protecting biodiversity and increasing and coordinating policy work to achieve systemic impact. The EBRD has mobilized various actions:

- i. A nature-positive definition has been jointly established and options for nature-positive finance tracking are being evaluated. Currently, MDBs are jointly working on developing a preliminary nature-positive taxonomy and will be making progress on this ahead of the UN Biodiversity Conference (COP15).
- ii. The Blue Mediterranean Partnership has been launched during COP27, the Partnership will aim to replicate in the

Policies and Standards

CASE 15. First Insurance Industry Guide to Protect World Heritage (*United Nations Environment Programme Finance Initiative and World Wildlife Fund*)

The United Nations Environment Programme Finance Initiative (UNEP FI), World Wildlife Fund (WWF), and leading insurers, investors, and banks launched Protecting Our World Heritage, Insuring a Sustainable Future, the first guide for the insurance industry to protect the world's heritage. This guide is supported by leading insurers—which write about US\$170 billion in gross premiums and manage \$2.7 trillion in assets—as well as by insurance associations and key stakeholders around the world. The recommendations span

Mediterranean Sea the experience of the North Dimension Environmental Partnership (NDEP) in the Baltic Sea in reversing marine environmental degradation.

- iii. Methodologies are being developed to value nature to guide decision-making, and as a step towards the assessment of nature-related risks and their disclosures, in line with frameworks such as the TNFD.

Details: <https://www.ebrd.com/news/publications/policies/environmental-and-social-policy-esp.html>
<https://www.ebrd.com/news/2021/multilateral-development-banks-to-step-up-protection-of-nature.html>
<https://www.ebrd.com/news/2022/ebd-eib-and-ufm-with-eu-support-launch-blue-mediterranean-partnership.html>

CASE 17. Policy Recommendations on Promoting Conservation and Biodiversity Finance (*China Council for International Cooperation on Environment and Development*)

To prepare for the COP 15, China Council for International Cooperation on Environment and Development (CCICED) carried out an important study in 2021 on five topics: Advancing Nature-Positive Principles, Practices, Challenges, and Recommendations for China's Large-Scale Institutional Investors in Conservation Finance, the Innovation of Financial Instruments, the Impact of Agricultural Subsidy Policy on Financial Institutions, and Debt and Biodiversity. Based on these studies, this report makes the following policy recommendations to the State Council of China earlier of 2022: (i) Highlight the important position of ecological protection finance in green finance in terms of policy. (ii) Improve the existing performance evaluation system for Green Finance and focus on practical results. (iii) Improve the financial infrastructure for ecological protection. (iv) Highlight the ecological protection responsibilities of asset owners. For sovereign wealth funds, government industrial investment funds, and large state-owned

investment institutions, we will make it clear that in addition to assessing investment returns, ecological protection requirements will be added. (v) Encourage institutional investors to participate in international cooperation in segmented sectors.

Details: www.cciced.net

CASE 18. Biodiversity Core Indicator (*International Fund for Agricultural Development*)

International Fund for Agricultural Development (IFAD) recently launched a new biodiversity core indicator, 3.2.4—“Biodiversity improvements at ecosystem-level”—as part of its Biodiversity Strategy 2022-2025. It measures improvement via two sub-indicators: (i) area of intact biodiversity in hectares (biodiversity intactness); and (ii) average natural capital in US\$/ha (ecosystem service flows). The IFAD biodiversity core indicator will be incorporated into IFAD's existing core indicator framework and will become mandatory for new project designs using nature-based solutions finance starting in 2023.

Details: <https://www.ifad.org/en/web/knowledge/-/biodiversity-core-indicator-comprehensive-guidance>



CASE 19. Accommodating Biodiversity in Nordic Offshore Wind Projects (*Nordic Energy Research*)

The Norwegian Research Council conducted a policy study that recommends actions that public authorities and industry may take to accommodate biodiversity and engage stakeholders in further Nordic offshore wind farm development. The key policy recommendations include the following: Leverage existing frameworks for collaboration across Nordic and neighboring countries for data collection and cumulative impact assessments; initiate Nordic collaboration for marine spatial planning at sea basin-wide scales to ensure minimal conflict with environmental and other sea users' interests; and explore the potential for experience transfer on practices for stakeholder engagement in wind energy development across borders and industries in the Nordics.

Details: <https://www.norden.org/en/publication/accommodating-biodiversity-nordic-offshore-wind-projects>

CASE 20. An Exploratory Study on China's Blue Finance Taxonomy (*Greenovation Hub, Institute of Finance and Sustainability, Bank of Qingdao and Asian Development Bank*)

Greenovation Hub (Ghub), Institute of Finance and Sustainability (IFS), Bank of Qingdao (BQD) and Asian Development Bank (ADB) conducted joint research for the first time to introduce a guiding framework and a taxonomy to promote sustainable marine development in China. The study also reviewed the development of blue finance in China, the existing international blue finance practices, and makes preliminary recommendations for financing the development of sustainable marine industry in Shandong Province. Based on the research, a dialogue with local government departments, Chinese financial institutions and sea-related enterprises was carried out this October, promoting the policy discussion on the standards of blue finance.

Details: http://www.greenfinance.org.cn/upfile/file/2022112223306_514820_73486.pdf

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The Global Joint Initiative on the Partnership of Biodiversity and Finance (PBF) is calling for close collaboration between biodiversity conservation and financial organizations, particularly in addressing urgent needs on this front. The PBF is comprised of a mixed group of international and Chinese stakeholders from financial institutions, the private sector, academic institutions, international development agencies, and civil society organizations from both developed and developing countries from around the world, especially emerging markets. Currently, 58 multilateral organizations have joined PBF, such as the World Bank, Asian Infrastructure Investment Bank, European Bank for Reconstruction and Development, Asian Development Bank, Agence Française de Développement, Multilateral Cooperation Center for Development Finance, International Finance Corporation, Hua Xia Bank, Industry Bank, United Nations Environment Programme, United Nations Development Programme, United Nations Industrial Development Organization, International Fund for Agricultural Development, World Resources Institute, World Wildlife Fund, International Institute for Sustainable Development, Paulson Institute, Natural Resources Defense Council, Goldman Sachs, International Finance Forum, Institute for Global Environmental Strategies, Wildlife Conservation Society, Hong Kong Green Finance Association, and the Institute of Finance and Sustainability as well as a number of global enterprises such as Ernst & Young, KPMG, PricewaterhouseCoopers, Deloitte, Tencent, Ant Group, and TotalEnergies. PBF's interim secretariat is located in Beijing and supported by WRI China.