McGill International Portfolio Challenge

2025 Edition

Borealis Wealth Fund:

Finance as a Biodiversity Catalyst

Disclosure

The case for the 2025 edition of the McGill International Portfolio Challenge was written by the students of FINE 464/664 – Pension Funds and Retirement Systems (Winter 2025), under the direction of Professor Sebastien Betermier at McGill University's Desautels Faculty of Management. Authors of the case include Emma Gormley (lead), Christophe Aclimandos, Elisa Bonnet, Alina Budaghyan, Maya David, Parisa Dehghani, Pauline Jolicoeur, Katherine Lake, Marie Parent, Adrien Poulin, and Lucie Rosenthal.

Table of Contents

Case Framing

Preface

The 9th edition of the McGill International Portfolio Challenge focuses on Borealis Wealth Fund, a fictional sovereign wealth fund (SWF) in Finland.

Globally, biodiversity is in crisis. The WWF estimates that since 1970, average wildlife populations have declined by nearly 70%, and more than 1 million species face extinction.[1] Over $44 trillion of economic value—more than half of global GDP—is moderately or highly dependent on nature.[2] Yet, biodiversity risk remains largely unpriced and poorly integrated into institutional financing decisions. This ecological neglect poses material threats to not only the global environment but also to long-term social and economic activity.

While financial markets have made strides in quantifying carbon emissions, the tools to measure and respond to biodiversity loss are in early stages and lack industry consensus. Thus, as financial investors and their stakeholders look to understand the economic exposures their assets have to the natural environment, they need to develop asset screening, selection, and transformation frameworks that respond to biodiversity exposure. The Borealis Wealth Fund is one such effort: a sovereign platform tasked with leveraging Finland's forestry revenues to build a forward-looking biodiversity investment strategy that balances conservation, economic return, and global leadership.

Global Biodiversity as a Risk Factor

Biodiversity loss is not just an environmental concern; it is a systemic financial and economic risk. The degradation of global habitat and ecosystems undermines food security, supply chains, and public health. As a result of this urgency, in December 2022 Montreal hosted the 15th Conference of the Parties (COP15) to the Convention on Biological Diversity. The adopted Kunming-Montreal Global Biodiversity Framework (GBF) represented a major turning point in international biodiversity governance. Agreed upon by 196 countries, the GBF sets out four long-term goals and 23 targets aimed at halting and reversing biodiversity loss by 2030. The commitments include "30x30" (protecting at 30% of the world's land, costal, and ocean regions by 2030), restore 30% of degraded terrestrial and marine ecosystems, and halving global food waste.[3]

Given the scope and scale of the biodiversity crisis, progress since COP15 has been uneven. While the framework has spurred national strategies and high-level commitments, concrete investment pipelines and implementation mechanisms remain limited. The large biodiversity financing gap persists, with most countries struggling to mobilize capital at the scale required. For most financial institutions, biodiversity risk is still excluded from core valuation frameworks. As biodiversity goals begin to shape regulation, disclosure requirements, and capital allocation mandates, there is a narrowing window for investors to define their strategy. Those that move early will help shape the benchmarks, while others may find themselves forced to follow. In this context, Finland's decision to reorient the Borealis Wealth Fund toward

domestic biodiversity represents more than a policy shift; it is a chance to pilot an investable model for ecological resilience.

Ecological Risk in Finland

While Finland is often recognized as a global environmental leader, the country is facing a critical juncture. Over 75% of Finland's land area is covered in forests.[4] These areas were a long-time carbon sink; however, in 2021 Finland's forests became a net carbon source due to rising harvest levels and ongoing peatland degradation.[5] This reversal carries severe ecological and political implications. Forests play a central role in Finland's national identity, economic strategy, and climate commitments. Yet the same industry that drives nearly 4% of GDP and 18% of exports is also the primary driver of ecosystem fragmentation, loss of old-growth habitats, and biodiversity decline.[6]

This duality makes Finland uniquely vulnerable. Its dependence on intensive forestry intersects with increasing fragile ecosystems, increasing the risk of stranded assets under future regulations and diminishing public trust. Moreover, biodiversity losses undermine the forestry sector's long-term productivity by degrading soil health, disrupting pollinator populations, and thinning old-growth forests. As public scrutiny grows and global investors demand measurable ecological impact, Finland has an opportunity to lead.

To address these challenges at a national level, Finland would like to repurpose its SWF, Borealis Wealth Fund (BWF). The purpose of this case is to develop strategies for financial institutions to prioritize risk-return trade-offs in the context of ecological risk and develop transferable investment frameworks to value exposed assets. While BWF is fictional, real data from Finland and around the world is used to frame the discussion surrounding current environmental and economic conditions.

Borealis Wealth Fund: Finance as a Biodiversity Catalyst

Launched in 2021, BWF is Finland's flagship sovereign wealth vehicle aimed at bridging ecological goals with economic sustainability. Funded through forestry-corporate tax revenues, BWF was initially envisioned as a broad impact investment platform to align natural capital with Finland's economic development strategy. However, early investment efforts proved scattered, with a portfolio spread across green infrastructure, low-carbon technologies, and international ESG mandates—none of which directly address Finland's most pressing environmental risk: the accelerating collapse of domestic biodiversity.

In 2025, following new EU biodiversity regulations and mounting ecological evidence, the Finnish government announced a strategic pivot. The BWF will refocus its core mandate on biodiversity preservation alongside financial sustainability, with an emphasis on forest ecosystem restoration, peatland recovery, habitat protection, and species conservation. This decision was not only environmentally motivated but driven with a strong economic rationale. The transition from carbon sink to source has placed the entire forestry sector, and by

extension the national economy, at risk of stranded assets, regulatory sanctions, and diminished export credibility.

Unlike many sovereign funds, BWF is not capitalized with fossil wealth or fiscal surpluses. This creates a unique dual mandate: the Fund must safeguard Finland's ecological future while maintaining stable, long-term financial returns from the forestry-capital that sustains it.

Case Objectives

Finland's Ministry of Finance has hired your team to help redesign the BWF as a biodiversity-focused sovereign wealth platform. The Fund's new mandate is to align with national biodiversity targets, respond to regulatory risk, and safeguard long-term value. Your team has been asked to answer the following question:

How can Finland design a sovereign wealth fund investment strategy that channels forestry-linked revenues into biodiversity-enhancing assets while meeting long-term financial return expectations?

To support your proposal, the Ministry has provided the following project parameters:

- BWF is capitalized through a **5% allocation from gross forestry sector revenues** (~€1 billion/year collected through standard corporate taxes) and currently manages **€10 billion in assets** across equity and fixed income. Your team should propose an updated portfolio allocation strategy that balances liquidity, risk, and biodiversity-aligned opportunities.
- The strategy should balance short-term financial stability with long-term ecological impact, particularly considering emerging EU biodiversity regulations, carbon sink mandates, and potential stranded asset risks in forestry and land-use sectors.
- Your team should consider an investing framework and reporting metrics that allow the Fund to quantify both biodiversity impact and financial performance. These should be applicable across investment screening, selection, and transformation.

In the race to reverse biodiversity loss, SWFs can be a vehicle for change. With its forestry-based endowment and global credibility, Finland has the opportunity to lead—but the path forward requires innovation, trade-offs, and bold rethinking of how financial systems value nature.

About the Finnish Forestry Sector

The Importance of Finnish Forests

Finland is the most forested country in the world.[7] Covering over three quarters of the country's land area, Finland's forests are a core feature of its social, economic, and ecological identity. While many advanced economies have transitioned away from natural resource dependence, Finland has built its national development model around forestry—balancing economic use with strong preservation mandates.[8] This approach positions forests as a long-term national asset contributing to both legacy and future-ready economic growth. The sector is embedded in everything from energy infrastructure to export performance and is central to the country's engagement with sustainability and stewardship. As the Ministry of Agriculture and Forestry notes, "Forests have always had a significant role in the Finnish economy and for the Finns," a role that has endured through evolving global markets, shifting trade dynamics, and rising environmental expectations. This legacy positions forestry not as a relic of the past, but as a core feature of Finland's future.

Forestry as an Economic Driver

For most of the twentieth century, 75-90% of Finland's economic exports were driven by the forestry industry.[9] While the country and global markets have since diversified to demand new sectors and specialized services, forestry is still critical for the Finnish economy.

Today, forestry is nested within Finland's broader bioeconomy, a strategic sector that includes pulp and paper, bioenergy, green chemistry, and biomaterials. While forestry specifically contributed to 3.7% of national GDP in 2020—a remarkable figure for a single sector in a high-income, diversified economy—the broader bioeconomy accounted for ~16% of GDP.[10] This reflects not only the economic scale of these industries, but also the strategic ecosystem of innovation and industrial capacity built on the core competencies enabled by Finland's forests.

Beyond output, forestry is a major employer. The forest industry directly employs more than 40,000 people, and its supply chains extend into nearly every corner of the Finnish economy, supporting an additional 100,000 jobs — nearly 5% of the country's workforce.[11] These roles extend across upstream and downstream supply chains such as transportation, chemical manufacturing, construction, and tourism. In many rural and eastern regions, forest-based industries underpin entire local economies and municipal tax bases.

Innovation in Forestry Products and Byproducts

Finland's forests are not only a critical source of raw materials but also an increasingly important platform for innovation. For decades, Finland has cultivated a well-funded research ecosystem with deep ties between forestry firms, universities, and biotech startups. In 2023, fiber-based packaging accounted for 69% of the country's packaging exports, driven by both global plastics regulation and Finland's first-mover status in bio-based materials.[12] Government incentives and EU alignment have further catalyzed forest-based R&D, attracting

international firms looking for a stable, innovation-friendly environment. Finland's leadership in forestry innovation positions it as an example within the EU, where the bioeconomy is a key lever for sustainable industrial growth.

Today, two key tailwinds have increased its relevancy. First, demand for clean, renewable construction materials is rising sharply as organizations seek carbon-neutral infrastructure. Engineered wood products like cross-laminated timber (CLT) and laminated veneer lumber (LVL) are replacing steel and concrete in green buildings due to their carbon-storing capabilities. Second, wood-derived compounds are gaining scientific and commercial traction for their unique chemical and biological properties. Birch bark extractives, including betulin, are being studied for their antiviral, antibacterial, and anti-inflammatory uses in biopharmaceuticals. Together, these forces position the bioeconomy of Finland a critical sector today and a strong magnet of growth for the future. These innovations, partnered with a business-friendly environment, present attractive opportunities for domestic and global firms. With the right capital and mandate, Finland's national resources are available for novel product innovations beyond standard wood, paper, and pulp products.

Exports and International Trade Relations

Forestry remains one of Finland's most valuable trade levers. In 2024, the country generated €12 billion in forestry export revenue, with 60% of sales to Europe and 21% to Asia.[13] Looking to the future, global trends are work in Finland's favor. Urbanization, population growth, and evolving consumer preferences are driving greater demand for hygienic, fiber-based, and climate-aligned goods. Whether in packaging, housing, or health products, Finnish forest exports are riding a surge in demand for traceable, low-impact inputs.[14] Finland's strong environmental reputation enhances this demand: many multinational companies now require sustainable sourcing across their value chains, and Finnish producers are often better positioned to meet those standards than competitors.

However, this favorable position comes with pressure. As global demand rises, Finland faces the challenge of scaling production without exceeding ecological limits. The very ecosystems that give Finnish forest products their strategic advantage are also under strain from intensive harvesting cycles and biodiversity loss. Consequently, the country must find a way to meet elevated levels of demand without compromising the integrity of its harvest processes.

Biodiversity Challenges in Finland's Forests

Finland's forests are facing growing ecological strain. The combined pressures of intensive forestry, habitat fragmentation, and climate change are transforming forest ecosystems, threatening species, and reducing long-term forest resilience. Despite robust policy initiatives, Finland's biodiversity crisis will require investment, innovation, and reform.

Loss of Old Growth Forests

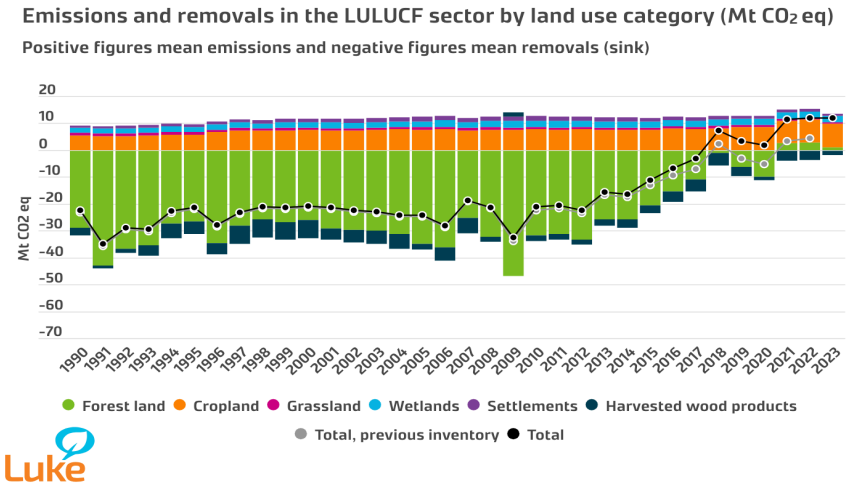
Old-growth forests in Finland are rapidly disappearing. Old growth ecosystems are defined by high deadwood density, irregular tree age structures, and rich microhabitats.[15] Generally, they are viewed as better for the environment due to their ecological diversity and long-term carbon sequestration. Moreover, they produce superior lumber products due to higher density, stability, and rot resistance, stemming from their slower growth rate and greater maturity. Yet, due to decades of commercial logging and even-aged silviculture practices (keeping trees in a certain region the same age), less than 5% of southern Finland's forests are classified as natural or near-natural.[16] Most remaining old-growth stands are fragmented and poorly connected, undermining their ability to support rare species.

Replanting efforts by forestry companies have maintained overall tree coverage; however, they often result in monoculture plantations of fast-growing species like Scots pine or Norway spruce. These replanted forests lack the vertical structure, understory vegetation, and species diversity of natural old-growth ecosystems.[17] As a result, they provide fewer microhabitats, lower resilience to pests and disease, and diminished capacity to support the full range of flora and fauna found in mature forests. Despite existing policy guardrails, the ongoing prioritization of timber yield continues to hinder efforts to restore structural complexity in working forests: an essential ingredient for long-term biodiversity and climate resilience.

Carbon Sink to Carbon Source

Finland's forests have been historically celebrated as a critical carbon sink, absorbing more carbon than they emit. However, for the first time in 2021, Finland's forests were a net carbon source (or emitter) (see Figure 1). This change is the consequence of a plurality of factors including intensive harvesting practices, increased soil emissions, aging forest stock, and climate stressors.[18] This reversal compromises Finland's legally binding 2035 net-zero emissions target, which depends heavily on the land use and forestry sector to offset residual emissions in activities such as transport and manufacturing. If forests no longer absorb more carbon than they emit, the carbon budget tightens considerably, requiring even deeper and faster emissions cuts across the economy.

Figure 1: Carbon Emissions (Removals) in the LULUCF Sector by Land Use Category (Mt CO_2 eq)



Source: Natural Resources Institute Finland (Luke), 2023

The Finish government has committed to reforestation and afforestation projects as an important component of Finland's climate strategy. However, the projects' carbon payback period is long. Newly planted trees take decades to absorb enough CO_2 to offset the emissions generated by harvesting or land use change. This makes them a limited tool for addressing short- to medium-term climate goals.

As such, the shift underscores the importance of protecting mature forests, which store larger carbon stocks and provide greater ecological stability. Maintaining these forests is increasingly essential not only for biodiversity, but also for the credibility and feasibility of Finland's national climate pathway.

Decline of Forest-Dependent Animal Species

Finland's biodiversity is declining fastest in its forest ecosystems. Nearly 30% of forest-dwelling species are now considered threatened or near-threatened, including iconic species such as the Siberian flying squirrel and the white-backed woodpecker.[19] Key drivers include habitat loss, reduced deadwood, monoculture plantations, and climate-related changes in food availability. While these forests are well-managed from an industrial perspective, they lack the ecological complexity and habitat continuity needed to support many native species. Crucially, the corporations tasked with restoration from their operations typically focus on timber production, not broader ecosystem health.

There are a few reasons why these species are important. The Finnish government has framed biodiversity as a public good; thus, its protection is an ethical obligation tied to intergenerational stewardship and national identity. Moreover, there is an indirect financial benefit due to improved financial resiliency in ecosystems with diverse animal and plant

species. This policy orientation opens the door for institutions like BWF, whose dual-purpose mandate enables it to pursue both economic return and ecological restoration. By integrating habitat protection, species monitoring, and structural forest diversity into its investment strategy, BWF can help fill the gap between market incentives and public interest—ensuring biodiversity is not treated as a byproduct of forestry, but as a co-equal outcome.

Finland's Biodiversity Commitments

Finland is globally recognized for its leadership in climate policy and emissions reduction. In 2019, it became the first country to legislate a 2035 net-zero target, embedded in the Climate Change Act of 2022, which introduced a binding carbon budgeting system and independent scientific oversight. However, biodiversity policy—though active—has not kept pace with the scale of ecological decline.

Three flagship initiatives have committed to closing this gap. The METSO program provides voluntary grants to private landowners to halt the decline in the biodiversity of forest habitats and species through (1) permanent protection, (2) temporary conservation, and (3) nature management programs. The program uses ecological evaluation criteria—such as deadwood density, rare species presence, and habitat fragmentation—to identify qualifying parcels. As of 2023, METSO has protected over 90,000 hectares, nearly meeting its 96,000-hectare target, and has shown strong uptake among landowners, particularly in southern Finland where conservation gaps are most acute.[20] The second initiative is the Helmi Habitat program, which aims to restore vulnerable habitats such as wetlands, peatlands, and grasslands. From 2020 to 2022, the Helmi program has protected 17,000 ha and restored 10,000 ha of habitats.[21] Most recently, in 2024 Finland launched the Priodiversity LIFE Project, a €50 million initiative co-funded by the EU's LIFE Programme, making it the largest biodiversity investment in Finland's history. It supports landscape-scale restoration efforts while piloting financial tools such as biodiversity credits and conservation leasing.[22]

While these programs are impactful, their fundamental challenge is their inability to scale. For example, while Priodiversity LIFE's €50 million is substantial, stakeholders caution that restoring Finland's full biodiversity loss will require an order-of-magnitude more capital to catalyze co-investment, develop risk-sharing tools, or pilot credit markets alongside government programs.[23] All three initiatives are capital constrained due to their grant-based financing. This reliance on public funding makes them vulnerable to shifting budget priorities. While it is unlikely that the Finnish government is going to divest from biodiversity investment in the foreseeable future, it would like to create a self-sustaining system that fosters co-operation with industry and community partners. Thus, BWF would enable proactive protection alongside industry partners. With funding directly tied to the performance of the forestry sector, BWF can invest in both the operations and restoration of harvesting activities. As a dual-purpose institution, BWF can blend financial and ecological mandates, investing in restoration projects that produce measurable outcomes alongside returns.

Sovereign Wealth Funds: Different Perspectives on Mandates

SWFs are state-owned investment vehicles that take use revenues from national industry to invest in the economic sustainability of a country's future. Historically, countries with strong wealth from any single industry direct tax revenues from the sector into investments that diversify state wealth. The world of SWFs is diverse depending on their mandate and funding, resulting in several different strategies and outcomes.

Norway: Government Pension Fund Global (GPF-G)

Year established: 1990 AUM: €1,660B Origin: Oil and Gas

The GPF-G is the world's largest SWF, with investments in equities, fixed income and real estate. The mandate of the fund is to "ensure a long-term management of revenue from Norway's oil and gas resources, so that this wealth benefits both current and future generations".[24] Given the relatively small size of Norway's economy relative to the size of GPF-G's assets, the fund is legally prohibited from domestic investing due to risks of price distortion, crowding out private investment, and state influence in company operations.

Qatar: Qatar Investment Authority (QIA)

Year established: 2005 AUM: €456B Origin: Oil and Gas

The QIA was established to diversify Qatar's economy by investing surplus state income into a globally diversified portfolio. Its mandate focuses on growing the country's wealth for future generations while contributing to economic diversification through strategic investments. Unlike GPF-G, QIA actively supports national development through investments in sectors such as logistics, real estate, and industry, aligning with Qatar's National Vision 2030. Internationally, the fund allocates capital in developed and emerging markets, aiming to generate sustainable returns while strategically positioning Qatar in key global industries.

Singapore: Government of Singapore Investment Corporation (GIC)

Year established: 1981 AUM: €680B Origin: Foreign Reserves

GIC manages Singapore's foreign reserves, which are accumulated through persistent current account surpluses and transferred from the Monetary Authority of Singapore and the Ministry of Finance. Its mandate is to preserve the international purchasing power of reserves in the long term. The fund invests in a global portfolio of direct and indirect assets. Over 80% of GIC's assets are invested internationally, particularly in the U.S. and Asia-Pacific, while <20% are domestic to minimize overexposure.

New Zealand: New Zealand Superannuation Fund (NZSF)

Year established: 2003 AUM: €39B Origin: General Tax Revenues

NZSF is funded directly by general taxation revenues, with the aim of pre-funding public pensions as the population ages. Its mandate is to grow these contributions through long-term, responsible investment strategies. Approximately 20% of the fund is held domestically, including strategic stakes in local infrastructure and sustainable industries like forestry.

Biodiversity in Action: Global Initiatives

As biodiversity loss intensifies globally, institutional investors are beginning to address the financial and ecological risks tied to nature degradation. Several investment strategies aim to integrate biodiversity into selection and valuation processes. This section explores various funds, varying in size, structure, and geography, that are pursuing both biodiversity management and restoration strategies within their investment mandate. Each offers insight into different mechanisms for preserving natural capital while maintaining financial mandates.

Screening for Biodiversity in Public Equity Portfolios (ASN Biodiversity Fund)

The ASN Biodiversity Fund demonstrates how biodiversity management through public equity screening can generate both ecological and financial value by directing capital toward companies with measurable biodiversity improvements and excluding those with net-negative impacts. The ASN Biodiversity Fund, with €26 million in AUM, is a retail-focused European investment fund that targets biodiversity outcomes through listed and private equities. The fund's public holdings screen for measurable biodiversity improvement, using the Biodiversity Footprint for Financial Institutions (BFFI) framework.[25] The fund uses sensors, remote cameras, or satellite imagery, to quantify ecological outcomes in their valuation strategy. Metrics include hectares restored per euro invested, species diversity improvements, and the rate of habitat recovery. This approach ensures that capital markets price ecological stewardship as a source of competitive advantage rather than an externality. Holdings include West-Fraser Timber (TSE: WFG), a Canadian forestry company advancing sustainable wood sourcing. The company's product portfolio, including lumber, plywood, and other engineered wood products, is certified through voluntary programs like the Sustainable Forestry Initiative (SFI) Standard, making it eligible for use in environmentally focused construction projects (e.g., LEED certification) where sustainable sourcing drives procurement value. By directing investment toward such firms, ASN uses public equity markets to incentivize biodiversity-positive practices while demonstrating that ecological performance and financial returns can be mutually reinforcing.

Smart Forestry Management to Manage Operational and Nature Risk (New Zealand Super Fund)

The New Zealand Super Fund illustrates how active forest management practices can pursue afforestation efforts in parallel with commercial operations to reduce the risk of natural assets and create long-term value. The New Zealand Super Fund allocates a share of its NZ$76 billion in AUM to infrastructure investments in domestic forestry.[26] While these investments are not internally classified as impact investments, the fund recognizes that there is a relation between ecological resiliency and commercial value. Thus, pursuing sustainable forestry management processes, such as prioritizing diverse and native plant species, protecting water sheds from erosion, and monitoring soil health, allows forest owners to continue commercial operations with a longer investment horizon.

The Kaingaroa Timberlands (KT) partnership is a practical example. Owned ~42% by the New Zealand Super Fund in collaboration with Canadian pension investors and Māori landowners, KT is NZ Super's largest single investment.[27] The consortium of investors manages a 189,000-hectare plantation estate on long-term leased indigenous land. KT is considered one of the world's foremost softwood plantations, producing up to 4 million metres cubed of high-quality logs annually.[28] Its operations follow Forest Stewardship Council standards and, since 2022, have been guided by Restorative Development Goals (RDG) that target biodiversity restoration, water quality protection, cultural heritage preservation, and sustainable land use. Initiatives include expanding conservation zones, launching a wetlands restoration plan, trialing biochar applications, and increasing stream buffer zones to improve habitat health. This strategy demonstrates how the forestry sector can continue to supply critical resources to the globe, while still protecting against the natural consequences of operations and biodiversity degradation.

Carbon Offsets with Biodiversity Regulations (Clean Energy Finance Corporation)

CEFC shows how carbon markets can be set up to motivate firms to pursue of carbon sequestration and monetize biodiversity restoration actions. Typically, carbon credit systems are based on supply and demand dynamics. A government sets a national cap on emissions and credits are issued up to this cap and traded on a secondary market. Credits can be further awarded to organizations that sequester carbon from operations such as afforestation. Australia's Clean Energy Finance Corporation (CEFC), a public infrastructure bank, launched a program that uses carbon credits as incentives for biodiversity-positive reforestation. In 2025, the CEFC invested AU$200 million with Rabobank Australia (a leading agricultural lender) to give concessional financing to farmers for carbon farming projects.[29] Unlike traditional carbon credit models, CEFC only funds projects that meet ecological restoration standards, avoiding monocultures and requiring native species.

Concessional financing offers below-market interest rates or advantaged loan terms tied to conditions that, in this context, require the implementation of biodiversity-positive activities. Through this program, CEFC can reduce borrowing costs for farmers and thus encourage carbon farming. While the program's financial returns are smaller than the returns of market based lending, it demonstrates how policy design can align biodiversity and carbon markets. It also highlights the role of public finance in crowding in private investment through biodiversity-compliant frameworks.

Generating a Revenue Share for Biodiversity Initiatives (NatureVest's Africa Conservation and Communities Tourism Fund)

NatureVest's Africa Conservation and Communities Tourism Fund (ACCT) fund demonstrates how industries that interact with natural environments can raise funds to restore biodiversity while generating stable local economic returns. ACCT is a US$70 million blended finance vehicle backed by NatureVest and ThirdWay Partners.[30] The fund provides flexible loans to responsible tourism operators across sub-Saharan Africa, enabling them to create jobs, fund protected areas, and deliver measurable conservation outcomes.

One of ACCT's investments is Wildplaces Africa, a Ugandan eco-tourism operator managing concessions in Murchison Falls National Park and Kyambura Game Reserve. Wildplaces has developed high-end camps that contribute lease and park fees directly to conservation authorities. Once steady state occupancy is reached, ACCT projects over $500,000 per annum for these conservation efforts, with 80% of that funding park management and 20% supporting local development. In 2024, Wildplaces earned $67,000 in fees and employed 100 local staff.

Importantly, these investments are designed to be self-reinforcing: tourist revenues generate conservation finance, while thriving ecosystems attract more visitors. A dedicated $25 per guest per day conservation levy further supports community and biodiversity initiatives. By using private capital to scale conservation-focused tourism in ecologically important areas, the ACCT model demonstrates that biodiversity protection can be financially sustainable and locally beneficial.

Diversified Assets in Environmentally Aligned Activities (AXA Impact Fund)

While previous funds have generally pursued one biodiversity strategy, other institutions have been able to pursue both management and restoration strategies while creating capital value at scale. AXA capital is a private equity manager with almost US$2.5 billion AUM invested in impact and natural capital assets.[31] They have invested in carbon capture plants, reforestation in the Amazon, and peatlands and mangrove restoration in Indonesia. Each year the firm selects 6-10 projects, screening for climate and biodiversity gains.

These projects have direct and indirect financial returns. For example, mangrove restoration can be monetized through carbon credits and coastal resilience services. Their carbon sequestration qualifies restored areas for carbon credits that can be sold in voluntary or compliance markets. Mangrove projects can be packaged with insurance products or resilience bonds, offering protection against coastal flooding and storm surges. These products have growing demand by organizations and states seeking to hedge climate risk.

In 2023, AXA invested €9 million in Meva Energy, a provider of gasification services using local generated biogenic waste streams, "such as shavings from furniture production, sawmill residues, or agricultural waste."[32] While AXA uses its private capital for direct biodiversity initiatives, its private ownership model also allows it to invest in high growth companies that need a platform for scale.

Summary

Together, these case studies reflect the diversity of approaches investors are experimenting with to integrate biodiversity into investment approaches. Institutional investors such as BWF do not need to select a single specialized strategy; rather, they can be agile to find the best approach on an asset-to-asset basis. BWF must invest with agility given regional specificity, dual-purpose mandate, and blended investment strategy position it to respond to Finland's unique ecological and governance challenges.

Launch of the Borealis Wealth Fund

Given the dynamics discussed, your team will create a proposal with a top-down approach to construct BWF's new portfolio, considering the relevant financial and biodiversity targets that you set. While the architecture of the fund has existed since 2021, in the last four years it has not accomplished consistent biodiversity or financial targets. Moreover, since its operation, the carbon sequestration abilities of Finnish forests have only decreased because of declining biodiversity. Thus, the Finnish government has announced a strategic pivot with the following dual mandate:

The Borealis Wealth Fund is a long-term investment vehicle that promotes the ecological resiliency of Finland's natural forestry assets, supporting the national net-zero target by 2035, while delivering stable financial returns for its national industries.

This pivot is motivated by Finland's binding 2035 net-zero emissions target as well as its commitment to the COP15 30x30 target. By aligning financial flows with ecological priorities, Finland aims to (1) accelerate domestic forest and peatland restoration and (2) promote innovation in global biodiversity technologies.

As the financing for BWF is directly tied to the performance of Finland's forestry sector, it is important that projects consider the economic sustainability of its investments. Moreover, this is an apolitical institution, meaning that it does not have authority over any new regulations that govern corporations, rather its assets should generate positive biodiversity outcomes organically and independently.

Portfolio Requirements

The following guidelines have been developed by Finland's Ministry of Finance to govern the portfolio construction of BWF:

- **Capital Source:** BWF will be funded by 5% of Finland's annual gross forestry revenue (~€1 billion per year in 2025).
- **Current AUM:** BWF will continue to manage its €10 billion in assets. It will be responsible for transitioning existing assets to align with the new dual-mandate.
- **Diversification:** BWF should pursue a portfolio that is reasonably diversified from idiosyncratic risk. While it is likely (and acceptable) that the portfolio will bias towards Finnish investments, your team's proposal should also consider global markets and many asset classes when constructing a portfolio.

Portfolio Construction of the Legacy Portfolio

While BWF has established a diverse legacy portfolio, with some assets more liquid than others, your team should consider an allocation strategy that aligns with the new biodiversity

mandate. This may involve selling off current assets or restructuring their operational management.

- **Fund Launch**: September 2021 as a broad green finance program.
- **Performance**: Delivered an average return of 6.5% per annum since founding.
- **Portfolio Construction:**

Asset Class	Allocation	Notes
Equities: Public Stocks Filtered for ESG	€4M	Global equities screened for environmental criteria (but not biodiversity-specific).
Fixed Income: Green Bonds	€1.5M	Bonds labeled green; includes forestry-backed and climate mitigation debt.
Real Assets: Green Infrastructure	€2M	Includes renewables (wind, solar), grid modernization, low-carbon transit.
Real Assets: Forestry and Land Holdings	€1.5M	Direct investments in Finnish and international timberland; limited biodiversity screening.
Cash	€1M	Held for liquidity management.

  - **Geographic Exposure:** 55% Finland, 30% European Union, 10% North America, 5% global emerging markets.

Risk-Return Targets

- BWF will seek to maximize long-term, risk-adjusted returns without undue risk of capital loss. The fund will accept measured volatility where it aligns with high-probability, long-term gains, balancing stable income assets with higher-growth biodiversity investments. This approach preserves capital, supports steady returns, and aligns financial performance with Finland's ecological objectives.

Key Trade-Offs

Given the complexity of this case, your proposal must balance critical trade-offs.

How should BWF contribute to ambitious carbon net-zero goals with upcoming deadlines, while considering the biodiversity of its natural assets?

As discussed, Finland has an ambitious goal of being net zero by 2035, which was made a statutory requirement in 2022 through the Climate Change Act (Ilmastolaki, 423/2022). While this is a national goal, BWF will be effectively required to manage a net zero portfolio in this ten-year timeline. Generally, exotic (non-native) tree species are more popular for carbon sequestration projects due to their faster biomass accumulation, capturing more carbon in their roots, stems, and branches as they grow faster than native species. However, these species planted at scale do not support diverse habitats, require more intensive pest control, and risk stressing water and soil control. Resources such as En-ROADS' Climate Solutions Simulator forecasts various climate outcomes based on land use, emissions, and carbon prices that may be helpful in balancing these trade-offs.[33] As BWF evaluates the management strategies of its natural assets, your team must decide how it will meet net zero targets while fostering natural resiliency.

Should BWF compromise logging yields despite its critical role in the Finland economy?

Productivity for the logging industry is typically measured as the annual volume of roundwood removal, which includes logs and fiber wood.[34] Historically, Finland's forestry sector has engaged in intensive practices such as clear-cutting results and short-rotation monoculture plantations to increase high timber yields. These strategies have helped grow the forestry sector to ~3.7% of Finland's GDP and accounts for ~18% of exports.[35]

However, these practices are destructive to natural habitats and forests, resulting in future logging relying on new-growth trees. As discussed, old-growth trees are essential to a habitat's biodiversity due to their structural complexity, superior carbon sequestration, and lower cost maintenance.[36] Conversely, new-growth trees have lower density and are more prone to rotting and warping, making them suboptimal materials for construction.[37] More sustainable practices such as selective logging, continuous cover forestry, and extended rotation cycles may reduce annual output by 15–30% in the short term.[38] However, these allow for long-term regeneration of old growth timber.

Should BWF pursue a concentrated domestic forestry position to effect positive biodiversity change at risk of overexposing the fund to systematic risk?

In periods of economic uncertainty or commodity volatility, forestry has historically provided relatively stable, inflation-hedged returns, making it a natural anchor for sovereign capital. However, pursuing a portfolio allocation strategy that is strongly concentrated in a singular domestic sector exposes BWF to long-term systematic risk. At the same time, biodiversity loss

in Finland's forests has loss their carbon sequestration ability, becoming a net carbon emitter in 2021 and directly compromising domestic net zero goals.[39]

Leading SWFs, such as Norway's Government Pension Fund Global, explicitly pursue sectoral diversification to insulate national finances from domestic macro shocks. However, underexposure to the sector limits BWF's ability to fulfill its mandate of improving the biodiversity conditions of its domestic forestry sector.

To reduce concentration risk, your team should consider balancing BWF's exposures across:

- Geography - There are sustainable forestry concerns in a diversity of biomes and regions. BWF can chose to focus on domestic expertise in Borealis forests or international deforestation fronts through projects in tropical rainforests, temperate zones, or emerging markets such as Brazil, Indonesia, and Gabon, where biodiversity gains per dollar invested may be significantly higher and overall logging volumes can meet increasing global demand.[40] Furthermore, by investing in other markets with global LPs, there is increased knowledge sharing potential to discover global best practices and develop a deep co-investor network.
- Sector – While biodiversity in forestry is the primary mandate of BWF, the fund can also explore allocations across nature-positive adjacent sectors such as recycled materials, biodiversity tracking technology, or distributed renewable energy.
- Instrument – Following traditional allocation strategies, BWF can pursue active or passive ownership of public or private forestry assets, while also maintaining a credit program. Tools such as biodiversity-linked bonds are an opportunity to finance new innovations with lower climate-correlated downside risk. The level to which BWF uses screening and exclusion as a strategy will influence the timeline that it can achieve its net portfolio results, while challenging the fund's ability to measure its additionality.

Should BWF accept short-term forestry cashflows despite long-term regulatory risk under future EU biodiversity laws?

There is long-term uncertainty towards domestic and international regulations towards biodiversity concerns. Presently, the loss of forests as a carbon sink increases the risk that forestry-linked assets will be penalized under evolving EU regulatory frameworks, including the EU Biodiversity Strategy for 2030 and Nature Restoration Law, which aim to expand protected areas and restrict harmful land use.[41]

In the near term, forestry is expected to continue to deliver steady and predictable returns; however, heavy reliance on these assets increases exposure to future devaluation or reclassification under EU-aligned taxonomies. Similar to the coal phase-out provisions under the 2017 Coal Regions in Transition Initiative (CRiT), forestry assets may one day be deemed non-aligned, limiting access to ESG capital and triggering forced divestment or write-downs.[42]

At the same time, new biodiversity disclosure frameworks and corporate due diligence laws could involuntarily or voluntarily reprice supply chains that depend on intensive forestry, increasing stranded asset risk. Your team should consider the total portfolio duration, assessing whether BWF should de-risk through early portfolio rebalancing, or accept short-term yield while managing downside through scenario planning for the long run.

Should BWF scale ecologically critical projects with less defined financial return strategies, or rely on market-based tools like carbon offsets?

Peatland restoration, species protection, and other ecologically critical interventions offer direct ecological value but lack direct cash flows and established target buyers. However, these projects can align BWF with Finland's national climate targets and global regulations, particularly in areas where public funding could provide partial financial support.

Conversely, traditional financial instruments with a green lens, such as carbon offsets and green indexes, are fungible instruments with clearer valuation approaches. However, they face increasing scrutiny over integrity, impact, and additionality. Investigations into major offset certifiers or green indexes have found that many credits may not represent additive environmental value, creating both reputational and financial risk.[43]

Should BWF commit to either extreme or should it adopt a blended approach, scaling domestic flagship restoration programs while maintaining global exposure to established offsets?

How can BWF maintain Finland's international trade partners while pursuing conservation efforts that limit overall output?

Finland's forestry exports, including both lumber and its byproducts, were equal to 12.0 billion euros in 2024. Its most prominent trade relationships include Germany (11%), China (10%), and the US (9%).[44] As BWF scales conservation initiatives that restrict yields, these output constraints may strain trade relationships built on reliable supply volumes.

Trade partners may interpret lower output as unreliability or protectionism, especially if domestic restrictions are not paired with efforts to maintain downstream supply. As wood by-products are critical inputs for foreign industries, decreasing total volumes might result in trading partners shifting relationships outright to more reliable regions, harming Finland's ability to finance future biodiversity progress. At the same time, many EU partners are implementing stricter import standards, including the EU Deforestation-Free Regulation, which demand verifiable environmental compliance across all levels of the value chain.[45]

Thus, BWF is exposed to political risk as it must balance managing volume decreases without undermining trade trust. Potential innovations can include shifting from volume to value-added trade or bilateral green trade agreements that link conservation targets with market access.

Ultimately, your team must weigh the benefits of ecological leadership against the geopolitical and economic risks of supply reductions in a globally interconnected sector.

Report Guidelines

For their proposals, participants should submit a 1-page executive summary and a detailed report. The report should not exceed 7 pages (excluding the executive summary, references, and appendices). Participants are free to format the report as they wish (i.e. no required font, margin, spacing, etc.…) The report will be evaluated based on its content, clarity, presentation, and conciseness.

The submission should not contain any indication of the participants' university to avoid any bias from the judges. Instead, participants should create an alternative team name for their investment consultancy firm working with Borealis Wealth Fund. The alternative name should also bear no link to the team's university name nor location to ensure fairness amongst participants of the competition.

Participants are expected to produce a comprehensive proposal for Borealis Wealth Fund that outlines BWF's overall fund strategy and implementation directions in the context of its biodiversity mandate. The case is designed to be open-ended. Participants should feel free to make assumptions wherever needed and use any data they see fit. All facts presented in the case merely act as guiding points, so participants are free to incorporate only the sections that they need.

We strongly recommend that participants look at the 1) YouTube videos of finalist presentations, and 2) the post-mortem documents from previous MIPC editions on Eventus. These documents will give participants many clues as to what judges look for in winning proposals.

Sources

[1] https://www.worldwildlife.org/press-releases/69-average-decline-in-wildlife-populations-since-1970-says-new-wwf-report

[2] https://www.weforum.org/press/2020/01/half-of-world-s-gdp-moderately-or-highly-dependent-on-nature-says-new-report/

[3] https://www.unep.org/news-and-stories/story/cop15-ends-landmark-biodiversity-agreement

[4] https://metsateollisuus.fi/en/uutishuone/facts-about-finnish-forests/

[5] https://www.icos-cp.eu/news-and-events/news/finlands-forests-have-become-source-carbon

[6] (1) https://toolbox.finland.fi/wp-content/uploads/sites/2/2023/06/suomi-finland-narrative-packages-finnish-forests.pdf (2) https://mmm.fi/en/forests/forestry/sustainable-forest-management/forests-and-the-economy

[7] https://doi.org/10.1016/j.foreco.2021.119151

[8] https://metsateollisuus.fi/en/uutishuone/facts-about-finnish-forests

[9] https://toolbox.finland.fi/wp-content/uploads/sites/2/2023/06/suomi-finland-narrative-packages-finnish-forests.pdf

[10] (1) https://toolbox.finland.fi/wp-content/uploads/sites/2/2023/06/suomi-finland-narrative-packages-finnish-forests.pdf; (2) https://www.mdpi.com/2071-1050/8/10/1017

[11] https://metsateollisuus.fi/en/uutishuone/the-forest-industry-plays-a-strong-role-in-the-national-economy-of-finland/

[12] https://www.businessfinland.com/press-release/2023/moving-towards-fossil-free-plastics--finland-offers-unique-bio-based-innovations-to-replace-traditional-plastic-packaging/

[13]https://www.lesprom.com/en/news/Germany_and_China_take_21_of_Finland%E2%80%99s_Euro_12_billion_forest_exports_in_2024_118234/

[14] https://www.luke.fi/en/news/signs-of-recovery-seen-in-forest-industry-exports-in-2024

[15] https://www.sciencedirect.com/science/article/pii/S1470160X21004787

[16] https://academic.oup.com/forestry/article/97/3/339/7344706

[17] https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.13004

[18] https://www.nature.com/articles/s41598-023-42315-7

[19] https://www.rcinet.ca/eye-on-the-arctic/2019/03/11/finland-endangered-species-list-report-assessment-syke-wildlife/

[20] https://metsonpolku.fi/en/metso-programme

[21] https://ym.fi/en/helmi-habitats-programme

[22] https://www.metsa.fi/en/project/priodiversity-eng/

[23] https://www.cpicfinance.com/wp-content/uploads/2021/12/financing-nature-full-report.pdf

[24] https://www.nbim.no/

[25] https://www.asnbank.nl/over-asn-bank/biodiversiteit/wat-wij-doen-op-het-gebied-van-biodiversiteit.html

[26] https://nzsuperfund.nz/assets/Publications/Annual-Reports/2024-NZ-Super-Fund-Annual-Report.pdf

[27] https://nzsuperfund.nz/how-we-invest/investing-in-nz/case-studies/

[28] https://www.kaingaroatimberlands.co.nz/kaingaroa_forest

[29] https://cdhowe.org/publication/breaking-the-catch-22-how-infrastructure-banks-can-kickstart-private-investment-and-overcome-market-failures/

[30] https://www.nature.org/content/dam/tnc/nature/en/documents/2024_NatureVest_Impact_Report.pdf

[31] https://alts.axa-im.com/responsible-investing/impact-investing

[32] (1) https://alts.axa-im.com/responsible-investing/impact-investing (2) https://mevaenergy.com/home/about-us/

[33] https://en-roads.climateinteractive.org/scenario.html?v=25.8.0

[34] mmm.fi/en/forests/use-of-wood/forest-industry

[35] (1) https://toolbox.finland.fi/wp-content/uploads/sites/2/2023/06/suomi-finland-narrative-packages-finnish-forests.pdf; (2) https://mmm.fi/en/forests/forestry/sustainable-forest-management/forests-and-the-economy

[36] (1) www.wwf.eu/?16616441/WWF-sounds-alarm-on-Finland-and-Swedens-failure-to-protect-Europes-last-old-growth-forests; (2) www.nature.com/articles/nature07276

[37] www.woodbusiness.ca/climate-change-is-making-trees-bigger-but-also-weaker-researchers/

[38] forest.fi/article/clearcutting-produces-more-timber-straightforward-comparison-of-the-profitability-of-forestry-methods-is-not-possible/

[39] www.icos-cp.eu/news-and-events/news/finlands-forests-have-become-source-carbon

[40] wwf.panda.org/discover/our_focus/forests_practice/deforestation_fronts_/

[41] (1) environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en; (2) environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-regulation_en

[42] energy.ec.europa.eu/topics/clean-energy-transition/eu-coal-regions-transition_en

[43] www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe

[44] www.luke.fi/en/news/signs-of-recovery-seen-in-forest-industry-exports-in-2024

[45] environment.ec.europa.eu/topics/forests/deforestation/regulation-deforestation-free-products_en