



GLOBAL ENVIRONMENT FACILITY  
INVESTING IN OUR PLANET

# INTRODUCTION TO GREEN FINANCE

An estimated \$400-600 billion per annum is needed to finance conservation of land, forests and water, and more than \$350 billion of incremental capital – to fund projects in renewable energy and energy efficiency. Today, less than 15% of required capital flows to conservation, the bulk of it coming from public and philanthropic entities. The latest accounting of climate finance shows there is a financial gap of about \$70 billion. It is thus important to understand the ways we can leverage additional resources to preserve healthy ecosystems on land and in the oceans.

This brochure aims to provide a short explanation of green finance to readers outside of the finance space. There is an abundance of literature on green finance, the role and importance of public and private sectors, and a variety of instruments deployed. However, much of this information is aimed at experts. As a result, there is a growing need for simpler material to help a broader audience — and even environmental professionals — to understand and navigate this space.

The brochure also shows how the Global Environment Facility (GEF), with its limited resources, can leverage private sector investments through grants and non-grant instruments. The public sector plays a critical role in climate finance. It provides grants for policy reforms and serves as a catalyst to leverage private finance at scale. The private sector is also crucial since it is a potentially large source of funds for environmental projects. The GEF, being the largest public funder of projects to improve the global environment, has involved the private sector in its activities for well over two decades.

## INTRODUCTION TO GREEN FINANCE INSTRUMENTS

The predominant financial instruments in green finance are debt and equity. Financial instruments have several features, such as level of seniority (junior equity versus preferred stock), the channel through which the flow of finance is arranged and the intermediary actors (types of investors and investment vehicles), terms of the agreement and origin of funds among others. This brochure focuses on those related to debt and equity, as well as risk management product - a guarantee

Equity financing, often used in the early stages of developing a project or company, is the method of investing capital in a company stock in return for an ownership interest. Equity, also called stock or shares, can be split into preferred stock and common stock. There are two major distinctions between the types of shares. If a company must liquidate and pay all creditors and bondholders, preferred shareholders are paid first. If any money is left, common stockholders will receive their payments. Second, the dividends of preferred stocks are different from and generally greater than those of common stock.

For more information on debt and equity instruments, their main features and use in climate financing, see  
*UNEP (2014) Demystifying Private Climate Finance.*

In green finance, we often see investments in “junior equity”, which normally refers to the common stock in a company. In the event of liquidation, the company would pay out preferred stockholders before holders of junior equity. On the other hand, holders of company bonds are paid before holders of preferred stock. The GEF invests money in junior equity to absorb some of the risk for other (private) equity investors. Essentially, when they see investments in junior equity, other equity investors are attracted to purchase preferred stock. This ensures they have first claim on distribution of profit and reduces their risk.

Debt financing is typically used at later stages of development and often in combination with equity. In debt financing, investors lend money to borrowers, who pay back this amount (the principal) with interest under

strict conditions. If a company liquidates its assets, debt has higher priority than, or is “senior” to, equity. In other words, a company must meet its obligations to creditors (those who lent the money) before it pays those who borrowed money to invest in equity. As a result, more senior debt has a greater level of security, which allows for a lower interest payment than more junior security (also known as subordinated debt).

**Debt financing can come from a lender’s loan or from selling bonds to the public.** While a loan is a transfer of money from a bank to a company/individual, a bond is a transfer of money from the public/market to a company that issues a bond. Unlike loans provided through bank debt, bonds traded on public debt markets tend to involve larger amounts of capital (typically US\$100 million and above) and are open to the general public for investments. Bonds in the green finance field have been targeted more at qualified investors. However, certain types of notes (e.g. promissory or structured notes) have also been made accessible and affordable to retail investors because they require less upfront investment.

**How much debt, and how much equity is right for a project or a company, varies by industry.** Fast-growth fields with potential for high returns, such as software and biotech, attract equity investors more easily. Those companies also often have intangible assets and uncertain cash flow. This makes it difficult to forecast debt repayment schedules and conditions. As a result, they are often unable to borrow at workable rates. Debt investments typically involve less risk than equity investments. Consequently, they also typically offer a lower potential return on investment.

**Debt and equity funds are investment vehicles of choice in environmentally related finance.** This is because they enable project and cash flow to aggregate into one common investment vehicle. This vehicle combines several projects that may have a different focus, such as land use, forestry and agriculture. Whatever their focus, they have the same level of maturity (either early stage development, proven concept or mature). However, they use distinct scaling and risk mitigation strategies. Finally, funds typically allow for risk diversification among projects/investments. Mainstream investors are usually more familiar with their structure, and thus more comfortable investing in them.

For more information on typical green finance vehicles, see  
UNEP (2014) *Demystifying Private Climate Finance*

Credit Suisse Group AG and McKinsey Center for Business and Environment (2016) *Conservation Finance. From Niche to Mainstream: The Building of an Institutional Asset Class*.

**Investors often manage risk using loan/credit guarantees from public finance institutions that protect them against defaults on their loans.** This instrument transfers part or all of the risk from the lender onto the public institution (loan guarantor). In this way, the lender can charge a private investor a lower interest rate on the loan, thereby lowering its cost of capital and increasing its profitability. **Similar to guarantees, other risk management tools are used to leverage debt or equity investments.** Public institutions can insure private investors against risks arising from policy uncertainty. Foreign exchange liquidity facilities can help reduce the risks associated with borrowing money in a different currency. They do this by creating a line of credit, which the project can draw upon when it needs money. It repays the credit when the project has a financial surplus due to currency fluctuations.

For more information on public tools to leverage debt and equity investments, see Overseas Development Institute (2011) *Background Note: Leveraging Private Investment: the Role of Public Sector Climate Finance*.

# LEVERAGING PRIVATE FINANCE

The growth of green finance markets represents an emerging opportunity for both the private sector investment and project developers. Filling this gap to finance the preservation of the world's precious ecosystems will require billions of dollars in additional capital, and private investment capital may be the main source of such funds. This highlights the need for intelligent development finance that goes well beyond filling financial gaps and that can be used strategically to leverage private resources. The private sector is seeking new opportunities to invest capital in ways that could possibly generate market-rate financial returns and an environmental impact. Already, pioneering investors have put together financial solutions that combine real assets, like tropical forests, with cash flows from operations in fields such as sustainable timber, agriculture and ecotourism. Scarce public funding can play a significant role in helping to unlock private sector investments required to fill the existing funding gaps.

Attracting investments in conservation is challenging because potential investors perceive high financial risks and low returns. Credit enhancements – whereby a company attempts to improve its debt or credit worthiness – can encourage the flow of capital to bankable projects by reducing risk or increasing returns. Impact investors – those interested in environmental and social impact – are using a broad range of tools for credit enhancements, some of which is catalytic first-loss capital. As the name implies, this instrument absorbs some of the risk (as in the case of junior equity or subordinated debt). Less risk encourages other investors to join, thus catalyzing additional resources for conservation. The term catalytic first-loss capital sounds perhaps like a selfless act of philanthropy. In fact, such credit enhancements hold great potential to leverage far greater volumes of capital than public or philanthropy resources alone. In so doing, they lay the groundwork for sustainable investment flows into new markets. And they help improve the terms at which project developers can access capital.

Grants, equity, guarantees and subordinated debt are commonly used as catalytic first-loss capital to leverage private finance. This can be done in the following ways:

- Equity: By taking the most junior equity position in the overall capital structure, the provider (public sector) takes first losses, although it sometimes also seeks risk-adjusted returns; this includes common equity in structures that incorporate preferred equity classes.
- Grants: A grant provided to cover a set amount of first loss.
- Guarantee: A guarantee to cover a set amount of first-loss capital. The objective is similar to the grant, but the guarantee has a cost.
- Subordinated debt: The most junior debt position in a company with various levels of debt seniority (with no equity in the structure).

Providers of catalytic capital are typically foundations, high net-worth individuals, government and development finance institutions (DFIs). However, any investor with the appropriate motivation and risk appetite can play this role.

For more information on first-loss capital, see *Global Impact Investing Network (2013) Catalytic First-Loss Capital*

Private investors can be put off not simply by risk-return profiles, but also by the capacity of project developers to design an investable initiative that is scalable and replicable. Many investment opportunities suffer from a lack of information or track record on past performance, given the novelty of either the market or the opportunity in question. Other barriers on the project side are high search costs of suitable projects, lack of project developers with a track record in developing cash-flow generating projects and lack of expertise in monitoring environmental impact. Additionally, scalability and replicability are key concerns in growing the green finance market. At this stage, only a few projects are scalable beyond a US\$5 million threshold (which is an attractive feature for a mainstream investor). Few conservation projects today are big enough to be structured as marketable standalone investment products. There is an enormous opportunity for public and private investors to join forces – through blended finance – to address project risk, return and environmental impact. They could bring their respective strengths and expertise for overcoming the lack of capacity, monitoring and evaluation for results, proper design and replicability.

## ROLE OF THE GEF

The GEF has a long history of catalyzing private sector investment through grants and non-grant financial instruments, most of the latter being debt, equity and guarantees. In its evolution from relying primarily on grant financing to the use of non-grant instruments in engaging the private sector, the GEF has followed the global trend in green financing. Initially, grant-based support creates the enabling environment for private sector investment. Thereafter, debt instruments, equity and risk management products ramp up private sector engagement in this area. During 2013-2014 alone, the GEF provided US\$175 million in blended finance operations. This mobilized about US\$1.1 billion from the private sector, or around 6 dollars to each dollar invested.

Grants, the largest source of GEF funding, are used to overcome policy barriers, strengthen institutional capacity or demonstrate innovative conservation approaches, laying the foundation for further investments. With support from the GEF and others, for example, the South African government put in place new policy and regulatory frameworks to govern renewable energy markets. This helped South Africa become the G20 country with the fastest-growing clean energy market over the past five years. Among other examples of grant-funded support for innovation are the GEF's early support for concentrating solar power production and the groundbreaking support for payment for ecosystem services.

**GEF investment in equity proved especially attractive for supporting small-scale clean energy projects and leveraging private finance.** The GEF has provided US\$4.5 million to the Africa Renewable Energy Fund, managed by the African Development Bank (AfDB). It took the form of common stock with return capped at 4%. Other donors provided an additional US\$25 million. By accepting a capped return, the GEF enables net returns to other investors to increase by 2-3%. This, in turn, will expand the range of potentially investable projects. As well, it will reduce the need for enhanced policy incentives to make projects financially attractive. The equity funding provided by the GEF and other partners is expected to attract at least US\$150 million from public, institutional and commercial partners. At the same time, it will likely generate significant additional private sector finance, primarily debt, for the actual project.

**The GEF provided subordinated debt of US\$16.4 million for energy efficient transport, with expected leverage of around US\$250 million in follow-on investments.** The Green Logistics Program, managed by the European Bank for Reconstruction and Development (EBRD), will improve efficiency and productivity of freight transport in the Black Sea Region. GEF funding will provide subordinated loans at a concessional rate and security for EBRD investments that promote energy efficiency and lower GHG emissions in the logistics sector. The availability of junior funding (subordinated debt) from the GEF will allow the EBRD to invest its own funds in projects that otherwise would be priced excessively. This allows EBRD to deliver energy efficiency solutions in the logistics sector in the region and to help clients introduce energy-efficient practices. Follow-on investments are expected to rise to US\$250 million after the project is completed.

**The GEF provided guarantees and subordinated debt for land restoration.** The Risk Mitigation Instrument for Land Restoration project, managed by the Inter-American Development Bank, combines a GEF investment of US\$15 million with US\$120 million in co-financing. It deploys innovative risk mitigation instruments to support public and private sector investments to restore degraded lands in Latin America. The private sector increasingly wants to invest in restoring degraded lands as a way to bring low productivity land into production. Such investments, however, have longer payback periods and represent various types of high financial risk. This makes them difficult to finance. To that end, GEF funds will be used to provide guarantees and subordinated loans. In so doing, it will reduce perceived risk and thus catalyze additional public and private sector investments.

For more information on GEF blended finance projects and non-grant instruments, see  
<https://www.thegef.org/topics/blended-finance>  
<https://www.thegef.org/content/non-grant-instruments>  
GEF/C.47/06 document from <https://www.thegef.org>.

# DEFINITIONS<sup>1</sup>

**Asset class:** a group of securities that exhibits similar characteristics, behaves similarly in the marketplace and is subject to the same laws and regulations. The three main asset classes are equities, or stocks; fixed income, or bonds; and cash equivalents, or money market instruments.

**Blended finance:** strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets.

**Bond:** debt investment in which an investor loans money to an entity (typically corporate or governmental), which borrows the funds for a defined period at a variable or fixed interest rate. Bonds are used by companies, municipalities, states and sovereign governments to raise money and finance a variety of projects and activities. Owners of bonds are debtholders, or creditors, of the issuer.

**Catalytic first-loss capital<sup>2</sup>:** socially- and environmentally-driven credit enhancement provided by an investor or grant-maker who agrees to bear first losses in an investment in order to catalyze the participation of co-investors that otherwise would not have entered the deal.

**Equity:** a stock or any other security representing an ownership interest. This may be in a private company (not publicly traded), in which case it is called private equity. Investment vehicle refers to any method by which individuals or businesses can invest and, ideally, grow their money.

**Green finance<sup>3</sup>:** financial investments flowing into sustainable development projects and initiatives, environmental products, and policies that encourage the development of a more sustainable economy. Green finance includes climate finance, but is not limited to it. It also refers to a wider range of other environmental objectives, such as industrial pollution control, water sanitation or biodiversity protection.

**Impact investments:** investments made with the goal of financial returns, as well as yielding positive social and/or environmental benefits.

**Loan/credit guarantee:** a guarantee made by a government or multilateral (or any third party) to pay the lender.

**Payment for ecosystem services<sup>4</sup>:** a voluntary transaction in which a well-defined environmental service (ES) or a form of land use likely to secure that service is bought by at least one ES buyer from a minimum of one ES provider, if and only if, the provider continues to supply that service (conditionality).

**Security:** a financial instrument that represents an ownership position in a publicly-traded corporation (stock), a creditor relationship with governmental body or a corporation (bond) or rights to ownership as represented by an option.

**Subordinated debt:** a loan or security that ranks below other loans and securities with regard to claims on a company's assets or earnings. Subordinated debt is also known as a junior security or subordinated loan. In the case of borrower default, creditors who own subordinated debt won't be paid out until after senior debtholders are paid in full.

1. Definitions are taken from Investopedia, except noted otherwise in the footnotes.
2. <https://thegiin.org/knowledge/publication/catalytic-first-loss-capital>
3. [https://www.die-gdi.de/uploads/media/Lindenberg\\_Definition\\_green\\_finance.pdf](https://www.die-gdi.de/uploads/media/Lindenberg_Definition_green_finance.pdf)
4. Wunder, S. 2005. "Payment for environmental services: Some nuts and bolts."

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