Luxembourg Structured Climate Funds

Mobilization of Public and Private Resources for Climate Finance

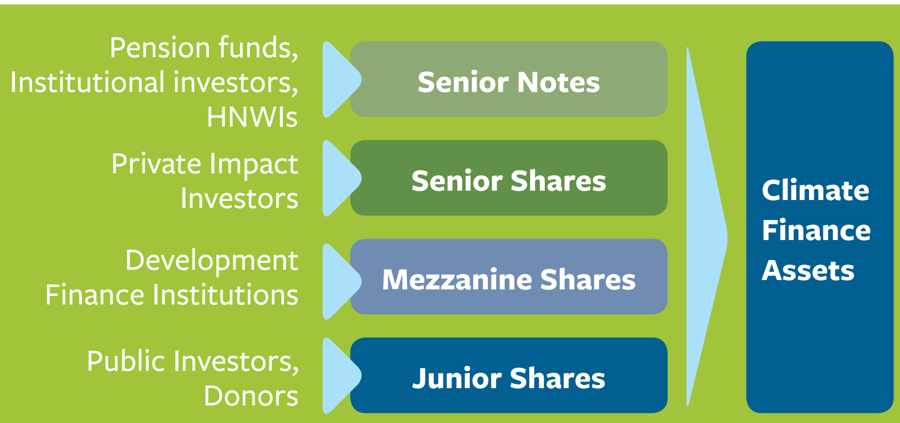
European Impact Investing
LUXEMBOURG

The transition to a low-carbon world presents huge economic opportunities and great investment needs at the same time. Scarce public funds must be used strategically to attract private sector investment towards economically viable projects that support the production of renewable energy, improvement of energy efficiency, and facilitation of reforestation and land restoration as well as other important channels that ultimately run towards manageable carbon levels.

A common denominator of most climate finance projects as described above is their innovative nature and therefore a relatively high financial risk, weather real or perceived. Risk mitigation by policymakers and public investors can play an important and effective role in attracting private investors by creating a balance between perceived risk and expected returns. Risk mitigation tools used by the public sector for that purpose include guarantees, risk-sharing facilities, insurance products and first loss or layered capital structures.

The Luxembourg funds have proven to be an effective way of promoting private and public partnership structures and are currently used in various forms to leverage public money into financially sustainable social and environment impact investments. With a track record of more than 10 years, the structured funds in Luxembourg have grown in numbers, size and impact focus areas, including climate finance.

The layered capital structure of the funds builds on the idea of creating a leveraged playing field in terms of risk perception and expected returns. Public investors who typically hold junior shares in the funds build up a risk cushion for additional investors by taking any first losses resulting from the underlying investments. At the other end of the spectrum, there are private investors who typically hold notes or senior shares and are last in line when it comes to taking losses. Positioned between notes and junior shares, mezzanine capital and senior shares are generally subscribed to by development finance institutions and international financial institutions. Some of the funds presented below follow the layered structure.



In addition to the impact focus area, the capital structure and the way income and capital gains or losses are allocated throughout the capital structure is a defining characteristic of every fund. The Luxembourg funds allow for great flexibility in that sense, built on and supported by the experience of specialists within the Luxembourg fund industry and a sound regulatory environment.

1 The Global Climate Partnership Fund

The Global Climate Partnership Fund (GCPF) is an innovative public and private partnership that aims to deliver greenhouse gas emissions savings and support local development in emerging and developing economies around the globe. GCPF primarily provides financing to or through local financial institutions in order to promote energy efficiency and renewable energy on-lending to small and medium-sized enterprises as well as to private households. To a limited extent the fund also invests directly in renewable energy projects. One of the main objectives of the fund is to mobilize private capital by using public capital as risk cushion.

Launched in	2010
Size	260 m USD invested in 16 partner institution in 12 different countries (Q3-2015).
Impact	over 3.7 million tons of CO2 tons emission reduced over the lifetime of over 25,000 GCPF funded projects.
Investment Manager	responsAbility Investments AG, Zurich
Climate change relevance	Mitigation
Public Investors	IFC, KfW, FMO, OeEB, DANIDA, UK Department of Energy and Climate Change, BMUB (The German Ministry for the Environment, Nature Conservation, Building and Nuclear Safety)
Private Investors	AVWL, responsAbility

GCPF is structured as a SICAV-SIF, initiated by KfW and BMU, based on a multiple tier capital structure with three different classes of shares and notes. All the share classes bear voting rights with different weights and different return expectations. While the junior shares are essentially designed to correspond to the expectations of governments or donors, the other two share classes are of a more commercial nature and are currently held by development banks and the investment manager. Notes are held by private investors.

2 The eco.business Fund

The eco.business Fund promotes business practices that contribute to biodiversity conservationand sustainable use of natural resources by providing dedicated financing and technical assistance. The financing is channelled mainly through local financial institutions with the capacity to reach local businessescontributing to the Fund´s mission. The fund seeks investments that yield both financial and environmental returns.

Launched in	2014
Activities	Sustainable agriculture and agri-processing, fisheries and aquaculture, forestry, eco-tourism.
Investment Manager	Finance in Motion, Frankfurt
Climate change relevance	Mitigation (energy efficiency, renewable energies, reforestation). Adaptation.
Public Investors	German Federal Ministry for Economic Cooperation and Development
Private Investors	GLS Bank, Finance in Motion

Initiated by KfW, Finance in Motion and Conservation International, the eco.business Fund is structured as a SICAV-SIF based on a multiple tier capital structure, with participation of public investors, multilateral organizations, development finance institutions, NGOs, foundations and private institutional investors. Through the subordination waterfall, the Junior Shares provide the first loss-cushion for all other tranches. Furthermore, a series of limits ensures a minimum level of protection for each tranche.

3 The Global Energy Efficiency and Renewable Energy Fund

The Global Energy Efficiency and Renewable Energy Fund (GEEREF) is a fund-of-funds, equally funded by public and private capital, investing in private equity funds that focus on renewable energy and energy efficiency projects in emerging markets. The funds provide much needed equity financing to small and medium-sized infrastructure projects that generate clean power through proven technologies with low risk.

Launched in	2008
Size	EUR 222 million invested in 9 funds and 43 underlying projects across all regions of the developing world.
Multiplier effect	For every ODA euro invested to date, over EUR 50 were deployed in final projects on the ground.
Impact	Renewable energy projects financed by GEEREF's funds have as of end of 2014 an installed capacity of 472MW. Over their lifetime these projects are expected to save more than 95m tonnes of Greenhouse gas emissions. Being active both in renewable energy generation and energy saving projects, GEEREF can already show significant figures for its energy generation and savings in 2014 (>1m MWH of electricity generated and >125k MHW saved). In addition to measurable impact on energy generation/savings, GHG avoidance and social indicators, GEEREF applies EIB's social and environmental standards and in most of its funds IFC S&E performance standards.
Investment Advisors	European Investment Bank / European Investment Fund
Climate Change relevance	Mitigation
Public investors	European Union, Germany, Norway, EIB
Private investors	A range of European, US and Australian pension funds, family offices, foundations and private individuals.

GEEREF was initiated by the European Commission and launched in 2008 with funding from the European Union, Germany and Norway. The fund-of-funds is structured as a public private partnership combining EUR 112m from public sources with EUR 110m from private investors. In this capital structure public investors hold A shares and a number of governance rights whereas private investors receive a priority distribution. This model proves to be very effective in attracting private resources to complement scarce public capital.

4 The Althelia Climate Fund

The Althelia Climate Fund is investing in ecosystems conservation and sustainable agroforestry, applying best-in-class environmental, social and governance (ESG) criteria. Returns are generated through the production and sale of real assets (in the form of sustainable agriculture and soft commodities such as certified cocoa and coffee, FSC timber etc.) as well as presently undervalued environmental assets (including carbon emission reductions and other payment for ecosystem services such as biodiversity and water) to several complementary high growth markets.

Launched in	2013
Size	EUR 110 million
Multiplier effect	Fund includes EUR 15 million in notes to high net worth investors and family offices issued by Credit Suisse (Nature Conservation Notes). Althelia has obtained a guarantee from USAID to partially offset the price risk for generated carbon credits (so called Advanced Market Commitment).
Impact	All projects are set to meet IFC Performance Standards and the best practices articulated in the REDD+ Social and Environmental Standards. Carbon impact is measured using reputable third-party carbon and environmental/social management certification standards such as Verified Carbon Standard and Climate, Community and Biodiversity Alliance.
Investment Advisors	Althelia Partners (London)
Climate Change relevance	REDD+
Climate change relevance	REDD+

Althelia Climate Fund was initiated by Althelia Partners with seed funding from the European Investment Bank, Credit Suisse, AXA IM, the Church of Sweden, the Finnish Fund for Industrial Cooperation (FINNFUND) and the Dutch Development Bank (FMO).

5 The Forestry and Climate Change Sub-Fund

The Forestry and Climate Change Sub-Fund invests in the sustainable management of tropical secondary and degraded forests, generating ecological, economic and social value added including a reduction in greenhouse gas emissions from forestation and climate change mitigation through increased storage. The Fund serves to demonstrate the feasibility of integrating secondary and degraded forests in production models and is focused on Central America.

Launched in	Exp. 2016
Size	EUR 15-20 million
Multiplier effect	Fund is structured with A Shares (Junior Shares) leveraging private investments in B and C Shares as well as emission of concessional debt instruments. The Luxembourg development cooperation finances a technical assistance program for investment readiness of local entities engaged in sustainable forestry of secondary and degraded forests.
Impact	All projects should meet IFC S&E Standards. The demonstrable impact includes the proof that secondary and degraded forests within a management system face reduced risks of deforestation and land-use change.
Investment Manager	Luxembourg Microfinance and Development Fund
Climate change relevance	REDD+

Forestry and Climate Change Sub-Fund has been initiated by the Luxembourg Microfinance and Development Fund in collaboration with the Centro Agronomico Tropical de Investigacion y Ensenanza in Costa Rica. The Fund has received seed funding from the Luxembourg Fonds énergie et climat and technical assistance funding from the Luxembourg Ministry for Foreign and European Affairs, Directorate of Development Cooperation.

6 Green for Growth Fund, Southeast Europe SA, SICAV-SIF

The Green for Growth Fund Southeast Europe (GGF) is the first specialised fund to support energy efficiency and renewable energy in Southeast Europe, including Turkey, and the Eastern Neighbourhood countries. Initiated by the EIB and KfW Entwicklungsbank, GGF is an innovative public-private partnership established to reduce energy consumption and CO_2 emissions. GGF mainly provides financing to financial institutions to enhance their participation in the energy efficiency and renewable energy sectors, while also making direct investments in non-financial institutions developing projects in the region. The activities of GGF are supported by a Technical Assistance Facility.

Launched in	2009
Size	EUR 359.4 million
Impact	The Fund has achieved high environmental impact in its five years of existence. In aggregate, the GGF portfolio is facilitating energy savings of 1.1 million MWh/year, and CO_2 reductions of 300,000 tons/year. Given the growth prospect of the Fund, it is expected that the environmental impact will reach annual energy savings of 2,950,000 MWh and annual CO_2 reductions of 890,000 tons by 2023.
Fund Manager	The Fund is managed by Finance in Motion (Investment Advisor) and Oppenheim Asset Management Services (Investment Manager).
Public Investors	European Commission, Germany, EIB, KfW, EBRD, IFC, OeEB, FMO

7 European Energy Efficiency Fund SA SICAV-SIF

The European Energy Efficiency fund (EEEF) is a sustainable energy facility which the European Parliament and Council of Ministers agreed to launch. EEEF aims to provide market-based financing to commercially viable public energy efficiency and renewable energy projects across the 28 EU member states. It contributes with a layered risk/return structure to enhancing energy efficiency and fostering renewable energy by unlocking the substantial potential in the European public sector in the form of a targeted public private partnership. It will support the EU member states in meeting their objective to reduce greenhouse gas emissions by 20%, increase renewable energy usage by 20% and lower energy consumption through a 20% improvement in energy efficiency.

Launched in	2011
Size	EUR 264.9 million
Impact	Through its portfolio of investments, the Fund has achieved total accumulated savings of 83,858 t CO2e and 65,295 MWh of primary energy savings.
Fund Manager	The Fund is managed by Deutsche Bank.
Public Investors	European Commission, European Investment Bank, Cassa Depositi e Prestiti SpA

Expertise in administrating climate funds

Over the years Luxembourg service providers have developed significant expertise in servicing climate funds with complex shareholder structures and a wide range of investment strategies. Legal counsels, custodian banks, administrators, payment and transfer agents, management companies, auditors and advisory firms form a cluster of experienced specialists in servicing medium and large funds.

Outlook

These examples demonstrate how Luxembourg structured funds already play a role today in mobilizing public and private resources for climate finance. Investment strategies range from mitigation through increased electricity supply from renewables to adaptation and investments in climate resilient landscapes.

Financing is provided by a range of public and private actors, including institutional and individual high net worth investors. The structuring of funds through different share classes, notes and debt instruments allows for the creation of attractive risk/return profiles for various types of investors.

All these elements constitute important experiences in a sector poised to grow significantly as financing for climate change mitigation and adaptation is increasing.

This note is based on work coordinated by the European Impact Investing Luxembourg initiative, in particular:

Martin Berg and Gunter Fischer	European Investment Bank
Sigridur Torfadottir and Arnaud Gillin	Innpact
Kaspar Wansleben	Luxembourg Microfinance and Development Fund.

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About European Impact Investing Luxembourg

The European Impact Investing Luxembourg initiative (EIIL) was launched in 2010, regrouping a number of major actors of the Luxembourg financial place such as ADA, an NGO promoting autonomous development through inclusive finance, the law firm Arendt & Medernach, Banque de Luxembourg, Deloitte, the law firm Elvinger Hoss & Prussen, Ernst & Young, European Fund Administration, the European Investment Fund, Innpact-a firm specialized in innovative responsible finance solutions, KPMG, the Luxembourg Microfinance and Development Fund and PWC.

Its aim is to contribute to the development of the impact investing sector, to facilitate initiatives within this area in Luxembourg and to promote Luxembourg's capacity to support a coordinated approach to impact finance.