FMO Green Bond 2018

Type of Engagement: Annual Review
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Introduction

In 2019, FMO issued green bonds under its updated Sustainability Bonds Framework (December 2018) aimed at financing projects providing various environmental benefits. In March 2019, FMO engaged Sustainalytics to review the projects funded through the issued green bonds and provide an assessment as to whether the projects met the Use of Proceeds criteria and the Reporting commitments outlined in the FMO Sustainability Bonds Framework.

Evaluation Criteria

Sustainalytics evaluated the projects and assets funded in 2018 based on whether the projects and programmes:

1. Met the Use of Proceeds and Eligibility Criteria outlined in the Sustainability Bonds Framework. Refer to Appendix 2 for a list of the Use of Proceeds and Eligibility Criteria; and
2. Met the Reporting Criteria outlined in the Sustainability Bonds Framework, as outlined in Table 1 below.

Table 1: Reporting Criteria

Allocation Reporting	Impact Reporting
• The progress on allocation of use of proceeds for new and existing projects on a portfolio basis • The bond allocations are based on outstanding portfolio and 85% of the committed non-disbursed project portfolio, per region, eligibility category and subcategory	• An estimation of annual GHG emission reduction from direct green investments on a portfolio level • An estimation of the number of (in)direct jobs supported by the investments per target group

Issuing Entity's Responsibility

FMO is responsible for providing accurate information and documentation relating to the details of the projects that have been funded, including description of projects, estimated and realized costs of projects, and project impact.

Independence and Quality Control

Sustainalytics, a leading provider of ESG and corporate governance research and ratings to investors, conducted the verification of FMO's Sustainability Bond Use of Proceeds. The work undertaken as part of this engagement included collection of documentation from FMO employees and review of documentation to confirm the conformance with the Sustainability Bonds Framework.

Sustainalytics has relied on the information and the facts presented by FMO with respect to the Nominated Projects. Sustainalytics is not responsible nor shall it be held liable if any of the opinions, findings, or conclusions it has set forth herein are not correct due to incorrect or incomplete data provided by FMO.

Sustainalytics made all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight over the assessment of the review.

Conclusion

Based on the limited assurance procedures conducted,[1] nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the reviewed bond projects, funded through proceeds of FMO's Green Bonds, are not in conformance with the Use of Proceeds and Reporting Criteria outlined in the Sustainability Bonds Framework. FMO has disclosed to Sustainalytics that the proceeds of the green bonds have been fully allocated.

Detailed Findings

Table 2: Detailed Findings

Eligibility Criteria	Procedure Performed	Factual Findings	Error or Exceptions Identified
Use of Proceeds Criteria	Verification of the 38 projects committed in 2018 funded by the green bond to determine if projects aligned with the Use of Proceeds Criteria outlined in the Sustainability Bonds Framework and in Appendix 3.	All projects reviewed complied with the Use of Proceeds criteria.[2]	None
Reporting Criteria	Verification of the 38 projects committed in 2018 funded by the green bond to determine if impact of projects was reported in line with the KPIs outlined in the Sustainability Bonds Framework and above in Table 1. For further reporting information refer to Appendices 1 & 2.	All projects reviewed reported on the allocation, and a portfolio-level impact estimate was provided.	None

[1] Sustainalytics limited assurance process includes reviewing the documentation relating to the details of the projects that have been funded, including description of projects, estimated and realized costs of projects, and project impact, which were provided by the Issuer. The Issuer is responsible for providing accurate information. Sustainalytics has not conducted on-site visits to projects.
[2] For projects which are intended for on-lending but have yet to be disbursed, an assumed percentage of eligibility has been used based on the established conditions of the funding.

Appendix 1: Allocation Reporting

Eligibility Criteria Sub-Category	Amount Allocated[3] (million EUR)
Renewable Energy	241
Agriculture, forestry and land use	42
Energy efficiency	19
Lower-carbon and efficient energy generation	20
Mixed	90
Biodiversity	7
Pollution mitigation	14
Conservation of natural resources	8
Total	**441**

	Percentage (%)
Net proceeds of Green Bond allocated to Eligible Green Project Portfolio:	100
Existing Projects	43
New Projects	57

Appendix 2: Portfolio-level Impact Reporting

FMO has estimated a greenhouse gas emissions reduction of **200,000 tonnes CO_2e**, attributable to the share of its commitment of direct green investments on a portfolio basis; the FMO's direct green investments made up EUR 322 million of the EUR 441 million total green bond allocation. This reduction is calculated using a ratio of the amount allocated from the green bond as a share of overall project size, compared to annual reductions attributable to the project in the year that the investment was made.

FMO has estimated that total green bond allocations have supported approximately **128,000 jobs**, direct and indirect.

[3] The amount allocated includes both funds disbursed and those 85% committed.

Appendix 3: Use of Proceeds and Eligibility Criteria

Use of Proceeds Category	Eligibility Criteria
1.1 Electricity Generation	• Wind power • Realization of geothermal power generation - no net positive impact established yet • Realization of geothermal power generation (<100g CO2/kWh) - net positive impact needs to be established • Solar power (concentrated solar power, photovoltaic power) • Biomass or biogas power that does not decrease biomass and soil carbon pools (only if net emission reductions can be demonstrated) • Realization of 2nd generation waste biomass or biogas power generation (ie. From agri waste or landfills) because it does not decrease biomass and soil carbon pools (preferably with demonstrated expected annual GHG avoidance) • Ocean power (wave, tidal, ocean currents, salt gradient, etc.) • Realization hydropower generation with Power Density (installed capacity / inundated area) > 4 W/m2 and power plants producing < 20MW • Run-off river hydro power generation without storage
1.2 Heat Production or other renewable energy application	• Solar water heating and other thermal applications of solar power in all sectors • Thermal applications of geothermal power in all sectors (<100g CO2/kWh) • Wind-driven pumping systems or similar • Thermal applications of sustainably produced bioenergy in all sectors, incl. efficient, improved biomass stoves (excluding bioenergy derived from sources that deplete terrestrial carbon pools or compete with food sources)
1.3 Transmission systems, greenfield	• New transmission systems (lines, substations) or new systems (e.g., new information and communication technology, storage facility, etc.) and mini-grid to facilitate the integration of renewable energy sources into the grid • Renewable energy power plant retrofits • Improving existing systems to facilitate the integration of renewable energy sources into grid
2.1 Transmission and distribution systems	• Retrofit of transmission lines or substations and/or distribution systems to reduce energy use and/or technical losses, excluding capacity expansion
2.2 Power Plants	• Waste heat recovery improvements. • Energy-efficiency improvement in existing bioenergy plants
3.1 Brownfield energy efficiency in industry	• Industrial energy-efficiency improvements through the installation of more efficient equipment, changes in processes, reduction of heat losses and/or increased waste heat recovery (excluding investments in fossil fuel technology) • Installation of co-generation plants that generate electricity in addition to providing heating/cooling (excluding investments in fossil fuel technology) • More efficient facility replacement of an older facility (old facility retired) (excluding investments in fossil fuel technology)
3.2 Brownfield energy efficiency in commercial, public and residential sectors (buildings)	• Energy-efficiency improvement in lighting, appliances and equipment • Substitution of existing heating/cooling systems for buildings by co/generation plants that generate electricity in addition to providing heating/cooling (excluding investments in fossil fuel technology) • Retrofit of existing buildings: Architectural or building changes that enable reduction of energy consumption
3.3 Brownfield energy efficiency in public services	• Energy-efficiency improvement in utilities and public services through the installation of more efficient lighting or equipment (excluding investments in fossil fuel technology) • Rehabilitation of district heating systems • Utility heat loss reduction and/or increased waste heat recovery • Improvement in utility scale energy efficiency through efficient energy use, and loss reduction (excluding investments in fossil fuel technology)

3.4 Vehicle energy efficiency fleet retrofit	• Existing vehicles, rail or boat fleet retrofit or replacement (including the use of electric or hydrogen technologies, etc.)
3.5 Greenfield energy efficiency in commercial and residential sectors (buildings)	• Use of highly efficient architectural designs, energy efficiency appliances and equipment, and building techniques that reduce building energy consumption, exceeding available standards and complying with high energy efficiency certification or rating schemes • Use of highly efficient architectural designs, energy efficiency appliances and equipment, and building techniques that reduce building energy consumption, exceeding available standards and complying with high energy efficiency certification or rating schemes
3.6 Green Buildings	• Green Buildings certified by LEED (only LEED Gold or Platinum certification qualifies) or IFCs EDGE Tool • Green Buildings, not yet certified or certified under other scheme
3.7 Energy Audits	• Energy audits to energy end-users, including industries, buildings, and transport systems
4.1 Agriculture	• Reduction in energy use in traction (e.g. efficient tillage), irrigation, and other agriculture processes • Agriculture projects that do not deplete and/or improve existing carbon pools (Reduction in fertilizer use, rangeland management, collection and use of bagasse, rice husks, or other agricultural waste, low tillage techniques that increase carbon contents of soil, rehabilitation of degraded lands, etc.) • Projects or companies that lead to expanded sustainable/green output in line with one of the following certification schemes (company or project needs to be or become certified): UTZ Certified, Roundtable on Sustainable Biomaterials (RSB), The Intercultural Federation of Organic Agriculture Movements (IFOAM), Proterra, Soil Association or Bonsucro.
4.2 Afforestation and reforestation, and biosphere conservation	• Sustainable forest management activities that increase carbon stocks or reduce the impact of forestry activities • Biosphere conservation projects (including payments for ecosystem services) targeting reducing emissions from the deforestation or degradation of ecosystems • FSC and/or PEFC Certification • Rainforest Alliance Certification
4.3 Livestock	• Livestock projects that reduce methane or other GHG emissions (manure management with biodigestors, etc.)
4.4 Biofuels	• Production of biofuels (including biodiesel and bioethanol) (excluding from sources that deplete carbon pools or that compete with food sources)
5.3 Air conditioning and refrigeration	• Retrofit of existing industrial, commercial and residential infrastructure to switch to cooling agent with lower global warming potential
5.4 Industrial processes	• Reduction in GHG emissions resulting from industrial process improvements and cleaner production (e.g. cement, chemical), excluding carbon capture and storage (excluding investments in fossil fuel technology) • Reduction in GHG emissions resulting from industrial process improvements and cleaner production (e.g. cement, chemical) demonstrated by >20% GHG efficiency or resource efficiency improvement (excluding investments in fossil fuel technology)
6.1 Wastewater	• Treatment of wastewater if not a compliance requirement as part of an industrial process (only if net emission reductions can be demonstrated).
6.2 Waste	• Waste management and waste-to-energy projects that reduce methane emissions and generate energy (e.g. incineration of waste, landfill gas capture, and landfill gas combustion) • Waste-recycling projects that recover or reuse materials and waste as inputs into new products or as a resource (only if net emission reductions can be demonstrated). • Sanitation projects with proper waste treatment if it replaces open defecation.
7.1 Urban transport modal change	• Urban mass transit • Non-motorized transport (bicycles and pedestrian mobility)
7.2 Transport oriented urban development	• Integration of transport and urban development planning (dense development, multiple land-use, walking communities, transit connectivity, etc.), leading to a reduction in the use of passenger cars
7.3 Inter-urban transport	• Railway transport ensuring a modal shift of freight and/or passenger transport from road to rail (improvement of existing lines or construction of new lines) - no GHG avoidance estimate available (excluding transport dedicated to fossil fuel)

	• Waterways transport ensuring a modal shift of freight and/or passenger transport from road to waterways (improvement of existing infrastructure or construction of new infrastructure) - no GHG avoidance estimate available • Railway or Waterways transport ensuring a modal shift of freight and/or passenger transport from road to rail or water (improvement of existing lines or construction of new lines) if 3rd party verified GHG avoidance estimated aligning with the IFI harmonized GHG accounting approach for Transport Modal Shift[2]
8.1 Products or equipment	• Projects producing and/or distributing components, equipment or infrastructure dedicated for the renewable and energy efficiency sectors
8.2 R&D	• Research and development of renewable energy or energy efficiency technologies
9.1 Support to national, regional or local policy, fully or partially dedicated to climate change policy or action	• Mitigation national, sectorial or territorial policies/planning/action plan policy/planning/institutions • Energy sector policies and regulations (energy efficiency standards or certification schemes; energy efficiency procurement schemes; renewable energy policies) • Systems for monitoring the emissions of greenhouse gases • Education, training, capacity building and awareness raising on climate change mitigation/sustainable energy/sustainable transport; mitigation research • Other policy and regulatory activities, including those in non-energy sectors, leading to climate change mitigation or mainstreaming of climate action
9.2 Other activities with net greenhouse gas reduction	• Any other activity not included in this list for which the results of an ex-ante greenhouse gas accounting (undertaken according to commonly agreed methodologies) show emission reductions
9.3 Financing instruments	• Carbon Markets and finance (purchase, sale, trading, financing and other technical assistance. Includes all activities related to compliance-grade carbon assets and mechanisms, such as CDM, JI, AAUs, as well as well-established voluntary carbon standards like the VCS or the Gold Standard. • Greenline financing for purely renewable energy and/or water/material/pollution/energy efficiency >20% improvement (re)-financed through a financial intermediary (earmarked with use-of-funds clause) • Greenline financing for non-renewable energy and non-energy efficiency financing through new financial intermediaries or similar (e.g. earmarked lines of credit; lines for microfinance institutions, cooperatives, etc.) (earmarked with use-of-funds clause) • Greenline (co)-financing for renewable energy and energy efficiency (re-)financing through financial intermediaries that are existing Green Partners (Green for Growth Fund (GfGF) and Climate Global Partnership Fund (CGPF) (earmarked with use-of-funds clause)
10.1 Activities Addressing Climate Vulnerability	• Activity or technology that addresses the local climate vulnerability by strengthening the resilience or communities, goods, or ecosystems to climate change
11.1 Biodiversity	• Financed activity is either contributing to conserving/increasing biodiversity, or the core business/aim of the project is to conserve or increase biodiversity • The transition to, or maintenance of, silvo-pastoral systems, if no conversion of natural land is involved.
11.2 Pollution mitigation	• Financed activity is either contributing to pollution mitigation (beyond regulatory compliance) or the core business/aim of the project is to mitigate pollution (beyond regulatory compliance) • Waste water treatment as the core business of the project (not part of specific industrial process) • Company's core business is cleaning up hazardous waste sites (ie. soil remediation and mine rehabilitation)
11.3 Conservation of natural resources	• Financed activity is contributing to or the core aim of the project is to conserve natural resources (ie land, water, forests, materials) • Recycling /solid waste collection and treatment as the core business of the project • Company's core business is the remanufacture of products (or extend their lifecycle in other ways), servitisation or complete circular economy business models

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