°CICERO
Center for International
Climate Research

'Second Opinion' on AFD's Climate Bond Framework

26 October 2017

Summary

Overall, AFD has a broad climate bond framework that is supportive of a low-carbon and climate resilient future, coupled with an impressive governance structure. The climate bond will finance projects funded by AFD and its subsidiary Proparco, which supports private investment. The proceeds will fund development projects with climate co-benefits. The climate co-benefit refers to either mitigation of greenhouse gas emissions, adaptation to climate change, and support for the implementation of climate change prevention policies[1]. The issuer has informed us that they expect the majority of eligible projects to be mitigation focused.

AFD has extensive environmental competence and climate expertise. Eligible projects are subject to the internal appraisal process, which includes a climate impact evaluation, an environmental and social risk assessment, and for AFD projects, a physical climate risk screening. As per the climate impact evaluation, an initial greenhouse gas (GHG) estimate is obtained at the project identification stage and all AFD projects are ranked into three categories: mitigation, neutral and high-emission projects.

AFD has an exclusion list of projects that is applicable to this climate bond framework, an example of an excluded project is any operation leading to the destruction of a critical habitat. In addition, the funding of new coal power plants is also excluded. Large-scale hydro and other large infrastructure projects are within the scope of the framework, but would be subject to an extensive environmental impact assessment and monitoring. Nuclear energy is not out of the AFD's scope of operations. The issuer has however informed us that they have never financed this sector and that they view it as unlikely for future funding.

AFD's approach implies that all shades of green projects from dark to light green could qualify for green financing. While no projects with a net emissions increase will be included in the eligible asset pool as mitigation projects, the project classification includes fossil fuel energy projects such as energy efficiency improvements in existing fossil fuel plants. CICERO is concerned that some of these projects have the potential to lock-in emitting infrastructure that can result in increased emissions in the long run. AFD is in the process of updating its Climate strategic framework and the proposed changes include a systematic appraisal of a project coherence or contribution to low carbon transition and resilient development. The issuer has informed us that this appraisal framework is expected to remove projects with high lock-in potential from the pipeline of activities.

The framework includes limited impact reporting. For mitigation projects, greenhouse gas emissions will be reported at the aggregate level by sectors and by geographical region. For adaptation and public policy support projects, AFD commits to reporting as many project examples as possible. CICERO encourages the selection committee to develop additional indicators for all projects

Based on an overall assessment of the activities that could be financed by the green bond, and the strong governance structure, the AFD climate bond framework is rated CICERO Medium Green. The spectrum of Light, Medium and Dark Green projects can be funded under this framework. To reach a Dark Green level,

[1] The issuer has informed us that public policy support will not be included in the initial eligible asset pool. These projects could be included at a later stage. Prior to the inclusion a reporting methodology and appropriate indicators will be developed.

AFD would need to further reduce climate risk exposure for some of the project categories (e.g. complete abandonment of fossil fuel use), as well as the assessment and reporting of impacts to a larger extent.

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Medium Green

Contents

1 Introduction and background

As an independent, not-for-profit, research institute, CICERO (Center for International Climate and Environmental Research - Oslo) provides Second Opinions on institutions' framework and guidance for assessing and selecting eligible projects for green bond investments, and assesses the framework's robustness in meeting the institutions' environmental objectives. The Second Opinion is based on documentation of rules and frameworks provided by the institutions themselves (the client) and information gathered during meetings, teleconferences and e-mail correspondence with the client.

CICERO is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO has established the global Expert Network on Second Opinions (ENSO), a network of independent non-profit research institutions on climate change and other environmental issues, to broaden the technical expertise and regional experience for Second Opinions. CICERO works confidentially with other members in the network to enhance the links to climate and environmental science, building upon the CICERO model for Second Opinions. In addition to CICERO, ENSO members currently include Basque Center for Climate Change (BC3), International Institute for Sustainable Development (IISD), Stockholm Environment Institute (SEI), and Tsinghua University's Institute of Energy, Environment and Economy. A more detailed description of CICERO can be found at the end of this report. ENSO encourages the client to make this Second Opinion publically available. If any part of the Second Opinion is quoted, the full report must be made available.

CICERO's Second Opinions are normally restricted to an evaluation of the mechanisms or framework for selecting eligible projects at a general level. CICERO does not validate or certify the climate effects of single projects, and thus, has no conflict of interest in regard to single projects. CICERO is neither responsible for how the framework or mechanisms are implemented and followed up by the institutions, nor the outcome of investments in eligible projects.

This note provides a Second Opinion of AFD Green Bonds Framework and policies for considering the environmental impacts of their projects. The aim is to assess the AFD Green Bonds Framework as to its ability to support AFD`s stated objective of promoting the transition to low-carbon and climate resilient growth.

This Second Opinion is based on the green bond framework presented to CICERO by the issuer. Any amendments or updates to the framework require that CICERO undertake a new assessment. CICERO takes a long-term view on activities that support a low-carbon climate resilient society. In some cases, activities or technologies that reduce near-term emissions result in net emissions or prolonged use of high-emitting infrastructure in the long-run. CICERO strives to avoid locking-in of emissions through careful infrastructure investments, and moving towards low- or zero-emitting infrastructure in the long run. Proceeds from green bonds may be used for financing, including refinancing, new or existing green projects as defined under the mechanisms or framework. CICERO assesses in this Second Opinion the likeliness that the issuer's categories of projects will meet expectations for a low carbon and climate resilient future.

Expressing concerns with 'shades of green'

CICERO Second Opinions are graded dark green, medium green or light green, reflecting the climate and environmental ambitions of the bonds and the robustness of the governance structure of the Green Bond Framework. The grading is based on a broad qualitative assessment of each project type, according to what extent it contributes to building a low-carbon and climate resilient society.

This Second Opinion will allocate a 'shade of green' to the green bond framework of AFD:

- **Dark green** for projects and solutions that are realizations today of the long-term vision of a low carbon and climate resilient future. Typically, this will entail zero emission solutions and governance structures that integrate environmental concerns into all activities.
- **Medium green** for projects and solutions that represent steps towards the long-term vision, but are not quite there yet.
- **Light green** for projects and solutions that are environmentally friendly but do not by themselves represent or is part of the long-term vision (e.g. energy efficiency in fossil-based processes).
- **Brown** for projects that are irrelevant or in opposition to the long-term vision of a low carbon and climate resilient future.

The project types that will be financed by the green bond primarily define the overall grading. However, governance and transparency considerations also factor in, as they can give an indication whether the institution that issues the green bond will be able to fulfil the climate and environmental ambitions of the investment framework.

2 Brief Description of AFD's Climate Bond Framework and rules and procedures for climate-related activities

Agence Française de Développement ("AFD") is the bilateral Development Bank of France. AFD's finances infrastructure, urban development, water and sanitation, agriculture, education, health, environment and natural resources, and private sector development. AFD's two missions are to contribute to the fulfilment of the French development aid policy and contribute to the development of French overseas territories and New Caledonia. AFD has a policy mandate from the French Government to support climate-resilient and low-carbon growth and development models. Further, AFD aims to ensure consistency between the Paris agreement and AFD's activities. The climate bond will finance projects funded by AFD and its subsidiary Proparco, which supports private investment.

AFD integrated climate change considerations into funding strategy more than ten years ago. The organization has ambitious goals related to climate finance and a record of accomplishment. AFD met the 2015 target that 50 % of their own activities and 30 % of Proparco's activities in developing countries should be climate related[2]. The goal for the period 2017-2022 is that 50 % of the group funding is climate related. AFD has solid corporate social responsibility practices and yearly discloses relevant sustainability information in their CSR and Annual report. The issuer has an ESG rating of "Advanced" from Vigeo and "Prime status" from Oekom.

AFD has extensive environmental competence and climate expertise. The organization produces its own research and studies on the transition to carbon-free societies. The issuer has implemented impressive internal processes to evaluate project climate impact including. AFD also has a climate risk screening in place for its own projects. The group has a rigorous process for the identification and management of Environmental and Social risks, which includes the implementation of appropriate measures to manage these risks.

Definition:

The climate bond proceeds will fund development projects with climate co-benefits. The climate co-benefit refers to either mitigation of greenhouse gas emissions, adaptation to climate change, and support for the implementation of climate change prevention policies. The issuer has informed us that public policy support will not be included in the initial eligible asset pool. These projects could be included at a later stage. Prior to the inclusion a reporting methodology and appropriate indicators will be developed.

Mitigation projects are projects that lead to the reduction of GHG emissions. AFD's criteria for mitigation is a project that leads to a reduction in greenhouse gas (GHG) emissions compared to a reference scenario or baseline of at least 10 000 teq CO_2/year[3]. Eligible project categories are renewable energy, energy efficiency, fuel switch, low carbon public transportation, biological sequestration, water management, waste management and other topics as determined by the selection committee. Studies related to mitigation may also be included. Within the mitigation category, AFD may provide direct financing or provide intermediated loans through credit line

[2] In 2016, 52% of AFD's activities and 36% of Proparco's activities were climate-related.

[3] 10 000 tons of carbon equivalent per year. Based on AFD carbon foot printing methodology where the baseline is either a reference situation is defined as the most likely situation to occur in the project's absence or, for renewable energy, the country energy mix.

financing. Intermediate loans are loans from AFD to local banks with specific themes, in order to finance local projects too small to be reached directly by AFD[4]. Eligible project categories for intermediate financing are renewable energy and energy efficiency projects.

Adaptation projects are defined as projects that limit or reduce the vulnerability of assets, people and ecosystems to the consequences of climate change. Eligible project categories are water and waste management.

The methodology for mitigation projects and accounting approach for adaptation projects are aligned with the Common Principles for Climate Mitigation Finance Tracking approved by the International Development Finance Club (IDFC) and multilateral development banks (MDBs). The issuer has informed us that they expect the majority of eligible projects to be mitigation focused.

Proceeds can fund both new and existing projects. The issuer has informed us that the majority of funding will be refinancing at the time of issuance, but that new projects will be added to the eligible assets pool over the life of the climate bonds. Eligible projects can also include the mitigation components of larger AFD projects. The issuer has informed us that they will report on new assets entering the eligible asset pool.

Projects can be located in the following geographic regions: sub-Saharan Africa, Asia, Mediterranean and Middle East, Latin America, French Overseas Departments.

AFD has an exclusion list of projects that is also applicable to this climate bond framework. The exclusion list includes any operation leading to or requiring the destruction of a critical habitat, or any forestry project that does not implement a plan for improvement and sustainable management, and the production, use or sale of any dangerous materials such as asbestos or products containing PCBs[5]. The funding of new coal power plants is also excluded based on an AFD board decision. Nuclear energy is not out of the AFD's scope of operations[6]. The issuer has informed us that they have never financed this sector and that they view it as unlikely for future funding.

Selection:

The selection of eligible assets is twofold. All projects are first subject to the AFD internal appraisal process, which includes a climate impact evaluation, an environmental and social risk assessment, and for AFD projects, a physical climate risk screening. Proparco does not currently have a climate risk screening in place, however, the issuer has informed us that the ambition is to implement the screening across all group projects. In addition, a Climate Bond selection committee has been established. The selection committee is comprised of project officers, funding officer, climate experts, environmental and social experts. This committee is responsible for maintaining the asset pool. They will screen the asset pool on a semi-annual basis, existing projects will be confirmed or discarded, and new projects will be added to the pool. The committee is responsible for ensuring positive impacts for investors and may exclude projects from the pool on this basis. The committee is also tasked with working on the reporting and indicators, especially for projects where carbon foot printing is not applicable, such as public policy supports. There is no veto afforded the environmental experts, however, the issuer has informed us that they maintain a corporate culture around collegiality.

[4] An example of a indirect loan would be the SUNREF programme https://www.sunref.org/en/about/afds-green-finance-label/

[5] Full list of exclusions: https://www.afd.fr/en/investors-page

[6] Nuclear would not be considered renewable energy, but is not explicitly excluded from the energy efficiency category.

Management of proceeds:

AFD will track the climate bond proceeds against the pool of eligible projects. AFD will guarantee that the pool of eligible assets always exceeds the outstanding climate bonds by maintaining a buffer. The issuer commits to ensuring that the total amount of climate bonds outstanding is no more than 75 percent of the size of the asset pool.

Unallocated funds will be kept in cash or in money market products for no more than six months after issuance.

Transparency and Accountability:

AFD will prepare annual Climate Bond reporting with use of proceeds and impact reporting. AFD will list all outstanding bonds and their maturity. The liabilities profile will be compared to the profile of the asset pool[7]. AFD will also provide an overview of the number of projects, the outstanding amounts, the remaining amounts still to be disbursed and the average remaining project terms.

Impact will be reported by asset categories:

- Mitigation projects directly financed: AFD will report the ex-ante evaluation of the average yearly avoided emissions over the life of the project, as calculated by the project team.
- Mitigation projects financed through intermediaries: AFD will report the carbon footprint calculated ex-ante by the intermediaries aggregated by sectors and geography.
- Adaptation projects: AFD may provide output measures when available and relevant. Metrics could include: area preserved, people connected to sanitation service, capacity of potable drinking water
- Policy support projects: a reporting methodology and indicators will be developed prior to inclusion in the eligible asset pool

Quantitative reports on greenhouse gas emissions will be reported at the aggregate level by sectors and by geographical region. Where the carbon footprints is not relevant, as with adaptation and public policy support projects, AFD commits to reporting as many project examples as possible.

The annual Climate Bond reporting will be reviewed by AFD's external auditor and will be made publically available[8]. The auditor will review the outstanding of the loans based on AFD accounts, certify the computed figures of the reporting (consistency with CO2 footprint methodology, aggregated measures, by sector, by geographies) and certify that the projects in the pools followed AFD due diligences.

The table below lists the documents that formed the basis for this Second Opinion:

Document Number	Document Name	Description
1	Climate Bond Framework	The green bond framework

[7] The outstanding amount of AFD's climate bonds will be under 75 per cent of the outstanding amount of the assets pool at the date of the reporting.
[8] The Annual Climate Bond Report will be published on the AFD investor page: https://www.afd.fr/en/investors-page

2	Exclusion list for AFD Group in foreign countries	List of excluded industries, products and activities
3	Methodology guide to the “Sustainable Development Opinion” mechanism	Guidance on AFD’s methodology for sustainable impact assessment
4	ORGANISATION AND PROCEDURES MANUAL – MOP, P – Procedures, Procedure: ope-P2002	Description of the early stage of project appraisal, the project identification process up to the Identification Committee (step 1)
5	ope-M2001 Fiche identification projet FIP FPP Instruction GEN	Project appraisal template for the Project Identification Sheet (PIS) and the Project Presentation Sheet (PPS)
6	Répartition Taches_EN	Overview of responsibilities during the FIS and FPP process
7	MANUAL OF ORGANISATION AND PROCEDURES - Appraisal cycle – Identification Committee CID O221	Description of the role of the Identification Committee (CID) in the project appraisal process (step 2)
8	ope-M2011 Template for list of conclusions CID PAY.doc v05	Template for the conclusions of the CID
9	ORGANISATION AND PROCEDURES MANUAL – MOP - Procedure: ope-P2003	Description of the evaluation and negotiation process in project appraisal (step 3)
10	ope-P2003 Evaluation - Negociation PAY_Organigrammes_EN	Flowcharts of the evaluation and negotiation process
11	MANUAL OF ORGANISATION AND PROCEDURES - Appraisal cycle – Credit Committee CCR O225	Description of the procedures of the credit committee process in project appraisal (step 4)

12	ope-R1034 Demarche de mesure empreinte carbone des projets GEN_QA	Approach to GHG emissions calculations for AFD projects
13	ORGANISATION AND PROCEDURE MANUAL – MOP - Reference document: ope-R2065	Climate risk screening approach
14	ope-U1016-a Bilan Carbone-Carbon footprint GEN ANG	Carbon Foot-printing workbook
15	ope-U1016-c Carbon footprint user guide	User guide for AFD carbon foot printing methodology
16	Environmental and Social Risk Management Policy for AFD-funded Operations	Environmental and social risk management policy
17	ope-U1002 Overall project ranking-Environmental and Social GEN	Environmental and social risk categorization methodology
18	ope-M1023 Fiche environnementale et sociale	Template for the social and environmental rating of projects
19	ope-M2050-a Financing Agreement - Grant PAY ANG v.12	Template for grant financing agreements
20	ope-M2052-a - Credit Facility Agreement - Banks - EUR - PAY ANG V13 du 30/01/2017	Template for credit facility agreements for banks
21	ope-M2054-a Credit Facility Agreement Companies EUR PAY ANG v14	Template for credit facility agreements for companies
22	ope-M2056-a Credit Facility Agreement - States - EUR PAY ANG v13	Template for credit facility agreements for states
23	Corporate Social Responsibility report 2016	AFD latest annual CSR report

24	Investor Presentation June 2017	Presentation to investors from June 2017
25	AFD Registration Document 2016	2016 Annual Report
26	Agence Francaise de Developpment	Organizational chart
27	AFD ARTICLES OF ASSOCIATION	AFD articles of association
28	Cover memo	List and description of supporting documentation
29	AFD in Vietnam	An overview of AFD activities in Vietnam
30	Public Brief: CCN 1074	Overview of AFD project - construction of a treatment and energy recovery plant for restaurant food waste in the city of Shaoyang, Hunan Province.
31	Climate risk screening : AFD tool	One page overview of the climate risk screening tool
32	CTR1026 - Forestry and climate change sector program. Presentation of the program	Overview of AFD activities in the forestry sector in Turkey
33	CIN1062 - Public brief	Overview of AFD funding towards a project to extend Bangalore's two existing metro lines
34	CSN1405 – Dakar-Diamniadio toll highway project, Restructuring of Pikine Irrégulier Sud. Resettlement Action Plan	The resettlement action plan for a portion of a road development, including a socio-economic assessment

35	https://www.sunref.org	The Sunref website with project examples

Table 1. Documents reviewed

3 Assessment of AFD Climate Bond framework and environmental policies

Overall, the AFD green bond framework provides a sound framework for climate-friendly investments.

The framework and procedures for AFD's green bond investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects, whereas the weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where issuers should be aware of potential macro-level impacts of investment projects.

Eligible projects under the Climate Bond Framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green bonds aim to provide certainty to investors that their investments deliver environmental returns as well as financial returns. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed and that the selection process should be "well defined".

A general criteria for eligible projects is that they must meet the definitions of either a mitigation and/or adaptation project and pass the AFD project assessment process.

Category	Eligible project types	Green Shading and some concerns
Renewable energy	• Direct financing where the estimate of the carbon footprint of the project demonstrates that it results in the reduction or avoidance of GHG emissions, superior to 10 000 teq CO2 / year *Or* • Intermediated bank credit lines • Transmission lines dedicated to the transportation of renewable power	**Dark Green** ✓ Environmental Impact Assessments are conducted for projects with high or significant environmental risks ✓ GHG assessment covers emissions from suppliers ✓ Care should be taken with large-scale hydro due to scale of environmental impacts ✓ Observe complex impacts of some biofuels. Consider life cycle emissions, and avoid negative impacts on biodiversity.

Fuel Switch	• Direct financing where the estimate of the carbon footprint of the project demonstrates that it results in the reduction or avoidance of GHG emissions, superior to 10 000 teq CO2 /	**Light Green** ✓ Care should be taken with projects and solutions that are environmentally friendly but do not by themselves represent or is part of the long-term vision. These projects should only be chosen when feasible greener alternatives doesn´t exist. ✓ Be aware of lock-in of obsolete technologies.
Energy efficiency	• Direct financing where the estimate of the carbon footprint of the project demonstrates that it results in the reduction or avoidance of GHG emissions, superior to 10 000 teq CO2 / year *Or* • Intermediated bank credit lines	**Light Green** ✓ Potential to fund efficiency in fossil fuel infrastructure. Be aware of lock-in of obsolete technologies. ✓ Be aware of rebound effects. ✓ Environmental Impact Assessments are conducted for projects with high or significant environmental risks
Low carbon public transportation	• Direct financing where the estimate of the carbon footprint of the project demonstrates that it results in the reduction or avoidance of GHG emissions, superior to 10 000 teq CO2 / year	**Medium Green** ✓ Potential to fund fossil fuel vehicles in this category. Technology is evolving rapidly, be aware of lock-in of obsolete technologies. ✓ Environmental Impact Assessments are conducted for projects with high or significant environmental risks ✓ GHG assessment covers emissions from suppliers ✓ Observe complex impacts of some biofuels. Consider life cycle

		emissions, and avoid negative impacts on biodiversity.
Biological sequestration	• Direct financing where the estimate of the carbon footprint of the project demonstrates that it results in the reduction or avoidance of GHG emissions, superior to 10 000 teq CO2 / year • Project examples include agroecology, no-till agriculture projects and aforestation	**Dark Green** ✓ Project appraisal includes considerations of local environmental impacts and impacts on biodiversity. ✓ AFD excludes any forestry project that does not implement a plan for improvement and sustainable management
Water management	• Direct financing where the estimate of the carbon footprint of the project demonstrates that it results in the reduction or avoidance of GHG emissions, superior to 10 000 teq CO2 / year *And/or* • Meet criteria for a "climate/adaptation" project 1. the analysis showing the context of vulnerability to climate change in the project implementation area; 2. the demonstration of the beneficial impact of the actions planned by the project on the issues of vulnerability to climate change identified in the geographical area; 3. the fact that the project documentation sets out the clear objective of addressing the identified climate risks and vulnerabilities to climate change.	**Dark Green** ✓ Environmental Impact Assessments are conducted for projects with high or significant environmental risks ✓ Care should be taken with project involving the construction of dams due to scale of environmental impacts ✓ Be aware of possible lock-in of pipes and infrastructure supporting fossil fuel related industries.
Waste management	• Direct financing where the estimate of the carbon footprint of the project demonstrates that	**Medium green**

	it results in the reduction or avoidance of GHG emissions, superior to 10 000 teq CO_2 / year *And/or* • Meet criteria for a "climate/adaptation" project 1. the analysis showing the context of vulnerability to climate change in the project implementation area; 2. the demonstration of the beneficial impact of the actions planned by the project on the issues of vulnerability to climate change identified in the geographical area 3. the fact that the project documentation sets out the clear objective of addressing the identified climate risks and vulnerabilities to climate change.	✓ Waste incineration is best combined with ambitious recycling policies. ✓ Environmental Impact Assessments are conducted for projects with high or significant environmental risks
Other topics	• Direct financing where the estimate of the carbon footprint of the project demonstrates that it results in the reduction or avoidance of GHG emissions, superior to 10 000 teq CO_2 / year • For example, a project on optimization of industrial process (i.e. chemistry involving production of GHG) or a project that contributes to reduce HFC	**Light green** ✓ Given the AFD Climate Bond governance structure and project selection process we are confident that included eligible projects will be environmentally sound and appropriate for green bond funding ✓ We do not have enough information to fully assess the category and have assigned a conservative rating
Public Policy Support	• Budget support loans to central governments and local authorities, specifically earmarked for the implementation of climate change prevention policies	**Light green** ✓ Given the AFD Climate Bond governance structure and project selection process we are confident that included eligible

	• Integration will be subject to developing of a robust reporting methodology for this type of loans.	projects will be environmentally sound and appropriate for green bond funding ✓ We do not have enough information to fully assess the category and have assigned a conservative rating

Table 2. Eligible project categories

Strengths

AFDs mandate is aligned with a low-carbon, climate resilient future. The organizations aims to finance and support projects that promote a more sustainable and shared economic growth, improve living condition for the poorest, contribute to protecting the planet and help stabilize fragile or post-conflict states. AFD's climate strategy has evolved over the past decade, the organization has made ambitious financial commitments and has integrated climate as a key consideration in the project evaluation process.

AFD has a strong governance process and eligible assets will be subject to an extensive internal review process during the project lifecycle. This includes a rigorous environmental and social assessment involving an internal rating system based on environmental and social criteria. The rating forms the basis for internal sustainable development opinions. At several points during the appraisal process opinions are prepared by experts to highlight positive impacts and potential weaknesses of a project. These opinions may be used to strengthen diligences and implement measures to reduce and mitigate the underlying project risks. The project life cycle also includes a project categorization based on environmental and social risks. For projects with a high or significant risk, environmental impact assessments are required. For high-risk projects, annual monitoring is also required. Any large infrastructure project will be classified as high risk and requires an extensive environmental and social impact assessment (ESIA). These projects will also be subject to continuous monitoring during the life of the project. All three committees involved in the project lifecycle and the AFD board have the ability to stop the process or reject a loan on the basis of social or environmental risks.

Climate impact assessment is integrated into the environmental and social risk mitigation system over the project life cycle, and an initial greenhouse gas (GHG) estimate must be obtained already at the project identification stage. The GHG calculations cover Scope 1 – 3 (direct and indirect emissions including supply chain). Projects are ranked into three categories: mitigation, neutral and high-emission projects. At this stage, the highest emitting projects are excluded[9].

In addition, AFD is testing a climate risk screening tool for development projects appraised by AFD through direct financing[10]. This scope of this tool is identify the level of functional and/or structural risk that each project may face throughout its life cycle because of physical impacts of climate change. The aim is that AFD will be

[9] AFD excludes any project that emits more than one million tons of CO2 per year, with some exceptions for few loans in Least Developed Countries with clear climate action plans.
[10] Note that this screening does not apply to indirect loans and credit lines

able to identify projects significantly at risk and propose relevant adjustment into project designs. Proparco does not apply this screening to its projects.

AFD is in the process of updating and enhancing its Climate strategic Framework. One of the main features of this new proposed strategy is to include a systematic method for aligning financed interventions with low carbon and resilient development[11]. The suggested approach complements the existing approach in that is anchored in the direct impacts (mitigation or adaptation) of individual projects, but includes an evaluation of interventions in the context of low-carbon and climate-resilient development pathways. AFD is planning to supplement the approach with analysis of low carbon and resilient transition in countries. The issuer will strive to enter long-term cooperation with countries regarding the development of their 2050 low-carbon and resilient development pathways as requested by the Paris Agreement.

Weaknesses

There are no apparent weaknesses in AFD’s climate bond framework.

Pitfalls

The long-term goal of low carbon and climate reliance societies will require a near phase out of fossil fuels. Marginal climate improvements should not come in the way of more future oriented solutions. One should avoid investments in projects that lead down such ‘blind alleys’. While no projects with a net increase in emissions will be included in the eligible asset pool as mitigation projects, fossil fuel related infrastructure may be financed under the framework. In the energy efficiency category, projects may also be linked to coal. For example, AFD may finance the use of waste heat from a coal power plan for district heating. These projects contribute to climate mitigation and are steps in the right direction. However, care must be taken to avoid locking in obsolete technologies and infrastructure. The proposed updates to the Climate strategic framework go a long way towards addressing this concern. The proposed changes include an addition to the project appraisal cycle of a systematic appraisal of two dimensions: coherence or contribution to low carbon transition on the one hand; coherence or contribution to a resilient development on the other hand. The issuer has informed us that this appraisal framework is expected to remove projects with high lock-in potential from the pipeline of activities.

There is no emissions criteria for adaptation projects, and it is feasible that high emissions projects are included in these categories. The issuer has informed us that the project categories selected for adaptation, water and waste management, do not usually include high emissions projects[12]. However, also in these categories there is a concern for the potential for lock-in of fossil fuel related infrastructure, for example, a water pipeline connecting to fossil fuel power plants. AFD also has a step in the project life cycle to exclude high-emission projects[13]. CICERO encourages the climate bond selection committee to consider the important interlinkages between adaptation and mitigation projects.

The use of waste for energy purposes further represents a potential pitfall when it comes to supporting a low carbon and climate resilient future. Waste incineration with energy recovery is a sound environmental and climate friendly option to divert waste away from landfilling. Waste incineration is best combined with ambitious recycling policies. When the capacity of waste incineration is high it might be an incentive to burn waste for energy purposes instead of material recycling. Hence there is a particular need to continue to improve in this regard, in particular to recycle more fossil fuel waste such as plastics into new materials. The issuer has

[11] To be to be submitted to the AFD board by the end of November 2017
[12] Defined as over 1 Mton of CO2 per year
[13] AFD excludes any project that emits more than one million tons of CO2 per year, with some exceptions for few loans in Least Developed Countries with clear climate action plans.

informed us that the technical appraisal of the financing of waste to energy projects will normally include a review of feasibility including waste composition.

The framework includes limited impact reporting when put in the context of the impressive in-house expertise at AFD. The issuer has informed us that they take care when reporting impacts from their funded projects as the implementing or host countries could report on the same impacts. However, CICERO encourages the selection committee to develop additional indicators towards investors for all projects, also where a carbon footprint is reported. Metrics that communicate the eligible projects contribution to scaling up green technologies, not just mitigating climate change, can provide useful information to investors.

Impacts beyond the project boundary

Due to the complexity of how socio-economic activities impact the climate, a specific project is likely to have interactions with the broader community beyond the project borders. These interactions may or may not be climate-friendly, and thus need to be considered with regards to the net impact of climate-related investments.

Rebound effects

Efficiency improvements may lead to rebound effects. When the cost of an activity is reduced there will be incentives to do more of the same activity. From the project categories in Table 2, an example is energy efficiency. AFD should be aware of such effects and possibly avoid Green Bond funding of projects where the risk of rebound effects is particularly high.

Appendix:
About CICERO

CICERO Center for International Climate Research is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international climate cooperation. We collaborate with top researchers from around the world and publish in recognized international journals, reports, books and periodicals. CICERO has garnered particular attention for its work on the effects of manmade emissions on the climate and the formulation of international agreements and has played an active role in the UN's IPCC since 1995.

CICERO is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO received a Green Bond Award from Climate Bonds Initiative for being the biggest second opinion provider in 2016 and from Environmental Finance for being the best external review provider (2017).

CICERO Second Opinions are graded dark green, medium green and light green to offer investors better insight in the environmental quality of green bonds. The shading, introduced in spring 2015, reflects the climate and environmental ambitions of the bonds in the light of the transition to a low-carbon society.

CICERO works with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions. Led by CICERO, ENSO is comprised of trusted research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD). ENSO operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

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