

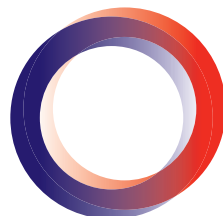


# Climate Bond

## Reporting

2017

#WorldInCommon



**AFD**  
AGENCE FRANÇAISE  
DE DÉVELOPPEMENT

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CLIMATE BOND **REPORTING** | 2017



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# Focus 2017 Green Bond market

**2017** *was once again a particularly dynamic year regarding green bond issues, especially for French issuers.*

Indeed, green bond issues continued to grow in 2017, from US\$88bn in 2016 to US\$155bn.

A significant share of volumes is based on three countries: France, China and the USA.

Issuers from these three countries account for 56% of the total volume of green bonds. The base of issuers has been extended both at geographical level (10 new countries of issue out of 37 in 2017) and in terms of type of issues (with ABS and MBS in addition to senior bonds).

*The fields of renewable energies and low-carbon constructions account for the most significant share of financing through green bonds.*

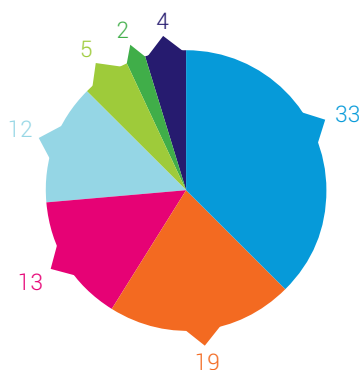
## AFD Climate Bond issue in 2017



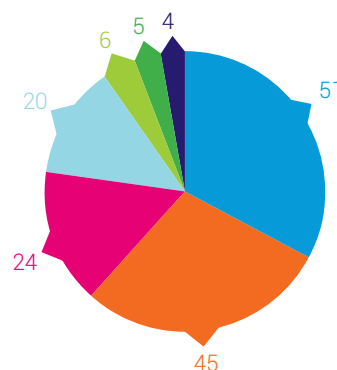
€750m

## Breakdown of the use of proceeds from green bonds

2016 = US\$88bn



2017 = US\$155bn



- Renewable energies
- Low-carbon buildings and energy efficiency
- Clean Transport
- Sustainable water management
- Sustainable waste management
- Sustainable land use and forestry
- Adaptation

Source: CBI Green Bonds highlights 2017.

Within the European Union, France has demonstrated its involvement and support for green finance by being one of the first sovereign to issue a green bond. It was issued in the first quarter of 2017 for €7bn and has been tapped up to €9.7bn at the end of the year. This major issue makes France the leader among green bond issuers in 2017 in terms of volume.

In this context, AFD followed the french dynamics. The work done in 2014 for the first Climate Bond has been used to build a Climate Bond Framework. A new issue of Climate Bond took place under this program for €750m in November 2017.



# Climate at AFD

***F**ight against climate change is central to AFD's strategy. Indeed, AFD aims to promote sustainable development paths, from an economic, social and environmental perspective, in its geographical areas of operation. Its mandate combines the fight against poverty and the fight against climate change, as well as the protection of the environment and biodiversity.*



**Bolivia**  
Sustainable agriculture in Bolivian family systems.


## AFD's actions on this theme are based on three areas:

- **climate change mitigation**, i.e. the limitation of greenhouse gas emissions;
- **adaptation to climate change**, i.e. the reduction in the exposure and vulnerability of territories to climate hazards;
- **support to States, local authorities and territories** in the implementation of low-carbon and climate-resilient development paths.

All of AFD's financial tools (loans, budget support, guarantees, equity investments, project grants and technical assistance) are mobilized to finance projects with climate co-benefits (so called "climate projects"). To finance these projects, AFD mobilizes resources from financial markets and in some cases resources from European and international donors, such as the Green Climate Fund.

In 2012, AFD made the commitment to have at least 50% of its annual financing in foreign countries with climate co-benefits. It aims to achieve €5bn of commitments per year for the climate by 2020.

Since 2005, over €29bn have been committed for projects with climate co-benefits.

 For further information about the Climate activity in AFD Group:  
<https://www.afd.fr/en/page-thematique-axe/climate>

# Climate Bond framework

*Fight against climate change is a major issue for AFD Group, which explains the choice of issuing bonds under the specific “climate” format rather than using the broader term “green bond issue”.*

**AFD made its first climate bond issue in September 2014. It was already based on the conviction that AFD's role as a development bank and an actor in the fight against climate change should feed into its positioning as an issuer, firstly in order to contribute to directing financial flows towards a greener economy and, secondly, to support the development of demanding standardized practices on the green bond market.**

In addition, the structure of the 2014 climate bond complies with the framework of the Green Bond Principles (“GBP”). GBP being the use of proceeds, the management of proceeds, the evaluation process and the reporting. Besides, AFD became a member of the Green Bond Principles in 2017.

On the same year, AFD set up a Climate Bond Framework for its thematic issues for the purposes of standardization and

supervision (<https://www.afd.fr/sites/afd/files/2017-10/afd-climate-bond-framework.pdf>)

This framework aims to define the characteristics of projects eligible for refinancing by its thematic bond issues. It capitalizes on the work conducted in 2014, by extending the characteristics of the use of funds in order to better reflect the reality of AFD's action to fight climate change.

This Climate Bond Framework is aligned with the Green Bond Principles and has also been reviewed by the independent studies institute Cicero, which certified it as a Medium Green program (<https://www.afd.fr/sites/afd/files/2017-10/cicero-second-opinion-afdclimate-bond-framework.pdf>).

## The projects eligible for financing from climate bond issues have the following characteristics

- Loans backed to market resources
- Direct loans or bank intermediation loans (credit lines)
- Loans registered in one of the following three categories:

Category	Definition	Eligibility criteria	Sectors
Mitigation of greenhouse gas (GHG) emissions	A project contributes to mitigation when it reduces GHG emissions compared to a baseline situation without a project.	(1) 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 <sub>2</sub> /year	Renewable energy, transport, energy efficiency, fuel switch, biological sequestration
	AFD's methodology is in strict compatibility with the <i>Common Principles for Climate Mitigation Finance Tracking</i> approved by the International Development Finance Club (IDFC) and multilateral development banks (MDBs).	The ex-ante carbon footprint analysis will be provided by financial intermediaries; the eligibility criterion remains unchanged at 10,000 teq CO <sub>2</sub> /year	Intermediated bank credit lines for renewable energy and energy efficiency projects

Category	Definition	Eligibility criteria	Sectors
<b>Adaptation to climate change</b>	<p>A project (or project component) contributes to adaptation when it limits or reduces the vulnerability of assets, people and ecosystems to the consequences of climate change.</p> <p>AFD's accounting approach for adaptation financing is based on the Common Principles for Climate Change Adaptation Finance Tracking approved by the International Development Finance Club (IDFC) and multilateral development banks (MDBs).</p>	<p>A project (or project component) is accounted as "climate/adaptation" on the basis of:</p> <p>(1) the analysis of the context of vulnerability to climate change in the project implementation area;</p> <p>(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 area; and</p> <p>(3) the fact that the project documentation sets out the clear objective of addressing the identified climate risks and vulnerabilities to climate change.</p>	<p>Water and waste management</p> <p>For example: flood protection, sustainable forest management...</p>
<b>Mixed</b>	Projects which contribute to both mitigation of GHG emissions and adaptation to climate change.	Projects which reduce GHG emissions and increase resilience to climate change.	Sectors above

### AFD has defined a portfolio of eligible climate projects which is backed to climate bond issuance.

*AFD will keep a buffer on the assets side to ensure that the **outstanding amount** of the bonds never exceeds **75% of the portfolio of eligible climate projects**.*

*That allows AFD to have a buffer in case of early redemption for example.*

### The eligible climate projects are initially subject to an appraisal process applied to all AFD-funded projects.

They are first identified as being eligible in terms of AFD's financing activity and follow the various stages of appraisal, during which the climate impacts, but also the social and governance impacts, are reviewed by the expert teams in charge of these aspects.

Once the projects have been approved, they can then be integrated into the climate project portfolio eligible for climate bond issues.

A specific committee, COSOC (Climate Bond Monitoring Committee), has been set up and meets at least twice a year. It is chaired by the Financial Department.

It is attended by the treasury, financial communication, climate expertise and ESG teams of AFD and Proparco.

COSOC's role is to review the climate project portfolio. It approves the addition of new projects and the exit of any projects which are no longer eligible. It also validates the reporting items. These items are also reviewed annually by the auditors.

# Climate assets and liabilities

## AFD Climate Bond

The two AFD climate bond issues amount to a total of €1.750bn and have the following financial characteristics:

ISIN	Issue	Maturity	Currency	Amount	Coupon
XS1111084718	17/09/2014	17/09/2024	EUR	1bn	1.375%
FR0013296373	15/11/2017	15/11/2023	EUR	750m	0.125%

## Climate Project Portfolio

As of 31/12/2017, the Climate Project Portfolio of assets was composed of 105 projects with an outstanding amount of €2,751,149,153.00 out of a total commitment of €5,121,910,231.00.

On the same portfolio, as of 31/12/2016, the outstanding amount stood at €2,397,249,834.00 for 91 projects.

Breakdown of the outstanding amount of the Climate Project Portfolio by type

	Number of projects	Outstanding amount (EUR)
Mitigation	83	2,387,811,039
Incl. credit lines	4	123,785,559
Adaptation	15	300,266,768
Mixed	7	63,071,346
<b>TOTAL</b>	<b>105</b>	<b>2,751,149,153</b>

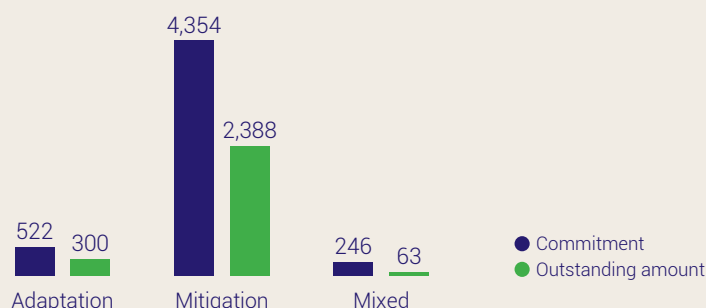
### AFD's Climate Project Portfolio as of 31/12/2017



**105**  
projects

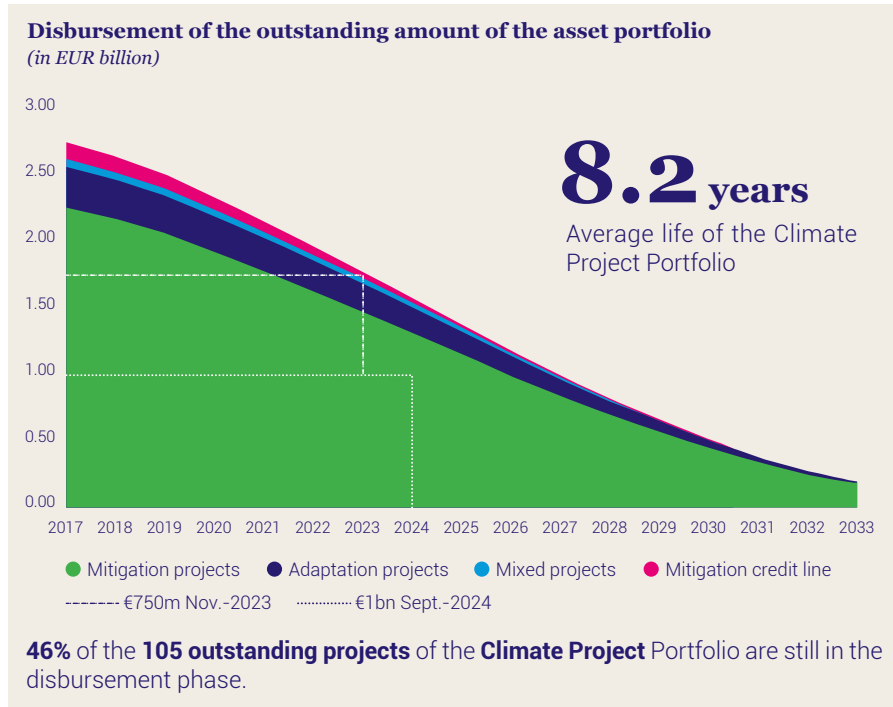
**€2.75bn**

### Breakdown of the outstanding amount and of the total commitment of the Climate Project Portfolio (in EUR M)



## Projected view of the Climate Project Portfolio and AFD's Climate Bonds

As of 31/12/2017, bond issues accounted for 64% of the outstanding amount of assets.



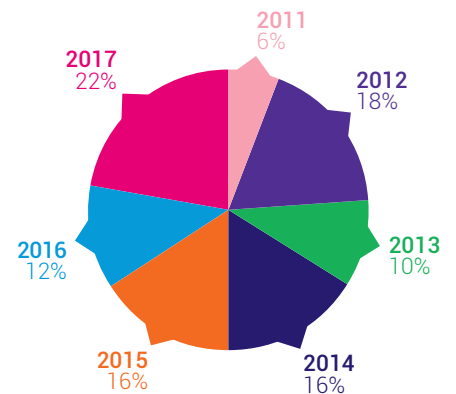
## Breakdown by year of signing

25 eligible projects may be added to the 105 projects identified and backed to the portfolio of assets as of 31/12/2017. They have been signed but there has not been any disbursement yet.

All of these 130 projects taken together amount to a total commitment of €6,275,188,976.00.

The breakdown of this commitment by year of signing is as follows:

### Breakdown by year of signing



## Breakdown of the outstanding amount by geographical area and sector

### Number of projects by sector and geographical area



### Number of projects and outstanding amount by sector and geographical area

Number of projects Outstanding amount (EUR)	Biological sequestration	Energy efficiency	Fuel Switch	Renewable energy	Transport	Adaptation	Biodiversity protection	OVERALL TOTAL
Asia	3 = 44,945,051	9 = 98,038,721	2 = 53,586,965	5 = 99,755,701	5 = 377,100,811	7 = 107,787,925	2 = 11,385,794	33 = 792,600,968
Overseas France				3 = 19,016,942				3 = 19,016,942
Latin America and Caribbean		2 = 92,608,924		19 = 215,177,495	4 = 461,738,129	1 = 83,298,626		26 = 852,823,174
Mediterranean		4 = 41,301,916		10 = 162,284,393	10 = 519,843,030	5 = 69,542,761		29 = 792,972,101
Sub-Saharan Africa		6 = 139,838,452	1 = 66,316,677	5 = 47,943,381		2 = 39,637,457		14 = 293,735,968
<b>TOTAL</b>	<b>3 = 44,945,051</b>	<b>21 = 371,788,014</b>	<b>3 = 119,903,642</b>	<b>42 = 544,177,913</b>	<b>19 = 1,358,681,970</b>	<b>15 = 300,266,768</b>	<b>2 = 11,385,794</b>	<b>105 = 2,751,149,152</b>



## Mitigation projects

*The projects selected allow annual saving of at least 10,000 tons of CO<sub>2</sub> per project.*

*The carbon assessment is conducted ex ante using the methodology developed by AFD, which is based on the following principles:*

- the calculation of the carbon footprint aims to estimate the net emissions generated or reduced by a project by calculating the differential of emissions between those generated by the project and those of a baseline situation;
- the baseline situation used is the "without a project" situation and not an alternative project (except for renewable energy

projects, where the comparison is made with an "electricity mix" from 20% of the best projects in their category over the past five years in the country);

- the main emission items taken into account in the calculation include direct and indirect emissions of projects (extensive approach);
- the calculation concerns GHG emissions throughout the life of projects.



**To find out more about the methodology adopted by AFD Group, please consult:**  
<https://www.afd.fr/en/page-thematique-axe/climate> (Impact Measurement section).

### Breakdown of CO<sub>2</sub> savings by region and geographical sector:

	Biological sequestration	Energy efficiency	Fuel switch	Renewable energies	Transport	Biodiversity protection	TOTAL
Asia	450,000	1,441,000	491,500	1,329,227	542,000	57,000	<b>4,310,727</b>
Overseas France				30,000			<b>30,000</b>
Latin America and Caribbean		510,000		1,495,998	68,619		<b>2,074,617</b>
Middle East and Mediterranean		497,000		824,300	356,000		<b>1,677,300</b>
Sub-Saharan Africa		1,440,014	160,000	1,180,000			<b>2,780,014</b>
<b>TOTAL</b>	<b>450,000</b>	<b>3,888,014</b>	<b>651,500</b>	<b>4,859,525</b>	<b>966,619</b>	<b>57,000</b>	<b>10,872,658</b>



### Ouarzazate solar power plant in Morocco

Morocco suffers from significant energy dependence which, combined with the upward trend for oil prices, puts a heavy strain on the country's budget. Morocco is also one of the sunniest countries in the world and its desert areas are highly suitable for concentrated solar power plants.

Consequently, in 2009, the Government launched the Moroccan Solar Plan, with the objective of generating 2,000MW of solar electricity by 2020. The aim is to supply the local market and export to Europe. The construction of the concentrated solar power in Ouarzazate, in which AFD participated in 2011 through a €100m loan for the 1<sup>st</sup> phase, fits in with this context. In the long term, the power plant is expected to reach a capacity of 500MW, meaning it would reduce annual CO<sub>2</sub> emissions by about 900,000 tons, while reducing the negative impact that imported fossil fuels have on the State budget.

## Adaptation projects

*Adaptation projects contribute to reducing the vulnerability of goods, persons or ecosystems to the impacts of climate change. Unlike mitigation, there is no “simple” quantified indicator to measure the impact of actions financed for adaptation to climate change. Pending the definition of exploitable and aggregatable indicators, the descriptions of adaptation projects backed to climate bond issues is available on AFD’s website.*

### Review of adaptation projects backed to climate bonds:

Signing date	Country	Description	Link to project summary sheet	Outstanding amount as of 31/12/2017	Credit available in EUR
10/02/2015	VIETNAM	Hydroagricultural infrastructure in the provinces of Binh Dinh and Hung Yen	<a href="https://www.afd.fr/fr/print/pdf/node/3347">https://www.afd.fr/fr/print/pdf/node/3347</a>	1,120,210.00	17,680,000.00
21/07/2015	CONGO	Stormwater drainage in Brazzaville – phase 2	* Forthcoming	3,346,342.09	58,668,437.00
25/11/2014	TUNISIA	Sanitation in poor neighborhoods 2014-2018	<a href="https://www.afd.fr/fr/print/pdf/node/3482">https://www.afd.fr/fr/print/pdf/node/3482</a>	5,000,000.00	25,000,000.00
11/10/2015	JORDAN	Water abstraction, treatment and pumping in the Jordan Valley, via the Wadi al Arab, to supply the governorates of Irbid, Ajloun and Jerash.	<a href="https://www.afd.fr/fr/print/pdf/node/3265">https://www.afd.fr/fr/print/pdf/node/3265</a>	17,492,711.00	18,325,697.00
04/04/2016	PHILIPPINES	Facility dedicated to resilience and post-natural disaster reconstruction	<a href="https://www.afd.fr/fr/print/pdf/node/3153">https://www.afd.fr/fr/print/pdf/node/3153</a>	50,000,000.00	-
05/09/2016	VIETNAM	Construction of a sluice dam on the Vac River (Ninh Binh Province), Rehabilitation of the irrigation system/ drainage in the north of Thach Ha District and surfacing of the banks of the Can Tho River.	<a href="https://www.afd.fr/fr/print/pdf/node/3268">https://www.afd.fr/fr/print/pdf/node/3268</a>	538,712.91	51,811,287.00
29/06/2017	MOROCCO	Project for the development of irrigation and adaptation of agriculture to climate change (PDIA-CC) downstream from the Kaddoussa dam	* Forthcoming	7,000,000.00	33,000,000.00
23/08/2017	CAMBODIA	Support for actors of the hydroagricultural sectoral policy	<a href="https://www.afd.fr/fr/print/pdf/node/3611">https://www.afd.fr/fr/print/pdf/node/3611</a>	1,000,000.00	-
06/12/2017	MOROCCO	Blue credit line to BMCE	* Forthcoming	50,000.00	10,000,000.00
10/12/2012	COLOMBIA	Water resources management	<a href="https://www.afd.fr/fr/print/pdf/node/3781">https://www.afd.fr/fr/print/pdf/node/3781</a>	83,298,625.57	-
23/12/2013	CAMBODIA	Loan-Support for the sectoral policy for sustainable water resources management and hydroagricultural developments	<a href="https://www.afd.fr/fr/print/pdf/node/3611">https://www.afd.fr/fr/print/pdf/node/3611</a>	20,000,000.00	-
22/05/2012	TUNISIA	SONEDE program to secure drinking water production	<a href="https://www.afd.fr/fr/print/pdf/node/3480">https://www.afd.fr/fr/print/pdf/node/3480</a>	40,000,050.00	-
07/09/2012	VIETNAM	Financing for water resources project	* Forthcoming	15,129,001.66	4,871,078.12
31/08/2011	VIETNAM	Strengthening of water resources and rehabilitation of irrigated systems	<a href="https://www.afd.fr/fr/print/pdf/node/3470">https://www.afd.fr/fr/print/pdf/node/3470</a>	20,000,000.00	-
16/05/2011	SOUTH AFRICA	Transfer of raw water to supply Durban's raw water	<a href="https://www.afd.fr/fr/print/pdf/node/8017">https://www.afd.fr/fr/print/pdf/node/8017</a>	36,291,115.00	-



## **India**

*The New Era solar power plant supplies 10MW of energy to surrounding areas.*



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[www.afd.fr/en/investors-page](http://www.afd.fr/en/investors-page)

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AFD, a public and inclusive financial institution, is the main actor in France's development policy. It makes commitments to projects that improve the daily lives of people, in developing and emerging countries and in the French overseas territories. AFD operates in a number of sectors (energy, health, biodiversity, water, digital technologies, training...) and supports the transition towards a safer, more equitable and more sustainable world: a world in common. Its action is fully in line with the Sustainable Development Goals (SDGs). It operates in 109 countries via a network of 85 agencies and is currently supporting over 3,500 development projects. In 2017, it committed €10.4bn to finance these projects.



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