

AFD AND CLIMATE CHANGE

Balancing
development and climate



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THE CLIMATE: A GLOBAL PUBLIC GOOD

SCIENTIFIC CONSENSUS AND GLOBAL AWARENESS

The scientific community has today reached consensus on the reality of climate change: greenhouse gas (GHG) emissions that stem mainly from the massive use of fossil fuels and deforestation cause both observed and future shocks to the climate system (4th IPCC report – Intergovernmental Panel on Climate Change). There may still be many uncertainties over the swiftness, extent and geographical distribution of climate change, but it is estimated that its consequences will have major impacts on our societies. It will drastically change our ecosystems, population distribution, the availability of natural resources and our ways of life.

THE INTERNATIONAL COMMUNITY'S REACTION

The sheer scale of the threat posed by climate change requires a response that is:

- **global**, because each ton of greenhouse gas emitted, whatever its geographical origin, contributes to global warming;
- **massive**, because scientists recommend that global emissions be stabilized by 2015 and halved by 2050;
- **concerted**, to ensure that efforts are equitably and effectively shared among countries;
- **swift**, because prompt action will be more effective.

The international response has been organized under the aegis of the United Nations with the signing of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 with an ultimate target "to stabilize [...] greenhouse gas concentrations in the atmosphere at a level that prevents dangerous anthropogenic interference with the climate system". The Kyoto Protocol in turn sets numerical emission reduction targets for industrialized countries and creates flexibility mechanisms to ensure these targets are reached at an optimal cost. The main principles of the international response to climate change are based on shared efforts among countries "on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities [...] taking into full account the specific needs and special circumstances of developing countries [...], especially those that are particularly vulnerable to the adverse effects of climate change".

AFD'S STRATEGY TO COMBAT CLIMATE CHANGE

Development institutions face an unprecedented challenge as a result of climate change: it has now become necessary to conciliate development needs defined by the Millennium Development Goals with climate change, which is one of the major threats to the achievement of these goals. AFD has consequently integrated climate change as a core component of its strategies and aims to demonstrate that it is possible to finance development (reduce poverty and inequalities and promote growth) and, at the same time, preserve the future climate of the planet.

AFD has therefore adopted a process that seeks to promote solutions for low carbon development in countries. Its approach to support emerging countries focuses on financing for development that contributes to reducing greenhouse gases. Operations particularly aim to support policies that integrate an analysis of the vulnerability of systems vis-à-vis fossil fuels. In the field, these orientations are implemented in various sectors: energy, transportation, local authorities and urban development, forests and agriculture. Climate change adaptation is also a major concern for AFD as the world's most disadvantaged populations will be the first victims of the consequences of climate change. AFD's strategy specifically integrates a proactive approach to the issue of the climate change resilience of the investments it finances and the vulnerability of goods and persons.

In addition, massive amounts of financing are needed to combat climate change. This will require mobilizing all public and private financial players, as well as an extensive range of both budgetary and market financial resources. The role of donors such as AFD is to be a key player in financing these investments and, at the same time:

- to implement its action via projects with a demonstrative value in terms of promoting low carbon investments and adaptation. The exemplary nature of these projects may be based on the innovative aspect of financing, the dissemination of appropriate technologies, actions that combine emission mitigation and adaptation and, above all, the convergence between development and emission limitation,
- to develop innovative solutions that mobilize various sources of financing and have a knock-on effect for all financial players, particularly the private sector,
- to provide solutions for an effective and efficient implementation of international financing for the climate.

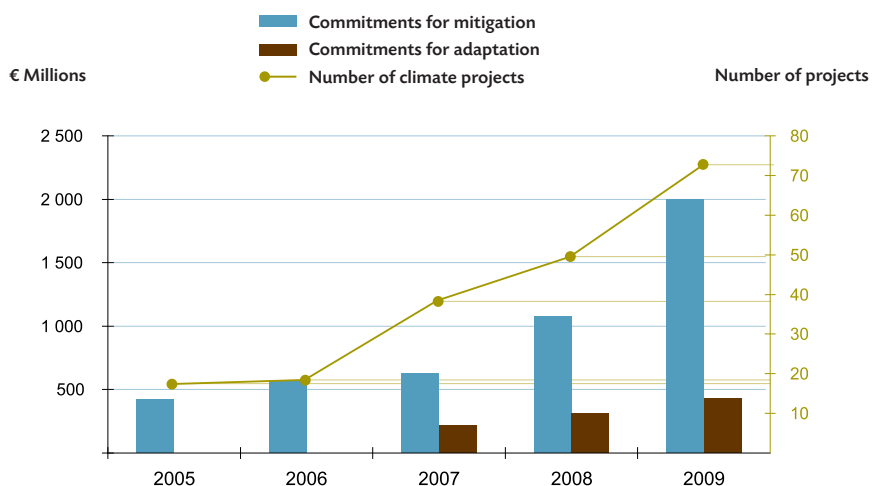
CONCRETE RESULTS

COMMITMENTS ON THE RISE

AFD began measuring the amounts it pledges to limit greenhouse gas emissions in 2005 and its commitments for adaptation in 2007. The amounts financed by AFD to combat climate change have been constantly rising since these dates in terms of both the number of projects and the amounts themselves.

In 2009, 71 projects contributing to the fight against climate change were approved for an amount totaling 2.4 billion euros (2 billion euros contributing to limiting emissions and 400 million euros for adaptation). Cumulative commitments for the period 2005-2009 reach 5.4 billion euros making AFD one of the main donors in terms of climate change. This result has been confirmed by a recent study conducted by a group of Swedish experts which shows that in 2008 AFD contributed over 10% of climate financing in the framework of Official Development Assistance (ODA)¹.

Evolution in AFD's climate commitments

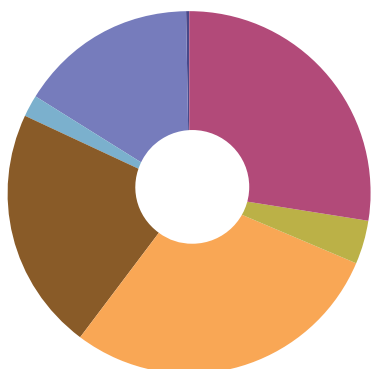


AFD's financing – whether direct or via lines of credit – covers a wide range of sectors. For mitigation, it concerns renewable energies and energy efficiency and accounts for the bulk of the amounts committed; there are also numerous projects in the sectors of low carbon transportation, forests and agriculture. The bulk of amounts committed for adaptation aim to preserve water resources in order to ensure this resource is preserved in the long term and to reduce the vulnerability of populations in terms of access to drinking water and sanitation.

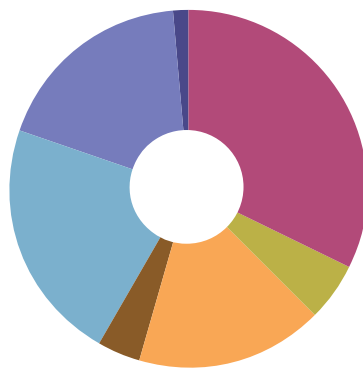
¹ Bilateral Finance Institutions and Climate Change: A Mapping of Climate Portfolios, SEI Working Paper, Dec. 2009

Climate projects financed by AFD in 2009: breakdown by sector

By amounts committed (€M)



By number of projects



- Clean energy
- Transportation
- Lines of credit to banks
- Budget support
- Agriculture/forests natural resources
- Water resources
- Infrastructure and urban development

MAURITIUS, A SUSTAINABLE ISLAND

Mauritius faces a strained energy context and a whole host of challenges for sustainable development and has been implementing a sustainable development policy since 2008. The "Mauritius Sustainable Island" (MSI) program equips the country with infrastructure, appropriate programs in the sectors of energy management, transportation, waste/biomass, tourism

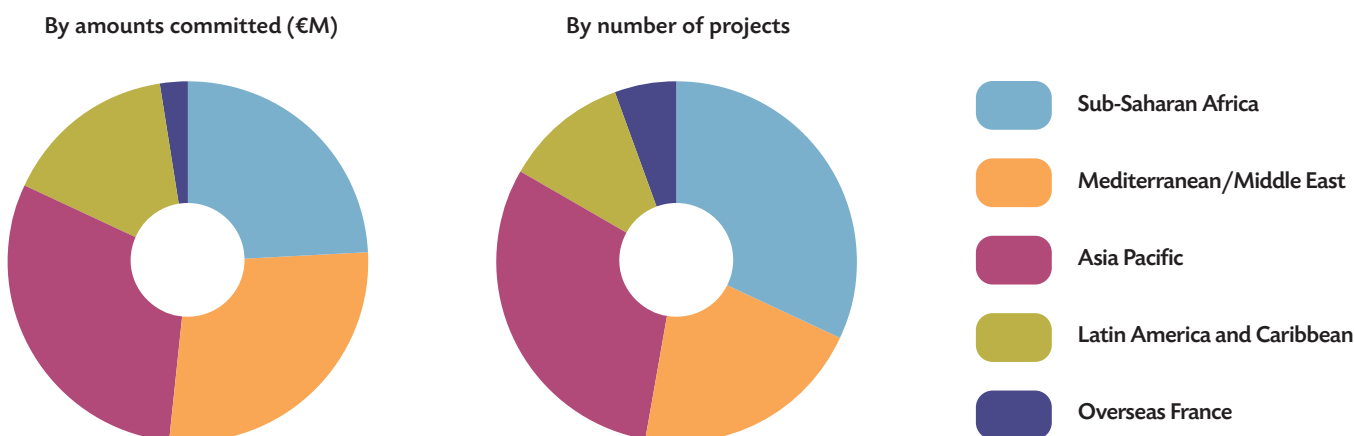
and biodiversity and provides a base for its harmonious development. A 35 million euro dedicated instrument – the MSI Fund – was created in July 2008 to facilitate the implementation of this policy.

The project is planned to last three years and is supported by 1 million euros of French GEF financing. Its main aim is

On average, for the period 2005-2009, countries that benefit from enhanced French Official Development Assistance and Sub-Saharan Africa respectively accounted for 36% and 21% of AFD's volume of

"climate" commitments. The innovative nature of projects is a key component of AFD's operations, for example, the financing of a wind farm in Ethiopia, or a private sector loan for a dam in Uganda.

Climate projects financed by AFD in 2009: breakdown by geographical area



MEASURABLE IMPACTS

Beyond the amounts pledged to combat climate change, AFD seeks to measure the impact of the projects it finances. To achieve this, it has developed a method that makes it possible to assess greenhouse gas emissions from projects and the potential amount of reduced emissions right from the project appraisal process. This is done using the Bilan Carbone® (Carbon Balance) designed by ADEME (French Environment and Energy Management Agency) and Jean-Marc Jancovici. This tool supports the decision-making process in terms of whether it is relevant to invest in a given project. It is also gradually becoming a management tool that weighs on AFD strategy, the aim being to improve the balance between

development and the fight against climate change.

By applying this tool to projects allocated in 2009 that had positive impacts on the fight against climate change, it was possible to calculate that the projects will save 4.8 million tons of CO₂eq emissions annually. 4.8 million tons of CO₂eq is, for example, the equivalent of the annual emissions of one million seven hundred thousand French cars.

However, it is more difficult to assess the impact of adaptation projects as there is no common indicator, there are only specific development indicators for each type of project. AFD consequently aims to develop more integrated methods to assess these impacts.

to build the capacities of member authorities and the "MSI Fund" and support the launch of operations in the energy sector. It also participates in defining "MSI Fund" intervention strategies for other sectors. The "MSI Fund", with a training plan designed to meet the challenges of MSI, will have a set-up that will enable it to appraise projects, take

financing decisions and monitor the implementation of operations. Regional and international cooperation will also be strengthened.

TAILORED RESOURCES

Thanks to its financial tools, AFD can support innovative projects and provide a response to the widely varying situations encountered in the fight against climate change. It uses a wide range of products, from sectoral budget support to financial market tools (equity, mezzanine, loans, guarantees), including a range of soft loan instruments. There are also some possibilities to operate using grants in order to support countries and strengthen their capacities. Projects of a pilot nature may also benefit from support from the French Global Environment Facility (French GEF). Twenty-four AFD projects to combat climate change have benefited from French GEF support since 1994 for a total amount of 27 million euros.

AFD has been able to identify the following cross-cutting topics thanks to its experience in financing climate projects:

BALANCING DEVELOPMENT AND EMISSION LIMITATION

A project to construct a Turkish municipality's sludge drying unit using heat from a cement plant kiln proves that a balance can be struck between development and combating climate change: the dried sludge is used as fuel by the cement plant which benefits from reduced coal consumption.

The project meets a dual objective: to reduce greenhouse gas emissions by some 50 000 tons of CO_{2eq} annually and resolve the issue of how to dispose of the sludge.



FINANCING THE FIGHT AGAINST CLIMATE CHANGE AT MARKET CONDITIONS

Financing the fight against climate change does not necessarily require interest rates that are lower than market rates. Proparco (AFD's private sector financing

arm), in partnership with IFC, is supporting Trakya Cam, Turkey's leading flat glass manufacturer. Thanks to Proparco's 20 million euro senior loan, the company will be able to diversify its activities by building a new manufacturing line for glass destined for the photovoltaic panel market. It will also be able to improve its energy efficiency, particularly thanks to the installation of a heat recovery system on the kilns in order to produce electricity. This project falls within the framework of AFD Group's "climate" strategy for Turkey. Glass production is by nature an activity that emits high levels of greenhouse gases. By financing a program to improve energy efficiency in this sector, Proparco is providing an effective solution: the program financed will save 21 000 tons of CO_{2eq} every year. The annual emissions indirectly saved by the production of glass for photovoltaic solar panels are estimated at 86 000 tons of CO_{2eq}.



DEVELOPING LOW-ENERGY PROJECTS IN UNFAVORABLE CONTEXTS

Subsidizing certain sources of fossil fuels hampers the development of renewable energies. In South Africa, where the context is quite unfavorable (coal is highly subsidized and accounts for 80% of electricity production), AFD has allocated financing for the creation of a 100 MW wind farm. The project's carbon balance shows an annual saving of 250 000 tons of CO_{2eq}.

WORKING WITH LOCAL AUTHORITIES

The weight of cities, their growth and their structuring investments that have very long-term impacts mean that upstream reflection is required to ensure they effectively manage their energy footprints.

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FOR INNOVATIVE PROJECTS

AFD is supporting a process implemented by the municipality of Cairo, Africa's biggest city. Like other megalopolises in the South, it faces an acute problem in terms of organizing urban transit, road network congestion, saturated parking areas and pollution. By getting involved in the construction of line 3 of Cairo's metro via a 44 million euro loan, AFD is providing its extensive experience in the mass urban public transport sector: railways in Algiers' suburbs, light metro and rapid rail network in Tunis, Rabat tramway, light metro in Hanoi and Brasilia...



By helping to increase the share of "clean" public transport in Cairo, the project is in line with a sustainable development process set out within land use development policies for Egypt. The project aims to improve living conditions for Egyptians, improve the flow of activities in the capital and reduce emissions by 102 000 tons of CO_{2eq}.

PROMOTING ENERGY EFFICIENCY VIA LOCAL BANKS

Energy efficiency usually generates a rapid return on investment, yet few such projects are implemented in developing countries. Indeed, the development of energy efficiency comes up against obstacles even though – according to IEA (International Energy Agency) – it has the highest potential for emission mitigation in the world. In Brazil, China, India, South Africa, Tunisia and Turkey, AFD has provided partner banks with specially adapted financial resources to allow them to finance more investments in energy saving. These resources are combined with specific support to help remove barriers to the development of energy efficiency. These projects have extremely high impacts in terms of transforming the economies of these countries because they help vehicles that finance the economy – the banks – to evolve and they speed up the development of private production infrastructure.



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BALANCING ADAPTATION AND MITIGATION

Conservation agriculture involves a process that combines non-tillage production and biomass management (crop residues and hedgerow intercropping for cover crops) with the practice of crop rotation. This type of farming greatly reduces GHG emissions compared with conventional soil tilling practices thanks to lower fuel consumption and carbon capture in organic matter which has a slower decomposition rate. Increasing organic matter in soils leads to a greater cohesion of soil particles and greater porosity. This phenomenon facilitates water infiltration and retention in soil which strengthens soil resistance to extreme events, stems erosion and consequently contributes to adaptation. AFD is supporting the development of conservation agriculture in Burkina Faso, Cambodia, Cameroon, Lao PDR, Madagascar, Mali, Tunisia and Vietnam. The project implemented in Madagascar with AFD financing will reduce annual emissions by 30 000 tons of CO_{2eq}.

SUPPORTING NATIONAL POLICIES TO COMBAT CLIMATE CHANGE

AFD has – alongside other donors such as the Japanese development agency – developed an innovative approach involving budget support for countries that decide to adopt a national target to integrate climate into their development strategy. The aim of global financing for "climate plans" is to encourage the development of public policies to combat climate change. For example, AFD has set a worldwide precedent by financing the climate plans of Indonesia, Mexico and Mauritius (see box on Mauritius Sustainable Island project).

AFD'S ACTIONS TO PARTICIPATE IN GLOBAL REFLECTION ON CLIMATE

AFD contributes to the international community's efforts on climate both via its activity as a donor and its participation in international negotiations.

AFD IN INTERNATIONAL CLIMATE NEGOTIATIONS

Copenhagen hosted the UN Climate Change Conference from 7 to 18 December 2009. Faced with the urgency of climate change, leaders from all over the world reached agreement on a political text ("The Copenhagen Agreement") that aims to pave the way for a future global agreement to follow on from the Kyoto Protocol which expires in 2012. AFD, as a development player, was at the summit with a role to support and advise the French delegation in negotiations by providing its expertise in financing the fight against global warming, adaptation and forests.

In the future, AFD has pledged to be strongly involved in the implementation of France's contribution to climate financing set out in the Copenhagen Agreement: in the short term, \$10bn a year of early-stage financing for 2010-2012 at the global level; in the medium-long term \$100bn a year at the global level by 2020.

These levels of financing are higher than the current volumes of Official Development Assistance. This heralds sweeping changes to the international aid landscape in the coming years. AFD has pledged to contribute to this reshaping and to be a benchmark player at the international level in terms of climate change financing by focusing on its indissociable relationship with development financing.

RESEARCH ON "CLIMATE AND DEVELOPMENT" AT AFD

AFD contributes to global reflection on the topic of development and climate, particularly by financing studies and research on the subject. Topics developed include:

- innovation and the dissemination of low-carbon technologies in developing countries,
- the integration of climate change effects in the development plans of countries (Mozambique for example),
- capitalization on households' energy efficiency practices (capitalisation on 10 years of distribution of low wood consumption domestic cooking equipment in Cambodia),
- knowledge transfers in terms of energy efficiency (studies and research on the rehabilitation of buildings in China).



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AFD, A PARTNER FOR FOREST ISSUES

Tropical forest deforestation causes roughly 20% of anthropogenic greenhouse gas emissions and it is consequently a major challenge to curb this deforestation. AFD is strongly involved in this topic and is participating in the creation of a new financial mechanism to reinforce sustainable forest management (REDD+). It supports the following actions:

- the Forest Carbon Partnership Facility (FCPF) hosted by the World Bank, after having invested in a fund that was a precursor on the topic, the BioCarbon Fund, which is also managed by the World Bank. The FCPF (with 37 tropical forest countries and 13 North countries and institutions) constitutes the main international initiative to support the implementation of national strategies in terms of REDD+.
- An institutional and technical capacity building program for Congo Basin countries in partnership with three major international NGOs (CI, WCS and WWF) to enable them to better assert their regional and national interests in the future REDD+ financing mechanism.
- A concerted REDD+ approach on the Guyana Plateau (Guyana, Suriname) based on the inventory of greenhouse gas emissions from the forest in French Guiana conducted in 2006 in the framework of the Kyoto Protocol.
- A program to create a satellite image reception and treatment station in Central Africa in order to permanently monitor forest processes and carbon stocks in the Congo Basin.

DISSEMINATING AFD'S GOOD PRACTICE ON CLIMATE

AFD strives to contribute to efforts to harmonize Official Development Assistance and to measure the impact of the projects financed, particularly projects that contribute to the fight against climate change. It consequently participates in numerous international working groups working for these targets, particularly with other donors that are very active on this topic. The methods, tools and performance indicators developed by AFD are shared and made available to the international community on AFD's website: <http://climatechange.afd.fr>



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AFD stands for the Agence Française de Développement. AFD is a public development-finance institution that has worked to fight poverty and support economic growth in developing countries and the French Overseas Communities for more than 60 years. AFD executes the French government's development aid policies.

With offices in more than 50 countries, AFD finances and supports projects that improve people's living conditions, promote economic growth and protect the planet. AFD-funded projects provide schooling for children, support farmers and small businesses, supply drinking water, preserve tropical forests and fight climate change, among other things.

AFD committed nearly €6.2 billion to financing aid activities in developing countries and the French Overseas Communities in 2009. The funds should permit the vaccination of 1,8 million children, give 7.3 million people access to drinking water and create or save jobs for 900,000 workers engaged in private enterprise; funding for energy efficiency projects will save nearly 5 million tons of carbon dioxide emissions per year.

AGENCE FRANÇAISE DE DÉVELOPPEMENT (AFD)

5 rue Roland Barthes
75598 Paris Cedex 12
France
Tél. : +33 1 53 44 31 31
Fax : +33 1 44 87 99 39
www.afd.fr

DÉPARTEMENT TECHNIQUE OPÉRATIONNEL (DTO)

CELLULE D'APPUI ENVIRONNEMENTAL ET SOCIAL (CAES)

PROPARCO Proparco

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PROPARCO, AFD's private sector financing arm, promotes private investment in emerging and developing countries in order to boost growth, promote sustainable development and reach the Millennium Development Goals. Its financing is tailored to the specific needs of investors in the productive sector, financial systems, infrastructure and private equity investment.

www.proparco.fr

FFEM Fonds Français pour l'Environnement Mondial

French GEF (French Global Environment Facility)

The French GEF is a bilateral public facility set up by the French Government in 1994 following the Rio Summit. It aims to promote global environmental protection via sustainable development projects in developing or transition countries. The French GEF supports physical projects in recipient countries. Its operations are learning-based and support experimental, innovative or exemplary approaches.

www.ffem.fr



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