Mainstreaming Low-Carbon Climate-Resilient growth pathways into Development Finance Institutions' activities



A research program on the standards, tools and metrics to support transition to the low-carbon climate-resilient development model¹

October 2015

Paper 3 - Executive Summary

Case Study: Integration of Climate Change into the operational activities of *Agence Française de Développement*

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Abstract:

²This case study examines the AFD's integration of climate and transition-related information and tools into its activities. It first presents the general investment process and the range of financial instruments used by AFD. Second, the framework elaborated in paper 2 of this series is used to analyze the upstream and downstream integration of long-term climate and transition objectives. It begins with the analysis of the upstream standards and information that are applied to transpose AFD's global strategy and Climate Action Plan into local and sectoral intervention plans and to guide AFD's initial project screening. It then explores the tools and instruments that are used during downstream process for project and program level assessments and optimization, before the final investment decision is made. Although the tools and standards implemented by AFD constitute a solid base for mainstreaming climate considerations into its activities, it seems that they could be further developed to allow for a more qualitative assessment of a project's contribution to 'low-carbon transformation' of a given country's economy. A number of opportunities and challenges to build on AFD's existing tools are identified to take this next step – first among which is the need to work with recipient countries and other development finance institutions to identify country-specific low-carbon climate resilient development pathways.

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Acknowledgements & Methods

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Department	Interviewee	Date	
Climate change (CLI)	Pierre Forestier & Ophelie Risler	12/09/2014	
5 ()	Nicolas Rossin	03/10/2014	
Environmental and social risk management (AES)	Jean Noel Roulleau	09/10/2014	
Financial institutions and private sector (IFP)	Mustapha Kleiche, Céline Boulay &, Céline Bernadat	30/09/2014	
Asia (ASI)	Mounia Chakir	07/10/2014	
	Arnaud Dauphin	20/10/2014	
Sustainable transports and energy (TED)	Mathilde Bord-Laurans	07/40/2044	
transports and energy (TED)	Mathieu Bommier	07/10/2014	
Drawavas	Julia Richard de Chicourt		
Proparco	Bertrand-Hardy Jérôme	28/10/2014	
UMR IRD- Dauphine University Développement, Institutions et Mondialisation (DIAL)	Marc Raffinot	30/09/2014	

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Disclaimer

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Executive Summary

The past decade has been marked by *Agence Française de Développement* (AFD)'s increasing involvement in international climate finance. In 2013, AFD's activity represented around 5% of total international public climate finance⁵ channeled by multilateral and bilateral development finance institutions and carbon funds as calculated by the Climate Policy Initiative. Using the framework developed in papers 1 and 2 of this series, this case study examines AFD's integration or "mainstreaming" of climate and long-term 'low-carbon climate resilient' transition objectives into its activities through the inclusion of related information, metrics and tools into its upstream and downstream decision-making process.

General Mandate and Activities of AFD

AFD Group⁶ is the public development finance institution charged with France's bilateral development activities for the last seventy years. AFD has the principal objective to "contribute to economic and social development in its geographical areas of operation". AFD's mandate and financing instruments are differentiated by region of intervention. In less-developed countries, AFD principally provides grants and budget support to contribute to the fight against poverty through infrastructure, urban development, agriculture, food security and access to healthcare, education and water projects. In middle-income countries, concessional loans are the main instrument used to support economic growth, reinforce territorial and social cohesion and improve environment and the quality of life of vulnerable populations. In emerging countries, most AFD loans are non-concessional loans – but often still at rates lower than those available in-country - with the principal mandate of financing green and inclusive growth. Through its subsidiary Proparco, AFD Group is also involved in direct private sector funding.

Inclusion of Climate Change by AFD

The AFD's formal inclusion of climate change into its strategy stems from the 2010 instruction from the Inter-ministerial Committee for International Cooperation and Development (CICID) to support "Green and Inclusive Growth" through its actions. AFD's climate strategy has been formalized by its transversal 2012 -2016 Climate Action Plan⁷ adopted by AFD's Board in November 2011. This plan has established three main priorities to drive AFD's financing operations: i) fostering a fundamental shift towards a more energy-efficient and lower-carbon economic development model; ii) valuing the climatic and environmental services provided by countries' natural resources; and iii) increasing the resilience to climate-change of people, goods and ecosystems. This action plan is also built on three pillars:

- The objective to make climate-related financing commitments equal to at least 50% of AFD's annual funding to developing countries, and 30% for its private sector subsidiary PROPARCO;
- A systematic measurement of the carbon footprint of funded projects, using a robust and transparent methodology;

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⁵ The calculation is based on AFD's self-declared climate commitments in developing countries (AFD 2014) of 2,856 million USD in 2013 (2,150 million € converted using 2013 average exchange rate of 1,33 USD/€) and a total international climate finance of 59,200 million USD from bilateral, multilateral and funds from (Buchner et al. 2014)

⁶ AFD Group is made up of *Agence Française de Developpement* and its subsidiary Proparco. Please note that in this case study, the acronym AFD does not include the activities of Proparco unless otherwise noted.

⁷ AFD (2012) : Climate Action Plan (2012-2016)

 A policy of selecting projects according to their climate impacts, taking into account the level of development of the countries in question.

The application of these three pillars aims to guarantee that the necessary efforts are undertaken to meet AFD's annual commitment objectives for projects with climate co-benefits. Individual financial commitments are classified as contributing to fulfilling AFD Group's objectives if they generate "climate co-benefits" through mitigation (emission reductions), adaptation (improved resiliency), or climate oriented capacity building and local policies strengthening in the form of Development Policy Operations (DPOs) or technical assistance.

AFD's portfolio of projects has evolved over the past decade to include a larger proportion of climate-related projects. Since 2005, a total of 18 billion euros of AFD's commitments have supported 'climate co-benefits' and thus been accounted for in AFD's international climate finance contribution. The share of climate finance projects in AFD's portfolio has increased from less than 17% in 2005 to 53% in 2014 (USD 2,865 millions)⁹. Between 2008 and 2014, the amount of financing that was committed to climate projects has increased by 69%. The financing of projects with GHG mitigation co-benefits continues to be the principal means of intervention and has increased by 82% in the same period. However, the financing of climate budget and sectoral support projects has also increased significantly by 123% and by 67% for adaptation projects.

Integration into upstream and downstream decision-making

Climate change has been integrated through different tools and procedures at the upstream and downstream level of decision making for financing allocated by the AFD (**Erreur! Source du renvoi introuvable.**). This case study used the analytical framework elaborated in paper 2 of this series looking at the upstream and downstream integration of climate and transition objectives (see Table 2).

Upstream level - the integration of climate considerations into the broader investment framework

AFD has taken steps to integrate climate considerations at the upstream level to achieve the overarching objectives laid out in the 2012-2016 Climate Action Plan. Interviews with operational teams indicated that the strong commitment implied by the global (50%/30%) AFD Climate objective and the establishing of regional climate finance targets, has led to a "significant advantage" being given more and more to projects with climate co-benefits in the decision-making process. Concretely, this has occurred through the integration of climate into sectoral, regional and country strategic intervention frameworks as well as the use of a selectivity matrix in upstream project screening.

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⁸ CPI (2011) : Public Climate Finance: A Survey of Systems to Monitor and Evaluate Climate Finance Effectiveness

⁹ These ratios are calculated on the basis of annual allocations in developing countries, excluding global budget support (GBS), debt reduction mechanisms (French C2D Debt Reduction-Development Contracts), guarantees, FEXTE and PROPARCO subparticipation

⁽which are included in PROPARCO's commitments)

Exclusion of coal power plants without planned CCS **UPSTREAM** Selectivity Matrix Regional Intervention framework (CIR) Intervention framework (CIS) Sectoral carbon footprint estimations Country assessment (risks, economic development, priorities) AFD country positioning Instruments and resources available to AFD Priority objectives for AFD Strategic regional climate finance Project identification Environmental risk assessment Demonstrated interest and engagement from beneficiary Project included in CIF priorities? Potential contribution to climate objectives? Environmental impact assessment (classification) Climate screening tool Rough carbon footprint estimation Identification committee (CDI) Selectivity Matrix -----Project appraisal DOWNSTREAM Environmental risk management procedures · Technical feasibility study Economic, financial, commercial, institutional project Climate proofing procedures Risk assessment (counterpart, economic, climate) Choice of best project alternative Detailed carbon footprint estimation Project optimization Climate classification Logical framework elaboration Credit committee Additional risk mitigation Second sustainable development (CCR) procedures? opinion · Validation of the terms of the **Project financing** offer Second opinion (based on expert decision List of conditions precedent for opinion) signature and disbursement Strategic frameworks Decision making Investment procedure level Positive decision to continue procedure Decision input Context/project specific climate tools -----> Decision output Overarching tools

Figure 1: Standards and tools applied by AFD in the investment decision-making process.

Source: Authors based on the revision of AFD documentation and interviews with AFD teams

Integration in strategic intervention frameworks and the classification of climate commitments

AFD's global climate commitment objectives are disaggregated at the regional level in line with broader regional mandates. AFD's regional strategies are elaborated by in-house technical teams through a dialogue with stakeholders before their final validation by the Board of Directors. One of the main upstream challenges for AFD is to match the Group's regional intervention frameworks with the investment needs expressed by the local counterparts in a manner coherent with the Group's Climate Action Plan.¹⁰

Climate objectives at the regional level are set in line with levels of development and their achievement is mutualized among countries within which the AFD is active in the region:

- In countries in Asia and Latin America regions, an ambitious target was set whereby 70% of AFD's financing should be dedicated to activities with a climate co-benefit. This target was set in line with the green and inclusive growth specific mandate that AFD has in these geographies and with the countries' needs.
- In the Mediterranean region this overarching objective was set at 50% to take into account important broad development-focused transition goals in this region in terms of energy, urban development and resilience together with economic and employment challenges.
- Finally, this objective was set at 30% in Sub Saharan Africa. This target takes into account the
 continent's potential for the deployment of green and renewable energy infrastructure to
 satisfy growing energy demand and the increasing need to integrate adaptation to climate
 change into countries' development pathways. The principal challenge of helping the African
 continent to tackle poverty and inclusive economic growth is also addressed.

In regional intervention frameworks, operational objectives are set for the region including indicative financing allocation levels taking climate as well as other overarching priorities into consideration. These indicative commitment targets are not formally binding, but are nevertheless seen as priorities by regional operational teams given the close attention that management gives to these objectives. In addition to its role as a transversal objective across all operations, supporting climate change projects and activities can be framed as a direct operational objective. The regional framework in turn identifies by operational objective the activities and principal countries where priority should be given. This process occurs in collaboration with regional project teams and local public and private counterparties to ensure alignment with local priorities and needs.

The strategy laid out in the regional intervention frameworks is then used as a basis for country intervention. Opportunities to support the regional level priorities and operational objectives are then sought out at the country level. Contribution to the AFD's overarching regional climate target is thus taken into consideration in the country intervention frameworks through a selective prioritization of sectors and activities. This prioritization is dynamic and is adjusted as country intervention frameworks are updated. Close attention is given to the achievement of the regionally transposed climate targets by regional management instances and through Climate committees chaired by AFD's top management which take place three times a year. At these meetings the progress towards these regional objectives is verified.

Finally, given Proparco's business model whereby investment opportunities are demand driven, a geographical breakdown of operational objectives and a disaggregation of the 30% climate objective was not considered optimal. A more "positive list-based" approach is thus used to drive the allocation

¹⁰ AFD (2012) : Climate Action Plan (2012-2016)

¹¹ For an example, see AFD's 2013-2016 Asia Intervention Framework.

of financing toward sectors and technologies with a clear focus on renewable energy at all scales and through both direct contribution and support to the local banking sector.

The selectivity matrix: a key tool to facilitate project screening

In regards to project screening, AFD ensures that projects with extremely negative climate impacts are screened out de facto. In particular, AFD group decided in 2013 to formally forbid the financing of coal power plants that do not have an effective Carbon Capture and Storage (CCS) system in place. AFD's introduced an innovative specific climate selectivity matrix in its 2012-2016 climate strategy to reconcile climate and development considerations in the screening process. This matrix climate impact thresholds to facilitate project screening corresponding to the recipient country's level of development and how far they have gone in the development of an acceptable national climate strategy or policy. This selectivity matrix is a detailed grid elaborating on the maximum thresholds of CO₂ emissions for projects to be considered for financing respective to three types of countries (Least developed or crisis countries, Middle-income countries, Emerging countries) and the existence of an acceptable climate policy matrix in the recipient country.

Table 1: AFD's selectivity matrix

Type of project	Threshold	Least developed or crisis countries	Middle-income countries	Emerging countries
Mitigation projects	< -10KtCO ₂ e/year	AFD Group Funding possible.	AFD Group Funding possible.	AFD Group Funding possible.
Projects with non-significant Climate impact	between -10KtCO ₂ e/year and 10 KtCO ₂ e/year	AFD Group Funding possible.	AFD Group Funding possible.	AFD Group Funding possible.
Emissive projects	between10KtCO ₂ e/year and 1MtCO ₂ e/year	AFD Group Funding possible.	AFD Group Funding possible.	Possible if not concessional funding. Concessional funding possible if and only if the country has a climate policy.
Strongly emissive projects	>1MtCO₂e/year	Funding possible. If the funding is concessional, the country must have an acceptable climate policy.	No funding unless the country has an acceptable climate policy.	No AFD Group funding.

Source: AFD - Climate Action Plan (2012-2016)

Downstream level - Project appraisal and risk screening preceding the final investment decision

Once a project has passed the initial screening phase, it enters into the appraisal process. The objective of the assessment of climate-related issues in this process is twofold.

- Firstly, the climate-component serves principally to assess and validate the climate cobenefits of projects that can be classified as contributing to AFD's objectives in this area.
 Based on more detailed carbon footprint estimations and climate co-benefit definitions, this process drives the tracking of AFD's contribution to its climate objectives.
- Secondly, the processes serve to identify how projects can be optimized to reduce their climate impacts. Case by case expertise is applied in the optimization of project specific choices in order to reduce climate impact during the lifespan of each project. This type of optimization does not occur systematically for all projects given timing and resource constraints, as well as the state of project advancement when AFD is contacted for financing.

In both cases, this is done in collaboration between the project team and AFD's transversal climate department. The process includes the use of the carbon footprint measurement tool, climate vulnerability screening and proofing tools and the inclusion of climate-related issues into other internal control procedures.

The carbon footprint measurement tool

A key piece for the AFD of the technical assessment of projects is the estimation of the project's GHG emissions. Based on the rough carbon footprint measurement conducted during the upstream project identification, a more detailed and refined carbon footprint calculation is conducted during the project appraisal process at the downstream level.

The AFD's carbon footprint methodology is calibrated to produce conservative estimates; an underestimation of avoided emissions or an overestimation of GHG emissions generated is preferred. The tool covers the GHG emissions, reduced by projects throughout their lifecycle – including Scope 1, 2 and part of Scope 3 emissions. This thus includes emission generated during both the construction phase (materials used for construction, energy consumed during construction) and the operating phase (burning fossil fuels, emissions generated by the project grid electricity consumed, materials used by the activity, fertilizers used, emissions from waste fermentation, maintaining traffic and end of life).

The results of the quantification are contextualized by comparing them to a reference or baseline scenario. The AFD compares emissions generated by a project to a scenario without the project where no alternative action or technology is deployed, except for the renewable energy projects where the baseline is derived from the electricity production mix. ¹² Carbon footprint measurements serve as input data for project eligibility - when compared to the selectivity matrix - and to a project's contribution to AFD's climate objectives - when compared to climate co-benefits definitions.

Climate vulnerability screening and climate proofing tool in under development

In 2015, AFD implemented a formal procedure to systematically address 'climate screening' at the downstream level which have been under development since 2012. Climate vulnerability is considered on par with other risks during the appraisal phase of a project and included as part of the technical and

¹² This varies from other project-based assessments (like the CDM)where the project scenario is compared with the next most viable or likely solution.

economic analysis. The climate screening tool aims to allow the classification of climate vulnerability based on: i) an institutional component, ii) a climate component including the amplitude and importance of temperature and rainfall changes, iii) a technical component including sensitivity analysis and (iv) contextual factors exacerbating climate risks. Thresholds are set beyond which a deeper analysis of the associated risk will have to be undertaken as part of environmental assessment studies and or the feasibility studies and propose adaptation measures if required. This latter part of the process is still undergoing a pilot testing phase.

The principal objective of the "climate screening" procedure is not to identify projects for exclusion. Rather, through the vulnerability rating process projects above an acceptable threshold of risk are identified. When this occurs, project teams have the objective to work with counterparties to identify options and determine the best alternative to reduce climate risk exposure.

Internal control procedures: Second opinion and second sustainable development opinion

Finally, at the final phases of investment decision making, the AFD has included specific internal control procedures. The Second Opinion is a dedicated team of the Risk Management Department that is responsible for formulating an "independent" opinion on counterparty and transaction risk as faced by appraised projects. The notion of risk is thus considered in broad terms and may include financial, institutional, technical, vulnerability and sometimes environmental and social risk aspects.

The Second sustainable development opinion is an internal review process established in 2014 that delivers an expert opinion on the level of sustainability of each project prior to investment decision. Six sustainable development criteria are reviewed including criteria to evaluate the contribution of the project to the fight against climate change and the preservation of the atmosphere. Climate change criteria is evaluated in coherence with the three pillars defined by the 2012-2016 Action Plan. This review results in a classification of the project's contribution to sustainable development on a scale ranging from -2 to +3. A negative classification would refer to risks for which mitigation measures are considered insufficient.

This Second sustainable development opinion is essentially informative and aimed at fostering dialogue on issues and risks that may not have been identified during the earlier stages of appraisal. Together with the broader Second Opinion, it is one of the only two bodies that can formally request for a project to return to the credit committee before the final decision financing decision is taken by the AFD Board. The review is structured to provide recommendations to improve the quality of the project with regards its sustainable development impacts.

Taking stock and next steps to ensure that 'climate-smart' and 'transition-smart' decision making

As detailed in papers 1 and 2 of this series, despite the recent significant progress to mainstream climate change into development activities, the 2°C objective will necessitate further ambition to incite a 'transition' to a low-carbon climate-resilient economic model. The amounts required to achieve this transition are considerable and will require not only increasing flows to projects that reduce GHG emissions and increase resilience to climate change, but also capping – and reducing – investments in carbon-intensive activities and activities that increase the vulnerability of populations, ecosystems and infrastructures to climate change. Consistency with this objective may require changes in how DFIs integrate climate-related issues into their activities.

A key challenge resides in assisting recipient countries to develop strategies laying out preferred pathways to transition to a LCCR development model. These LCCR- development pathways could provide clarity on how a given country plans to achieve development objectives, while simultaneously contributing to the achievement of long-term climate goals. DFIs, in turn, could use these national strategies to prioritize support for development projects that also support a country's transition to a

LCCR future. They could also scale up their work with national governments to support the development of domestic policy and regulatory frameworks that would support and prioritize the development and financing of these projects by local economic actors. The publication of Intended Nationally Determined Contributions (INDCs) within the framework of the UNFCCC appears to be a potentially useful development in this area as the financial plans are developed to implement the included actions.

Mainstreaming by DFIs would thus facilitate looking at how to achieve development objectives in a LCCR-coherent fashion rather than looking to finance individual "climate" investments. This would require a shift from 'static' assessment tools - that identify whether or not emissions are reduced or resiliency is increased by a single project or action – to a 'dynamic' process within which the 'transition potential' or 'transition impact' of a project or program is assessed within the context of national LCCR strategies. Thus, the coherence of DFI country intervention frameworks – as well as each investment with the country-specific strategy to achieve the LCCR transition would be part of the 'baseline' against which investment decisions could be assessed.

Across the DFI community, a near-term priority should thus be the provision of assistance to recipient governments in the development of "country-specific LCCR-compatible development pathways" to achieve both long-term development and climate objectives. This process should avoid the repetition of past experiences where the development community was overly prescriptive and external benchmarks where applied to developing countries. These pathways or guiding strategies, tailored to the development needs, strengths and opportunities of each country to achieve a low-carbon climate resilient development model, should represent a shared vision between recipient governments, domestic private investors, and civil society. Furthermore, DFIs could strengthen collaboration across the entire donor community to coordinate and ensure the coherence of their interventions with nationally-determined LCCR pathways. These pathways should be revised to evolve over time as countries move ahead.

The tools and standards already implemented by AFD certainly constitute a solid base for mainstreaming climate considerations into its activities. The potential to strengthen the development and prioritization of the financing of projects that contribute to 'low-carbon transformation' of a given country's economy remains to be exploited.

This case study has identified a number of entry points for the AFD to address opportunities and challenges to mainstreaming these issues. I4CE presents the following recommendations to be taken into consideration by the AFD as their strategy and operational guidelines evolve – but do not necessarily represent changes foreseen by the AFD at this time.

Upstream strategies and screening criteria

The integration of LCCR criteria into strategic intervention frameworks appears crucial to mainstreaming LCCR across AFD's activities and aligning ambition with long-term goals. The development of such pathways should be done by national governments given the importance of contextualization and the need to implement economic and regulatory changes to foster such an economy-wide transition. Given that national engagement is key, it appears important for national governments to lead this process with assistance and technical support from the AFD and other development finance institutions to mutualize efforts. These pathways are a prerequisite for the elaboration of LCCR-driven operational targets for DFIs that could ultimately increase AFD's potential to have a catalyzing effect on shifting a country's economy towards a LCCR model.

 Increasing the 'resolution' of strategic intervention frameworks to include LCCR transition at the country level could help foster and align these strategic frameworks with individual national long-term LCCR objectives. The current regional disaggregation of climate commitments may limit the identification and prioritization of support for country specific LCCR development pathways. Thus, to foster LCCR development, objectives could be set at country level and could be included in Country Intervention Frameworks, taking into account a country's individual level of development, and basic infrastructure and public policy needs as well as a potential LCCR development trajectory. This integration should focus on the different options and alternatives to reorient financing towards priority sectors, planning tools, policy support and individual projects that foster the achievement of development objectives using approaches, technologies, designs and methods coherent with the country's LCCR trajectory.

• However as seen in the case of many DFIs, while climate change is of increasing importance in the decision-making process, achieving AFD's broader global and regional financial objectives often remains at the heart of short-term operational focus. This suggests that to be effective in practice, additional climate and LCCR criteria must foster the prioritization of projects supporting a country's LCCR transition without overly limiting AFD's scope of intervention. This appears to require the definition of investment priorities and the development of tools that 1) are calibrated to country-level LCCR priorities, 2) allow the AFD to identify and prioritize support for projects and policy support programs inherently aligned with long-term climate and development objectives, and 3) assist in identifying non-climate specific development projects and programs whose alignment with the LCCR transition could be improved through the AFD's participation.

During upstream screening, AFD could foster the emergence of transformative change in key sectors by combining country-specific strategies and lists of priority investment sectors, value chains, and projects corresponding to a given country's chosen LCCR transition pathway. This should support both the deployment of low-carbon infrastructure investments and technologies as well as planning and policy measures to reduce the vulnerability and increase the resiliency of infrastructures, ecosystems and populations. The AFD and all other DFIs active in the country could use these common LCCR-coherent lists internally for project identification as well as communicated to counterparties to signal the priorities for support and foster project development in these sectors and value chains.

- The development of indicative, non-binding priority lists to facilitate that identification and clearly communicate to partners the AFD's aim to invest in: 1) sectors, value chains, technologies as well as projects clearly in line with the recipient country's LCCR transition; 2) areas of support and project types where AFD expertise, capacity building and or additional finance could reduce GHG impact and improve alignment with transition. These lists would not be designed to limit AFD to only investing in certain types of projects, but rather to clearly identify for operational teams and in-country counterparts the shared priorities of both the national and international development community.
- This could be complemented with the development of country-specific volumetric thresholds (emission performance standards) that could be applied to all development projects. These thresholds would become increasingly stringent over time to incite the optimization of GHG efficiency and resiliency of all development projects in line with national LCCR strategies. Ideally, these thresholds would not be designed to simply disqualify projects, but rather to identify where the involvement of AFD (whether through capacity building or financial support) could lead to the use of more efficient or transformative technologies and approaches to achieve the same development objectives.
- Both of these elements could be integrated into the existing AFD's selectivity matrix.

Furthermore, in AFD's upstream consideration of climate change, the definitions used to classify projects as climate-related using an estimate of their quantified climate co-benefits (GHG emission reduction, improved resiliency) have been a strong step forward. However, this approach does not appear to incentivize an assessment of the 'sufficiency' of the investments and actions in terms of

achieving the recipient country's long-term LCCR objectives. Further qualitative information on the project or investment's 'transition potential' or contribution could be of use. This could include an assessment of how the action supports the development of priority sectors, the introduction of new practices and technologies, its alignment with emission performance standards (see below), and/or the amounts allocated to support nationally-determined LCCR investment areas.

Downstream project assessment

DFIs appear to have the greatest potential at the upstream level to orient their activities towards country-specific LCCR development priorities. Nevertheless, at the downstream level, assessment could be refocused whenever possible on optimizing projects in terms of their contribution to both development and climate. Thus, when possible, regional and country teams should work with project promoters to compare different project alternatives and their respective 'transition impact' in line with a country's LCCR development strategy - or an appropriate proxy. Different technical or design alternatives could be considered to bring about the best available options.

From an operational perspective, the authors recognize that DFIs may not always have the influence or resources to directly influence the choice of final project alternatives. However, their ability to foster the transmission of knowledge and capacity to bring new approaches, methods, designs and technologies appears to be an important element to foster the linking of development and climate-related objectives both at upstream and downstream levels. This may require DFIs – including the AFD - to be involved at earlier stages of project and program development when both capacity and technical knowledge can be taken into consideration concerning available options to achieve a given set of development goals.

As such, AFD's existing assessment methods provide a robust basis that could be expanded. Overcoming two challenges appears necessary to improve the potential impact of this integration: 1) expanding the definition of climate co-benefits an assessment of the 'transition impact' of investments (see above); and 2) balancing the precision of information needed for decision-making and the resources required. While further research is needed at both theoretical and operational levels on this topic, a number of ways forward can been seen. These include the development of downstream assessment criteria for sectors, value chains, technologies, processes and projects that would be updated as a country's LCCR pathways evolve. Using the pre-established priority lists discussed in the upstream section and focusing on areas prioritized by domestic authorities, AFD could identify project-specific choices (technologies, processes, etc.) most coherent with long-term transition objectives.

The Carbon Footprint tool has been highlighted by AFD as a key component of its climate strategy.

- However, when considered alone, the carbon footprint tool as it is used at the project level may not allow a sufficient assessment of the contribution of a project to a countries LCCR transition. Operational teams may not have an incentive to search out and prioritize projects that contribute to a country's LCCR transition, but cannot be classified as contributing climate co-benefits (and thus the climate commitment) using the current definition.
- It is also important to note that interviews with AFD operational teams indicated that while rough estimates are used at early stages in upstream screening, there are a number of limitations on the use of this tool to assess and compare the options for projects during downstream project assessment. In many instances, this type of assessment does not occur given timing, resource constraints, the state of project advancement when AFD is contacted for financing, etc. As such, the identification of project alternatives and a detailed assessment of the GHG emissions may not occur early enough in the process to influence the final project alternative chosen. This indicates that internal discussion could be useful to find the balance

- between resource needs and timing within the assessment stage and the granularity of GHG emission data necessary to compare project alternatives.
- Furthermore if a comparison of alternatives to achieve the development-related goals for a given project is expanded, this will require an equal expansion of qualitative considerations. These could include qualitative criteria based on country-specific LCCR development priorities used in the upstream process and a-minima estimative quantitative data for each alternative that is regarded as 'transition coherent'. Thus, additional qualitative data and guidance may also be required at the downstream level to assess and prioritize options particularly for project types key to achieving development objectives (energy, transport, waste management, agriculture and forestry, etc.).

The elaboration of climate risk screening and proofing tools that AFD has initiated should be pursued and it could be desirable for it to go beyond physical climate risk and introduce policy-related 'carbon risk.' The current economic and financial assessment practices do not systematically integrate the risks posed by policies that a country may need to apply for a transition to a low-carbon, resilient, development model. Facilitating the inclusion of a risk premium in a project's financial analysis is worth exploring.

The current use of internal control procedures such as the sustainable development opinion could also be adapted for LCCR transition. Currently, the climate-related focus of the process is on assessing whether a project provides climate co-benefits and thus should be prioritized as contributing or having an adverse effect towards the achievement of AFD's climate objectives. This process could be expanded to include a second opinion on the contribution of a given project or other form of intervention in supporting a country's LCCR transition.

Table 2: Framework for Integrating LCCR Standards and Tools by Stage in Decision-Making Process (in gray) and its current application inside AFD (in blue)

Tool typology	Positive-List / Qualitative Impact	Volumetric Impact	Exposure
Assessment Tools	 Qualitative definitions of "climate" projects Criteria for screening and exclusion for sectors and technologies 	 Quantitative methodologies (GHG emissions, energy use, etc.) Emission performance thresholds and standards 	 Country-level vulnerability assessment tools and guidelines Project level physical impact screening methods Methods of calculating exposure to climate policy and regulatory changes
Stages		Upstream Policy and Screening	
Elaboration of strategic policy frameworks and tracking	Integration of climate-related criteria and priorities into sectoral plans through the inclusion of metric-based objectives and definitions - Set investment priorities based on climate-compatible sectors, technologies, risk and exposure levels - Set an exclusion to investments on highly emissive projects - Set quantitative objectives of climate related activities (eg. x% of climate investments in the overall or sectoral portfolios) - Set volumetric objectives on reduced emissions achieved through investments - Set a cap on total portfolio GHG emissions (including non-climate investments)		
Elaboration of strategic policy frameworks and tracking at AFD	 AFD defines geographic objectives comprised in a Climate intervention framework. These objectives are mainstreamed in the portfolio through: Sectoral intervention frameworks (which include indicative sectoral objectives) Regional intervention frameworks Quantitative objectives of climate related activities have been set: at least 50% of AFD's total activity needs to comprise climate co-benefits (declines at the regional level: 70% in Asia and Latin America, 50% in the Mediterranean zone and 30% in Africa) and 30% of Proparco's activities. Total reduced and avoided emissions are aggregated for AFD's climate allocations. The GHG emissions of non-climate allocations are not accounted for the time being. 		
Project Eligibility Screening	Screen for eligible project types, technologies, etc.	Screen activities based on rough estimates of: - Emissions performance compared to thresholds - Avoided emissions or impacts compared to baseline	Identify and screen activities based on rough estimates of: Vulnerability to physical risks (country, regional or other aggregated approaches) Exposure of project types (sector, technologies) to climate policy risks
Project Eligibility Screening at AFD	decided to ban any investment in coal installation - AFD introduces thresholds of climate impact to fa objectives are thus reconciled through a selectivit	s except for those that include operational carbon capto cilitate project screening according to the recipient coul	ntries' level of de velopment. Climate and development rating on the maximum thresholds of CO ₂ emissions for projects

Stages	Downstream Assessment		
Options assessment and technical analysis	 Selection of project alternatives based on value chains, technologies and processes and eligibility lists established by country, sector, level of development 	Detailed GHG footprint calculations of individual projects to compare options Assess avoided emissions of individual technical options for projects	Detailed assessment of direct physical impacts Detailed assessment of policy-risks and resulting impacts on financial returns and future cash flows.
Options assessment and technical analysis at AFD	Case by case expertise is applied in the optimization of project specific choices in order to reduce climate impact during the lifespan of each project.	- Carbon footprint measurement tool systematized in AFD's operating procedures and integrated in the requirements for technical assessments (pre-feasibility studies, detailed feasibility studies) to influence technical choices	 Historically performed through the environmental and social risk management process at the local level. Climate risk screening recently systematized for all projects with an internal web-based tool and in-depth analysis for projects deemed to be at risk (ongoing pilot phase).
Economic and Financial Analysis		 Inclusion of emission data in economic analysis to assess welfare impacts Integration of a social cost of carbon into economic analysis 	 Inclusion of quantified physical and climate risks in financial analysis Integration of a "real" or "shadow" price of carbon in financial analysis
Economic and Financial Analysis at AFD		- N/A	N/A

Source: Authors based on the revision of AFD documentation and interviews with AFD teams